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Sustainability Practices in Accommodation Facilities Across Czech Tourism Destinations

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ABSTRACT

This study aims to investigate the existence of statistically significant variations in sustainability practices among accommodation facilities in different tourism destinations in the Czech Republic. Data was collected from 429 collective facilities listed on Booking.com, selected in proportion to the most frequently visited regions. The analysis involved Chi-square tests and one-way ANOVA. The research revealed notable variations in sustainability practices among different tourism destinations, with mountainous areas prioritising nature conservation and urban settings focusing more on water preservation. The findings contribute to understanding the destination-specific sustainability approaches and the importance of considering environmental and cultural resources in developing tourism destinations.

KEYWORDS

Tourism Destination, Sustainability, Sustainability Practices, Sustainable Tourism Services, Destination Sustainability.

ARTICLE HISTORY

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1. Introduction

A tourism destination refers to a distinct geographical area that draws visitors owing to its distinctive characteristics, attractions, and amenities. For an area to qualify as a tourism destination, it must possess four key features: a clearly defined geographical boundary, attract and be visited by tourists, offer diverse tourism products and services, and engage multiple stakeholders with varying interests and requirements (Kadi et al., 2014).

As per the available research, tourism is crucial in fostering economic growth and prosperity within various regions. Numerous studies have indicated that it has the potential to contribute to long-term economic development by promoting competition among local businesses and those in other international tourist destinations (Dritsakis, 2004). However, it is essential to note that tourism can also result in a surge in CO2 emissions, thereby exerting a detrimental impact on the environment (Paramati et al., 2016). Implementing sustainable tourism policies is imperative to mitigate these adverse effects. The issue of sustainability in tourism destinations is multifaceted, encompassing economic, environmental, and social dimensions. It is paramount to consider all these facets, as they collectively influence the overall prosperity of the region.

The paper aims to investigate the existence of statistically significant variations in sustainability practices among accommodation facilities in different tourism destinations. The hospitality sector, being a pivotal industry in tourism, is likely to exhibit distinct sustainability needs. Several authors have pointed out differences in sustainability strategies across tourism destinations. Assaf and Josiassen (2012) underscored the significance of prominent destinations in pursuing preservation for future generations and exploring sustainable development strategies, thereby highlighting the necessity for destination-specific sustainability approaches. Cucculelli and Goffi (2016) deliberated on transforming mass tourism into more sustainable forms, suggesting that diverse destination types may necessitate unique approaches to achieve sustainability. González-Reverté (2019) stressed the importance of understanding the influence of destination type on sustainability initiatives. Khan et al. (2021) emphasised the fundamental role of environmental and cultural resources in the evolution of a tourism destination, suggesting that different destination types may require specific sustainable tourism policies and management approaches. These authors collectively identified the research gap on the examination of differentiation in sustainability strategies across diverse tourism destinations, which this paper endeavours to bridge.

This paper provides a comprehensive literature review of sustainable tourism in various destinations, accompanied by a detailed description of the conceptual framework and methodologies employed. The study culminates with the elucidation of findings and conclusions.

2. Literature Review

The literature extensively examines the sustainability of tourist destinations, including the sustainable practices adopted by individual lodging establishments. It also delves into the correlation between sustainability, competitiveness, and a tourist destination's prosperity. Accommodation certification, tourist behaviour, and business performance are often depicted as integral components of an interconnected ecosystem, where each factor influences and interacts with the others.

The sustainability of a destination is a pivotal factor in its development. According to a study conducted by Cucculelli and Goffi (2016), destination competitiveness is heavily reliant on sustainability. Their research has underscored the significance of sustainability as a determining factor of competitiveness. They involved principal component analysis to reduce a large set of independent variables to a more manageable size. This reduction facilitated the subsequent ordinary least squares regression analysis. In another study by Falatoonitoosi et al. (2022), sustainability was identified as a significant predictor of certain aspects of prosperity, particularly in environmental quality and socio-cultural enhancement. The data was collected from 171 participants representing five different stakeholder groups within the tourism sector. This approach gave a comprehensive understanding of how sustainable tourism development impacts destination prosperity. The researchers employed statistical analysis to quantify the relationships between sustainability and key prosperity dimensions, such as environmental quality and sociocultural empowerment, thereby providing actionable insights for destination managers.

Parte and Alberca (2021) delved into the impact of sustainable practices, such as investments in environmental protection, on business performance. Similarly, Segarra-Oña et al. (2012) investigated the relationship between business performance and certification, particularly regarding ecological sustainability and its influence on business viability.

Another salient area of examination is the intersection of certification and sustainability. Celik and Cevirgen (2021) and Costa et al. (2019) underscored the significance of environmental certification in steering consumers toward environmentally friendly products and services. Moreover, certification is intricately linked to tourist behaviour, a subject explored by Artal-Tur et al. (2017).

This scholarly article delves into the sustainability practices implemented in tourist destinations and their correlation with location. Parte and Alberca (2021) posit that investigating the connection between hotel location and sustainability practices poses an intriguing research question. In the study, the data collection involved gathering microdata from Spanish firms, allowing for a comprehensive evaluation of efficiency across different tourism models. Reid et al. (2017) conducted a study on sustainability practices in hotels situated in urban, coastal, and other settings. The research revealed varying levels of sustainable practices across different settings, with urban hotels exhibiting the highest levels of sustainability practices.

Numerous studies have been carried out to evaluate the sustainability of tourism destinations, focusing on specific types of destinations or comparative analyses between them. For instance, Firoiu et al. (2019) delved into the sustainable development practices of mountain hotels in Romania. They conducted their research through a structured questionnaire distributed to 77 hotels in Romania's mountain regions. The study employed statistical analysis to identify correlations between the use of communication strategies related to sustainable development and occupancy rates, as well as between the implementation of international management standards and profitability increases. The research scrutinised the influence of communication strategies on occupancy rates and the impact of adhering to international management standards on profitability. The findings revealed a positive association between the implementation of sustainable communication strategies and occupancy rates, as well as between the adoption of international management standards and enhanced profitability.

Wu et al. (2022) explored the intersection of sustainability and competitiveness in urban tourism within China's Yangtze River Delta. They employed data envelopment analysis as the primary method to evaluate the sustainability and competitiveness of tourism destinations. They collected data from various tourism destinations, focusing on inputs and outputs related to sustainability metrics, such as environmental impact, economic performance, and social equity. The data was gathered through a combination of secondary sources, including tourism statistics and sustainability reports, ensuring a comprehensive assessment of each destination's performance. The research revealed that conventional efficiency assessments may inflate the perceived sustainability of urban tourism locales by disregarding adverse environmental effects. This underscores the urgency of implementing sustainable resource management in urban tourism, particularly in light of intensifying competition. Furthermore, the study emphasises the significance of factoring in carbon emissions to advance global carbon neutrality objectives.

Gomis-López and González-Reverté (2020) analysed the interplay between urban renewal, sustainable development, and smart tourism in well-established beach destinations in Spain. Their findings unveiled discrepancies in the application of smart tourism for urban revitalisation based on sustainability strategies. In a similar vein, Coccossis and Koutsopoulou (2020) presented a proposed framework for the assessment and monitoring of sustainability in coastal tourist destinations within the Mediterranean region at the local level. This framework adopts a three-tier system of indicators to accommodate diverse tourism activities and destination characteristics. The authors underscored the importance of involving local stakeholders in formulating the framework and deliberated on the encountered challenges.

Lozano et al. (2012) underscore the global importance of sustainable tourism and present a method for developing composite indicators using goal programming to assess sustainable tourism. They demonstrate this method through case studies of cultural tourism destinations in Andalusia, Spain. According to Artal-Tur et al. (2017), cultural tourism has notably increased in recent years. Understanding the behaviour of cultural tourists is crucial for enhancing the sustainability of destinations. The authors seek to identify the characteristics of cultural tourists and analyse their spending patterns and trip satisfaction using econometric modelling. They emphasise cultural tourism's role in shaping a destination's sustainable development. Jurigová and Lencsésová (2015) have introduced a monitoring system for sustainable development in cultural and mountain destinations to address their susceptibility to the adverse impacts of tourism. They have established specific indicators for measuring sustainability in such destinations.

Based on a study carried out by Parte and Alberca (2021), geographical location has a substantial influence on the effectiveness of sustainable tourism models, particularly in the realms of cultural and rural tourism. By analysing microeconomic data from Spanish enterprises, the researchers discovered that rural tourism sites generally exhibit higher levels of efficiency in comparison to cultural tourism destinations. Furthermore, the study revealed a positive link between the success of rural tourism and sustainable practices, particularly the environmental initiatives undertaken by the regions during the period under review.

3. Methodology

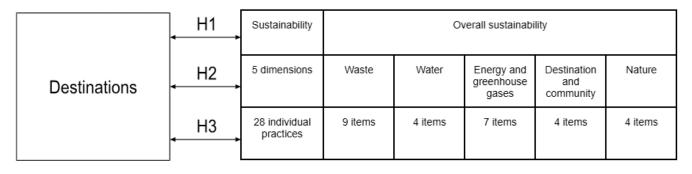
Following an extensive review of the literature, it is clear that there is a significant lack of research concentrating on the diverse approaches to integrating sustainable practices in various tourism destinations. Recognising this research gap, a research question and three associated hypotheses have been formulated to address this issue.

Research Question: Are there any statistically significant differences in adopting sustainability practices across different travel destinations?

- H1. There are no significant differences in the overall level of sustainability practices adopted across various destinations.
- H2. There are no significant differences in the different dimensions of sustainability practices adopted across various destinations.
- H3. There are no significant differences in applying individual sustainability practices across different travel destinations.

Figure 1 illustrates the research's conceptual model. The model encompasses the Czech Republic's top tourist destinations, which are thoroughly listed and characterised in Table 3. The "overall sustainability" section outlines the dimensions and specific practices identified from the study's main data source, Booking.com data.

Figure 1. Conceptual Framework



Source: Own Elaboration

An analytical, descriptive, and deductive methodology is employed to achieve the research goals. The primary data source for the study was Booking.com (2023), a prominent online travel agency for booking accommodation. Up to 2024, Booking.com consistently documented a comprehensive list of 28 sustaina-

ble practices for each accommodation, which were classified into five key dimensions: waste, water, energy and greenhouse gases, destination and community, and nature. A summary of these specific practices is presented in Table 1.

Table 1. Sustainable Practices Defined by Booking.com

	,
Waste	Single-use plastic miniature shampoo, conditioner, and body wash bottles are not used Water cooler/dispenser Recycling bins are available to guests, and waste is recycled Single-use plastic stirrers are not used Single-use plastic straws are not used Single-use plastic water bottles are not used Single-use plastic beverage bottles are not used Single-use plastic cups are not used Single-use plastic cups are not used Single-use plastic cups are not used
Water	Water-efficient toilets Water-efficient showers Option to opt out of daily room cleaning Option to reuse towels
Energy and greenhouse gases	Most lighting throughout the property uses energy-efficient LED bulbs All windows are double-glazed Most food provided at the property is locally sourced Electric car charging station Key card or motion-controlled electricity 100% renewable electricity is used throughout The property makes efforts to reduce its food waste
Destination and community	Tours and activities organised by local guides and businesses offered Provides guests with information regarding local ecosystems, heritage, and culture, as well as visitor etiquette Invests a percentage of revenue back into community projects or sustainability projects Local artists are offered a platform to display their talents
Nature	Wild (non-domesticated) animals are not displayed/interacted with while captive on the property or harvested, consumed, or sold. Green spaces such as gardens/rooftop gardens on the property Offsets a portion of their carbon footprint Most food provided is organic

Source: Own elaboration based on Booking.com (2023).

The data was manually recorded from the profiles of the accommodation facilities on Booking.com. This approach enabled an assessment of sustainability practices as reported by individual accommodations. In 2024, Booking.com replaced these individual sustainable practices with a third-party sustainability certification.

In the study, data were collected on the most visited tourism destinations in the Czech Republic from March to June 2023. The stratified random sampling method was employed to ensure the sample's representativeness. Specifically, 10% of collective accommodation establishments are situated in the country's most frequented areas, which are certified by Czech Tourism as regional destinations. Notably, Prague, the capital city, was excluded due to its distinct tourism characteristics, which are reflected in both demand (visitors) and supply (accommodation establishments).

Our data collection process entailed utilising random sampling within the selected areas, focusing exclusively on establishments listed on Booking.com that were identified as "travel sustainable property". Consequently, the frequencies presented in the findings pertain exclusively to establishments that have implemented sustainable practices.

The study sample (Table 2) comprised 429 collective accommodation facilities strategically located in the most frequented regions of the Czech Republic. The largest concentration of facilities was observed in the Giant Mountains area (22.4%), followed by the Jizera Mountains (11%) and Karlovy Vary (10.7%). Regarding the accommodation types, the three categories were fairly represented, with apartments constituting 32.2%, guesthouses 32.4%, and hotels 35.4%.

Table 2. Sample Characteristics

		Accommodation facilities				
	Total	Sample (10 %)	Share in sample (in %)			
Karlovy Vary Region	463	46	10.72			
Central Moravia	217	22	5.13			
Pálava and the Lednice-Valtice Complex	413	41	9.56			
Brno and Environs	262	26	6.06			
Jeseníky Mountains - West	403	40	9.32			
Zlín-Luhačovice Region	204	20	4.66			
Jizera Mountains	467	47	10.96			
Giant Mountains	956	96	22.38			
Lipno Region	220	22	5.13			
Třeboň Region	188	19	4.43			
Moravian Slovakia	254	25	5.83			
Beskid Mountains	248	25	5.83			
Total in selected regions	4295	429	100.00			

Source: Own Elaboration

In the study, the extracted data were evaluated using IBM SPSS software. Initially, the dataset underwent analysis employing descriptive statistical methods, including constructing frequency tables, calculating means, and determining standard deviations. Following the initial analysis, subsequent data examination encompassed hypothesis testing to better understand the dataset's relationships. Given the sample size and after visual inspection of the histogram, one-way analysis of variance (ANOVA) was utilised to assess disparities in means (H1: across multiple groups and overall level of sustainability across destinations and H2: achieved total sustainability level within the dimensions across destinations). Chi-square tests were employed to investigate the relationships among categorical variables (H3: application of 28 individual sustainability practices across destinations). The condition for minimum expected frequencies was met for all chi-square tests. All tests were conducted with a significance level set at 0.05.

4. Results

The section begins by delineating the characteristics of the selected tourism destinations. It then presents the results comprehensively derived from hypothesis testing, accompanied by their subsequent implications.

Table 3 illustrates the characteristics and focus of each tourism destination in the study. The study identifies four primary focuses of tourism destinations: cultural tourism, active tourism, MICE (Meetings, Incentives, Conferences and Exhibitions), and spa tourism, as outlined in the Strategy of CzechTourism, the national tourism organisation (CzechTourism, 2024). Cultural tourism centres on a destination's cultural and historical attractions, encompassing monuments, museums, festivals, and artistic events, catering to travellers interested in exploring the area's cultural traditions, arts, and history. Active tourism emphasises outdoor activities and adventures, including mountaineering, hiking, cycling, water sports, and adrenaline experiences, appealing to travellers seeking physical activity and adventure during their holidays. MICE tourism focuses on hosting business meetings, incentive events, conferences, and exhibitions, offering facilities and services for corporate events and professional gatherings. Spa tourism centres on wellness and relaxation services such as spa treatments, massages, thermal baths, and therapeutic procedures.

Table 3. Characteristics of the Tourism Destinations in the Czech Republic

Tourism Destination	Main Focus	Characteristics	The Region´s Geography
Beskid Mountains	Cultural tourism, active tourism	The Beskydy-Wallachia Tourist Area comprises 67 villages within the municipalities of Frýdek-Místek, Frýdlant nad Ostravicí, Nový Jičín, Frenštát pod Radhoštěm, Kopřivnice, and partially Ostrava. This area, situated in the Beskydy and Wallachia regions, provides a picturesque natural setting for various sports activities, leisure pursuits, and educational experiences. Tourists often engage in activities such as hiking, cycling, and horse riding. Furthermore, the area's rich local folklore, folk architecture, and historical significance contribute significantly to its appeal. The Beskydy region is renowned for its vibrant tradition and cultural heritage (Destinační management turistické oblasti Beskydy-Valašsko o.p.s., 2024).	Mountain
Brno and Environs	Cultural tourism, MICE	The regional tourist destination of Brno and its surroundings encompasses the subregions of Brno, Tišnov, Zastávka-Rosice-Oslavany, Ivančice-Kounice, Židlochovicko, Slavkovsko, Vyškovsko, Kuřimsko, and Ořechovsko. Brno is a culturally significant city and serves as the gateway to this tourist region, boasting a well-developed gastrotourism sector and a notable café culture. Visitors to the Brno area can partake in hiking, cycling, and wine tours, while the city itself holds significance as a major congress and conference destination (Brněnsko destinační společnost, 2021).	Urban
Central Moravia	Cultural tourism, MICE, spa	The Central Moravia Tourist Region is situated in the southern and central part of the Olomouc Region. It is administratively divided into the districts of Olomouc, Prostějov, Přerov and part of the district of Šumperk. The region is further divided into tourist localities, of which there are 12 in total: Hranicko, Konicko, Lipensko, Litovelsko, Mohelnicko, Olomouc, Olomoucko, Prostějovsko, Přerovsko, Střední Haná, Šternbersko, Uničovsko. The region offers visitors sightseeing tourism, active tourism, congress and incentive tourism, spa tourism and gastronomy. The region's natural centre is Olomouc's town with the second largest monument reserve in the Czech Republic and a UNESCO monument (the Holy Trinity Column). (Sdružení cestovního ruchu Střední Morava, 2022)	Rural
Giant Mountains	Active tourism	The tourist area of the Giant Mountains spans over 80,000 hectares. It is situated in the Hradec Králové and Liberec Regions, extending from Kořenov in the west to Žacléř in the east. This area attracts millions of tourists from the Czech Republic and beyond annually, making it a notable destination for winter sports and skiing, as well as alpine hiking and cycling during the summer months. The Giant Mountains stand out as the highest, most visited, and the only ones with an alpine character in the region. Notably, Sněžka, the highest mountain in the Czech Republic, is a prominent attraction in this area (Krkonoše - svazek měst a obcí, 2024).	Mountain
Jeseníky Mountains - West	Active tourism, spa	The Jeseníky West region encompasses the sub-regions of Javornicko and Žulovsko, Zlatohorsko, Jesenicko, Hanušovicko and Dolní Morava, Šumpersko and Zábřežsko, and is recognised as a prominent tourist destination. This mountainous area boasts a wealth of natural, historical, and technical marvels, making it an appealing destination for tourists. During the winter months, the Jeseníky Mountains serve as a significant ski resort, while in the summer, they become a sought-after location for hiking and cycling enthusiasts. Additionally, due to its distinctive climate, the region is renowned as a popular spa destination. Notable tourist attractions within the area include the paper factory in Velké Losiny, Praděd Mountain, the largest Moravian peat bog, Rejvíz, and more (Jeseníky Sdružení cestovního ruchu, 2024).	Mountain
Jizera Mountains	Active tourism	The Jizera Mountains, situated on the border of northern Bohemia and southern Poland, derive their name from the Jizera River, which originates on the slope of Mount Smrk, the highest point in the Czech part of the mountain range. The highest peak in the range is Vysoká Kopa, known as Wysoka Kopa in Poland. The Jizera Mountains attract numerous tourists seeking an active winter holiday or a peaceful retreat amidst the mountain peaks. In the summer, visitors explore the dams, castles, and lookout towers spread across the picturesque surroundings (Jizerskehory.cz, 2024).	Mountain
Karlovy Vary Region	Cultural tourism, active tourism, spa, MICE	The Karlovy Vary Region is renowned for its stunning natural landscapes, numerous historical landmarks, and well-known spa facilities. Within this relatively small region, three of the most celebrated Czech spa towns—Karlovy Vary, Mariánské Lázně, and Františkovy Lázně—are situated, collectively forming the West Bohemian Spa Triangle. Additionally, the region is home to the spas of Kynžvart and Jáchymov. The Ore Mountains have a rich mining history, with miners extracting precious minerals for over eight centuries, resulting in a significant mining heritage. Notably, in 2019, the Ore Mountains/Erzgebirge mining landscape was added to the UNESCO World Heritage List (Destinační agentura pro Karlovarský kraj, z.s., 2024).	Urban

Source: Own Elaboration

The sustainability score of each accommodation facility was determined based on the number of sustainable practices adopted across various dimensions, such as waste management, water conservation, energy efficiency, and preservation of the destination and nature. We calculated the total number of

and skiing during the winter months (Luhačovské Zálesí, o.p.s., 2024).

2019. Zlín is renowned for its association with the entrepreneur Tomas Bata, the founder of the Bata factories. Notable sites for visitors include the Bata Villa and the Bata Memorial. Owing to its diverse landscape, the Zlín-Luhačovicko region offers abundant opportunities for a variety of outdoor activities, including hiking, cycling,

adopted sustainable practices for each dimension and facility. These counts were then averaged across all facilities within a given destination, resulting in an average sustainability score for each dimension at the destination level. In Table 4, the average sustainable score for each facility across all dimensions and individual dimension scores is presented. Due to the varying number of practices across dimensions (ranging from 4 to 9), comparing destination averages across dimensions is not feasible. However, within each dimension, destination averages can be compared. The values are colour-coded to represent their distribution in terms of range.

Table 4. Achieved Average Sustainability Score Per Facility

Destinations	Waste	Water	Energy and greenhouse gases		Nature	Total score
Number of sustainable practices within the dimension	9	4	7	4	4	28
Zlín-Luhačovice Region	6.55	3.50	3.45	2.05	2.10	17.65
Central Moravia	6.77	3.45	3.64	1.86	1.73	17.45
Pálava and the Lednice-Valtice Complex	6.41	3.39	3.46	1.83	1.93	17.02
Beskid Mountains	6.16	3.44	3.24	2.12	1.96	16.92
Jeseníky Mountains - West	6.50	2.93	2.98	1.85	1.98	16.23
Třeboň Region	7.16	3.11	2.89	1.53	1.32	16.00
Brno and Environs	6.50	3.50	3.31	1.50	1.31	15.92
Jizera Mountains	6.51	3.02	3.15	1.68	1.55	15.91
Karlovy Vary Region	6.61	2.96	3.07	1.80	1.46	15.89
Moravian Slovakia	6.16	3.24	3.32	1.48	1.60	15.80
Lipno Region	7.50	2.91	2.59	1.45	1.18	15.64
Giant Mountains	6.21	2.89	2.98	1.56	1.85	15.49
Total (N)	6.50	3.12	3.14	1.71	1.70	16.15
Range	6.16 - 7.50	2.89 - 3.50	2.59 - 3.64	1.45 - 2.12	1.18 - 2.10	15.49 - 17.65

Notes:

White background fields = low values (the lowest one-third of the range)

Light grey marked fields = middle values (second one-third of the range)

Dark grey marked fields = high values (the highest one-third of the range)

Source: Own Elaboration

The destinations situated in the Moravian region of Czechia, including the Zlín-Luhačovice Region (17.65), Central Moravia (17.45), Pálava and the Lednice-Valtice Complex (17.02), and the Beskid Mountains (16.92), exhibited the highest average sustainability scores per facility. Conversely, facilities located in the Czech (western) part of Czechia, such as the Giant Mountains or Lipno Region, demonstrated the lowest average sustainability scores. These facilities scored below average in all dimensions, except one.

It may be argued that the facilities in Moravian destinations exhibit greater sustainability due to the implementation of more sustainable practices. A comprehensive statistical analysis was carried out to ascertain the statistical significance of these differences in overall sustainability, with the results presented in Tables 5 and 6.

H1. There are no significant differences in the overall level of sustainability practices adopted across various destinations.

Table 5. H1. Descriptives (Sustainability Level and Destination)

Destinations	N	Mean	Std. Deviation	Share of the applied sustainable practices
Zlín-Luhačovice Region	20	17.65	4.771	63.00%
Central Moravia	22	17.45	4.295	62.30%
Pálava and the Lednice-Valtice Complex	41	17.02	4.464	60.80%
Beskid Mountains	25	16.92	3.904	60.40%
Jeseníky Mountains - West	40	16.23	4.865	57.90%
Třeboň Region	19	16.00	3.350	57.10%
Brno and Environs	26	15.92	3.939	56.90%
Jizera Mountains	47	15.91	3.775	56.80%
Karlovy Vary Region	46	15.89	4.132	56.80%
Moravian Slovakia	25	15.80	4.000	56.40%
Lipno Region	22	15.64	2.718	55.80%
Giant Mountains	96	15.49	5.574	55.30%
Total	429	16.15	4.482	57.70%

Source: Own Elaboration

Table 6. H1. One-way ANOVA (Sustainability Level and Destination)

	Sum of Squares	df	Mean Square	F	Significance level
Between Groups	187.008	11	17.001	0.843	0.597
Within Groups	8410.838	417	20.170		
Total	8597.846	428			

Source: Own Elaboration

Based on the findings of the One-way ANOVA test conducted at a significance level of 0.05, it was determined that there are no statistically significant differences in sustainability practices across the destinations (Sig. = 0.597, 0.843). Nonetheless, an interesting observation emerged, indicating that facilities in Moravia, the eastern region of Czechia, show a tendency to prioritise the application of sustainable practices. Specifically, the Zlín-Luhačovice Region exhibited a 63% adoption rate, Central Moravia 62%, Pálava and the Lednice-Valtice Complex 61%, and the Beskid Mountains 60%. To gain a more comprehensive understanding of sustainability in the selected destinations, a further investigation was conducted to determine whether specific sustainable practices varied across destinations within each dimension.

H2. There are no significant differences in the different dimensions of sustainability practices adopted across various destinations.

To verify H2, a one-way ANOVA was conducted. The outcomes for the sustainable dimensions are presented in Table 7, providing insights into the proportion of sustainable practices adopted in each dimension by facilities in the selected destinations. For instance, accommodation facilities in the Beskid Mountains demonstrated the adoption of 68% sustainable practices within the waste dimension, 86% within the water dimension, and so on. The final two lines of the table present a summary of the one-way ANOVA results, showcasing the F-value and the significance level.

Table 7. Dimensions of Sustainable Practices Across Destinations (Share of Sustainable Practices Applied)

Destinations	Waste	Water	Energy	Destination and community	Nature
Beskid Mountains	68%	86%	46%	53%	49%
Brno and Environs	72%	88%	47%	38%	33%
Central Moravia	75%	86%	52%	47%	43%
Giant Mountains	69%	72%	43%	39%	46%
Jeseníky Mountains - West	72%	73%	43%	46%	49%
Jizera Mountains	72%	76%	45%	42%	39%
Karlovy Vary Region	73%	74%	44%	45%	36%
Lipno Region	83%	73%	37%	36%	30%
Moravian Slovakia	68%	81%	47%	37%	40%
Pálava and the Lednice-Valtice Complex	71%	85%	50%	46%	48%
Třeboň Region	80%	78%	41%	38%	33%
Zlín-Luhačovice Region	73%	88%	49%	51%	53%
Total	72%	78%	45%	43%	43%
F-value	0.927	2.319	1.243	0.810	2.270
Significance level	0.514	0.009	0.256	0.631	0.011

Source: Own Flaboration

In the realm of sustainable practices in various destinations, it is evident that most facilities prioritise water and waste dimensions, while energy, destination and community, and nature dimensions receive less attention. Furthermore, a comparative analysis reveals statistically significant differences (at the 0.05 significance level) in the realms of water and nature across selected destinations.

In the context of the water dimension, the study found that sustainable practices are predominantly applied in Brno and Environs (88%), Zlín-Luhačovice Region (88%), and Central Moravia (86%). Conversely, facilities in the Giant Mountains (72%), Lipno Region (73%), and Jeseníky Mountains - West (73%) demonstrate less frequent application of these practices.

In various tourist destinations, a study revealed varying degrees of implementation of sustainable practices within the nature dimension. The findings indicated that the percentage of facilities applying sustainable practices in the nature dimension ranged from 30% to 53%. Notably, the highest percentages of sustainable practices were observed in the Zlín-Luhačovice Region (53%), Jeseníky Mountains - West (49%), Beskid Mountains (49%), Pálava, and the Lednice-Valtice Complex (48%). Conversely, the facilities in Lipno Region (30%), Brno and Environs (33%), and Třeboň Region (33%) exhibited the lowest percentage of sustainable practices in the nature dimension.

Our subsequent procedure involved undertaking a comprehensive analysis of sustainable practices to assess potential variations in their implementation across different locations.

H3. There are no significant differences in the application of individual sustainability practices across different travel destinations.

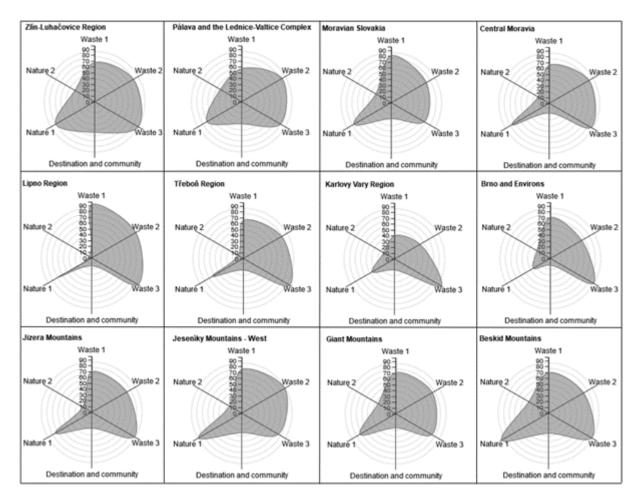
The Pearson Chi-square test was employed to assess the significance of the observed differences. The outcomes have been visually depicted in Figure 2 for comparative purposes. Each destination is represented by individual spider graphs, with significant sustainability practices indicated on the axes: Waste 1 = Avoidance of disposable plastic miniature bottles for shampoo, conditioner, and body lotion, Waste 2 = Provision of recycling bins for guests and recycling of waste, Waste 3 = Elimination of disposable plastic straws, Destination and Community = Allocation of a percentage of revenue towards community or sustainability projects, Nature 1 = Incorporation of green areas such as gardens or roof gardens on the

property, and Nature 2 = Emphasis on organic food provision. The graph exclusively encapsulates the noteworthy sustainable practices identified at a 0.05 significance level.

Detailed results for the third hypothesis are available in a supplementary table accompanying this paper. The table exclusively summarises the sustainable practices that demonstrated significance at the 0.05 significance level. Notably, all other sustainable practices did not exhibit statistical significance (with their significance levels exceeding 0.05). The table presents the distribution of facilities utilising sustainable practices within each region. Additionally, the final two lines show the data of the Chi-square test, including Pearson's Chi-square and the associated significance level.

Although the Chi-square test was performed on frequency data (individual practices were coded as binary variables, yes or no), Figure 2 and the supplementary table present the proportions of facilities utilising sustainable practices within each region for enhanced clarity and inter-regional comparison.

Figure 2. Share of Facilities within the Destination that Apply the Practice in which Differences were Proven to be Significant (in %)



Waste 1 = single-use plastic miniature shampoo, conditioner, and body wash bottles not used

Waste 2 = recycling bins available to guests, and waste is recycled

Waste 3 = single-use plastic straws not used

Destination and community = Invests a % of revenue back into community projects or sustainability projects

Nature 1 = green spaces such as gardens/ rooftop gardens on the property

Nature 2 = most food provided is organic

Source: Own Elaboration

In this study, it was observed that waste reduction practices varied significantly across different locations. Notable differences were identified, including the following:

• Facilities in the Lipno Region, Moravian Slovakia, and Jeseniky Mountain - west were the most likely to avoid using single-use plastic miniature shampoo, conditioner, and body wash bottles (Sig. <0.001).

- Facilities in the Lipno Region, Jeseníky-Mountain West, and the Pálava and the Lednice-Valtice complex were more likely to provide recycling bins to guests and recycle waste (Sig. 0.018).
- · Facilities in the Karlovy Vary Region, Lipno Region, and the Zlín-Luhačovice region were more likely to avoid using single-use plastic straws (Sig. 0.014).

The study revealed significant variations in the implementation of the "Invests a percentage of revenue back into community projects or sustainability projects" practice across different regions, with the Zlín-Luhačovice Region, the Pálava, and the Lednice-Valtice Complex showing the most notable application (Sig. 0.033).

Regarding the nature dimension, two statistically significant items were identified. The presence of "Green spaces such as gardens/rooftop gardens on the property" (Sig. < 0.001) was predominantly observed in facilities located in the Beskid Mountains, Jeseníky Mountains-West, and the Zlín-Luhačovce Region. Similarly, the implementation of "Most of the food provided is organic" (Sig. 0.014) was most prevalent in facilities situated in the Pálava and the Lednice-Valtice Complex, the Beskid Mountains, and the Zlín-Luhačovice Region.

5. Discussion

The most sustainable tourism destinations in the Czech Republic, in terms of sustainability of lodging facilities, are located in the Moravian part of the country (such as Zlín-Luhačovice Region, Central Moravia or Pálava and Lednice-Valtice Complex). All these destinations are characterised by active tourism and diverse landscapes, and smaller urban centres. These destinations are also known for their spa and enotourism offerings. The lodging facilities in these areas prioritise water conservation and waste management practices, as well as investments in local communities. In contrast, mountainous regions tend to focus more on nature protection, while cultural tourism destinations do not prioritise nature conservation.

According to Reid et al. (2017), urban hotels report the highest levels of sustainability. However, this study's findings differ from this perspective. Although the most sustainable destinations are partly urban, cultural and urban tourism are not typical for these areas. The results also differ from those of Artal-Tur et al. (2017), who emphasise cultural tourism as a key factor influencing sustainability.

The findings align more closely with those of Parte and Alberca (2021), who reported that rural tourism destinations in Spain generally exhibit higher levels of sustainability. The most sustainable destinations are partly focused on rural tourism (the mentioned Moravian part of the country).

The research emphasises the significance of incorporating sustainability principles into the design and operation of lodging facilities specific to each tourism destination. It is observed that facilities located nearby share similar sustainability priorities. Assessing sustainability levels across various types of tourism destinations is crucial for advocating responsible tourism practices, safeguarding natural and cultural heritage, and enhancing the overall competitiveness and appeal of diverse tourism destinations. Nonetheless, it is imperative to recognise the potential conflict between environmental sustainability and the tourism economy. While tourism can stimulate regional economies, it may also yield adverse environmental effects. Therefore, in addition to promoting destinations and increasing tourist inflows, tangible sustainability measures must be enforced to alleviate these negative impacts.

6. Conclusion

The paper presented three hypotheses about the extent of sustainability practices implemented across diverse travel destinations in the Czech Republic. The first hypothesis postulated that there were no statistically significant disparities in the overall level of sustainability practices among different destinations. This hypothesis was substantiated by a One-way ANOVA test at a significance level of 0.05. The Czech Republic's most sustainable locations feature active tourism and varied landscapes, along with smaller urban areas. Additionally, these places are recognised for their spa services and enotourism activities.

The second hypothesis suggested that there were no notable differences in the various dimensions of sustainability practices adopted across different destinations. However, a one-way ANOVA analysis confirmed statistically significant differences (at the 0.05 significance level) within the water and nature dimensions across the selected destinations. Facilities in destinations primarily focused on cultural tourism tended to prioritise water dimension practices, while facilities in mountain destinations exhibited less frequent application of water dimension practices. Additional variations were observed within the nature dimension, with the highest percentage of nature sustainability practices identified in Zlín-Luhačovice Region, Jeseníky Mountains - West, Beskid Mountains, Pálava, and the Lednice-Valtice Complex. These destinations are distinguished by their natural diversity and treasures. However, the authors did not discern any distinct common characteristic that definitively confirmed the prioritisation of nature sustainability practices in destinations with natural heritage. In general, nature sustainability practices tend to be less visible in urban areas.

The third hypothesis posited that there were no significant differences in applying individual sustainability practices across different travel destinations. However, this hypothesis was not confirmed, and statistically significant differences were found in the dimensions of waste reduction practices, destination and community, and nature protection. Specifically, significant differences were found in the usage of single-use plastic miniature shampoo, conditioner, and body wash bottles in hotel rooms, in the availability of recycling bins, in the usage of single-use plastic straws, investments into community or sustainability projects, green spaces such as gardens or rooftop gardens on the property, and the organic origin of most food provided. The statement "Most food provided is organic" was identified as the least popular practice.

The findings of this study have significant theoretical and practical implications for understanding and managing sustainability practices in various travel destinations in the Central European context. The theoretical contributions lie in the research's unique conceptual model. Up to this point, no similar analysis of different sustainability practices in tourism destinations has been performed before.

Practically, these findings highlight the need for destination-specific sustainability strategies tailored to the unique characteristics and priorities of each location. Destination managers and policymakers can leverage this information to develop targeted intervention programs aimed at addressing identified gaps and disparities in sustainability implementation. Additionally, collaborative efforts among stakeholders within and across destinations are essential for sharing best practices and advancing sustainability agendas collectively.

This study has certain limitations that should be acknowledged. First, the research focuses exclusively on travel destinations in the Czech Republic, which may limit the generalizability of the findings to other regions. Furthermore, the study relies on data from the Booking.com platform, which is self-reported by accommodation providers, potentially introducing a degree of reporting bias. Lastly, as a cross-sectional analysis, this study does not capture long-term developments in sustainability practices over time. Future research should address these limitations by expanding the geographical scope, incorporating data over a longer time horizon, and integrating additional qualitative insights to achieve a more comprehensive understanding of sustainability practices in tourism destinations.

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ANNEX

Significant sustainability practices across destinations: share of facilities within the destination that apply the practice (in %)

	Waste [Single-use plastic miniature shampoo, conditioner, and body wash bottles not used]		plastic straws	Destination and community [Invests a % of revenue back into community projects or sustainability projects]	Nature [Green spaces such as gardens/ rooftop gardens on the property]	Nature [Most food provided is organic]
Beskid Mountains	72	72	88	36	96	40
Brno and Environs	73	65	88	12	35	27
Central Moravia	68	82	86	18	77	23
Giant Mountains	73	75	74	25	73	36
Jeseníky Mountains - West	78	88	75	35	88	25
Jizera Mountains	72	72	87	28	74	19
Karlovy Vary Region	41	52	96	20	46	22
Lipno Region	95	91	95	14	68	5
Moravian Slovakia	84	72	68	28	76	32
Pálava and the Lednice-Valtice Complex	59	83	80	39	71	44
Třeboň Region	68	79	95	21	63	11
Zlín-Luhačovice Region	70	80	90	55	80	40
Pearson Chi- Square	31.331	23.015	23.726	21.004	45.926	23.624
Significance level	< 0.001	0.018	0.014	0.033	< 0.001	0.014

Notes:

Light grey = the three highest values Dark grey = the three lowest values Source: Own Elaboration