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[Ewa Wszendybył-Skulska](#)^{*} and [Aleksander Panasiuk](#)

Posted Date: 6 February 2024

doi: 10.20944/preprints202402.0322.v1

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Article

Classification of Hotels in the Context of Sustainable Development Factors. Case Study on Public Policy in the European Union and Poland

Ewa Wszendybył-Skulska ^{1,*} and Aleksander Panasiuk ²

¹ Jagiellonian University in Krakow, Institute of Entrepreneurship, Tourism and Sport Management Chair; e.wszendybyl-skulska@uj.edu.pl

² Jagiellonian University in Krakow, Institute of Entrepreneurship, Tourism and Sport Management Chair; aleksander.panasiuk@uj.edu.pl

* Correspondence: e.wszendybyl-skulska@uj.edu.pl; Tel.: (+48 12 6645717)

Abstract: With the growing awareness of entrepreneurs and consumers of the tourism market in the field of sustainable development, it seems necessary to base hotel classification systems on an integrated approach to management quality, including fulfilment of ecological and environmental criteria. The article aims to indicate how environmental standards are implemented in the European system of hotel classification- HotelstarsUnion and the one in force in Poland. With regards to these systems, the differences in the classification criteria taken into account within the systems of hotel categorization by certifying organizations in the European Union in relation to the administrative hotel categorization system in Poland were pointed out. Particular emphasis was placed on the criteria related to environmental management in the hotel industry. Criteria related to environmental management were identified through analysis of the content of criteria of eight environmental management systems that are applicable to the contemporary hotel market. The results of the research proved that even though the HotelstarsUnion system takes into account the principles of sustainable development to a much greater extent than the Polish one, its primary weakness is that most of its criteria related to environmental ones are optional. In addition, the optional ones have higher weights than the obligatory ones. In turn, the Polish classification system makes very little reference to environmental standards. Moreover, it is not detailed and the assessment criteria are not up to date. Therefore, it is recommended that a greater number of environmental criteria is included when updating the HotelstarsUnion system, which should be obligatory for hotels to meet. In addition, the sustainability criteria included in the HotelstarsUnion system should be adapted to the policy system aimed at the hotel industry in Poland and other EU countries.

Keywords: quality; hotel; certification; classification; tourism policy

1. Introduction

The level of quality offered in the modern hotel service market is one of the most significant factors that distinguish hotel companies from their competitors. The issues concern the services provided (service quality), customer service quality, level of which directly determines satisfaction of customer needs, and subsequently their loyalty and satisfaction [1,2].

Quality of hotel services is of interest to service providers (hoteliers), consumers (hotel guests), the economic self-government of the hotel industry as well as entities of public policy directed at the hotel industry [3]. Bearing in mind the protection of the competitive market and, above all, consumer protection in the hotel market, actions are taken by public entities to parametrize the quality of hotel service activities. A state policy instrument, in cooperation with economic self-government entities of the hotel industry, is categorization, which is integrally related to the problematic issue of quality of the broadly understood hotel service offer. The offer includes services addressed to consumers, as

well as many others, such as: price, quality level, sales conditions, service environment (facility where services are provided) [4]. When regarded both globally and within the European Union, a unified approach to hotel categorization has not been developed. The already existing solutions in EU member states vary greatly. Therefore, a consumer on the EU hotel market does not have any access to standardized information on the level of hotel services offered, using services in different countries, and thereby is not protected under uniform principles. The applied standards of classification include various criteria, and in addition, the importance of some standards from the perspective of the functioning of the modern hotel market is often of a secondary value. Thus, the assessment of some parameters does not bring significant value to the consumer. A significant area that is not recognised by public entities undertaking categorization is the lack of inclusion of aspects related to corporate social responsibility in the assessment criteria, including those related to environmental management. The criteria for sustainable development in hotel industry are taken into account by international hotel organizations and programmes, including hotel self-government entities.

The purpose of the research paper is to indicate how environmental standards are implemented in the European hotel categorization system - HotelstarsUnion and the one in force in Poland. Using the example of the solutions used, the differences in the categorization criteria taken into account within the hotel categorization systems by certifying organizations in the European Union in relation to the administrative hotel categorization system in Poland were pointed out, with particular emphasis on criteria related to environmental management in the hotel industry. In the context of the considerations conducted, an additional research assumption was made. It assumes that thanks to the analysis of the classification systems in terms of including the environmental management criteria, it is possible to adapt them both in the existing domestic classification system and the developing HotelstarsUnion system, by extending the criteria in force. Consequently, it is possible to suggest changes to public policy in the field of hotel industry in Poland and Europe in the existing classification systems.

The area for the undertaken analyzes is the EU hotel market and the hotel categorization systems used there, taking into account the criteria of sustainable development, including hotel market and classification of hotel facilities in Poland. The analyzes cover the current reality of the functioning of public policy in the hotel industry and hotel categorization systems according to the data for the end of 2023.

For the purposes of the research, the following research methods were used: (1) critical analysis of the literature of the subject - in order to present the theoretical basis of the research problem, i.e. quality of hotel services, certification, including hotel classification, public policy in the area of hotel industry, environmental management, sustainable development in hotel industry; (2) documentary analysis - of the key environmental certification systems used in the hotel industry in Europe and all over the world and categorization systems, i.e. the European HotelstarsUnion, as well as the classification system in Poland; (3) holistic method - where the issues of the quality of hotel services were undertaken, public policy aimed at the hotel industry, along with certification and categorization of the hotel industry, taking into account the issues of sustainable development in the hotel industry in a holistic manner; and in the empirical part: 4) benchmarking - which is a strategic management method in which a selected national categorization system was compared to what is currently considered the best and most complete of the categorization systems operating in practice on the European hotel market, at the same time applying (5) the case study method and conducting (6) a comparative analysis of the content of the requirements of the HotelstarUnion hotel categorization system and the Polish administrative categorization system, taking into account aspects of sustainable development; moreover, with a limited scope resulting from the nature of the research (7) mathematical and statistical methods - that present quantitative data regarding the fulfilled categorization criteria in both the European and Polish systems.

The analysis is to be a starting point for broader research on the hotel classification system, including aspects of environmental management in all European Union member states. The result of

this research is to propose model assumptions for the EU policy in the area of hotel industry, leading to the development and implementation of a unitary EU hotel categorization system.

2. Theoretical background

2.1. Hotel service quality

The problematic issue of quality is strongly embedded in the processes that take place on the tourism market, including the activity of entities directly providing tourist services, treating quality as an element of the offer and an instrument for shaping their competitive advantage [5–7]. Thus, the level of quality of hotel services is in direct area of interest of consumers (mainly hotel guests), who choose offers on the market, thanks to which expectations regarding the services and the service providers can be met. Regardless of the two basic market participants, quality issues in the hotel industry are the area of interest of the three further types of entities [8]:

- public administration that regulate the market directly (e.g. ministry responsible for tourism); activity of public authorities (tourism policy entities) that shape the supply structure of the hotel services market and have a decisive importance in protecting the rights of consumers using hotel services [9],
- local government administration that supports activities of public administration, that in practice implements tasks related to the impact on quality in the hotel industry,
- organizations that support the activities of regulatory entities, especially non-governmental organizations formally acting as economic self-governments (hotel industry chambers) where hotel entrepreneurs are associated, and the purpose of their activities is, inter alia, representing their members in relations with public authorities and consumers and ensuring high standards of service provision.

The basic issue for determining the common interest of all hotel service market participants that express their interest in the level of hotel service quality is the possibility of defining methods and criteria for assessing the quality level [10,11]. In the service forms of business, it is an extremely difficult task as the actual parameterization of the quality level cannot take place before the service is provided [12]. The forms of quality measurement in the hotel industry are based, inter alia, on the following criteria: reliability and credibility of the service provider, reliability, accuracy of service provision, punctuality of service provision, readiness for the service, speed of service, culture of guest service, comfort, security of service in technical, organizational, and financial aspects [13]. Both in the theoretical and practical aspects of market functioning, any objective methods of assessing the quality of hotel services have not been clearly developed. Quality research methods in the hotel industry, which are taken from other forms of service activity, and above all from the generally understood service sector, are used and are most often based mainly on marketing research (including SERVQUAL, SERVPERF) [14].

On the hotel market, the most common way to refer to the level of quality is categorization of accommodation facilities [15]. Categorization of accommodation facilities should be treated as a way of assessing the quality in the hotel industry, and indirectly also of the hotel services that are provided. Depending on the country where it is applied, it is a generally applicable administrative and legal instrument. However, it is also a marketing instrument indicating conditions an accommodation facility must meet in order to be recognized as a hotel, motel, guesthouse, along with specifying detailed requirements for meeting the categorization criteria, usually included in the star system. Categorization systems of accommodation facilities focus primarily on the assessment of the service potential of a hotel facility, mainly tangible, marginalizing or completely eliminating the assessment of the services provided, employees serving hotel guests and the hotel guest service system itself [16]. Categorization is a tool of a certification nature that confirms a certain state, often met at a minimum level, which is considered appropriate from the point of view of the adopted criteria [17]. However, to make certification have a direct impact on the level of quality and the level of satisfaction of consumer needs, it should concern mainly the hotel services provided. Categorization of accommodation mainly includes facilities. Hence, the impact on the quality of hotel

services is indirect only. The initial purpose of undergoing categorization procedures are image and, in a broader sense, promotional reasons for the categorized hotel facility [18].

Categorization standards are set at a minimum level, which means that they are to meet basic needs of hotel customers/guests to a minimum extent [19]. A hotel category has a significant impact on customers' expectations regarding the services offered. The higher the category, the higher the expectations, and therefore the customer is able to accept higher prices [20]. It does not mean that the level of quality offered in every hotel of the same category is exactly the same and that a hotel guest can expect the same minimum standard of service in every hotel of the same category. The hotel category carries a certain package of information, important for both the guest and all types of agents as it constitutes the state of knowledge on some essential elements of hotel service, as well as the approximate price level compared to the price level in hotels of a higher or lower category [21]. Such information makes it easier for the hotel guest to choose a facility, allows them to narrow down their search to objects of the standard they are interested in, is a basic material for comparative analysis, and can be a valuable marketing instrument for the hotel. Thus, in many countries, there are official hotel categorizations, or they are created by enterprises, hotel industry organizations, and tourist portals for the use of customer information [22]. Owners of hotel facilities increasingly offer customers a categorization standard higher than the officially assigned category of the object. The category is a starting point for further actions related to improving quality and offering a product with a higher standard of service [23].

Hotel categorization system is a process of assigning an appropriate category in accordance with the application and the identified factual situation. The purpose of the categorization system is to standardize the standards a guest may expect at a given hotel. The star system reflects whether an object meets requirements in terms of many different criteria. They determine the standard and equipment of rooms, the functioning of catering establishments located within the premises, the availability of additional services, as well as many other factors. The more stars a hotel facility has, the higher the standard of services it offers. The hotel standard is a set of adopted norms, patterns, requirements, and quality features designated for a given group.

2.2. Categorization as an instrument of public policy aimed at the hotel industry

In the practice of the hotel market, two formulas have been developed for organizing the categorization of accommodation facilities:

- administrative one, i.e. run by public government or local government institutions,
- industrial one, i.e. run by economic self-government institutions.

Categorization carried out by public institutions is an expression of social and economic policy. In the EU countries, there are no reasons to recognize the existence of a specialized policy of the state aimed at hotel industry. Tourism economy, including hotel industry, is not treated as sectoral tasks. It is seen as a set of tasks of complex nature coming from various areas of EU policy [24]. Activities in this area are a great support for the European regional policy, the aim of which is to create equal living and working conditions across the European Union, i.e., reducing internal differentiation by supporting the harmonious development of economic life [25]. Therefore, interference of the state in the hotel industry is limited to the protection of consumer rights and their safety related to the use of hotel services and thus is aimed at pro-quality issues. When assessing the scope of regulation of the hotel service market in the conditions of the EU countries, one can state that the attitude of the country towards the entities that provide hotel services is of liberal nature [26]. Limited interference of the state in relation to hotel market entities also results from the competitive model of the market and therefore leads to its self-regulation processes [27]. Therefore, categorization of accommodation facilities undertaken by public institutions is an instrument of consumer protection whose task is to secure a minimum level of service provision in accommodation facilities of a specific type that have been assigned a specific category. Categorization systems supervised by public institutions are mainly limited to taking into account the elements related to tangible service potential.

Industry categorization, conducted by economic self-government hotel entities, usually extends the scope of elements that are subject to assessment, in relation to which minimum requirements that

must be met are formulated in order to obtain a specific category. These usually include parameters related to qualifications of staff and service system, as well as criteria related to aspects of corporate social responsibility and those related to sustainable development [28].

Categorization of accommodation facilities might be carried out in a mixed system, with the participation of public institutions and economic self-government of the hotel industry. It might be held on the basis of cooperation or delegation of administrative powers to the units of economic self-government. Cooperation of these two groups of entities created the potential basis for the fullest inclusion of the interests of all market participants, both in terms of market regulation, including protection of the competitive market and consumer protection (public entities), shaping the position of the hotel industry (economic self-government), competitiveness (hotel enterprises), achieving objective market information and meeting the needs (consumers of hotel services).

Categorization of accommodation facilities that is made by public entities is carried out on the grounds of legal acts in force in a given state. Categorization involving industry entities is of significant difficulty. It often results from a significant fragmentation of activities of hotel industry entities that are organized in economic self-government. These economic hotel self-governments assess activities of their members on the grounds of various principles, which in consequence leads to inability to compare standards assessed during the certification process [29]. Categorization limited to a chosen group of entities does not allow for a full and objective assessment. Therefore, it is not fully reliable market information for both the consumer and market regulatory entities.

The issue of unifying the classification of the hotel base also results from the international aspects, both globally and in particular in relation to the hotel market of the EU countries [30]. Hotel categorization systems vary significantly in particular EU countries. There are countries where an official categorization system does not exist, the existing ones cover the entire country or are of a regional nature, categorization proceedings are obligatory or optional, categorization is carried out by entities of the central and regional or local government, and, as mentioned previously, it may be of an official, industrial or mixed nature.

Development of European tourism policy activities began in 1984 with the declaration of the European Council on Community Policy in the field of tourism. It included a statement from the European Commission entitled Community policy in the field of tourism. Initial guidelines [31]. The document indicated the role of tourism as a tool supporting activities for achieving socio-economic goals by the European Community. In addition, the fields of interest of the EU authorities in the area of hotel industry included: protection of buyers in relation to the use of real estate on a time-sharing basis [32] as well as actions to unify the hotel information system. Its purpose was to unify the type of information and graphic symbols in official hotel legal guides [33]. Actions initiated many years ago that could lead to unification of the hotel market in the EU countries, to the extent that does not violate the liberal approach to the market, yet support its competitiveness and at the same time aim at strengthening consumer protection, are not continued [34].

Different rules of categorization are applied in particular domestic hotel service markets which means that consumers using hotel services in individual EU member states, both EU and non-EU citizens, do not have access to unified and objective market information on the standards and quality of services offered by hoteliers.

This dysfunctional situation is responded to by hotel industry organizations that propose and implement various certification solutions, including competitions and quality certificates, as well as classification systems of a global range. They have a chance to become systems that may be in force in the EU member states, thanks to the possibility of cooperation in the implementation of categorization procedures by public institutions and the economic self-government of the hotel industry or transferring the existing competencies of public institutions to the activities of industry institutions only.

The need to unify the systems of hotel categorization has been seen in many European countries (Austria, Czechia, Germany, Hungary, the Netherlands, Sweden, and Switzerland) under the patronage of HOTREC - the umbrella association of hotels, restaurants, and cafés in Europe. The HotelstarsUnion system which main goal is to provide universality, integrity, and transparency of

the criteria corresponding to hotel standards, was created in 2009. On 25 March 2021, almost 12 years after its foundation, the HotelstarsUnion was transformed into an international non-profit under Belgian law (AISBL) with its statutory seat in Brussels. HotelstarsUnion is a partnership between currently 20 European countries – Austria, Azerbaijan, Belgium, Czech Republic, Denmark, Estonia, Georgia, Germany, Greece, Hungary, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Netherlands, Poland, Slovenia, Sweden, Switzerland – and some observers, providing a harmonized hotel classification with common criteria and procedures. However, despite the fact that Poland is a member of HotelstarsUnion, it has not implemented a hotel categorization system based on its criteria yet.

In the above-mentioned scope of activities, an important role could be played by the EU policy aimed at the hotel industry. It would create the basis for a common unified categorization system in the European hotel industry, and categorization would become an instrument for assessment of not only the accommodation base, but also the quality of hotel services, taking into account not only the evaluation criteria related to the tangible service potential of the hotel, but also relaxing to staff, service quality, service system, including the issues of corporate social responsibility and taking into account sustainable development criteria.

2.3. Sustainable development in hotel industry

Sustainable development is a concept that is deeply embedded in individual economic sectors, not only due to promotion but mainly due to customer requirements, economic benefits, and general perception of stakeholders [35,36]. For many years such benefits have also been noticed by tourism industry entities, the development of which also has negative effects on the natural and social environment. However, actions are taken gradually to eliminate negative effects of the tourism industry on the environment or to prevent occurrence of negative phenomena in the future [37–39].

Implementation of the principles of sustainable development into the functioning of tourism industry is the result of the research on the relationships between tourism, environment, and development [40]. Responsible and ethical tourism is the response of contemporary tourism businesses and consumers to important social, economic, and ecological problems plaguing the world. It consists in organizing trips in a different, better way, taking full responsibility for any changes caused in the lives of other people, in their social, cultural, and natural environment. It also means providing tourists with better experiences and tourism enterprises with greater development opportunities [41]. According to the definition included in Agenda 21 for Travel and Tourism Economy, sustainable tourism is understood as tourism that respects the needs of contemporary tourists and tourism reception regions, while ensuring possibility of meeting these needs in the future [42–44].

The concept of sustainable tourism shapes development trends of the hotel market, including behaviour of hotel guests, functioning of hotel enterprises together with economic self-government hotel units. In addition, it should also apply to public activities resulting from the socio-economic policy aimed at the hotel market. Sustainable tourism refers to situations in which the negative consequences of tourist activities are not irreversible for the environment while bringing positive effects to tourists, communities of the reception areas, as well as entities that provide tourist services [45].

In practice, there are many standards and norms that refer to the principles of environmental protection. Yet, their implementation by hotel enterprises, especially small and independent ones (the ones that do not belong to international chains), is often quite complicated and expensive. Actions that encourage hoteliers to have a positive impact on the environment are undertaken at, inter alia: the global level by an agency of the United Nations (UN), i.e. the World Tourism Organization (UN WTO) and the UN Environment Programme, i.e. UNEP promoting the Green Key environmental label (<https://www.greenkey.global/why-green-key>) and on the European level by the European Commission, which also designed EMAS - the environmental management system [46].

The EMAS system is voluntary, and its participants are mainly entrepreneurs, local governments, and non-governmental organizations. A primary goal of the system is to improve

environmental efficiency of business entities and other organizations. The system provides tools for measuring the report on environmental efficiency, which enables lower impact on the environment, higher efficiency, and obtaining reliable ecological information. The measurement and assessment covers six basic indicators that reflect direct environmental aspects. Then, they are included in the environmental declaration and calculated for the production (Table 1).

Table 1. Environmental assessment indicators according to EMAS. Source: [47].

Key area	KPI's
Energy efficiency	Direct energy consumption
	Total renewable energy consumption
	Total renewable energy generation
Material efficiency	Annual mass flow of key materials used (excluding energy carriers and water)
Water	Total annual water used
Waste	Total annual generation of waste
	Total annual generation of hazardous waste
Land use with regard to biodiversity	Total use of land
	Total sealed area
	Total nature-oriented area on site
	Total nature-oriented area off-site
Emissions	Annual emissions of greenhouse gases (CO2 eq.)
	Annual air emissions

The recommendations of the European Union under EMAS apply to all forms of business activity, including hotel industry. Hensens [48] analyzed the integration of environmental management standards in contemporary hotel categorization systems, pointing to the growing awareness of the fact that classification of hotel facilities should be based on an integrated approach to quality, including environmental management practice. On the grounds of a content analysis of eight hotel categorization systems, he proved that hotel categorization systems include environmental management standards, yet they use different structures, which brings different effects for the actual rating of the hotel and therefore present different levels of control. Thus, he identified the need for hotel categorizers to review the desired results in order to integrate environmental management standards with hotel categorization standards, leading to the possibility of structuring them in a way to make it possible for the categorized hotels to achieve the desired environmental standards.

In spite of the progress of the industry towards sustainability, hotels are still struggling with the most effective way to promote their ecological status. One of the mechanisms for confirmation of such a status is a third-party declaration. Thus, formal certification is slowly becoming a common approach for hotels to demonstrate their commitment to sustainability [49–54]. Third parties offering certification include online travel agencies such as Travelocity.com, which has begun to mark hotels with a green flag based on their environmental certifications [55], and the US Green Building Council, which offers Leadership in Energy and Environmental certification LEED design. Another certification of growing importance is ISO 14001, which is an international standard for sustainable operations.

Environmental certifications improve hotel productivity and efficiency, as well as improve customer perception of the hotel. Hotel guests generally rate environmentally certified hotels higher than uncertified ones [56], and certified hotels also achieve higher levels of performance.

In the field of environmental certification, there are studies indicating that implementation and certification of the ISO 14001 standard can generate various benefits i.e. [56–61]:

- internal or operational improvement,
- increasing effectiveness of marketing activities,
- reducing waste management costs,
- saving energy and raw material consumption,
- saving regulatory costs, i.e., related to compliance with requirements,
- improving the company's image,
- improving relationships with customers and other stakeholders,
- improving financial results,
- positive and significant impact on performance,

Good environmental management practices can be applied particularly in the hotel industry to help reduce costs (e.g. through measures to reduce water and energy consumption) and increase diversity of the hotel offer [61,62]. Tourists and travel agents are becoming more and more demanding, which makes hoteliers adapt to new requirements, including greater respect for the environment.

2.4. Sustainability certification systems in the hotel industry

Good environmental management practiced by hotels improves customers' perception of quality of the hotel product [63] by offering a distinctive and healthy accommodation, thereby improving their environmental image. As a result, some hotels have applied for and adopted various environmental awards (also known as "environmental awards", "environmental certificates" or "ecolabels") to differentiate themselves from other facilities, in order to improve the perception of their performance on environmental protection [64]. Some leading hotel chains, including Choice Hotels, Marriott International, Hilton, Hyatt, and Wyndham Hotels & Resorts, have announced accumulation of various environmental awards to signal their commitment to reducing their carbon footprint and improving their ecological credentials [65].

Environmental awards of objective nature are given by external organizations [66]. The purpose of certification is to stimulate supply and demand of the products that make less stress for the environment and thus stimulate the potential for continuous market-driven environmental improvement [67]. Therefore, the literature increasingly recognizes environmental award as a kind of social legitimization action for the following three reasons [68,69]:

1. Environmental certifications signal voluntary implementation of environmental initiatives by hospitality service providers, which provides credibility through compliance assessments that the hotel has conducted through specific environmental engagement activities [68].
2. Bearing in mind that information asymmetry concerns are specific to service industries due to service inseparability at the point of consumption, environmental awards can assure the public that a given hotel is committed to reduce environmental harm as certified hotel facilities are also awarded with identifiable logos [68]. However, an additional complexity is the fact that there are over 456 environmental awards worldwide (ecolabelindex.com), with over 100 offerings specific to the hotel and tourism industry. Therefore, it raises concerns that a large number of awards will become less recognized and less trusted by consumers as they have different meanings, messages, criteria and geographical scopes [70].
3. Environmental awards provide opportunities to increase profitability of certified hotels. On the one hand, environmental engagement can improve internal operational efficiency through increased production processes while reducing resource consumption and production costs [71]. On the other hand however, environmental commitment brings external benefits, including an increase in stakeholder investment [72], improvement of the ecological image of hotels to create competitive advantage, and an increase in the share price value [73]. According to the latter that

shows the benefits of external factors, this study is based on current literature to assess the impact of environmental awards on the hotel market value.

Environmental management is a practice that includes both technical and organizational activities aimed at reducing the negative impact of a company's activities on the environment [74]. Thus, environmental awards constitute the most widely used environmental management strategy [61] enabling a wide range of internal and external benefits for hotel facilities, including a higher level of reputation, higher profitability, continuous image improvement, and growing competitive advantage thanks to diversification of the offer. These factors provide an objective measure of the impact of environmental awards on financial performance of hotels [61,62,75]. It is essential to adopt a legitimacy-based approach, particularly for chain hotels, that not only derive economic benefits from using fewer resources but can also increase their market position and improve their image through their commitment to environmental protection [76]. In this context, hotels are assigned a high level of environmental responsibility, mostly by external stakeholders who expect hotels to implement environmental protection initiatives to mitigate their impact on the environment as well as to improve their profitability. Contrary to government regulations that impose external requirements on companies, the hotel manager's decision to implement environmental activities comes from within the company and is a voluntary, self-regulatory structure [77]. This unconventional environmental strategy is a departure from the dominant approach to compliance with regulatory or legal requirements first (reactive) and then gradually increasing voluntary environmental practices (proactive). Therefore, this proactive approach can minimize scepticism of the market towards ecological initiatives taken by hotel companies as it signals that there is a real commitment to implement actions to reduce environmental impact [64].

Among the most recognizable and most frequently used certificates in the hotel industry to confirm that hotel facilities operate based on and in accordance with the concept of sustainable development, there are eight environmental management systems that apply to the hotel market [48]. They can be classified into three groups as the following systems:

- general ones - with a wide range of impact on the economy, including those that can be used in the tourism industry, including the hotel industry: ISO 14 001 standard, The EU Eco-Management and Audit Scheme (EMAS), Ecolabel/Eco Flower, Green Seal,
- specialized ones for industries other than tourism industry, including hotel industry, whose certification activity includes environmental assessment of hotel operations - in construction industry it is Leadership in Energy and Environmental Design (LEED),
- specialist ones relating exclusively to the tourism industry - dealing with environmental management in tourism industry, including hotel industry: Green Key, Green Globe, Global Sustainable Tourism Council (GSTC).

The ISO 14 001 standard is an internationally agreed standard that specifies requirements for an environmental management system. "It helps organizations improve their environmental performance through more efficient use of resources and reduction of waste, gaining a competitive advantage and the trust of stakeholders" [78]. It helps organizations to:

- minimize the negative impact of their activities (processes, etc.) on the environment (i.e. cause adverse changes in the air, water, or soil);
- comply with applicable laws, administrative regulations, and other environmental protection requirements;
- constantly improve the systems of the organization and its approach to environmental issues.

This standard, like the other discussed certification systems, has been systematically updated. The list of requirements for its implementation has been enlarged by an increased importance of environmental management in the organization's strategic planning processes, greater management input, and a stronger commitment to proactive initiatives that improve performance on environmental protection. The ISO 14001 Environmental Management System helps organizations to identify, manage, and monitor improvement of the organization's systems and their approach to environmental issues. It is suitable for organizations of any type and size, including hotel businesses. Its implementation requires to take into account all environmental issues relevant to organizational

operations, such as air pollution, water and wastewater issues, waste management, soil pollution, climate change mitigation and adaptation, and efficient use of resources in a "holistic" way.

The European Union Eco-Management and Audit Scheme-EMAS is an environmental management instrument developed by the European Commission for companies and other organizations to assess, report and improve their environmental efficiency. EMAS is open to any type of organization that wishes to improve its environmental effectiveness. It covers all areas of business activity and in a practical way is applicable all over the world. EMAS supports hotels in finding the right tools to improve their environmental efficiency. The facilities voluntarily commit to both assessing and reducing their environmental impact. Verification by a third party ensures the external and independent nature of the registration process in the EMAS. Registration in the EMAS eco-management and audit system means that the hotel has met environmental protection requirements. It is a great honor to be among institutions and enterprises that run their activities in accordance with the idea of sustainable development. However, it is not only the prestige itself confirmed by the certificate awarded by the General Directorate for Environmental Protection of the EU that plays the most important role in this case. For a hotel that possesses an efficient system of environmental management, it allows to obtain measurable benefits that are reflected in the economic and financial sphere [79].

Ecolabel, frequently referred to as Eco Flower, is a voluntary environmental labelling system of the European Union. Hotel properties awarded with this standard are characterized by low energy consumption, reduce waste production, and promote ecological practices. It is the only green certificate that is officially recognized in the European Union. The purpose of this certification system is to promote products with a reduced environmental impact through their cycle of life as well as to provide consumers with accurate, non-misleading, science-based information on the impact of products on the environment. External auditors are responsible for checking compliance with eco-labelling criteria, as they are in most certification programmes of this type. In this system, criteria are established separately for each type of a product to minimize their main impact on the environment. These criteria are developed by experts in the field, in agreement with key stakeholders, including industry and consumer associations. As a circle of life of each product is different, the criteria are adapted to the unique characteristics of each type of a product. Hotel facilities are assessed according to 22 mandatory and 45 optional criteria. The criteria cover five areas: governance, energy, water, waste and sewage [80].

Green Seal is a nonprofit organization that uses scientific programmes to enable consumers and businesses to create a more sustainable world. Green Seal is commonly recognized as one of the most strict health and environmental sustainability standards on the global market. The strict assessment process under the standard includes annual monitoring of compliance as well as commitment to continuous improvement. This standard has three levels under which a lodging property may apply for certification. Bronze contains essential leadership elements of a lodging operation. Silver is a more comprehensive level established for leadership operations. Gold adds additional criteria characterizing properties that are at the forefront of environmental leadership. Facilities are assessed according to 5 categories, i.e., performance in the field of waste minimization, energy saving and water management, pollution prevention, and environmentally sensitive purchases, and nearly 70 detailed criteria [81].

Leadership in Energy and Environmental Design (LEED) is a programme that evaluates new premises built from the scratch providing for sustainable development practices. To achieve LEED certification, hotels must undergo verification made by a third party to prove that both the structure, design, and building itself meet LEED standards. Any type of hotel building at any stage of construction can apply for a LEED certificate. Even quite old hotels (old properties) can apply for this certification to measure their performance and identify potential improvements. This programme offers four levels of certification. The number of points received during certification determines the level (certified 40-49 points, silver 50-59, gold 60-79, and platinum 80+ points). Ratings vary depending on the type of certification. However, the certification board generally analyzes building capability in terms of 8 categories: integration processes, location and transportation, sustainable

location, water, energy, materials and resources, and indoor environmental quality. These distinguished 58 detailed criteria. LEED certification is recognized globally as the most important mark of achievement in green construction industry. Even though the programme operator is based in the United States, any property can apply for certification: 44% of companies applying for LEED certification are located outside of the United States [82].

Green Key is the world's leading standard of excellence for environmental responsibility and sustainable operations in the travel industry. Marking a hotel with this sign proves that the object meets the strict criteria defined by the Ecological Education Foundation. Possessing the Green Key label by a hotel facility means making a promise to hotel guests that by choosing the facility they will contribute to protecting the environment. High environmental standards expected from Green Key-labelled companies are maintained through strict documentation and frequent audits. Green Key classifies hotels, hostels, small lodgings, campsites, conference centres, restaurants and attractions. Rating according to this standard is based on sustainable practices during all operations, including energy and water saving, waste and environmental management, indoor air quality, reaching to communities, building infrastructure, and land use. Environmental standards in this rating system are based on 13 categories and 130 criteria that are the basis for facilities worldwide. Both the categories and criteria of environmental standards are updated every five years [83].

Green Globe is a certification system that assesses not only environmental, social, and economic sustainability of the company but also its partners in the supply chain. It is responsible for certifying hotels, resorts, conference centers, cruise ships, and attractions worldwide. Application of 44 basic criteria and over 385 compliance indicators ensures a comprehensive assessment. It makes Green Globe one of the most accurate ecological certificates for the so-called green hotels all over the world. What is worth noting is that most of all indicators and criteria belong to four main aspects: sustainable management, environment, socio-economic, and cultural heritage. The Green Globe Certificate has three levels of certification and uses external auditors to run a reliable assessment of the company. The standards according to which Green Globe awards certificates are based on the highest criteria used globally. Green Globe Standards are recognized by the GSTC for Hotels, which means that the indicators and criteria used by Green Globe to assess a travel company are in compliance with the GSTC Standards for Sustainable Hotels and Resorts [84–86].

The Global Sustainable Tourism Council (GSTC) establishes and manages global standards for sustainable travel and tourism, known as the GSTC Criteria. There are two sets of criteria, i.e., target criteria for public policy makers and destination managers, and industry criteria for hotels and tour operators. They are the result of global efforts to develop a common position on sustainable development in tourism. The criteria in both sets are divided into four pillars: sustainable management; socio-economic consequences; cultural impact and environmental impact. As each tourist centre has its own culture, environment, customs, and regulations, the criteria are to be adjusted to local conditions and supplemented with additional criteria for the specific location and activity. The GSTC criteria form the basis for accreditation for certification units that certify accommodation facilities (including hotels), tour operators, transport service providers, and destinations as having sustainable policies and practices. GSTC does not directly certify any products; it provides an accreditation programme through its partner Assurance Services International (ASI) to accredit certification units. GSTC is an independent and neutral organization. It is registered in the United States of America as a not-profit organization that represents various members including national and provincial governments, leading travel companies, hotels, tour operators, non-governmental organizations, individuals, and communities - all entities striving to achieve the best practices in sustainable tourism. The Council is a virtual organization without any headquarters, with staff and volunteers working on six continents. The GSTC criteria provide a complex definition of sustainable travel and tourism, organized to support the four pillars of sustainable development, i.e. management for sustainable development, social one, culture and community, and environment [87].

A statement of information regarding the discussed certification systems for environmental management that can be used in hotel operations is presented in Table 2.

Table 2. Environmental management certification systems for hotels as of 2023. Source: authors’ own elaboration based on the websites of certification systems: [82,83,85,88–90].

Certification System	Year Launched	Number of hotel facilities with a certificate	Region
ISO 14000	1996	136	Global
EMAS	1993 Brussels	over 270	Europe
Ecolabel	1992 Brussels	504 hotels	Europe
Green Seal	1989 Washington	39	Global
LEED	2000	47 hotel chains, 3 hotel privates	Global
Green Key	1994 Dania from 2002 programme managed by Foundation for Environmental Education (FEE) and recognized by Global Sustainable Tourism Council	over 4400	Global
Green Globe	1993	600members, including hotels	Global
GSTC	.	over 18000	Global

Most of the characterized certification systems are standards that were developed in the 1990s, i.e. at the stage of development of the concept of sustainable development. However, these systems are still being improved, updated (every 5-7 years depending on the system) and adapted to current problems that appear in the field of sustainable development. Some of the systems use requirements, criteria or indicators defined in other systems. To some extent, benchmarking solutions between systems can be observed. There are many examples in this regard. Green Sale includes in its requirements those included in the ISO14000 group of standards. In turn, the indicators and criteria used by Green Globe to evaluate tourism companies are consistent with the GSTC standards, and ISO 14001 is an annex to the EMAS system.

3. Materials and Methods

The basic method used in the empirical part of the work was a case study. The method allows to investigate contemporary phenomena in their real context, especially when the boundaries between the phenomenon and the context are not that obvious [91]. A content analysis was used here as part of the method to examine to what extent the practices of sustainability are taken on to account by the HotelstarUnion and Polish hotel categorization systems. The content analysis is an empirically grounded method, one of the most important [92] and widely used [93] in social sciences. It is used to analyze content in a specific context. It provides systematized and objective data and information

that allow to draw repeatable, correct, and valid conclusions [92]. Today, the method is frequently used to analyze the content of websites and information on social networking sites [94].

For the purpose of the article, a case study was conducted on two hotel categorization systems in Europe, i.e., the HotelstarsUnion system and the Polish one, in relation to the range of taking into account the criteria of sustainable development. Previously, it was necessary to define such criteria. For this purpose, a collective case study of the environmental certification systems that are most commonly applied in the hotel industry and were described in the previous section was conducted.

The content analysis of both HotelstarsUnion and Polish hotel categorization systems, as well as environmental certification systems (Table 2), detailed information on these and their evaluation criteria published on the internet profiles and available promotional materials of the certification systems was used in the study.

A collective case study covered eight systems of environmental certification (Table 2), descriptions and materials of which made it possible to make a full analysis of the content of the criteria taken into account while assessing whether a hotel facility meets the requirements to be able to apply for a specific marking or award (certificate, distinctions).

In this case, qualitative analysis was used only for the mandatory criteria defined in environmental certification systems, as they are the absolute minimum required from hotels when applying for a marking or award. As a result of the conducted analyses, the criteria taken into account by all eight systems of environmental certification were compared (Table 3).

Table 3. Comparison of the systems of environmental certification in the hotel industry. Source: authors’ own elaboration based on: [78,80,82,83,86–89].

SUSTAINABLE DEVELOPMENT CERTIFICATION SYSTEMS USED IN THE HOTEL INDUSTRY								
KPI's	ISO 14000	EMAS (EU)	Ecolabel (EU)	Green Seal	LEED	Green Key	Green Globe	GSTC
Environmental management	V	V	V		V	V	V	V
Staff involvement	V	V	V	V		V	V	V
Guest information	V	V	V			V	V	V
Water	V	V	V	V	V	V	V	V
Washing and cleaning	V	V	V	V		V		
Waste	V	V	V	V	V	V	V	V
Energy	V	V	V	V	V	V	V	V
Food and beverage	V	V	V	V		V		
Indoor environment			V		V	V		
Green areas	V	V	V	V	V	V		V
Corporate social responsibility			V			V	V	V
Green activities					V	V		
Administration	V	V				V		
Location and Transportation	V	V	V		V	V	V	V
Materials and Resources				V	V		V	V
Health and Safety			V			V	V	V
Local employment			V			V	V	V
Support local entrepreneurs			V			V	V	V
Respect local communities						V	V	V
Equitable hiring						V	V	V
Employee protection			V			V	V	
Conserving resources	V	V	V	V	V	V	V	V
Water energy								
Reducing pollution	V	V	V	V	V	V	V	V
Waste								

Conserving biodiversity, ecosystems, and landscapes	V	V	V		V	V	V
Legal compliance						V	V
Protecting cultural heritage					V	V	V
Environmentally preferable purchasing	V	V		V	V	V	V
Recycling	V	V	V	V	V	V	V
Refillable amenities			V	V	V		
Towel and linen reuse program	V	V	V	V	V		
Responsible suppliers	V	V		V	V		
Thermoregulation	V	V	V				
Automatic shutdown of heating, ventilation, air conditioning and lighting systems	V	V	V				

A comparative analysis of the criteria used in particular systems of environmental certification allowed us to identify a list of 11 groups of criteria and 48 detailed criteria (Table 4) that are common to all or most of the analyzed systems of environmental certification.

Table 4. A list of criteria common to all analyzed systems of environmental certification (Summary of comparative research results). Source: authors’ own elaboration based on the research.

GROUPS OF CRITERIA		DETAILED CRITERIA
ENVIRONMENTAL MANAGEMENT		No specific criteria
WATER MANAGEMENT		Water saving
		Water flow reduction/water saving fittings
		The use of sensors, water-saving devices (including e.g., pool roofing)
		Collecting rainwater
		Room cleaning on request
		Change of towels and bed linen on request
ENERGY MANAGEMENT		Rainwater recycling
		Heating and air conditioning control systems
		Automatic on/off of heating and air conditioning
		Energy-saving light bulbs
		Checking the ventilation, air conditioning, and heating system (annually)
		The use of energy-saving devices
		Light sensors (motion sensors that activate the light)
		Using renewable sources
		Energetic audit
WASTE AND WASTERWATER MANAGEMENT		Thermal insulation
		Recycling
		Waste segregation
		Not using disposable containers
		Failure to use a one-time pledge
		Using dispensers for soap, shampoo, shower gel, etc.
		Wastewater discharged to the public sewage system or having its own sewage treatment plant
STAFF		Training in the field of environmental protection
		Established work procedures

COMMUNICATION	Supplier education
	Guest education
	Legal and ethical (non-exploitative) employment of workers
	Behavior markings and instructions pro -pro-environmental for staff
	Behavior markings and instructions pro -pro-environmental for guests
FOOD AND BEVERAGE	Encouraging the use of alternative means of transport
	Purchase of raw materials and eco products
	Food waste minimization
	Offering beverages in glass packages
	Tap water for drinking
TRANSPORT	Offering a vegetarian and vegan menu
	Purchase of certified food products
	The use of friendly means of transport
SAFETY&HEALTH	Offering guests bicycles, scooters
	They travel together by taxi and bus
	Use of chemical-free alternative cleaning and disinfection agents
	Use of safe cleaning products (eco-labels)
LOCAL DEVELOPMENT	No smoking in the facility
	Controlled air quality in the facility
	Purchase of raw materials for products
GREEN AREAS	Information about the attractions of the region
	Protection and support of local biodiversity
AVAILABILITY	Green areas around the hotel
	Accessibility for disabled guests
	Accessibility for people with additional needs

Further in the research, the content of 247 criteria of hotel categorization according to the HotelstarsUnion system and 56 criteria included in the Polish legal regulations based on the regulation of the minister responsible for tourism on hotels and other facilities that provide hotel services was also qualitatively analyzed [95]. The content analysis of the sets of criteria of the European and Polish categorization systems aimed to check whether the environmental criteria listed in Table 3 are taken into account.

The catalogue contains all the criteria by which a hotel is classified in each of the five categories of the HotelstarsUnion classification system and guarantees quality and service for the guests, transparency, and security for the hotels, and meets both sustainability issues and technological developments. The HotelstarsUnion was founded in 2009 under the patronage of HOTREC - the umbrella association of hotels, restaurants, and cafés in Europe.

The HotelstarsUnion system is updated regularly every five years (the last update was in 2020) and includes 247 criteria that are weighted with one to 25 points. In total, the system includes 141 mandatory criteria for one or more categories [96]. In order to obtain a specific category, it is necessary to meet these criteria (standard, star), and each additional advantage means some extra points for setting the standard. In addition, if a given hotel does not meet some criteria and scores points in others - this lack does not mean the exclusion from further procedure and at the same time grading the place to a lower category. The system gives 5 categories for hotel facilities from one to five stars.

Despite the fact that Poland is a member of the HotelstarsUnion, it has not implemented the new system yet. Therefore, the current one based on the Act of August 29th, 1997, on hotel services and the services provided by tour guides [97] and the regulation by the minister responsible for tourism [96] is still in force. This regulation defines minimum requirements for various types and categories of hotel facilities, including hotels, that refer to five groups of criteria, i.e. external development

elements, technical installations and devices, basic elements regarding their functioning, service programme and usability of the facility, residential part, basic and supplementary service offer, as well as equipment necessary to adapt hotel facilities to the needs of disabled guests. The Polish system, like HotelstarsUnion, distinguishes 5 hotel categories ranging from 1 to 5 stars. However, as it has already been mentioned, the Polish hotel categorization system requires that a facility that is applying for a specific star category meets all the minimum criteria indicated in the regulation.

4. Results and discussion

The results of the content of the analysis of two European and Polish hotel categorization systems in terms of including environmental criteria proved (Table 5) that the European HotelstarsUnion system presents reference to seven environmental criteria, and the Polish one to two ones only.

Table 5. Comparison of Polish and European hotel categorization systems in terms of references to the criteria of sustainability. Source: based on authors’s own research.

GROUPS OF CRITERIA	DETAILED CRITERIA	HSU No criterium	POLSKA No criterium
ENVIRONMENTAL MANAGEMENT		(247)	
ENERGY MANAGEMENT	Water saving		
	Water flow reduction/water saving fittings		
	The use of sensors, water-saving devices (including e.g., pool roofing)		
	Collecting rainwater		
	Room cleaning on request	(35)	(51)
ENERGY MANAGEMENT	Change of towels and bed linen on request	(36) (37) (38)	(50)
	Rainwater recycling		
	Heating and air conditioning control systems	(118) (119)	
	Automatic on/off of heating and air conditioning		
	Energy-saving light bulbs		
	Checking the ventilation, air conditioning, and heating system (annually)		
	The use of energy-saving devices		
	Light sensors (motion sensors that activate the light)		
	Using renewable sources		
	Energetic audit		
WASTE AND WASTERWATER MANAGEMENT	Thermal insulation		
	Recycling		
	Waste segregation		
	Not using disposable containers		
	Failure to use a one-time pledge		
STAFF	Using dispensers for soap, shampoo, shower gel, etc.		
	Wastewater discharged to the public sewage system or having its own sewage treatment plant		
	Training in the field of environmental protection		
	Established work procedures		

	Supplier education	
	Guest education	
	Legal and ethical (non-exploitative) employment of workers	
	Behavior markings and instructions pro-environmental for staff	
COMMUNICATION	Behavior markings and instructions pro-environmental for guests	
	Encouraging the use of alternative means of transport	(9)
	Purchase of raw materials and eco products	
FOOD AND BEVERAGE	Food waste minimization	
	Offering beverages in glass packages	
	Tap water for drinking	
	Offering a vegetarian and vegan menu	
	Purchase of certified food products	
TRANSPORT	The use of friendly means of transport	
	Offering guests bicycles, scooters	
	They travel together by taxi and bus	
SAFETY&HEALTH	Use of chemical-free alternative cleaning and disinfection agents	
	Use of safe cleaning products (eco-labels)	
	No smoking in the facility	
	Controlled air quality in the facility	
LOCAL DEVELOPMENT	Purchase of raw materials for products	(203)
	Information about the attractions of the region	(137)
GREEN AREAS	Protection and support of local biodiversity	
	Green areas around the hotel	

It is noticeable that the Polish categorization system focuses little on ecology, unlike the European system. This is evidenced by both the greater number of criteria related directly to pro-ecological activities and the importance that is assigned to them. Examples of three such criteria are "Sustainability label/certificate issued by the national decision on recognized labels and certificates", "Charging station for electric cars" and "Rooms with individually adjustable air conditioning". For meeting the first of these criteria the system grants 20 points, 10 points for meeting the second one, and 10 points for meeting the third one. Sadly, none of these criteria is obligatory (HotelstarsUnion, 2022). The remaining criteria of the HotelstarsUnion system related to the principles of sustainable development are rated 1 to 7. However, what is noticeable is that the optional criteria, i.e., the ones referring to having an air conditioning control system "Rooms with centrally adjustable air conditioning" (points 7) and the purchase of raw materials and products from local suppliers "Regional dishes. The food offer features a significant part of regional / national specialties. "The majority of used products is from the region" (points 5) are scored higher than the mandatory ones. The latter are valued 1 to 3 points and refer to the necessity to provide information on regional attractions "Regional information material available (printed or digital)" (point 1) and to room cleaning jobs and replacement of towels and bed linen upon guest's request "Daily room cleaning with the option of opting-out" (point 1), "Daily change of towels on demand" (point 1), "Change of bed linen at least once a week with the option of opting-out" (point 1), " "Change of bed linen at least twice a week with the option of opting-out" (point 3).

The Polish hotel categorization system along with the requirements attached, as indicated in Table 5, refer only to two environmental criteria, i.e. room cleaning jobs and towel and bed linen replacement upon guest's request: "Cleaning the room every day or at the guest's request", "Change of bed linen and towels daily or upon guests' request". These are obligatory, like in the

HotelstarsUnion system. However, it should be stressed that in the Polish categorization system, both of these criteria are of equal importance for the final assessment. The Polish hotel categorization system does not rank criteria. Each of the requirements mentioned in the regulation must be met by the facility applying for a particular category.

Analysis of the European and Polish systems of categorization additionally also proved that they both contain criteria related to the accessibility of hotel facilities for people with disabilities and various dysfunctions. In spite of the fact that these go beyond the area of the analyzed environmental criteria, as they relate to the CSR policy of hotels, they are also included in most systems of environmental certification. Hence, these criteria were also subjected to comparative analysis. Thus, there are four such criteria in the HotelstarsUnion system, their fulfillment is not obligatory, yet they have a fairly high weight of 5 to 10 points: "Barrier-free accessibility according to national regulations for:

- wheelchair or assistance (points 5),
- electronic wheelchair (points 10),
- blind or visually impaired (points 5),
- deaf or hearing impaired (points 5).

In the Polish system, the criteria that relate to hotel accessibility for disabled people are specified in detail:

1. In facilities with more than 50 rooms, at least one unit should be adapted to the needs of the disabled in the manner specified in item no. 7-9, and for each subsequent 100 rooms above 100 units - at least one.
2. Widely accessible elements of the equipment, such as internal communication devices, buttons and switches, should be placed at a height of 90-110 cm, enabling easy access for people in wheelchairs.
3. At least one public telephone adapted for use by disabled people, placed at a height of 90-110 cm, which provides easy access for people in wheelchairs.
4. At least one reception desk should be equipped with a counter that is not higher than 90 cm, with a ramp of at least 67 cm, or there should be a separate service station for wheelchair users.
5. In catering and multi-functional rooms, there should be spots adapted for people in wheelchairs.
6. Lift call/floor buttons should be described in Braille for the blind, and the cars should be equipped with sound signaling.
7. Rooms referred to in point. 1 should be equipped with handrails and handles to facilitate the use of hygienic and sanitary devices.
8. The rooms referred to in point 1 should be equipped with handrails and handles to facilitate the use of hygienic and sanitary facilities.
9. The rooms referred to in point. 1, should be furnished to provide access for wheelchair users, including a ramp height of min. 67 cm under the table, desk, and washbasin.

Based on the presented criteria concerning the requirements for serving hotel guests with various types of disabilities, one can see that they are highly detailed yet, on the other hand, the criteria in force are no longer current from the point of view of contemporary realities.

5. Conclusions and recommendations

A broader discussion on the problematic issues mentioned in the study is not possible as the research problem has not been discussed in greater detail in the literature so far, with the exception of the cited article by Hensens [48]. Therefore, the summary part focuses on synthetic conclusions drawn from the analysis and recommendations.

The results of the conducted analyzes showed that in spite of the fact that the HotelstarsUnion system takes into account the principles of sustainable development to a greater extent than the Polish one, its main weakness is that most of its criteria related to the environmental ones are optional. In addition, the optional ones have higher weights than the obligatory ones. In turn, the Polish system of categorization slightly refers to environmental standards, is not very detailed, and the assessment criteria are not up to date.

A detailed review of the information included in Table 5, despite the differences in the scope of inclusion of the categorization criteria in the aspect of sustainable development, shows a relatively easy possibility of including the missing criteria in the domestic system of categorization. Not any of the five missing groups of evaluation criteria is difficult for categorizing entities to evaluate. In addition, within the scope of the detailed criteria shown by HotelstarsUnion, hotels usually implement activities related to:

- a) environmental policy - which should be considered as an action consisting in development and implementation of a document that is possessed by chain hotels, and smaller facilities, if they are not yet in possession of one, are able to develop with no significant expenditure; some hotel self-government organizations might be of help in this respect by preparing the framework versions,
- b) operation of heating and air conditioning control systems - it is a technical issue of every hotel facility,
- c) encouraging guests to use the alternative means of transport - the criterion is of a technical and organizational nature, yet the form of "encouragement" indicates issues of a marketing nature and of the area of information policy,
- d) purchase of raw materials and products from local suppliers - the criterion is of an organizational nature and relates to cooperation in the local tourism industry. It also brings effects of marketing nature,
- e) providing information on the attractions of the region - which is a criterion of a marketing and information nature.

In fact, the only criterion that is mentioned in point b) may relate to the need to incur expenses for few hotels that would take up the categorization procedure. In the case of the other criteria, it is relatively easy to be met as in many cases such activities are implemented in practice. In some facilities, the scope of current activity in this field should be expanded. These activities would mainly be of a low-cost nature and would involve the activation of staff that serve hotel guests directly. Therefore, taking these criteria into account had a direct impact on the level of quality of operation of the entire hotel industry. In connection with the local tourism economy, it also improved hotel information policy and directly influenced the level of hotel guest satisfaction.

Thus, the above arrangements in a relatively easy way point to the possibility of adapting the criteria of sustainable development that are in force in the HotelstarsUnion system to the system of policy aimed at the hotel industry in Poland, and thereby also in other EU countries. It concerns especially those countries that have already adopted the system as well as those ones that do not have an official system of categorization. In countries such as Poland, a certain transition period should be introduced to enable the implementation of a categorization system developed with the criteria of sustainable development, which would allow hotels to adapt to the new criteria more fully. Thus, the governments of the EU countries involved in deepening sustainable development policy would have an opportunity to implement one of the goals in this field. first and foremost, it is a result of political will. An important aspect of the undertaken activities is also the deepening of public-private institutional cooperation between the government and/or local government administration with competencies in the field of categorization of hotels and organization of hotel self-government. The problem of functioning of many hotel self-government organizations on domestic markets that has been mentioned above may be a certain barrier here. Therefore, the public entity should consider taking up cooperation with one of the organizations that would represent the interests of the hotel industry, trying to obtain acceptance of the others or create the conditions to appoint a public-private consortium dealing with categorization where all interested organizations would participate, or encourage hotel self-government organizations to appoint a federation that would be a direct and sole partner of the public authority.

The presented analysis leads to the conclusion that the inclusion of the criteria of sustainable development in the hotel categorization system would lead to an increase in the position of the hotel industry on the market and would be associated with the possibility of creating a competitive advantage on both the internal market and the external one, mainly the European one, in relation to

other entities and to consumer needs as well. A unified system of categorization would become real market information and would influence the level of hotel service quality.

Therefore, the actions by public policy entities aimed at the hotel industry may therefore take the form of "pushing" through regulation and seem necessary, taking into account the contemporary conditions of running a business and general assumptions of the global and EU environmental policy. Bilateral activities within the framework of cooperation between public entities and hotel self-government organizations are also possible. In the modern hotel market, the impact of demand (pulled by demand) is rather a secondary issue. However, through their purchasing decisions, hotel customers can co-decide whether or not it is necessary to take sustainable development criteria into account in hotel operation.

The suggested solutions are not cost- or labour-intensive for either categorization entities or hotels. In addition, they are relatively easy to implement, providing the opportunities to establish or deepen cooperation between organizations with competencies in the field of hotel categorization - both public and industrial ones. Moreover, it can be assumed that the design of such a solution could be extended and implemented as a unified European-wide system. Thus, categorization should be then transferred to the industry level, to hotel self-government units. It would lead to decentralization of powers. In the EU member states, where political resistance related to liberalization would be observed, control and supervision of the functioning system could be left at the level of public policy institutions. This model of categorization would be more flexible and, at the same time, would enable faster response to the changing needs of the competitive market, consumer needs and potential threats to the natural and social environment. Flexibility will enable a faster reaction to correcting categorization criteria, at the same time taking further aspects of sustainable development in the operation of hotel facilities into account.

Based on the presented analyzes and conceptual considerations, the research objective of the study regarding the implementation of environmental standards in the European system of hotel categorization was achieved, where particular emphasis was put on the Polish system. A practical, relatively easy, low-cost and low-labour-intensive possibility of adapting the system to the domestic categorization systems that were in force before, taking into account environmental management criteria, was also legitimized.

6. Limitations

At this stage, the research is limited in the conclusions to the relationship between the HotelstarsUnion system and the categorization system in Poland only. Taking the market practice, including regulatory practice, into account in many EU countries and beyond, it was decided that the discussed systems would be adapted also in other countries, which would be beneficial for the goals set by the public policy of sustainable development, for the competitive market and with a view to protecting consumers on the hotel market.

Author Contributions: Conceptualization, E.W.-S. & A.P.; methodology, E.W.-S. & A.P.; validation, E.W.-S. & A.P.; formal analysis, E.W.-S. & A.P.; investigation, E.W.-S. & A.P.; resources, E.W.-S. & A.P.; data curation, E.W.-S.; writing—original draft preparation, E.W.-S. & A.P.; writing—review and editing, E.W.-S. & A.P.; visualization, E.W.-S. & A.P.; supervision, E.W.-S.; project administration, A.P.; funding acquisition, A.P. All authors have read and agreed to the published version of the manuscript.

Funding: the research was financed as part of the Excellence Initiative project of the Jagiellonian University (IDUJ), Faculty of Management and Social Communication.

Conflicts of Interest: The authors declare no conflict of interest.

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