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The role of resilience in explaining hotel growth: A fuzzy-set QCA approach

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Abstract

PURPOSE: *Due to the detrimental effects of the recent pandemic on the hotel sector, hotel resilience research and its impact on hotel recovery have received lots of academic attention. However, a sustainable perspective on hotel resilience, as an approach for investigating its impact on long-term hotel growth, has been largely overlooked in the hospitality resilience literature. Therefore, this paper aims to address the research gap by identifying the configuration of factors that constitute sustainable hotel resilience, leading to the growth of selected hotels operating in Poland.* ***METHODOLOGY:*** *Data for analysis were obtained from surveys conducted with 120 managers of one- and two-star hotels. A fuzzy-set qualitative comparative analysis (fsQCA) was chosen to achieve the goal, which belongs to the group of configurational analysis methods.* ***FINDINGS:*** *Due to the asymmetric nature of the method, the analysis reveals configurations of factors leading to high hotel growth and those leading to low growth. In both cases, two such factor configurations were obtained. For high levels of hotel growth, it was found that maintaining a high level of three factors simultaneously, namely employee resilience, CSR activities and leadership resilience or CSR activities, team resilience and leadership resilience, provided sufficient conditions. For low levels of growth, fsQCA indicated sufficient conditions in the form of a low level of CSR activities and leadership resilience or a low level of employee resilience and team resilience. These findings emphasize the role of combining different factors to improve hotel growth.* ***IMPLICATIONS:*** *The research contributes to the literature on resilience in the hospitality industry by developing a new theoretical perspective on the complex nature of combinations of factors that contribute to sustainable hotel resilience, leading to both high and low growth. The research results also provide significant implications for entrepreneurs and managers, indicating the role of different combinations of factors in determining hotel growth.* ***ORIGINALITY AND VALUE:*** *The knowledge regarding sustainable hotel resilience is still insufficient. The study identified the best combinations of factors (both internal and external) that constitute sustainable hotel resilience, which may be vital for hotel growth.*

Keywords: *hotel resilience, CSR activities, employee resilience, leadership resilience, team resilience, financial resilience, hotel growth, Poland, fsQCA*

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INTRODUCTION

The tourism and hospitality sectors comprise some economic activities that are most exposed to new circumstances, changes, and uncertain environments worldwide (Hall, Safonov, & Naderi Koupaei, 2023). This has been evidenced by the COVID-19 pandemic, which has limited travel on a global scale or the possibility of running a business, not only as a result of the travel restrictions imposed by governments but also due to the fear generated by COVID-19 among consumers (Gössling, Scott, & Hall, 2020). In such times of crisis, it is essential to carry out solid research in hospitality to understand the aftermath of the COVID-19 phenomenon and to support managers (Rivera, 2020). The hotel industry, in particular, has undoubtedly been one of the hardest-hit (Farmaki, Miguel, Drotarova, Aleksic, Casni, & Efthymiadou, 2020; Jiang & Wen, 2020), having witnessed a dramatic fall in occupancy rates. This vulnerability has awakened academic interest in hotel resilience as a way to reduce or overcome such vulnerability. The hotel resilience concept has been increasingly explored in the hospitality and tourism literature, especially in the context of global challenges such as climate change (e.g., Becken, 2013), disasters (Brown, Rovins, Feldmann-Jensen, Orchiston, & Johnston, 2017), pandemics (e.g., Jiang & Wen, 2020; Marco-Lajara et al., 2022) and socio-economic instability (e.g., Melián-Alzola, Fernández-Monroy, & Hidalgo-Peñate, 2020). Hotel resilience is defined as "a dynamic condition describing the capacity of a hotel, together with its stakeholders (staff, guests, the local community), to assess, innovate, adapt and overcome possible disruptions that are triggered by disaster" (Brown et al., 2017, p. 365). However, hospitality studies have not had as strong a focus on resilience as tourism (Brown et al., 2017; Ritchie & Jiang, 2021). Tourism literature focuses on destination and community resilience, while hospitality research is more organization and individual resilience-oriented (e.g., Boto-García & Mayor, 2022; Dogru, Hanks, Suess, Line, & Mody, 2023). Specifically, existing studies on hotel resilience focus on the capital approach (Brown et al., 2017, Brown, Orchiston, Rovins, Feldmann-Jensen, & Johnston, 2018; Brown, Rovins, Feldmann-Jensen, Orchiston, & Johnston, 2019; Brown, Feldmann-Jensen, Rovins, Orchiston & Johnston, 2021), employee resilience (Aguiar-Quintana, Nguyen, Araujo-Cabrera, & Sanabria-Díaz, 2021; Xie, Zhang, Chen, & Morrison, 2023), leadership resilience (Zhang, Xie, & Huang, 2023), financial resilience (Chen, Su, & Chen, 2022), supply chain resilience (Jain, Shanker, & Barve, 2022), and organizational resilience (Melián-Alzola et al., 2020). However, limited studies focus on an integrative approach (individual-level, organizational-level, and community-level resilience) to hotel resilience.

The hospitality sector is primarily comprised of small and medium-sized hotels that are frequently family-owned and operated (Singal & Batra, 2021). Recent research has indicated that the size of a business may impact its ability to withstand challenges, such as the COVID-19 pandemic. For example, international hotel chains were found to have better preparedness and planning compared to local hotels (Filimonau, Derqui, & Matute, 2020; Bhaskara & Filimonau, 2021; Giousmpasoglou, Marinakou, & Zopiatis, 2021). Larger hotels have access to knowledge and financial resources necessary to adapt more effectively to challenging business environments, resulting in longer survival rates compared to smaller enterprises with limited resources, capacity, and organizational structure (Hall &Williams, 2020; Melián-Alzola et al., 2020; Usher et al., 2020). In this regard, the present study examines small independently owned hotel businesses (one- and two-star hotels), which face serious challenges when confronted with unexpected disruptions such as economic crisis, or global pandemics. By studying how these budget hotels navigate through crises and bounce back from adversity, we can not only gain valuable insights into their resilience practices but also extrapolate our findings to other contexts within the hospitality industry. Understanding the resilience of 1- and 2-star hotels can provide valuable lessons for all types of accommodation providers, from small guesthouses to luxury resorts, in terms of effectively responding to and recovering from unforeseen challenges.

Furthermore, among the few studies to emerge is that of Gursoy et al. (2020), who reported that removing restrictions on tourism will not lead to an immediate influx of hotel guests, indicating the profound and lasting impact this crisis might have on the hotel sector. Souza, Alves, Macini, Cezarino, and Liboni (2017) and Brown et al. (2017) argued that long-term plans are needed to develop hotel business resilience towards sustainability. In the hospitality industry, sustainability means managing the business through sustainable operations that interact with the environment, the community, and the economy to ensure long-term business success (Jones, Hillier & Comfort, 2014). Several authors (Sobaih, Elshaer, Hasanein, & Abdelaziz, 2021; Gamage, Pyke, & de Lacy, 2023) have called for a sustainable perspective in developing more resilient hotel businesses. According to Sobaih et al. (2021), the resilience of small hotels has a direct, positive and significant influence on sustainable tourism development; Gamage et al. (2023) show a relationship between resilience outcomes and sustainable-HRM in the SME tourism and hospitality sectors; while Shin et al. (2021) and Marco-Lajara, Úbeda-García, Ruiz-Fernández, Poveda-Pareja, and Sánchez-García (2022) find a positive relationship between

the CSR activities of hotel companies and their performance. In the post-pandemic context, resilience requires an adaptive capacity (Orchiston, Prayag, & Brown, 2016; Prayag, Chowdhury, Spector, & Orchiston, 2018; Fang, Prayag, Ozanne, & de Vrieset, 2020) and can be considered an attribute that can mitigate uncertainty by changing social, economic and ecological practices (Espiner, Orchiston, & Higham, 2017). Despite the recognition in the tourism and hospitality literature that resilience and sustainability are related concepts (Hall et al., 2023), limited studies focus on a sustainable approach to building hotel resilience. As a result, we introduce a new paradigm, sustainable hotel resilience, in which these concepts are integrated to align recovery strategies with hotel performance.

We agree with some researchers (Gamage et al., 2023) that hospitality resilience research needs to build a new paradigm of enhancing hospitality adaptability in the future, which can facilitate organizational outcomes, i.e., hotel performance (hotel growth). Furthermore, the ability of tourism and hospitality firms to demonstrate resilience has come to be seen as a source of competitiveness (Hall et al., 2018). Prior research on hospitality suggests that adaptive strategies of organizational resilience post crises significantly influence a hotel's operational performance (Tibay et al., 2018; El-Said, Smith, Al-Yafaei, & Salam, 2023), task performance (Aguiar-Quintana et al., 2021) and financial (e.g., market share) and non-financial (e.g., customer loyalty) performance indicators (Melián-Alzola et al., 2020). Furthermore, several authors find a positive impact between the CSR activities of hotel companies and their performance (Shin et al., 2021; Marco-Lajara, Úbeda-García, Ruiz-Fernández, Poveda-Pareja, & Sánchez-García, 2022). Thus, existing studies linking organizational (e.g., hotel) resilience and hotel performance are generally limited and superficial, and although there are often signs of how important the issue is for hospitality managers (e.g., Melián-Alzola et al., 2020), little research has been carried out to understand how to increase hotel resilience in a way to maximize hotel growth.

Therefore, the research aim is to identify the configuration of factors that constitute sustainable hotel resilience leading to the growth of selected hotels operating in Poland. To achieve this objective, with the matched dataset collected from hotel managers, we conduct a fuzzy-set qualitative comparative analysis (fsQCA) and uncover multiple configurations that produce high and low hotel growth. Based on these findings, we develop two propositions that prescribe multiple alternative ways to configure sustainable hotel resilience to achieve high performance. We also formulate two proposals containing sets of factors leading to a low level of hotel growth.

Thus, this study contributes to the hospitality resilience literature by developing new theoretical insights into the complex nature of combinations of sustainable hotel resilience components that produce high performance. Specifically, our research conceptual framework and the matching configurational approach with fsQCA can guide hospitality resilience researchers to investigate versatile relationships among key sustainable hotel resilience components from the hotel managers' perspective. Furthermore, our prescriptive propositions help hotel managers to configure their own sustainable resilience to achieve growth effectively.

THEORETICAL BACKGROUND

The period following the pandemic offers a practical opportunity to study the resilience of tourism and hospitality (Utkarsh et al., 2021; Yang, Zhang, et al., 2021), prompting scholars in these fields to consider strategies for swift industry recovery (Yeh, 2021) and the future directions of tourism and hospitality development in the post-pandemic landscape (Yang, Zhang, et al., 2021). Despite the increasing academic focus on tourism and hospitality resilience in recent years (Hu & Xu, 2022), there is still a need to broaden the conceptualization of hotel resilience in order to enhance our understanding of hotel resilience in changing context (Melián-Alzola et al., 2020). Thus, there is no consensus on the specific elements that make up this intricate concept. Some studies on hospitality sector point to multi-level character of resilience (Hall et al., 2023; Prayag, 2023), other studies emphasize its multi-dimensional nature (Prayag, Chowdhury, Spector & Orchiston, 2018), and still others indicate its multi-stage aspect (Conz & Magnani, 2020).

According to Hall et al. 2023 resilience research within hospitality sector was conducted on three levels: individual, organizational, and community. To date, most of the studies focus separately on individual (Aguiar-Quintana et al., 2021; Xie et al., 2023; Zhang et al., 2023), organizational (Jain, Shanker & Barve et al., 2022; Melián-Alzola et al., 2020) and community (Sobaih et al., 2021; Marco-Lajara et al., 2022) levels. Notably, within the hotel context, individuals, organizations, and communities are inextricably linked (Brown et al., 2017). Thus, the present study attempts to use an integrative approach covering these three levels simultaneously. Hospitality-related resilience literature identifies different components of hotel resilience on various resilience levels, e.g. employee resilience (Aguiar-Quintana et al., 2021; Xie et al., 2023), leadership resilience (Zhang, Xie & Huang, 2023) (individual level), hotel resilience *per se* (Melián-Alzola et

al., 2020), leadership and management, situational awareness, network robustness, planning and preparedness, adaptive ability, market sensitivity, innovation and diversification, access to external resources, ability to leverage knowledge and information, compliance and regulations, reflective business model, and core competence of staff (Tibay et al., 2018) (organizational level), CSR practices (Shin et al., 2021; Marco-Lajara et al., 2022), and sustainable development (Ayuso, 2006; Sobaih et al., 2021) (community level). In the latter mentioned aspect, the involvement of local authorities that can foster competitiveness and innovation (Najda-Janoszka, 2013) and resilience also seems crucial.

Among the few studies to emerge is that of Brown et al. (2018, 2019), which define and measure hotel resilience using a capital-based framework to assess the performance implications of different dimensions for recovery and growth. In light of the research findings by the aforementioned authors, it is evident that hotel resilience is a complex concept that integrates human, economic, social, physical, natural, and cultural capital, all of which affect hotel performance. According to resilience research in hospitality sector, human capital is linked to employee resilience, entrepreneur resilience (Prayag, 2023), leadership resilience (Zhang, Xie, & Huang, 2023) (individual level), social, economic, physical and cultural capital are related to team resilience (Prayag, 2023), financial resilience (Chen, Su & Chen, 2022), supply chain resilience (Jain, Shanker, & Barve, 2022), and organizational resilience (Melián-Alzola et al., 2020) (organizational level), and natural capital fits into resilience at the community level (Lew et al., 2016). In the post-pandemic context, long-term strategies are essential for enhancing the resilience of hotel businesses towards sustainability (Sobaih et al., 2021). Hence, hotels that are sustainably resilient actively incorporate CSR activities into resilience-building to ensure that recovery and development efforts following disruptions also advance environmental, economic and social goals (Melián-Alzola et al., 2020). Therefore, based on a key framework that has shaped resilience thinking in hotel sector proposed by Brown et al. 2018 complemented by CSR practices and using Exploratory Factor Analysis, we develop a conceptual framework that identifies five components of sustainable hotel resilience (i.e., employee resilience, leadership resilience, team resilience, financial resilience, and CSR activities).

Given the resilience stages (before, during, and after the event) resilience can be understood as a desired outcome (Melián-Alzola et al., 2020) or as a process to reach a desired outcome (Dryglas & Salamaga, 2023) or as process and outcome simultaneously (Andersson, Caker, Tengblad, & Wickelgren, 2019). Resilience, viewed as an outcome, is tied to the capacity for recovery and can be assessed only post-disruption. Resilience seen as a process entails effectively managing adverse situations not just in their aftermath, but also beforehand and during their occurrence (Duchek, Raetze, & Scheuch, 2020). Therefore, resilience as an outcome represents a goal state, while resilience as a process involves the organizational structures that facilitate achieving that state (Melián-Alzola et al., 2020). Furthermore, resilience as an outcome includes recovery, transformation/and or growth (Sharma et al., 2021; Tomej, Bilynets, & Koval, 2023). Resilience as an ongoing process requires constant learning, flexibility, adaptation, and evaluation (Sharma et al., 2021). Our study treats resilience as a process because resilience predictors (components) describe activities/factors that foster hotel resilience and as an outcome because hotel performance recognizes resilience as a result.

On this basis, this paper measures hotel resilience using an integrative and sustainable approach and resilience as a process and outcome, which includes the overall construct (i.e., sustainable hotel resilience), as well as the consequent effect on organisational performance (i.e., hotel growth).

Theoretical framework

Figure 1 depicts our research conceptual framework of the configuration of sustainable hotel resilience. We adopt a configurational approach to effectively investigate the interrelated sustainable hotel resilience components in order to uncover how the multiple components of hotel resilience combine into configurations to produce high hotel growth. The present research is constructed on the theoretical assumption that sustainable hotel resilience is constituted by relevant components, and the way that these components are combined matters in relation to hotel resilience, achieving the outcomes of interest. Therefore, this configurational perspective enables us to examine the overall systemic impact rather than the isolated impact of individual elements (Ragin & Davey, 2022).

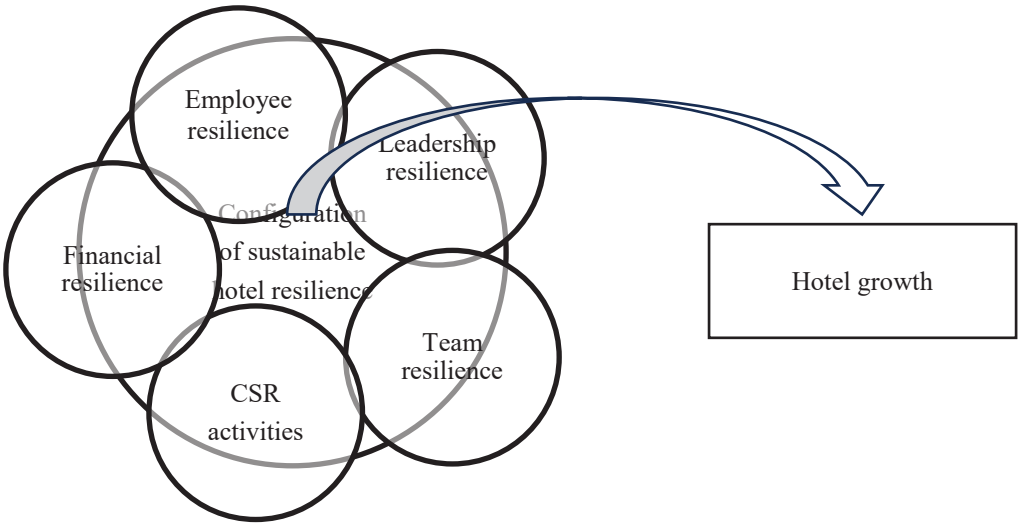

Figure 1. The research conceptual framework

Hotel employee resilience

Human capital, comprising employees' skillsets and capacities, plays a significant role in building hotel resilience and in determining whether a hotel can respond and adapt to change in uncertain and dynamic environments (Brown et al., 2018; Hall et al., 2018; Prayag, Spector, Orchiston, & Chowdhury, 2020; Xie et al., 2023). Kuntz, Naswall, and Malinen (2016) define employee resilience as the behavioral capability to leverage work resources to ensure continual adaption and growth at work, supported by the organization. The attributes and traits that employees need to adapt and thrive in the changing environment of a hotel include health, skills, capacity to adapt, knowledge, and business continuity (Brown et al., 2018). Employees' mental health and well-being are critical in the hospitality industry, especially during crises. Supportive workplace environments and mental health resources can help build resilience. There is a growing trend towards ensuring and investing in the well-being of hotel employees (Bohdanowicz & Zientara, 2009; Agarwal, 2021). The authors argue that understanding this factor can help hotels better support their employees and enhance their overall well-being. Recent studies indicate that, among other skills, employees' creative self-efficacy has a significant positive influence on employee resilience (Prayag & Dassanayake, 2023). Organizations that foster resilience in their workforce by enhancing their ability to handle change, adversity, and risk generally find themselves better equipped to manage, react to and adjust to unforeseen shifts and challenges (Lengnick-Hall et al., 2011; Hall et al., 2018; Prayag et al., 2020) and achieve more sustainable outcomes in the longer term (Brown et al., 2018; Nyaupane, Prayag, Godwyll, & White, 2020; Prayag & Dassanayake, 2023). Nyaupane et al. (2020) noted that organizational traits such as a safe/secure working environment, thinking beyond the status quo, including the right people in decisions, and effective long-term planning are perceived by employees as critical for organizational resilience. However, resilient employees do not necessarily imply resilient organizations (Prayag, 2018). In this line, some authors investigate the moderating effects of perceived risk and challenge stressors on the relationship between the resilience of hotel employees and their work outcomes (Xie et al., 2023). Other authors suggest that hotel employees' resilience can be a beneficial factor in mitigating the negative impact of job insecurity-related stress, such as anxiety and depression, on their performance (Aguiar-Quintana et al., 2021). This is particularly relevant during the COVID-19 pandemic, where resilience helps reduce stress and positively affects outcomes like task performance.

Hotel leadership resilience

Entrepreneurs often face high levels of uncertainty and a significant risk of failure. Psychological resilience helps them to cope with these challenges without losing motivation or confidence (Prayag, 2023). It is often difficult to distinguish the entrepreneur from the organization, as the entrepreneur's actions and behaviors are closely tied to those of the organization (Prayag et al., 2020). Entrepreneur resilience ought to be viewed as a factor of individual resilience, largely stemming from

the entrepreneur's thinking patterns and the application of entrepreneurial strategies within their business (Prayag, 2023). Some scholars suggest that successful hotel entrepreneurs often exhibit resilient leadership, which enables them to navigate the complexities of the hospitality industry effectively (Zhang, Xie, & Huang, 2023). Different leadership styles and traits have been studied as critical in managing different crises. The hospitality literature review highlighted leadership styles such as abusive supervision, empowering leadership, ethical leadership, and authentic leadership (Guchait, Peyton, Madera, Gip, & Molina-Collado, 2023), which are critical for crisis management. A study by Zhang et al. (2023) conceptualized the seven dimensions of resilient leadership: contingency planning, improvisation, adaptive instructing, contingency control, emergency care, adjustment recovery, and mutual growth. Other authors indicate the necessity of leadership traits such as vision sharing, leadership of tasks, and management of change (Prayag et al., 2023) for crisis management. The emphasis on improvisation and learning as key aspects of resilience underscores the dynamic nature of leadership in challenging times (Lombardi, Pina, Cunha, & Giustiniano, 2021). These specific leadership styles and behaviors are crucial for building and sustaining resilience in the hotel industry, enabling leaders to effectively manage their teams, respond to crises, and navigate the challenges of the dynamic hospitality environment. Recent studies also highlight that resilient leadership behaviours significantly impact employee and organizational (e.g., team resilience) resilience (Prayag et al., 2023; Zhang, Xie, & Huang, 2023). Thus, strong leadership that fosters a supportive and inclusive environment is crucial. Leaders in hospitality should encourage teamwork, provide resources, and support staff in challenging situations.

Hotel team resilience

The success of a hotel often relies on the cooperative efforts and commitment of its teams, and there is a common belief that resilient teams play a major role in strengthening the hotel's ability to adapt and endure (Brown et al., 2017, 2018; Melián-Alzola et al., 2020; Nyaupane et al., 2020; Prayag, 2023). Team resilience is deeply intertwined with organizational resilience, competitiveness, and growth (Hartmann, Weiss, & Hoegl, 2020). According to Brown et al. (2018), social resources, connectedness, cohesion, the capacity to work as a group, and trust create social capital. Baum (2002) identified effective communication and collaboration as vital for hospitality industry success. This includes sharing information, supporting each other, and working together to solve problems and improve service delivery (Sydnor-Bousso et al., 2011). The ability of an organization to collaborate and tackle problems can be measured by examining its approach to the decision-making process. This involves assessing whether managers and leaders favor a collaborative, participatory style, thus a sense of mutual support and trust among team members, fostering a strong team bond, or leaning towards a more hierarchical method (Brown et al., 2018). Resilient organizations tend to have team structures capable of detecting subtle signs of weakness in organizational and market dynamics by monitoring ongoing operations (Bowers, Kreutzer, Cannon-Bowers, & Lamb, 2017). Teams with advanced response capabilities are more adept at recognizing weak signals, enabling them to adaptively respond to disruptions more effectively (Prayag, 2023). However, team resilience has received no research attention in tourism and hospitality studies because researchers do not transition from examining the individual-level resilience of employees to group-level resilience (Prayag, 2023).

Hotel financial resilience

Financial resilience is critical for hotels as it enables them to withstand economic shocks and uncertainty in the industry. An essential component of a hotel's resilience is financial capital, characterized by the availability of financial resources, the diversity of income, financial strength, and the personal economic resilience of staff members (Brown et al., 2018). Some scholars suggest that financial recovery should focus on re-benchmarking and viability stress under various shock scenarios, minimizing expenses, and preserving cash as key resilience strategies (Kizildag, Weinland, & Demirer, 2022). These components form a strong foundation for hotels to navigate economic uncertainties and ensure their sustainability in the long run. Recent research results indicate that environmental, social, and governance (ESG), as a framework for anchoring responsible corporate behavior, can improve future financial resilience and create crisis-resilient value for hotel corporations from the effects of COVID-19 (Chen et al., 2022).

CSR activities

According to Kim, Barber, and Kim (2019), one of the most important topics for future research suggestions is the sustainable development practices of hotels. Hotel sustainability is often synonymous with CSR activities, where

the focus is on how hotels engage with key stakeholders such as employees, guests, local communities, suppliers, and the environment to operate responsibly, embrace ethical practices, display economic fairness, and respect for people, communities and the environment (Bohdanowicz & Zientara, 2008; Gürlek & Tuna, 2019; Marco-Lajara et al., 2022). More and more hotels are shifting towards sustainable business models that balance the specificities of all the dimensions of sustainability with a company's interests and its stakeholders (Dos Santos, Méxas, Meiriño, Sampaio, & Costa, 2020). An environmental approach assumes "the commitment to the integration of environmentally-friendly practices into daily operations, reducing the environmental impact while ensuring economic and social benefits" (Chan & Hawkins, 2010, p. 643). The implementation of energy-saving technologies and water conservation measures has been a key focus of Gunduz Songur, Turktarhan, and Cobanoglu (2022), reduction, reuse, and recycling, including food waste reduction, have been emphasized by Pirani and Arafat (2014). CSR activities address environmental issues and adopt a social approach that includes fair labor practices, community engagement, cultural preservation, and a contribution to local economies (Bohdanowicz & Zientara, 2008). Garay and Font (2012) emphasize preserving resources, respecting and supporting local cultures, and providing economic benefits to local communities, all within the operational context of providing accommodation services to guests. Thus, the social approach ensures that hotels contribute positively to the local community and culture. This might include hiring local staff, providing fair wages and working conditions, supporting local businesses, preserving cultural heritage, and engaging in community development projects (Brown et al., 2018). The economic approach refers to the practices and strategies that hotels implement in an ecologically and socially responsible way, while also being economically viable. For example, by reducing energy, water consumption, and waste emissions, hotel managers reduce the hotel's costs, or by focusing on employment of the local society, they promote stability and loyalty within the local workforce. Furthermore, hotels are increasingly aligning with global sustainability standards and seeking certifications (Bianco, Bernard, & Singal, 2023). Hence, the sustainable approach helps to achieve hotel business efficiency and competitive advantage (Jones et al., 2014).

Hotel growth

The findings of some studies highlight the significance of hotel performance as a catalyst for hotel growth, shedding light on the relationship between these two notions (Tibay et al., 2018; Melián-Alzola et al., 2020; Sobaih et al., 2021). Achieving high performance in terms of financial and non-financial indicators translates into overall hotel growth. Hotel resilience has been identified as an influential factor in enhancing financial and non-financial performance within the hospitality sector (Prayag, Chowdhury, Spector, & Orchiston, 2018; Melián-Alzola et al., 2020; Sobaih et al., 2021). Melián-Alzola et al. (2020) emphasize that hotel resilience positively influences financial performance, measured by economic indicators such as return on investment, average sales growth and average market share growth, suggesting that financially stable organizations are better equipped to weather adverse events. Hotel resilience is essential to non-financial performance (customer loyalty, company image, and reputation) (Melián-Alzola et al., 2020). Some authors indicate that employee resilience positively affects hotel employees' self-rated task performance, as contented employees are more likely to contribute positively to the organization's adaptability and recovery (Aguiar-Quintana et al., 2021).

RESEARCH SITE AND METHODS

Sample, data collection, and variables

In the analysis, five independent variables and one dependent variable were considered. The genesis of the constructs under consideration involved literature review coupled with exploratory factor analysis. Specifically, for constructs delineating sustainable hotel resilience based on the literature (Brown et al., 2019; Prayag, 2023), 37 questions pertaining to the scope of activities and attitudes encountered in hotel management were prepared. Conversely, questions related to the performance aspect of hotels, totaling 13, were developed based on works by Hughes and Morgan (2007), Covin and Slevin (1989), and Kusa et al. (2021). Subsequently, a questionnaire was formulated, comprising 50 questions in this segment of the study. A seven-point Likert scale was employed in the questionnaire. The questionnaire was previously verified in terms of its content and design by three entrepreneurship scientists as well as during interviews with several hotel sector managers. Their comments were taken into account in the final version of the questionnaire.

The research focused on hotels operating in Poland. One- and two-star hotels were selected for the study. According to the Central Register of Hotels, at the beginning of January 2023, 541 enterprises met the established criteria. Stratified random sampling without replacement was used to draw the samples. The data for the study were collected by a specialized research company that submitted survey questionnaires in May and June 2023. Data were collected using a questionnaire administered through Computer-Assisted Personal Interviewing (CAPI) or Paper and Pencil Interviewing (PAPI) techniques.

As a result, 120 completed questionnaires were obtained. After verification, the data from all questionnaires were used in the further analysis, translating into a 9% sample error with an assumed 95% confidence level. Table 1 provides basic information about the selected hotel group for the study.

Table 1. Sample characteristics

Characteristic	Range	N	%
Age	10 and less	28	23.3
	11–20	35	29.2
	21–30	32	26.7
	above 30	25	20.8
Type of enterprise	micro	65	54.2
	small	52	43.3
	medium	3	2.5
Number of beds	50 and less	71	59.2
	51–100	28	23.3
	more than 100	21	17.5
Standard category	one-star	24	20
	two-star	96	80

In the next step of data processing, utilizing exploratory factor analysis, five dimensions of sustainable hotel resilience and one outcome dimension were identified. Table 2 presents the number of indicators used to construct individual constructs.

Table 2. Characteristics of outcome and conditions

				Statistic			Construct Reliability		
Name	Abbreviation	Type	No. of items	Average	Median	Standard deviation	Cronbach's alpha	Rho_A	Composite Reliability
Employee Resilience	ER	condition	7	5.33	5.64	1.33	0.899	0.903	0.921
CSR activities	CSRa	condition	5	6.12	6.40	0.93	0.791	0.820	0.850
Team Resilience	TR	condition	5	5.96	6.20	1.03	0.861	0.862	0.906
Leadership Resilience	LR	condition	5	4.88	4.80	1.26	0.875	0.895	0.910
Financial Resilience	FR	condition	6	5.18	5.17	1.05	0.811	0.826	0.869
Hotel growth	HG	outcome	4	4.26	4.25	1.31	0.903	0.910	0.928

Table 2 also includes information on the internal consistency reliability of constructs. In this regard, the considered constructs exhibit appropriate properties. All reliability measures have values above 0.7 (Hair et al., 2022). The problem of redundancy does not arise because the values of all measures are below 0.95 (Diamantopoulos et al., 2012). According to Dijkstra and Henseler (2015), the rho A statistic should be greater than Cronbach's alpha and smaller than the values of composite reliability (CR); this condition holds for our data.

Table 2, which presents basic descriptive statistics for the considered constructs, shows that the average values of variables (expressed as the mean) are higher than the mean value of the scale, which is 4. Among the independent variables, CSR activities exhibit the highest level (6.12), while Leadership Resilience has the lowest (4.88). The average level of the outcome variable, Hotel growth, is 4.26, slightly higher than the mean value of the scale. The variability of the variables, expressed by the standard deviation, ranges from 0.93 to 1.33, indicating a relatively low level compared to the average value.

Data analysis techniques

To conduct a causal analysis and identify the dimensions of sustainable hotel resilience that are significant in shaping hotel growth, we employed a method known as fuzzy-set qualitative comparative analysis (fsQCA). This technique belongs to the group of configurational analysis methods introduced and developed by American sociologist Charles Ragin (1987), further refined by the author and other researchers (Ragin, 2008, 2023; Fiss, 2011; Schneider & Wagemann, 2012; Ragin & Fiss, 2017; Duşa, 2019; Pappas & Woodside, 2021). The main goal of fsQCA is to identify causal relationships between the adopted conditions and the predicted outcome by comparing cases subjected to analysis. In contrast to classical approaches such as regression analysis, methods from the QCA group distinguish themselves through asymmetric relationships, equifinality, and the complexity of causes (Ragin, 2008; Woodside, 2013).

Although the QCA method was initially developed as a technique that integrates quantitative and qualitative approaches, typically applied to small samples (with fewer than 50 cases), as indicated by Greckhamer, Misangyi, and Fiss (2013), there are no restrictions on using it for larger datasets (over 100 cases). This approach has been employed in numerous studies focusing on tourism, particularly in the hotel industry sector (Palacios-Marques et al., 2017; Kallmuenzer et al., 2021; Kusa et al., 2022; Suder, 2023; Salem et al., 2023; Kumar et al., 2023).

RESULTS

The examination proceeded through multiple phases following the framework suggested by Pappas and Woodside (2021). These stages included data calibration, the examination of necessary conditions, the implementation of a truth table procedure, and the identification of sufficient conditions leading to high and low levels of the outcome independently. The analytical process employed fsQCA 4.0 software (Ragin & Davey, 2022).

Data calibration

The process of calibration, involving the transformation of initial data into fuzzy sets, was executed using the logistic function (Ragin & Davey, 2022). To employ this function, it is necessary to define cut-off thresholds. In alignment with the methodologies outlined by Ragin (2008) and Pappas & Woodside (2021), this study employs thresholds (or breakpoints) set at the 95th, 50th, and 5th percentiles. The choice of such cutoff points, apart from the methodological indications, has also been confirmed in published works addressing topics related to hotel management and/or resilience (Kallmuenzer et al., 2019; Haddoud et al., 2022; Suder, 2023)[4]. The values of the cut-off thresholds for the analysis are presented in Table 3.

Table 3. Calibration thresholds for conditions and outcome

Variable	95th percentile (Full member)	50th percentile (Cross-over point)	5th percentile (Full non-member)
ER	7.00	5.64	2.71
CSRa	7.00	6.40	4.60
TR	7.00	6.20	4.01
LR	7.00	4.80	2.80
FR	7.00	5.17	3.50
HG	6.50	4.25	1.78

4 However, to verify whether the choice of cutoff thresholds significantly affects the obtained results, an analysis was conducted for other cutoff thresholds used in calibrating the data, namely 0.9, 0.5, and 0.1. The obtained results did not differ from those applied in our study.

In the fsQCA procedure, some cases may fall precisely on the cross-over point (0.5), which would consequently result in their exclusion from further analysis (Ragin, 2008). To prevent this, in accordance with Fiss's (2011) recommendation, 0.001 was added to each value. The final calibrated results are presented in Figure 2.

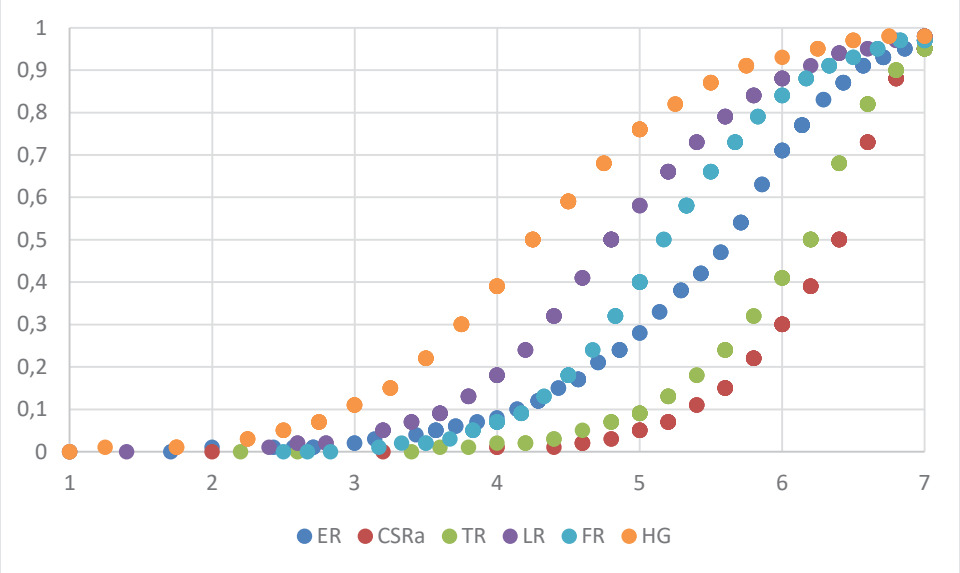

Figure 2. Results of data calibration

Analysis of necessary conditions

The analysis of necessary conditions aims to identify those conditions whose occurrences are indispensable for achieving the specified outcome. The outcomes of this analysis for both high and low levels of HG are presented in Table 4. As a result, this analysis determines the basic parameters for the fsQCA method, namely consistency and coverage. Consistency gauges the extent to which an outcome (as a fuzzy set) is encompassed by a condition, akin to a correlation coefficient in regression analysis (Woodside, 2013). Coverage determines the extent to which a condition aligns with an outcome. In line with Schneider and Wagemann (2012), a condition with consistency exceeding 0.9 is considered necessary. If such a condition is identified, it is excluded from further analysis but included in all the resulting combinations.

Table 4. Analysis of necessary conditions

Conditions	HG		~HG	
	Cons.	Cov.	Cons.	Cov.
ER	0.5209	0.5192	0.7244	0.7162
~ER	0.7153	0.7235	0.5137	0.5154
CSRa	0.5359	0.5251	0.7130	0.6932
~CSRa	0.6869	0.7070	0.5115	0.5223
TR	0.5498	0.5286	0.7430	0.7086
~TR	0.6969	0.7321	0.5057	0.5270
LR	0.5315	0.5175	0.7741	0.7477
~LR	0.7409	0.7678	0.5005	0.5145
FR	0.5312	0.5372	0.7477	0.7500
~FR	0.7528	0.7505	0.5387	0.5327

Note: Cons. = consistency; Cov. = coverage.

Since none of the consistency values in Table 4 exceeds 0.9, we conclude that among the considered constructs, there are no factors that constitute a necessary condition for achieving a high outcome or a low outcome.

Truth table procedure

A truth table serves as the primary analytical tool within the fsQCA method, playing a crucial role in executing the minimization process, which directly leads to the final results of an analysis. This table is structured as a matrix, with a column count equivalent to the number of causal conditions and a row count equal to 2^n (where n represents the number of conditions). In our specific analysis, this table had 5 columns and 32 rows. Following the recommendations of Pappas and Woodside (2021), the selection of combinations from the truth table considered in the subsequent stages was based on the values of the number of cases, row consistency, PRI consistence. The recommendations provided in the mentioned study led us to choose a frequency cutoff point of two. The threshold for the PRI consistency measure was set at 0.5. Cutoff values for raw consistency were not fixed but were established based on indications of breaks between their respective values in the truth table (Pappas & Woodside, 2021). Significant parts of the truth tables, along with the threshold values for the adopted criteria and cases marked (in bold) that meet the accepted criteria, are provided in Appendixes 1 and 2.

Logical minimization and analysis of sufficiency

FsQCA relies on the logical minimization process, aiming to identify the most straightforward expression associated with the explained value of the outcome. Through this approach, fsQCA allows the identification of factor combinations leading to an anticipated outcome (Fiss, 2011). The use of fsQCA 4.0 software allows the possibility of obtaining three types of solutions: parsimonious, intermediate, and complex (Ragin, 2008). This study specifically focused on an intermediate solution, deemed superior, as it confines the remainders to the most plausible ones (Ragin, 2008; Fiss, 2011). Conditions can manifest as core and contributing causals in an intermediate solution. The analysis's main output, sufficiency solutions leading to a high level of HG and leading to a low level of HG, is detailed in Table 5.

Table 5. Combination of conditions leading to the presence or absence of hotel growth

Conditions	Sets/Solutions						
	Presence of HG			Absence of HG			
	PS1a	PS1b	PS2	AS1a	AS1b	AS2a	AS2b
ER - Employee Resilience	●	●			•	○	○
CSRa - CSR activities	●	●	●	○	○		•
TR - Team Resilience	•		●	○	•	○	○
LR - Leadership Resilience	●	●	●	○	○	○	•
FR - Financial Resilience		•	•	•		○	•
Consistency	0.865	0.866	0.874	0.876	0.930	0.876	0.899
Raw coverage	0.485	0.461	0.457	0.259	0.218	0.511	0.200
Solution consistency		0.845			0.846		
Solution coverage		0.560			0.617		

Note: ● = core causal condition (present); ○ = core causal condition (absent); • = contributing causal condition (present); ○ = contributing causal condition (absent); the blank represents the "don't care" condition.

Using fsQCA, this study identified two primary combinations of conditions that can lead to a high level of hotel growth, as presented in Table 5. The first solution, PS1, is based on the simultaneous presence of three core causal conditions: Employee Resilience, CSR activities, and Leadership Resilience. Within this solution, two intermediate solutions were obtained, namely PS1a, where Team Resilience is a contributing causal condition, and PS1b, where the contributing condition is the presence of a high level of Financial Resilience. The second combination leading to a high level of hotel growth (solution PS2) differs from PS1a in that Team Resilience replaces Employee Resilience as the core causal condition. The strength of the relationship among all sufficient conditions, as determined by consistency, is relatively high at 0.845 (above the acceptable threshold of 0.75). These solutions explain approximately 56% of cases associated with high hotel growth, which is deemed acceptable (the acceptance threshold is 25%).

Based on the results presented in Table 5, it is also possible to discern the combinations of factors that lead to a low level of hotel growth. In this regard, fsQCA identified two main solutions. The first, AS1, is based on low CSR activities and Leadership Resilience levels. Within this solution, two intermediate solutions were obtained: AS1a, where

contributing conditions include a low level of Team Resilience and a high level of Financial Resilience, and AS1b, with support from a high level of Employee Resilience and Team Resilience. The second solution, AS2, for low hotel growth, is primarily influenced by two factors: low levels of Employee Resilience and Team Resilience. Supporting factors can include low levels of Leadership Resilience and Financial Resilience (solution AS2a) or the presence of three conditions: CSR activities, Leadership Resilience, and Financial Resilience. The consistency level, indicating how well the obtained solutions lead to low hotel growth, is relatively high at 0.846. Moreover, the presented solutions explain the observed outcome to around 61.7%.

DISCUSSION

The results of our analysis (presented in Table 5) show that each condition (i.e., Employee Resilience, CSR activities, Leadership Resilience, Team Resilience, and Financial Resilience) co-creates sustainable hotel resilience and belongs to at least one combination that leads to hotel growth. Our study, which searched for combinations of factors that led hotels to their growth, showed the main combinations (labeled PS1 and PS2). Each solution is based on three main conditions, with the PS1 solution distinguishing two intermediate solutions that differ in contributing conditions. Thus, the results obtained from our analysis allow us to formulate four research propositions (P) relating to obtaining a positive result in terms of hotel growth:

P1: For the one- and two-star hotels surveyed, simultaneously maintaining high levels of the factors: Employee Resilience, CSR activities, and Leadership Resilience leads to high levels of hotel growth, while these factors can be supported by either Team Resilience (PS1a) or Financial Resilience (PS1b).

P2: For the one- and two-star hotels surveyed, simultaneously maintaining high levels of the factors: CSR activities, Team Resilience and Leadership Resilience leads to high levels of hotel growth, while these factors can be supported by Financial Resilience. Due to the asymmetry of the results obtained by the fsQCA method, two combinations of factors leading to low hotel growth were also obtained (labeled AS1 and AS2). Within each of the two main solutions, there are two intermediate solutions that differ in supporting conditions. Based on this, two further propositions were formulated as conclusions from this part of the analysis:

P3: For the one- and two-star hotels surveyed, simultaneously maintaining low levels of the CSR activities and Leadership Resilience factors leads to low levels of hotel growth. At the same time, the supporting factors for this combination could be high Financial Resilience and low Team Resilience (AS1a) or high levels of Employee Resilience and Team Resilience (AS1b).

P4: For the one- and two-star hotels surveyed, simultaneously maintaining low levels of the Employee Resilience and Team Resilience factors leads to low levels of hotel growth while supporting factors for this combination could be low levels of Leadership Resilience and Financial Resilience or high levels of CSR activities, Leadership Resilience and Financial Resilience.

Our study, therefore, shows that a coexistence of the factors accepted for analysis that constitute sustainable hotel resilience is needed to achieve hotel growth and, conversely, the absence of these factors can result in stunted hotel growth. Our findings support the thesis that hotel resilience is an important factor in improving hospitality industry performance (Melián-Alzola et al., 2020; Sobaih et al., 2021). They also overlap with previous findings on resilience in the broader tourism industry (Becken, 2013; Jiang & Wen, 2020; Marco-Lajara et al., 2022; Hallet et al., 2023). The turbulent environment in which hotels operate today requires greater resilience to adapt to changing conditions and ensure continued growth. Following Brown et al. (2017), we defined hotel resilience quite broadly, including in this category a whole range of different factors that allow hotels to overcome various types of disruptions. Among them were both internally oriented factors (i.e., Employee Resilience, Leadership Resilience, Team Resilience and Financial Resilience), as well as those that affect the outside of the organization (in the case of CSR activities).

Our research indicates that almost all combinations of the factors adopted to analyze a hotel's sustainable resilience include the co-occurrence of the four conditions, except for the last combination, which is based on all five analyzed conditions. Thus, our research reveals the complementarity and synergistic mechanism between the different conditions and proves that hotel resilience studies require a holistic view and a combination of different elements to achieve the intended hotel growth.

The relationships identified between the factors also made it possible to distinguish those conditions that, from the point of view of hotel development, constitute core causal conditions and those that, while not core, are important complements to the solutions that emerged (contributing causal conditions). Thus, the growth of hotels in each solution is determined by three core causal factors (presence analysis), while in the opposite configuration, the growth can be inhibited with just two core causal conditions (absence analysis). The analysis shows that two factors in particular seem indispensable for hotel growth: Leadership Resilience and CSR activities, which appear as core causal conditions in each of the two approaches adopted (in the presence analysis). This indicates that a hotel's growth is primarily supported by factors attributed to either the individual level (Leadership Resilience) or the community level (CSR activities). In addition, the individual level is also represented by the second factor adopted in the analysis – Employee Resilience – which co-occurs as a core condition in the first solution obtained. This does not mean, however, that the organizational level turned out to be completely irrelevant, for in the second scenario, it is Team Resilience that completes the triad of core conditions. Our results can be seen as complementary to previous research on hotel resilience focusing on the individual and organizational levels (e.g., Boto-García & Mayor, 2022; Dogru et al., 2023). This is because they add an additional level of analysis – the community-based level, considering sustainable pillars. While our findings are essentially about the combination of different factors that make up a hotel's sustainable resilience, they also confirm prior research focusing on the single factors we adopted for analysis. This is true for the two factors assigned to the individual level – the impact of Employee Resilience (Nyaupane et al., 2020) and Leadership Resilience (Lombardi et al., 2021; Prayag et al., 2023; Zhang et al., 2023) on organizational resilience (analyzed separately) has been confirmed in prior studies. This is also true for both factors attributed to the organizational level. Our research confirms previous findings for Team Resilience (Brown et al., 2017, 2018; Bowers et al., 2017; Melián-Alzola et al., 2020; Nyaupane et al., 2020; Prayag, 2023) and Financial Resilience (Brown et al., 2018; Kizildag et al., 2022) as factors that build organizational resilience. In our analyses, of the five conditions considered, only Financial Resilience does not appear as a core casual condition in any combination leading to high or low hotel growth (in both the present and absent analysis, this factor appears as a contributing casual condition). This evidences that while each scenario requires financial resources to support it, they are not the key factor in building sustainable resilience to ensure long-term hotel growth. This observation appears to be particularly valuable for hotels that face constraints in accessing financial resources.

Finally, our discoveries are consistent with findings on CSR activities. Several papers linking sustainable threads to hotel resilience can be found in the literature (Brown et al., 2017, 2019; Brown et al., 2018; Brown et al., 2021). However, it is worth noting that these studies omit the lower levels (individual and organizational) we have included in our analysis to build a more integrated approach. Through our analysis, we see the need for hotels to take sustainable actions in social, economic and environmental pillars that would strengthen their resilience to ensure business success. This is in line with previous studies and findings by other authors (e.g., Jones et al., 2014; Souza et al., 2017, Brown et al., 2017; Kim et al., 2019; Melián-Alzola et al., 2020; Sobaih et al., 2021; Gamage et al., 2023) who point to sustainability as a means to increase resilience in the hospitality industry. Our additional insights relate to the environmental dimension, which is still highly marginalized in sustainability and hotel resilience research. The attention of scholars in this area has focused primarily on the other two dimensions (such as Brown et al., 2017, 2018, 2019, 2021; Melián-Alzola et al., 2020).

CONCLUSIONS

Theoretical implications

We initiated this study by observing an incomplete understanding of hotel resilience in hotel growth. We found that existing research on hotel resilience focused mainly on fragmented areas: examining the impact of single factors on hotel resilience. We identified even fewer studies with regard to the impact of hotel resilience on hotel growth. Therefore, our goal was to develop a holistic, systemic effect that takes into account the complex dynamics between the interdependent factors that make up hotel resilience, resulting in higher hotel performance. Our research relies on a holistic and deeper

understanding of the joint and synergistic impact of the factors comprising sustainable hotel resilience that leads to hotel growth. With the configurational approach, we incorporated all the elements that make up the individual conditions of sustainable hotel resilience in the conceptual framework. We conducted an empirical analysis to clarify the relationship between these conditions in the context of achieving hotel growth.

Thus, this study makes several theoretical contributions to the hotel resilience literature. Firstly, based on the literature review and exploratory factor analysis, we identified five factors that make up sustainable hotel resilience: Employee Resilience, CSR activities, Team Resilience, Leadership Resilience and Financial Resilience. We explained the nature of these factors and their interdependent impact on hotel growth.

Secondly, our study extends the knowledge of the impact of accepted factors on achieving growth in the hospitality industry. In our analysis, we took into account a model of presence as well as absence, which made our analysis more comprehensive. Through this, we have identified several combinations that lead to hotel growth and those configurations that lead to hotel underperformance. Our research shows that each condition identified has its own role and implications in creating opportunities for hotels to achieve sustainable growth. Related to this is a particularly valuable observation about the role of two factors: CSR activities and Leadership Resilience, which seem to support hotel growth very strongly (when other factors are taken into account).

Finally, our study confirms the usefulness of the configurational approach supported by fsQCA in explaining the impact of the factors that make up sustainable hotel resilience and lead to hotel growth in a systemic way.

Practical implications

Our study also provides some important implications for those involved in the hospitality industry. It points to the need to support the drivers of sustainable hotel resilience by strengthening factors at every level: individual, organizational, and community. Our findings also confirm several alternative ways to configure the key elements of sustainable hotel resilience to achieve high hotel growth, implying equivalent equifinal pathways leading to the same outcome. Pursuing high hotel growth does not necessarily entail ensuring high levels of all the conditions analyzed. This is because the same result can be achieved with less involvement of the hotel's resources, representing an additional saving (time, resources, etc.) for this type of entity. In practice, the suggested proposals and their implications can enable hotels to formulate and implement sustainable hotel resilience strategies to achieve high levels of growth.

Limitations

Our study is not free of limitations. The first limitation is related to the relatively small research sample and its structure. This is because, as assumed, only one- and two-star hotels operating in Poland were accepted for the study. Although fsQCA identifies existing combinations of conditions despite the small sample size, the sample we adopted may not be large enough to account for all possible combinations formed by the defined five conditions.

The second limitation is linked to a restricted sample in terms of country. Our research sample includes hotels operating in Poland. And while we tried to draw conclusions based on the studied slice of reality, we realized that cultural factors can influence the results.

The third limitation refers to the factors adopted for analysis as the main components of sustainable hotel resilience. This should be regarded as our own proposal for conceptualizing this concept, developed on the basis of a literature review (due to the fact that there is a lack of tested concepts). However, we do not exclude other possible ways of categorizing sustainable hotel resilience, which may shed new light on the issue.

The fourth constraint concerns one factor that makes up sustainable hotel resilience, namely CSR activities. We defined it broadly, including social, economic, and environmental aspects. However, survey respondents focused primarily on the first two mentioned aspects, neglecting the environmental aspect, which, on the one hand, informs of its relatively low rank, while on the other hand, may affect the final results.

Finally, the last limitation is rooted in the configuration analysis methodology used, which, despite its undoubted usefulness, has some limitations related, among other things, to the cutoff points adopted (which may affect the results obtained) or the inability to establish temporal causality (fsQCA only considers two aspects of causality in terms of the necessity and sufficiency of conditions for the outcome of interest).

Directions for further research

Given our findings, sustainable hotel resilience and its impact on the success of hotel operations appears to be a promising area for future research. Future studies should use larger and more diverse samples and take into account additional contextual factors, such as location (conducting studies in other countries) or industry category (the addition of new higher category hotels and other tourism operators), which may result in more detailed patterns. When looking at a restricted sample in terms of country, researchers can gain valuable insights into how different countries are recovering from the impacts of the pandemic on their hotel industry. By comparing the recovery strategies and outcomes of various countries, researchers can identify best practices and learn from successful approaches. Similarly, focusing on specific hotel types can also provide valuable information for future study. Different types of hotels, such as luxury hotels or budget accommodations, may have experienced varying levels of impact during the pandemic. Understanding these differences can help researchers better understand the resilience of different sectors within the hospitality industry. Contrasting the results of a restricted sample with those of other countries and hotel types can provide a broader perspective and allow for more robust conclusions to be drawn. By comparing and contrasting data from a variety of sources, researchers can identify trends and patterns that may not be apparent when analyzing a limited sample size. In addition to country and hotel type, it is important to consider other factors that may influence the outcomes of the study, such as government policies, consumer behavior, and industry trends. By taking a holistic approach and considering a wide range of variables, researchers can ensure that their findings are robust, relevant, and actionable for stakeholders in the tourism industry. In addition to this, it is worth investigating whether sustainable resilience is affected by functioning in corporate groups (Jankowska et al., 2016) or in tourism clusters (Kachniewska, 2013), which was not included in our study.

The results also confirm the need to develop each dimension of resilience regarding CSR activities and to analyze further their interrelationships leading to hotel growth. Our research suggests that CSR activities require special attention in understanding hotel resilience and, more broadly, its impact on hotel growth.

However, the search for optimal combinations of sustainable hotel resilience should not limit future research to the individual components of sustainable hotel resilience. In the context of applying the fsQCA methodology, it is worth considering combinations of additional factors influencing sustainable hotel resilience. It would be valuable to obtain a larger number of cases for the studied population in order to achieve a representative sample size (around 240 cases would yield a sample error of less than 5%). This would allow the transformation of proposals into statistical hypotheses, their verification (e.g., using structural equation models), and provide statistical grounds for generalizing the conclusions to the entire population of hotels under study. In addition, future research on the relationship between the factors adopted for analysis may include the use of other methods to estimate the strength of the impact of individual factors on sustainable hotel resilience, and indirectly on hotel growth, such as structural equation modeling. Such research would allow the investigation of causal paths and underlying mechanisms, which would significantly enrich the perspective.

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Appendix 1. True table for high level HG analysis

ER	HS	TR	LR	FR	Number	Raw consist.	PRI consist.	SYM consist
1	1	1	0	1	1	0.9091	0.6812	0.6812
1	**1**	**0**	**1**	**1**	**3**	**0.9051**	**0.6393**	**0.6781**
1	**1**	**1**	**1**	**0**	**4**	**0.8932**	**0.6762**	**0.6843**
0	1	0	0	1	1	0.8903	0.4875	0.4875
1	**1**	**1**	**1**	**1**	**16**	**0.8848**	**0.7903**	**0.8295**
0	**1**	**1**	**1**	**1**	**3**	**0.8802**	**0.6151**	**0.6548**
0	1	0	1	0	1	0.8778	0.3712	0.3828
1	0	1	1	0	2	0.8706	0.4242	0.4599
1	0	0	1	0	1	0.8548	0.3061	0.3061
0	1	0	1	1	4	0.8535	0.4079	0.4079
0	0	0	1	1	1	0.8529	0.2955	0.2955
0	1	0	0	0	2	0.8524	0.3607	0.3607
1	0	1	1	1	8	0.8484	0.6410	0.6555
1	0	1	0	1	2	0.8385	0.3310	0.3310
1	1	0	0	0	1	0.8350	0.3284	0.3284
1	0	0	0	1	2	0.8266	0.3168	0.3168
0	1	1	0	1	3	0.8247	0.4230	0.4230
1	1	1	0	0	2	0.8231	0.4018	0.4018
0	0	0	0	1	3	0.8197	0.3326	0.3404
0	1	1	0	0	4	0.7914	0.3116	0.3480
1	0	1	0	0	2	0.7822	0.1367	0.1367
0	0	0	0	0	23	0.5401	0.1352	0.1426

Note: frequency cutoff = 2, row consistency cutoff=0.88, PRI consistency cutoff=0.5, Combinations of conditions that were considered in further analysis are indicated in bold.

Appendix 2. True table for low level HG analysis

ER	HS	TR	LR	FR	Number	Raw consist.	PRI consist.	SYM consist
1	**0**	**1**	**0**	**0**	**2**	**0.965517**	**0.863334**	**0.863333**
0	0	0	1	1	1	0.938307	0.704468	0.704467
1	0	0	1	0	1	0.935964	0.69395	0.69395
0	1	0	1	0	1	0.921944	0.598485	0.617188
1	**0**	**1**	**0**	**1**	**2**	**0.920103**	**0.66904**	**0.66904**
1	**0**	**0**	**0**	**1**	**2**	**0.919622**	**0.68323**	**0.68323**
1	1	0	0	0	1	0.919331	0.671597	0.671598
0	**1**	**0**	**0**	**0**	**2**	**0.916719**	**0.639345**	**0.639345**
0	**0**	**0**	**0**	**1**	**3**	**0.903965**	**0.644495**	**0.659624**
0	**0**	**0**	**0**	**0**	**23**	**0.900419**	**0.812727**	**0.857417**
0	**1**	**0**	**1**	**1**	**4**	**0.899103**	**0.592145**	**0.592145**
0	**1**	**0**	**0**	**1**	**1**	**0.895625**	**0.512544**	**0.512544**
1	0	1	1	0	2	0.887207	0.498317	0.540146
1	1	1	0	0	2	0.881175	0.598194	0.598194
0	1	1	0	0	4	0.873879	0.583827	0.651983
0	1	1	0	1	3	0.871508	0.577011	0.577011
1	1	0	1	1	3	0.816754	0.303482	0.321899
1	1	1	0	1	1	0.805718	0.318766	0.318766
0	1	1	1	1	3	0.789714	0.324268	0.345212
1	1	1	1	0	4	0.772954	0.311972	0.315699
1	0	1	1	1	8	0.719956	0.336815	0.344459
1	1	1	1	1	16	0.539705	0.162404	0.17047

Note: frequency cutoff = 2, row consistency cutoff=0.89, PRI consistency cutoff=0.5, Combinations of conditions that were considered in further analysis are indicated in bold.

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Authorship contribution statement

Diana Dryglas: Conceptualization, Writing – Original Draft Preparation, Writing – Review and Editing, Supervision, Revisions. **Anna Lis:** Writing – Original Draft Preparation, Writing – Review and Editing, Revisions. **Marcin Suder:** Data Curation, Methodology, Project Administration, Investigation, Validation, Software.

Conflicts of interest

The authors declare no conflict of interest.

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