Assessing sustainable practices and managerial approaches in the hotel industry: A comparative case study

Jitka Vávrová1, Lenka Červová2, Blanka Brandová3, Jorge Pacheco4

Abstract

PURPOSE: The study is comparative, comparing sustainable practices and approaches in two hotels to better understand different management approaches. The study's design provides valuable insights into the topic of sustainability practices in the hotel industry, and the results are analyzed and discussed in the context of existing academic knowledge on the issue.

METHODOLOGY: The goal of the selection process was to find information-rich cases. After conducting initial online research, two four-star hotels in the same regional capital city in the Czech Republic were intentionally chosen. These hotels are direct competitors and have very similar target customers. To collect data, the authors conducted two separate semi-structured, in-depth interviews with the CEOs of both hotels, as well as observations in both establishments and additional interviews with staff. The interview protocol, which is innovative and newly assembled, was added to ensure the case study's reliability and enable future comparisons. A comprehensive criterion table methodically presents the research outcomes.

FINDINGS: Besides the list of sustainability practices applied in the hotels under study, the authors described two distinct management approaches. The first approach takes a broad perspective, considering all aspects of sustainability and incorporating it as a fundamental part of the company's vision. In contrast, the second approach focuses narrowly on cost savings and profit generation. The form of business is the critical factor responsible for the difference in managerial approach. Interestingly, the study suggested that hotels belonging to large chains (and stock companies) may be more compelled to adopt sustainability practices and may have more established sustainability programs than independent hotels.

IMPLICATIONS: In light of previous literature, the findings of this case study provide valuable theoretical contributions to managerial approaches to sustainability programs, sustainability reporting, transparency, and more. Additionally, the newly assembled interview protocol is an innovative and important foundation for future research. The study also uncovers significant new barriers to the adoption of sustainability practices. From a managerial perspective, this study offers a comprehensive overview of hotels' sustainability practices and serves as a practical list of potential sustainable practices for hotels to consider. Finally, the conclusion provides suggestions for future research that can further advance sustainable practices in the hotel industry.

ORIGINALITY AND VALUE: The study's significance stems from a thorough analysis of prior literature and conducting additional research in a new setting, providing a unique perspective on the topic of hotel sustainability within a specific area. The case study approach allowed for an in-depth examination of the selected cases, with attention to detail. The methodology and public interview protocol offer the potential for comparable studies in other regions to be conducted and compared in the future.

Keywords: sustainability, sustainable development, practices, hotel industry, hospitality industry, tourism, management

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INTRODUCTION

In recent years, tourism has emerged as a vital contributor to the global economy, accounting for an estimated 10.5% of the world’s GDP (Travel W.T.T.C., 2018). The industry’s sustained growth and commitment to sustainable practices can enhance a country’s economic and social well-being, as noted by Robin et al. (2017). While the COVID-19 pandemic has profoundly impacted the sector, leading to a decline in tourist arrivals, there are encouraging signs of a gradual recovery in the post-pandemic era (Oxenswärdh, 2022).

Given the growing concern for the environmental impact of hotels (Adams et al., 2022), it is crucial to explore this issue further. Hotels, with their continuous operation, significantly contribute to the release of greenhouse gases, resulting in harmful effects on the atmosphere and environment (Al-Juboori et al., 2020). According to the United Nations World Tourism Organization (2012), tourism generates over 35 million tons of solid waste annually (World Tourism Organization, 2012). The tourism industry places pressure on land and water resources, emits greenhouse gases, disrupts wildlife, and poses challenges to biodiversity (Hall, 2010).

In their insightful and comprehensive work on sustainability research within the hotel industry, Kim, Barber, and Kim (2019) highlighted the critical need to analyze sustainable development practices of hotels in future research. A total of 35 articles emphasized this particular need.

The sustainability of a hotel is strongly linked to its organizational stability. In 2002, Min, Min, and Chung argued that various factors, such as tourism policies implemented by governments, the state of the global economy, and even weather conditions, can consistently impact the stability of the hotel industry. The hotel industry is highly dynamic, so numerous internal and external factors can significantly influence its operations. Additionally, since the hotel industry strongly emphasizes customer satisfaction and consumes a significant amount of resources, it is highly responsive to both anticipated and unanticipated shifts in the market and environmental conditions (Lu & Nepal, 2009). Therefore, to achieve maximum sustainability, it is crucial to analyze and further develop this concept in the hotel industry, monitor new technologies and practices, and identify proven managerial concepts.

The primary objective of this paper is to evaluate the adoption of sustainable practices in two particular hotels, comparing their management strategies with existing academic research in the field. This aim is entirely in accordance with the purpose of this research – to deeply explore realistic situations of one or two cases (hotels) in the industry and, therefore, gain exact knowledge about sustainability practices adoption. The study itself is exploratory in nature, so no hypotheses were formulated; instead, three research questions were posed. To facilitate data comparison, we intentionally selected two direct competitors, both four-star hotels situated in a regional capital city in the Czech Republic, both of which actively engage in sustainable practices but hold differing views on the matter. The chosen research framework and its rationale are discussed in greater detail in the literature review, which also outlines research gaps that this study aims to address. Finally, the methodology section describes the research approach and how data was collected. The results section presents an overview of the sustainable practices implemented by both hotels in a comprehensive table, followed by a detailed discussion of the most significant practices and interesting findings. These findings are then analyzed in the context of existing academic knowledge in this area.

LITERATURE REVIEW

The literature review deals with the origin and essence of the sustainability concept. Building upon this theoretical foundation, it expounds on scientifically substantiated environmental, economic, and social practices within the hotel industry. Towards the end of this chapter, we identify challenges that require further research, which in turn, serve as a foundation for our research questions outlined in the concluding section of this chapter.

Sustainability concept

Sustainable development, as defined by the United Nations Brundtland Commission in 1987, aims to fulfill the needs of the present generation without compromising the ability of future generations to meet their own needs. While this basic definition is widely accepted, other perspectives exist on what constitutes sustainable development. Roper (2012) views it as an approach that prioritizes the natural environment and society over economic concerns. Another perspective is the stakeholder theory, which posits that organizations must satisfy the demands of multiple stakeholders to achieve strong
sustainability and avoid damage to their sustainability (Garvare & Johansson, 2010). These stakeholders may include employees, suppliers, local communities, shareholders, customers, and others (Harrison, Phillips & Freeman, 2020). In the hotel industry, stakeholders have expressed concerns about hotels' social, economic, and environmental impacts on society, regions, and overall well-being, both locally and globally (Barakagira & Paapa, 2023).

There are ongoing efforts to establish a sustainability evaluation system, with the Global Reporting Initiatives (GRI) setting global standards for sustainability reporting. GRI identifies three dimensions of sustainability – economic, social, and environmental. The economic dimension focuses on a company's impact on the economic needs of its stakeholders and on economic systems at local, national, and global levels, with attention paid to economic performance, market presence, indirect economic impacts, taxes, anti-corruption, anti-competitive behavior, and procurement practices. The social dimension considers a company's effects on the social systems in which it operates, while the environmental dimension looks at the effects of a company's activities on natural systems. The Global Sustainable Tourism Council (GSTC, 2023) has also created criteria for tourism sustainability, with four pillars – sustainable management, socioeconomic impacts, cultural impacts, and environmental impacts – used to certify businesses and destinations that meet these standards.

The concept of sustainability in the hotel industry involves implementing practices that consider economic, social, and environmental impacts. The goal is to minimize any negative effect on the environment and society while maintaining economic viability (Boronat-Navarro & Pérez-Aranda, 2020). Sustainable hotels also prioritize corporate social responsibility and strive to achieve Sustainable Development Goals (Choy et al., 2021). Research on sustainability practices in the hotel industry has found that not only do these practices help cut costs and boost profitability, but they can also lead to increased revenue thanks to the positive reputation they earn among customers (Yenidogan et al., 2021).

**Sustainability practices in the hotel industry: Environmental pillar**

Environmental practices are a critical concern for many authors. Academic literature outlines various methods, including purchasing eco-friendly products, using environmentally safe cleaning agents, conserving energy and water, and managing solid waste selectively (Modica et al., 2020). Previous research on renewable energy innovations in hotels indicates that adoption rates are low, though present (Silva, 2022). However, it is worth noting that Silva's study only examined hotels in Portugal, so the applicability of the findings beyond that region may be limited. According to Kasim et al. (2014), several factors impact a hotel's water consumption, such as the age, efficiency, and configuration of the infrastructure, the number of water usage devices, and guest and employee practices. Overnight stays sold, meals served, and laundry washed internally are additional contributing factors. Hotel activities like garden maintenance, room cleaning, laundry, pool maintenance, kitchen operations, and excessive guest water usage can all lead to higher water consumption. Hotels can install low-consumption taps and showers throughout the facility to conserve water and address existing water leaks.

Hotels are known to be among the most energy-intensive organizations, as they operate 24 hours daily. The literature shows that cooling systems, lighting, and water heating are the main factors influencing hotel energy consumption. Since energy consumption is closely tied to greenhouse gas emissions, implementing energy-efficient strategies during hotel operations can not only reduce costs but also significantly decrease greenhouse gas emissions (Huang et al., 2015). Furthermore, it has been demonstrated that hotels that adopt sustainable practices in water, energy, and waste management tend to have better profitability scores than others (Zaki & Qoura, 2019). However, it is worth noting that this hypothesis was only tested on Egyptian hotels.

**Sustainability practices in the hotel industry: Economic pillar**

According to a study by Bartoluci et al. (2014) on tourism development in Croatia, achieving economic sustainability is crucial. Choi and Sirakaya (2006) also emphasized the importance of economic feasibility and sustainability in tourism, which involves carefully managing the pace of development while respecting the destination's environmental limits. Leakage calculation is another way to measure economic sustainability in the hotel industry, as shown in the example of Garrigós-Simón et al. (2015), which analyses the revenue generated by tourists that does not remain in the destination economy.

**Sustainability practices in the hotel industry: Social pillar**

Bogren and Sörensson's (2021) study highlights the lack of attention paid to the social aspect of sustainability. However, it is essential to note that their research was qualitative and limited to Sweden, thus causal statements cannot be made.
The authors suggest that companies are improving employee well-being through internal investments, which aligns with recent research in the tourism industry, demonstrating the positive impact of employee care on loyalty, performance, and economic growth (Abdelazimahmed et al., 2022). Hotels can also engage in various social sustainability practices, such as promoting diversity, providing a work–life balance, offering training and development, upholding human rights, ensuring customer safety, connecting with local communities, and making charitable donations, as outlined by Jones et al. (2014).

Challenges for additional research

Several authors have identified the need for further research on hotels' sustainability practices, including their approaches and practical managerial implementation. Pereira et al. (2021) recommend exploring sustainability practices in other hotels to compare results and collect data from different regions. Duric and Topler (2021) suggest researching barriers to sustainability, such as a lack of environmental awareness, finances, and incentives, and investigating hotel sustainability reporting. Then, Floričić (2020) highlights the need for more information on the costs and barriers to implementing technical solutions that improve a hotel's environmental sustainability. Dos Santos et al. (2017) emphasise the importance of developing a management framework that considers all sustainability dimensions, stakeholder interests, and community engagement. Finally, Abdou et al. (2020) call for addressing the obstacles and difficulties that small and medium-sized hotel properties may face in pursuing sustainable development.

As noted by Oxenswärdh (2022), the efforts towards sustainability in the hotel industry have fallen short of expectations. This is primarily due to a lack of understanding, green-washing, poor engagement, and pandemic-induced financial setbacks. To improve upon this, it is crucial for managers to have a thorough grasp of sustainability practices and the ability to communicate and implement them within their hotels effectively. Moving forward, we hope this study's findings will prove valuable to future hotel managers operating within a Middle-European context, specifically in the Czech Republic.

Despite the challenges of high initial costs and slow returns, implementing sustainable practices is crucial for achieving complete adoption of sustainability. Interestingly, research shows that hotels that incorporate sustainable measures into their operations tend to have lower operational expenses than those that do not (Adams et al., 2022). The industry can benefit significantly from academic research that helps answer important questions and address existing research gaps: (1) what does sustainability look like in hotels, particularly in unexplored regions? (2) how are hotel managers implementing sustainability programs? (3) what components and procedures comprise these systems? (4) what challenges do managers encounter in achieving sustainability, and how can these obstacles be overcome? Our study aims to provide insights into these inquiries through a defined set of research questions outlined in the methodology section.

This paper aims to evaluate the adoption of sustainable practices in two selected hotels, analyze their management strategies in relation to this concept, and find existing barriers to adopting sustainability practices. By reviewing and interpreting the results in the context of earlier studies, this research brings valuable theoretical insights. Therefore, three research questions (RQs) were settled:

RQ1: What are the current and future sustainable practices adopted by the selected hotels?
RQ2: What is the management approach in these hotels towards the sustainability pillar?
RQ3: What barriers do these managers encounter while striving to establish sustainable businesses?

METHODOLOGY

A qualitative research design is utilized in this empirical investigation, employing a case study methodology. Using case studies enables a deep engagement with the context and offers extensive insights into a phenomenon (Rashid et al., 2019). As such, it is an appropriate methodological principle for various disciplines, including social science research, environmental issues, and business studies. Franklin and Blyton (2011) even recommend utilizing a case study methodology for research on sustainability topics. Therefore, it is an appropriate methodology for sustainability practices in the hotel industry. The case study was chosen as the most appropriate research method since, despite the availability of data on implemented sustainability measures on publicly available sources such as hotel websites and Booking.com, their practical implementation often lags behind, being either insufficient or completely absent. The case study will enable an assessment of the actual extent of implemented sustainable practices.
The authors acknowledge that case studies have limitations in capturing the complete reality of the world, but they can provide valuable insights into it, acting like a window. Perry (1998) suggests that such insights can be further compared to other case studies. For instance, Pereira et al. (2021) conducted a case study that shares similarities with the research design of this paper, allowing for potential comparisons and discussions. As an exploratory case study, the authors refrain from making quantitative causal statements, as advised by Lindgreen et al. (2021).

**Cases selection**

The objective of the selection process was to identify hotels that offer rich information for the study. To achieve this, we employed a purposive sampling technique, which involved conducting online research to pre-select two four-star hotels in one regional capital city in the Czech Republic. These hotels were specifically chosen due to their evident commitment to sustainability and because they are direct competitors with similar target customers. We can provide a fair and unbiased comparison of their business practices by anonymizing them. This approach allows for valuable insights into various approaches to sustainable business management.

The Czech Republic, located in central Europe, is a beloved destination for travelers seeking to immerse themselves in rich history, stunning architecture, charming towns, and cultural treasures. Over the years, tourism in the Czech Republic has grown steadily, with an increasing number of foreign visitors coming to the country each year. In 2019, the country welcomed around 10.9 million international arrivals. However, due to the pandemic, this number has dropped significantly to 2.8 million in 2020 and 2.6 million in 2021. Most tourists visiting the Czech Republic come from neighboring European countries, such as Germany, Slovakia, Poland, and Austria (Statista, 2023). Thanks to its well-developed tourism infrastructure, the Czech Republic offers visitors a range of accommodation options, transportation networks, and tourist services, including luxurious hotels, budget-friendly accommodations, and traditional guesthouses.

From 2014 to 2019, the Czech economy experienced an average steady growth rate of 3.6% per year. However, the COVID-19 pandemic caused a decline in GDP (-5.5%) in 2020, which had a negative impact on the Czech economy. Despite the government’s efforts to provide subsidies for businesses and launch programs to maintain employment, implementing COVID-19-related restrictions and closures in some sectors resulted in decreased economic growth and increased unemployment. Nevertheless, economic growth is expected to resume and has been ongoing since 2021. The Czech economy relies on critical sectors such as automotive, electronics, engineering, information technology, and services. The Czech Republic has relatively low unemployment rates compared to other EU countries due to its stable economic situation. As such, it serves as an appropriate example for case studies. The hotels that have been chosen are situated in a region that is known for its economic development. The primary industries in this area are machinery and electrical engineering, which manufacture a wide range of machines, equipment, and electronic components for various sectors. Nonetheless, tourism also plays a significant role in the region’s economy. The mountains and surrounding countryside attract visitors who enjoy active recreation, skiing, or sightseeing.

The authors carefully chose hotels that directly compete with each other and cater to a similar group of customers – business travelers. These hotels are located in a regional capital city that is known for being a popular business destination. As the selected hotels share the same target customers, the authors assumed that their sustainability strategies would likely be similar in a traditional business environment. However, the authors acknowledge that there may be differences in their approaches. The interview questions aim to uncover and describe the subtle nuances in sustainability strategies to address these potential differences. This approach enhances the depth of analysis and interpretation.

**Data collection techniques**

To gain a comprehensive understanding of sustainability practices in both hotels, the authors conducted individual semi-structured, in-depth interviews with the CEOs. The CEOs were intentionally selected as the key decision-makers in each hotel. These interviews were conducted on May 16, 2023, and lasted approximately 2 hours each. One researcher recorded the responses, while the second cross-checked the recordings for accuracy.

To complement these interviews, the authors also conducted direct observations in the hotels and random interviews with staff. These random interviews were conducted during direct observation in various areas of the hotels, such as the reception hall, restaurant, conference hall, and guest rooms. These interviews had no predetermined structure and were conducted to provide additional unclear or missing information. Additionally, the authors searched hotel websites and public registers for information to capture multiple perspectives on sustainability practices. The staff interviews provided...
valuable insights into practices, while the direct observations allowed seeking actual behaviors and practices in action. By using this multi-method approach, the authors were able to increase the validity and reliability of their findings and gain a more comprehensive understanding of sustainability practices in the hotel industry.

**Instruments and protocols**

According to Lindgreen et al. (2021), conducting face-to-face interviews is the most effective method for gathering data for case studies. The CEO interview protocol was carefully prepared based on current literature, similar case studies, and preliminary discussions with hotel managers to ensure that the CEO interview protocol captures relevant information.

The protocol consists of six parts:

1) Management attitudes towards hotel sustainability and the whole process.
2) Current barriers to sustainability practices implementation.
3) Future development in reaching sustainability.
4) Economic pillar practices.
5) Social pillar practices.
6) Environmental pillar practices: (a) Energy consumption, (b) Waste management, (c) Water consumption, (d) Building and heating, (e) Laundry and washing, cleaning, (f) Plastics.

To ensure accuracy and avoid misinterpretation of information, both managers were given an opportunity to provide feedback, which has been incorporated into the final findings. The interview protocol has been included in the Appendix to enhance the reliability of the case study and enable comparison with others. During direct observations, random interviews with staff were conducted without established protocols. Authors asked operationally-based questions to clarify or supplement the information obtained from the CEO or during observation.

**Data analysis and interpretation**

The data analysis process required manual procedures, including the transcription and summarization of interviews and direct observations. This was followed by the categorization and thematic analysis of the data using inductive codes. Using inductive coding, patterns and themes were identified directly from the data, which aligned with the study’s exploratory nature. This method facilitated the identification of critical themes and relevant aspects pertaining to the research objective. The manual analysis using inductive codes is a common practice in case studies and enables the interpretation of results.

**RESULTS**

**Management attitudes to the sustainability concept**

While there are some similarities between Hotel X and Hotel Y, there are notable differences in their approaches to sustainability. Hotel X places a strong emphasis on the responsible use of resources such as water, energy, and human capital, while Hotel Y prioritises sustainable economic growth and cost savings. While both hotels tackle all pillars of sustainability, only Hotel X recognizes the interconnectedness of these pillars. The authors suggest that these differences may be attributed to the hotels’ business structures and personal opinions about sustainability. Hotel X’s CEO, for example, is influenced by the chain managers and their comprehensive policy on sustainability, which allows for a broader perspective on the topic. Furthermore, Hotel X is more efficient in sustainability reporting due to its chain’s policies, although both hotels are still developing in this area. Interestingly, neither manager was aware of the GSTC Criteria, indicating a potential opportunity for future integration of sustainability reporting into the accounting information system (Al-Wattar et al., 2019). The authors propose that such an integration could lead to improved transparency, better stakeholder satisfaction, and enhanced financial performance.

Our study indicates that being a part of a large hotel chain has several advantages, including the opportunity to work towards future sustainability goals. Hotel X is motivated to actively pursue sustainability as set by the chain. The authors believe that being a stock company creates a pushing effect toward achieving a higher level of sustainability and caring for more stakeholders in the future. The manager of Hotel X reported that the entire hotel chain has a common
sustainability program they must follow. However, it is essential to note that the manager’s approach towards sustainability also influences the hotel’s attitude. According to the manager of Hotel X, the team believes that sustainability makes sense, and it is an idea they want to follow.

From Hotel Y, a distinct view emerged. As the establishment is privately owned, the approach to sustainability is limited to a singular perspective. The hotel’s relationships with stakeholders are not extensively developed, and sustainability is viewed primarily as a means of achieving long-term cost savings and stable economic growth. Nevertheless, during the interview, it was apparent that the manager of Hotel Y is passionate about the hotel’s green management and its commitment to the environmental pillar.

**Economic pillar**

Within the economic pillar, transparency proved to be the defining factor that distinguished the hotels. Being a publicly traded company, Hotel X has a noteworthy commitment to financial transparency, with readily accessible reports and a willingness to share data. Hotel Y exhibited a notable lack of financial transparency, with an unclear ownership structure and a refusal to publish financial statements in accordance with Czech Republic law. According to the manager, this intentional secrecy prevents competitors from accessing sensitive information.

In terms of economic sustainability, both hotels share similar managerial approaches. Both prioritize local suppliers, including farms, organic vegetables, and bio-meats. Hotel X further promotes sustainability by addressing suppliers’ attitudes towards green concepts and packaging-free trade. Meanwhile, Hotel Y selects food suppliers based solely on quality requirements.

**Social pillar**

Both hotels prioritize sustainability efforts, particularly in the social pillar. They invest heavily in their employees, offering education, training, and many benefits. Notably, both hotels have a diverse workforce, with women comprising at least fifty percent of managerial positions. Additionally, both hotels make an effort to employ disadvantaged groups, such as seniors, refugees, and people with disabilities. However, a gap was identified in both hotels’ code of ethics implementation. Furthermore, the managers of Hotel X and Hotel Y differ in their approach to staff turnover. While the manager of Hotel X values and invests in long-term employees, the manager of Hotel Y views high turnover as an industry norm and does not prioritize improving it.

Both hotels are actively engaged in philanthropy and supporting their local communities. Their efforts include donations towards causes such as “sad fates” and children’s sports clubs. Moreover, Hotel X has created a platform for local artists to showcase their work through art exhibitions. Both hotels also extend their support to cultural artists and theatre actors. Given the long-term perspective of these activities, it is evident that the social pillar of both hotels is thriving and successful.

**Environmental pillar**

One of the biggest obstacles to achieving optimal environmental sustainability in the hotels is the limitations posed by the buildings themselves. Both hotels are situated in historical structures, with Hotel X being a protected monument under local authorities. Consequently, the insulation within both hotels is somewhat restricted. However, as Hotel Y has undergone renovation more recently than Hotel X, it boasts better insulation and employs more advanced energy-saving technologies.

Both hotels have implemented effective strategies for conserving electricity. Guest rooms are equipped with energy-saving measures that only activate when the room is occupied. Additionally, both hotels offer charging stations for electric cars and have tried to transition their company vehicles to electric models. While Hotel Y encountered challenges in this endeavor, Hotel X is successfully converting their fleet. Both hotels prioritise energy conservation, but only Hotel X has a comprehensive carbon footprint reduction programme due to their hotel chain policy.

Regarding waste management, both hotels employ a similar strategy. Waste sorting bins are conveniently placed in each floor’s lobby and communal areas. However, the challenge arises in waste sorting within hotel rooms. Guests cannot sort their waste in their rooms; instead, they rely on housekeeping workers to sort the trash. The authors suggest that this practice may lead to potential errors in waste sorting and recommend exploring methods to enhance this process in the future.
Both hotels are responsible for managing their water consumption but face a challenge in implementing rainwater usage due to limitations posed by historical buildings. While they try to minimize laundry volume by reducing towel and bed sheet changes, the hotels still cater to guests who expect daily towel changes and cleaning as part of their four-star experience, impacting water and energy consumption on a larger scale.

Another benefit of prioritizing environmental protection is that the hotels have eliminated using small plastic bottles for guests’ bathroom amenities. Instead, they have successfully implemented large dispensers. Furthermore, both hotels have opted for organic and eco-friendly cosmetic products. Hotel X goes a step further by sourcing these products from a national supplier.

A more complex scenario arises when considering using eco-friendly detergents in laundry washing, as both hotels have partially outsourced their laundry management. This makes it difficult to exercise full control over the detergents used. Hotel Y has previously attempted to switch to environmentally friendly alternatives but encountered issues with washing failure resulting in clothes not being cleaned properly. Currently, both hotels are working to find a solution to this problem.

During the interview and observation process, it was discovered that the attitude and demands of hotel guests could be a significant factor in achieving sustainability. The managers noted that guests at four-star hotels are not accustomed to conserving resources during their stay. Due to specific requests, such as daily room cleaning or towel replacement, hotel staff must work harder to meet their needs. Despite these challenges, both hotels are encouraging behaviour change among guests. For instance, they provide cards displaying the amount of water used during a 15-minute shower. However, it remains unclear whether these stimulus measures impact guests’ behavior.

Based on a literature review and interviews, we developed criteria for hotels and compared their different approaches in Table 1.

**Table 1. Comparison of sustainability practices**

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Hotel X****</th>
<th>Hotel Y****</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business form</td>
<td>Part of a large hotel chain (stock company)</td>
<td>Part of a small independent hotel chain (5 hotels, one owner, limited liability company)</td>
</tr>
<tr>
<td>Management attitudes to the sustainability concept</td>
<td>Middle (corporate sustainability program launched in 2020)</td>
<td>Middle (focus on single practices, not a complete concept)</td>
</tr>
<tr>
<td>The reached level of sustainability</td>
<td>Internal (staff magazine), external (online); direct verbal and non-verbal communication towards customers, but only separate activities</td>
<td>None; the manager does not see any reason why to communicate or report</td>
</tr>
<tr>
<td>Communication of sustainability practices</td>
<td>Saved sources, satisfied employees, and customers coming back; The competitive advantage rather towards business partners than towards customers</td>
<td>Economic growth and savings in energy, gas, and water consumption</td>
</tr>
<tr>
<td>Motivational values for sustainability practice implementation</td>
<td>Just environmental measures (focus on savings)</td>
<td>Only for internal needs (focus on savings)</td>
</tr>
<tr>
<td>Sustainability reporting</td>
<td>Planned: ISO 50001 and ISO 14001</td>
<td>None (due to economic irreversibility)</td>
</tr>
<tr>
<td>Future goals</td>
<td>By 2024: use only electricity from renewable sources; By 2030: reduce the company's greenhouse gas emissions by 32.4%, water consumption by 10%</td>
<td>Partial objectives (bio cosmetics, refills, 100% recyclable packaging)</td>
</tr>
<tr>
<td>Certification</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Limitations</td>
<td>Historical building limits environmental measures</td>
<td>Historical building partially limits environmental measures</td>
</tr>
</tbody>
</table>

**Economic pillar**

| Governance programme | None | None |
| Fair economic competition | Yes, not aware of any violation (not even by competitors) | Yes |
| Integrity principal | High | Medium |
| The level of transparency | High (part of a hotel group, impossible non-transparency) | Very low (not even compulsory financial reporting, unclear ownership structure) |
### Management attitudes to the sustainability concept

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Hotel X****</th>
<th>Hotel Y****</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Purchasing policy</strong></td>
<td>The preference of local suppliers and suppliers with a sustainable policy</td>
<td>The preference of local/national suppliers with quality products focuses on product quality, not the supplier’s sustainability policy</td>
</tr>
<tr>
<td><strong>Social pillar</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Benefits for employees</td>
<td>Yes (internal system – sports and leisure activities, insurance contribution, stays at a reduced price even at partner hotels)</td>
<td>Yes (internal system – sports and leisure activities, stays at a reduced price even at partner hotels)</td>
</tr>
<tr>
<td>Diversity attitude</td>
<td>Open (employment of seniors, minorities, disabled people, both genders, support of working mothers)</td>
<td>Open (employment of seniors, minorities, disabled people, both genders, support of working mothers)</td>
</tr>
<tr>
<td>Staff education</td>
<td>Yes (own educational academy, other courses, first aid courses)</td>
<td>Yes (own educational academy)</td>
</tr>
<tr>
<td>Staff turnover</td>
<td>Low (due to satisfied employees)</td>
<td>High (manager sees it as a fact in the hotel industry)</td>
</tr>
<tr>
<td>Ethical code</td>
<td>Not available</td>
<td>Not available</td>
</tr>
<tr>
<td>Local community support</td>
<td>Yes (e.g., support of local artists, festivals, donation of young sportspeople)</td>
<td>Yes (support of musicians and theatre artists in the form of a free stay in the hotel)</td>
</tr>
<tr>
<td>Local companies support</td>
<td>Yes (e.g., cooperation with cultural and other leisure entities – promotion, ticket, sales, etc.)</td>
<td>Yes (e.g., support of local cultural facilities and their performers)</td>
</tr>
<tr>
<td>Charity, donations</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

### Environmental Pillar

#### I. Energy

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<thead>
<tr>
<th>Criteria</th>
<th>Hotel X****</th>
<th>Hotel Y****</th>
</tr>
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<tbody>
<tr>
<td>Energy mix</td>
<td>100% electricity from the regular network, no individual renewable sources of electricity now, but planning solar panels in the future if the historical building allows it</td>
<td>100% electricity from the regular network, no individual renewable sources of electricity now</td>
</tr>
<tr>
<td>Reducing energy consumption</td>
<td>Card system in rooms, LED</td>
<td>Smart systems in rooms based on motion sensors</td>
</tr>
<tr>
<td>The type of company cars</td>
<td>CNG-powered cars, new cars, only electric cars</td>
<td>Diesel cars with low consumption, in the past, there was an unsuccessful attempt to have electric cars (issues with arrival reach)</td>
</tr>
<tr>
<td>Charging station for electric cars</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Internal energy-saving programme</td>
<td>Yes</td>
<td>None</td>
</tr>
</tbody>
</table>

#### II. Waste management

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Hotel X****</th>
<th>Hotel Y****</th>
</tr>
</thead>
<tbody>
<tr>
<td>General principles of waste management</td>
<td>The elimination of unnecessary printouts (only electronic if possible)</td>
<td>Efforts to maximize waste sorting, elimination of unnecessary printouts</td>
</tr>
<tr>
<td>Recycling or upcycling programs</td>
<td>Developed and used</td>
<td>Developed and used</td>
</tr>
<tr>
<td>The availability of bins for sorted waste</td>
<td>Lobby and each floor, not in the rooms</td>
<td>Lobby and each floor, not in the rooms</td>
</tr>
</tbody>
</table>

#### III. Water consumption

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Hotel X****</th>
<th>Hotel Y****</th>
</tr>
</thead>
<tbody>
<tr>
<td>The quality of water</td>
<td>Water supply line, excellent quality of local water</td>
<td>Water supply line, great quality of local water</td>
</tr>
<tr>
<td>Rainwater use</td>
<td>None (impossible due to the building construction)</td>
<td>None (impossible due to the building construction)</td>
</tr>
<tr>
<td>Water-saving taps, showers, and toilets</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>The change of towels</td>
<td>On request</td>
<td>Once every three days or on request</td>
</tr>
<tr>
<td>Tap water in restaurants</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

#### IV. Building and heating

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Hotel X****</th>
<th>Hotel Y****</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heat recovery system</td>
<td>None</td>
<td>Yes</td>
</tr>
<tr>
<td>Criteria</td>
<td>Hotel X****</td>
<td>Hotel Y****</td>
</tr>
<tr>
<td>----------</td>
<td>-------------</td>
<td>-------------</td>
</tr>
<tr>
<td><strong>Management attitudes to the sustainability concept</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Building insulation</td>
<td>None (impossible due to the historical building construction, only double windows; planned roof insulation)</td>
<td>Yes</td>
</tr>
<tr>
<td>Heating sources</td>
<td>Gas heating</td>
<td>Combined (gas heating + electricity)</td>
</tr>
<tr>
<td><strong>V. Laundry and washing, cleaning</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Room cleaning</td>
<td>After every second night</td>
<td>Once every three days or on request</td>
</tr>
<tr>
<td>Laundry management</td>
<td>External company</td>
<td>External company and partly internal laundry</td>
</tr>
<tr>
<td>Soaps and shampoos in rooms</td>
<td>Large dispensers</td>
<td>Large dispensers</td>
</tr>
<tr>
<td>Environmentally friendly washing and cleaning products</td>
<td>No</td>
<td>No (due to low effect in quality)</td>
</tr>
<tr>
<td><strong>VI. Plastics</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The occurrence of disposable plastics</td>
<td>No</td>
<td>Plastic bottles in-room minibars (the usage of glass bottles would destroy the furniture)</td>
</tr>
</tbody>
</table>

**Identified barriers to sustainability practices implementation**

In conclusion, we have identified several barriers to implementing sustainability practices:

- economic irreversibility, particularly if a hotel sees sustainability as solely a cost-saving or economic growth tool;
- historical buildings can hinder environmental advancements such as improving heat insulation and collecting rainwater;
- lack of arrival reach for electric company cars, which both hotels have yet to adopt despite not being limited by financial reasons;
- providing high-quality laundry washing with environmentally friendly detergents is a challenge;
- finally, the expectation of high-level services by four-star hotel guests presents a barrier to omitting daily room cleaning and towel changes as part of sustainability efforts.

**DISCUSSION**

This comparative case study has provided valuable insights into the sustainability practices adopted by hotels, their managerial approach towards sustainability pillars, and the barriers they face while pursuing sustainable business practices. The authors have identified two distinct managerial approaches based on their research: (1) a comprehensive outlook that encompasses all three pillars, forming an integral part of the vision and (2) a narrow focus on cost-cutting and financial growth alone.

In order to secure a sustainable future, it is essential that society adopts a first approach that emphasizes the incorporation of sustainability into every facet of business. This is particularly crucial for current and future managers, who must prioritize learning about and implementing sustainable practices. Within the hospitality industry, this approach must be further developed in order to address the sustainability of tourism. By prioritizing this approach, businesses are better equipped to handle unexpected situations such as the pandemic. Additionally, this approach fosters stronger relationships between companies and their stakeholders.

Our findings and identification of managerial approaches align with the study conducted by Rode et al. (2021). According to Rode et al. (2021), two discourse types can be used to motivate business actors to adopt more sustainable practices. The first type involves urging them to take ‘responsibility’ for the well-being of society and the planet’s future, while the second type involves presenting a ‘business case’ for sustainability. The business case perspective emphasizes how sustainable practices can improve financial performance within the business. Their research shows that professionals believe the business case argument is more effective in inspiring businesses to embrace sustainability compared to the responsibility argument. However, when these professionals were exposed to the business case reasoning in their experiment, it did not
result in a more significant expression of their motivation or intention to actively support sustainability within their organization. Furthermore, compared to the responsibility-based argument, presenting a business case rationale resulted in less support for making pro-environmental investments, especially when potential improvements in reputation could not justify these investments. Effective strategies to enhance corporate environmental performance might only sometimes result in situations where all parties benefit. Their results raise concerns regarding the effectiveness of relying solely on the business case approach to motivate companies to adopt sustainable practices. Our paper confirms that a similar premise exists also in the hotel industry. This confirmation is an important theoretical implication and one of the essential added values of our paper.

From the authors’ perspective, the form of the business appears to be the critical factor that leads to a difference in managerial approach. This case study provided valuable insights indicating that hotels that form part of larger hotel chains (and stock companies) are more likely to adopt sustainable practices and have more established sustainability programs than independent hotels. This unique premise requires further verification through future research. This suggestion has significant implications for theory and future research design.

The study has uncovered significant concerns regarding transparency and sustainability reporting within the hospitality industry. These findings support the views of Pommier and Engel (2021), who argue that many companies in this sector have yet to fully grasp the importance of disclosing information about their sustainability practices. To address this issue, the authors suggest that local authorities should exert greater pressure on hotels, particularly in terms of financial transparency, and impose sanctions for non-disclosure of financial statements. Additionally, hotels should be made aware of the GSTC Criteria (GSTC, 2023) and encouraged to engage in sustainability reporting by local authorities. Our research, which focused on two case studies, further confirmed these assertions.

Our study indicates that selected hotels are not reporting their sustainability practices sufficiently. This finding is consistent with the research conducted by Vlašić and Poldrugovac (2022). Their study revealed that hotel companies generally disclose appropriate non-financial information on waste management, recycling, energy usage, and water consumption. However, there is scope for improving the quality of information provided for other non-financial aspects.

According to Jia et al. (2023), hotels can inspire conscientious and sustainable behavior among consumers by adopting sustainable marketing techniques and actively participating in corporate social responsibility initiatives. To achieve this goal, effectively communicating the hotel’s sustainability efforts to all stakeholders, including customers, is imperative. This finding is closely related to Pereira et al. (2021), who emphasize employees’ role in communicating sustainability to customers.

In addition to the sustainability practices documented in the literature review, this study identified several new practices, including the use of electric company cars, the installation of charging stations for electric cars, providing tap water for guests in restaurants, and implementing heat recovery systems.

It was observed that both hotels that were examined are highly involved in the social pillar of sustainability. This result contradicts the claim made by Bogren and Sörensson (2021) that the social aspect of sustainability is not given enough attention. It is possible that the different cultural contexts in which the hotels operate might have contributed to this conflict.

CONCLUSION

This paper answered its specific research questions. The findings chapter thoroughly outlines the sustainability practices observed in the analyzed hotels, the managerial approaches utilized to support those initiatives, and the barriers managers face in implementing sustainable practices. The chosen methodology enabled the authors to assess the selected cases in relation to both published academic literature and the two hotels in the study.

This article contributes to the academic literature by identifying new sustainability practices of hotels and highlighting significant barriers to their implementation. The discussion section challenges the findings of several studies, confirming or questioning their results. Additionally, this study provides a foundation for future research, suggesting unique ideas that can be further tested through quantitative analysis. The chosen methodology and public interview protocol make it possible to conduct similar studies in different regions and compare their results in the future.

The new generations present in the market, namely Generation Z and Alpha, are generations integrated into a world involved in the Internet of Things through products like electric cars (e.g., Tesla), but also engaged with sustainable causes, sometimes being the reasons for choosing one brand over another (Kotler, Kartajaya, & Setiawan, 2021). The hospitality...
industry will need to pay attention to these behaviors of the new generations as they will be the most significant market segments in the near future (Thach, Riewe, & Camillo, 2020), and as such, the industry should pay closer attention to its sustainability policy.

It is important to note that this study has certain research limitations that should be taken into consideration. For instance, we did not delve into legislation within the hotel industry and how it may affect managers’ perspectives on sustainable practices and their implementation. This particular factor could significantly influence sustainability strategies in the hospitality sector. Moreover, the chosen comparative case study methodology may not provide conclusive results on a quantitative level.

Acknowledgments

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References


Jitka Vávrová, Lenka Červová, Blanka Brandová, Jorge Pacheco

Appendix: Interview protocol

Identification and ownership data

Name
Form of business
Establishment of the company (date)
Ownership changes (ownership history, franchises)
Number of employees
Employee structure, types of employees, demographics

Vision and mission of the hotel
Involvement in projects
Beneficiary of grants
Target customer group
Guidelines

Does the hotel comply with the standards and regulations?
Does the hotel follow any directive?
Attitudes towards sustainability
How do you define sustainability?
Which of the three pillars of sustainability is most important for a hotel?
How do you perceive whether following sustainable principles gives you a competitive advantage?
What is your view of sustainability in the tourism industry?
How autonomous is your hotel's decision-making on sustainable principles vis-à-vis the franchisor?
Is sustainability reflected in your corporate strategies and plans?
How do you monitor and report on the hotel's sustainable practices? How often?
Are you ready for the new ESG non-financial reporting obligation?
Why don't you publish the hotel's financial statements?
What are the benefits of sustainable hotel management, in your opinion?
Are you monitoring whether your competitors are implementing sustainable practices?
How long have you been addressing sustainability in your hotel?
In what ways do you think your hotel lags behind in sustainable principles?
What are the biggest sustainability challenges you currently face?
What do you want to achieve in sustainability in the short term?
What do you want to achieve in sustainability in the long term?

Economic pillar
Do you have a governance agenda? How do you ensure compliance with all legal and internal regulations?
Can you give examples of internal regulations that are set above the legal framework?
Do you ensure compliance with fair competition rules?
How do you check compliance with tax regulations?
How often do you have an internal or external audit?
Do you apply the integrity principle in practice?
Are your financial transactions sufficiently transparent?

Purchase
Do you pay attention to the origin of your food when choosing ingredients for your restaurant?
How far (km) do you shop for food?
Can guests at your hotel order food with special requirements? (vegan, vegetarian, children's diet...)
Do you buy meat from an organic farm or from an organic farm?
Do your purchases support economically local businesses?
Do you have any sustainability criteria when choosing your suppliers?

Environmental pillar
Energy
What energy sources does your hotel use? (energy mix)
How do you reduce electricity consumption?
Do you have energy efficient light bulbs? How many %?
Does your hotel use automatic lights or motion sensor lighting to save energy?
What plans do you have for energy reduction in the future?
Does your hotel have plans to install solar panels or alternative energy sources?
How do you reduce energy consumption in hotel rooms?
Are your company cars gasoline/diesel/electric?
Do you have a charging station for electric cars?
Do you have a program to reduce your carbon footprint?

Waste
What waste management policies does your hotel have in place?
What recycling programs does your hotel participate in?
What strategies does your hotel have in place to process food scraps?
How does your hotel manage hazardous waste?
What policies does your hotel have in place to reduce paper waste?
How does your hotel manage e-waste?
How does your hotel dispose of hazardous waste such as batteries, fluorescent lamps?
How does your hotel manage medical waste?
Do you have bins in your rooms for separated waste?
Bins – on the floor/in the room/in the lobby only

Water
How do you take care of the water quality in the hotel?
Are you thinking about using rainwater for flushing?
Do your toilets have two-phase flushing?
Do you use water-saving taps in your bathrooms?
How often do you change guests’ towels?
Does your restaurant serve tap or bottled water?

Heating/construction/noise
Does your hotel have a heat recovery system to save heat?
Is the building fully insulated?
What heat sources does the hotel use for heating?
Do you have at least double-glazed windows?
Laundry and washing/housekeeping/drugstore
Do you do your laundry in the hotel, or do you use outside services?
Is the laundry in your hotel washed in natural detergents?
Are the soaps offered in the rooms of natural origin?
Do you use eco-friendly products for washing dishes?
Can guests refuse daily housekeeping? Do you communicate this option to them?

Plastics
Do you use disposable plastic mini bottles of shampoo, conditioner, and shower gel?
Do you use plastic drink stirrers?
Do you use disposable plastic straws?
Do you provide water in disposable plastic bottles?
Do you provide drinks in disposable plastic bottles?
Do you provide disposable plastic cups?
Do you provide disposable plastic crockery and cutlery?

Social pillar
What benefits do you provide to your employees?
What is your wage policy?
What is your approach to diversity?
What % of men and women are in management positions?
Do women and men have equal pay in the hotel?
Is religion or gender a criterion for you when selecting employees?
Can people with disabilities work for you? Do they work?
Do you employ senior citizens?
How do you take care of employee training and development?
Do you have a code of ethics?
Do you have a formal equality and diversity policy?
How do you take care of employee safety?
Do you create programs for the children and families of your employees?
How do you motivate your employees for sustainability? Do they respect it?
What is the average turnover rate of employees in different positions?
Would you be reluctant to accept an African student for an internship at the hotel?
What commuting distance are your employees from?
What are your activities to promote employee health?
What social goals do you have set for your employees?
Supporting the local community and cultural heritage
How does the hotel support local culture and traditions?
Does your hotel have any philanthropic activities? What are they?
Does your hotel support a traffic reduction program?
Do you offer tours and activities provided by local guides and businesses?
Are local artists allowed to exhibit their work in your hotel?
Does the accommodation provide guests with information about local ecosystems, cultural heritage and visitor behavior requirements?

Certification and reporting/communication
Is your future goal to obtain any certification in sustainability or ecology?
How are you preparing for mandatory ESG reporting?
How do you communicate the sustainability of your hotel? Are you reporting?
How do you “educate” your customers on sustainable practices? How do you inform them?

Biographical notes

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Authorship contribution statement


Conflicts of interest
The authors declare no conflict of interest.

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