

## Green Practices in Oman's Hospitality Industry: Perspectives from Eco-Lodge Operators

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### Abstract

Green lodges are vital to sustainable tourism, but their growth in Oman faces major challenges. This study surveyed 71 operators (53% response rate) and used Principal Component Analysis to identify four key challenge areas: operational and behavioral issues, policy and skill gaps, market and awareness problems, and resource shortages. Guest behavior and limited supplier networks were top concerns. Opportunities fell into four areas: resilience and cost savings, government and market support, community involvement, and improved market positioning. The top-rated opportunity—resilience via sustainable practices—highlighted both environmental and operational benefits. The findings provide a strategic roadmap for policymakers and practitioners, stressing capacity building, supportive regulations, and collaboration. This research adds new insights to regional sustainability discussions and offers a model for eco-tourism development elsewhere.

**Keywords:** Green Lodges; Sustainable Tourism; Challenges; Opportunities; Strategies; Oman.

### 1. Research Background:

Tourism is one of the fastest-growing global industries, serving as a key driver of economic development while simultaneously exerting significant environmental and social impacts (Wang *et al.*, 2023). The sector accounts for approximately 8% of global greenhouse gas emissions (Adedoyin *et al.*, 2020), highlighting the urgent need for sustainable practices. As a result, sustainable tourism has become a central priority in both international and national development agendas, emphasizing the importance of balancing economic growth with environmental conservation and cultural preservation (Saufi *et al.*, 2015; Boluk *et al.*, 2019). However, achieving sustainability in tourism remains a complex challenge that requires coordinated efforts from governments, businesses, and local communities.

In Oman, tourism is a cornerstone of the country's economic diversification strategy under Vision 2040, leveraging its rich cultural heritage, diverse natural landscapes, and strategic geographic location (Oman Vision 2040, 2023). However, the rapid expansion of the tourism

sector has raised pressing concerns regarding resource depletion, environmental degradation, and the socio-economic well-being of local communities (Halkos & Ekonomou, 2023). Within this context, the accommodation sector has emerged globally as one of the most proactive and adaptable segments of the tourism industry in implementing sustainability principles. This progress is largely driven by the sector's capacity for innovation and its adoption of a broad range of sustainable practices and technologies. Hospitality establishments worldwide have led the integration of eco-friendly solutions, including energy-efficient systems, water conservation initiatives, waste reduction programs, and the use of renewable resources (Jones *et al.*, 2014; Abdou *et al.*, 2020; Asadi *et al.*, 2020).

Furthermore, many hotels and resorts have adopted green certifications and sustainability frameworks, aligning their operations with global environmental standards (Abdou *et al.*, 2020). This approach not only reduces their ecological footprint but also enhances their appeal to an increasingly environmentally conscious consumer base (Kaithlin, 2024). By prioritizing sustainability, the accommodation sector contributes to the preservation of natural resources while setting a benchmark for other segments of the tourism industry. This demonstrates that economic success and environmental responsibility can be mutually reinforcing rather than conflicting objectives (Prakash *et al.*, 2022; Khalil *et al.*, 2022).

Oman's accommodation sector has experienced significant growth between 2011 and 2024, reflecting the nation's strategic investments in tourism infrastructure. During this period, the number of hotels across various classifications increased from 348 in 2011 to 850 in 2024. Similarly, the total number of hotel rooms expanded from 12,194 to 33,544, significantly enhancing the sector's capacity to accommodate a growing influx of travelers. This expansion aligns with a notable rise in tourism activity, as visitor numbers increased from 1,585,000 in 2009 to 2,920,000 in 2022, alongside a substantial rise in visitor expenditure from \$375,073.68 in 2009 to \$1,539,013.68 in 2022. Additionally, the total number of visitor nights more than doubled, rising from 6,535 in 2009 to 15,607 in 2022. A particularly notable development is the expansion of Green Lodges—an initiative promoting eco-friendly accommodations—which grew from a single establishment in 2015 to 134 in 2024. Despite these advancements, hotel occupancy rates remained relatively modest at 34.9% in 2022, indicating opportunities for further optimization and growth (Ministry of Heritage and Tourism, 2024). While these developments support the advancement of sustainable tourism, they also present significant challenges, particularly in maintaining environmental integrity and ensuring socio-economic sustainability amid the sector's rapid expansion.

Sustainable tourism provides a comprehensive framework for mitigating negative impacts while maximizing benefits for local communities, economies, and the environment (Sharma, 2019; Štreimikienė *et al.*, 2020). This approach is built on three core pillars: economic, environmental, and socio-cultural sustainability (Niedziołka, 2014; Roberts *et al.*, 2022).

Economic sustainability focuses on fostering long-term economic value by creating stable employment opportunities, generating income, and supporting local businesses. It emphasizes inclusive growth by integrating marginalized groups and prioritizing the use of locally sourced goods and services, ensuring equitable economic benefits for host communities (Ayres, 2008; Camisón, 2020; Elsayy & Youssef, 2023).

Environmental sustainability aims to minimize tourism's ecological footprint through resource conservation, pollution reduction, and biodiversity protection. Key strategies include the adoption of eco-friendly technologies, implementation of efficient waste management systems, and formulation of policies that safeguard sensitive ecosystems (Pulido-Fernández *et al.*, 2019; Daneshwar & Revaty, 2024).

Socio-cultural sustainability emphasizes the preservation of cultural heritage and the promotion of meaningful cultural exchange. This pillar ensures that tourism activities enhance rather than undermine local traditions and cultural identities. Efforts include supporting cultural events, promoting indigenous practices, and safeguarding historic sites (Roberts, 2022; De Oliveira *et al.*, 2022).

Global frameworks such as the United Nations Sustainable Development Goals (SDGs) offer a structured approach to integrating these sustainability pillars into tourism practices. Specifically, SDG 8 (Decent Work and Economic Growth), SDG 12 (Responsible Consumption and Production), and SDG 14 (Life Below Water) emphasize sustainable economic growth, efficient resource use, and ecosystem protection, aligning tourism development with global sustainability objectives (United Nations Development Programme, 2015; Biermann *et al.*, 2017; Boluk *et al.*, 2019; Jung *et al.*, 2024). Green Lodges, in particular, contribute to SDG 12 by promoting responsible resource consumption and reducing waste through innovative design and operational strategies.

The hospitality industry plays an essential role in promoting sustainable tourism by implementing environmentally, socially, and culturally responsible practices (Bux & Amicarelli, 2022). Hotels and resorts are increasingly prioritizing sustainability through initiatives such as energy-efficient lighting, water conservation systems, renewable energy

integration, and comprehensive recycling programs (Reid *et al.*, 2017; Khalil *et al.*, 2022; Papallou *et al.*, 2024).

Beyond environmental initiatives, hospitality establishments actively engage with local communities by sourcing products locally, creating employment opportunities, and supporting community-driven projects. These initiatives stimulate local economies, enhance inclusivity, and foster positive relationships between tourists and residents, contributing to socio-economic sustainability (Bohdanowicz & Zientara, 2009; Sotomayor *et al.*, 2021).

Cultural preservation represents another significant contribution of the hospitality sector. Hotels often integrate local arts, crafts, and traditions into their operations through cultural events, collaborations with artisans, and incorporation of indigenous design elements in architecture and décor. Such efforts preserve cultural heritage while providing guests with authentic and immersive experiences (Peterson & McCarthy, 2003; Lee & Chhabra, 2015; Marghany *et al.*, 2023).

The existing literature underscores the intricate relationship between sustainability and operational feasibility in the hospitality sector. While research indicates that eco-friendly accommodations can yield long-term cost savings and enhance brand differentiation, they often face significant challenges, including high initial investment costs, fluctuating consumer demand, and insufficient regulatory incentives (Singal, 2014; Meeroff *et al.*, 2020; Legrand *et al.*, 2022; Khatter, 2023; Jhansi *et al.*, 2023; Llaci & Khani, 2023; Singh *et al.*, 2024). Notably, studies examining sustainable lodging within the Gulf Cooperation Council (GCC) region remain limited, with most scholarship focusing on broader tourism sustainability rather than the specific experiences and challenges faced by green lodge operators (Asif, 2016; Zaidan *et al.*, 2019; Albreem *et al.*, 2023; Alsawafi & Al Ghafri, 2023). This research gap is particularly relevant in the context of Oman, where the adoption of green lodging is still in its early stages. Addressing this gap is essential for shaping informed policy decisions and industry practices that support sustainable development in the hospitality sector.

From a marketing perspective, fostering environmental sustainability within the hotel sector is also a strategic imperative. Aligning hotel operations with sustainability standards not only strengthens the industry's long-term resilience but also enhances its competitive advantage by appealing to environmentally conscious travelers. These travelers increasingly prioritize sustainable practices in their accommodation choices, thereby driving demand for eco-friendly hospitality services (González-Rodríguez *et al.*, 2020; Trišić *et al.*, 2021; Papallou *et al.*, 2024).

Research that critically examines both challenges and opportunities within a given industry serves as a cornerstone for academic and policy advancements. In the context of Oman's green lodge sector, such an inquiry is particularly significant, as it holds the potential to drive sustainable tourism and environmental conservation efforts. By identifying key barriers to growth and assessing opportunities for expansion, this study establishes a foundational knowledge base upon which future research can build—whether in the areas of customer satisfaction, motivational drivers, or long-term industry trends. A comprehensive understanding of these dynamics is crucial for informing policy decisions, optimizing business strategies, and fostering sustainable development within the sector (Butler, 2018; Onwuzulike *et al.*, 2024).

The significance of this study extends to its potential contribution to the development of a truly sustainable and environmentally responsible green hotel sector in Oman. It seeks to differentiate genuine sustainability initiatives from "greenwashing", a practice in which businesses misleadingly present themselves as environmentally friendly without implementing substantive eco-friendly measures (De Freitas Netto *et al.*, 2020; Williams, 2024). In this regard, Delmas and Burbano (2011) asserted that greenwashing undermines consumer and investor confidence in green products.

Despite the growing global emphasis on sustainability, the role of Omani green lodges in advancing sustainable tourism remains underexplored (Singh & Dutt, 2023; Papallou *et al.*, 2024). The limited body of empirical research on Green Lodges in Oman, particularly regarding the perceptions of industry operators, underscores a critical gap in the literature. Addressing this gap, the present study systematically examines the challenges faced by Green Lodges while identifying strategic opportunities for their sustainable development. Adopting a quantitative research approach, the study aims to generate data-driven insights that can inform policymakers, hoteliers, and key industry stakeholders. By doing so, it contributes to the broader discourse on sustainable tourism, offering evidence-based recommendations for strengthening the green hospitality sector in Oman.

## **2. Methodology:**

This study employs a quantitative research methodology to investigate the opportunities and challenges faced by green lodges in advancing sustainable tourism in Oman. A quantitative approach was chosen due to its ability to provide measurable, generalizable insights into industry-wide trends and to facilitate the objective comparison of operators' perceptions and

experiences. A structured questionnaire was utilized to collect data, facilitating an objective assessment of the perceptions held by green lodge operators (Boynton & Greenhalgh, 2004). The research design was meticulously developed to align with the study's objectives, focusing on systematically identifying key challenges, analyzing potential growth opportunities, and proposing strategic recommendations to address barriers within the industry. Ultimately, the study aims to generate actionable insights that contribute to the promotion of sustainable development within Oman's hospitality sector.

To ensure conceptual clarity and consistency in this study, key terms are operationally defined as follows:

**Green Lodges:** Environmentally responsible lodging establishments that implement sustainable practices, including energy efficiency, water conservation, waste reduction, and ecological preservation, while maintaining high-quality hospitality services (Jackson, 2010; Kim *et al.*, 2017; Ibrahim & Yusof, 2017; Metwally, 2019).

**Sustainable Tourism:** A form of tourism that minimizes environmental impact, preserves cultural heritage, supports local economies, and ensures long-term benefits for both visitors and host communities (Hardy *et al.*, 2002; Higgins-Desbiolles, 2018; Singh, 2019; Santos-Roldán *et al.*, 2020).

These definitions provide a clear framework for understanding the scope of the study and ensure that all respondents share a common interpretation of critical concepts.

The choice of a survey research design is well-founded, as it provides a robust framework for data collection from a diverse range of green lodge operators. To ensure representativeness, the study employed a stratified sampling technique, accounting for geographic distribution, lodge size, and operational years, thereby mitigating potential biases in data collection. This methodology enables the identification of patterns and relationships within the data (Wetzel, 2010) and is particularly well-suited for quantitative analysis. It is especially effective in exploring the challenges and opportunities encountered by green lodge operators in fostering sustainable tourism in Oman (Stratton, 2015). By adopting this approach, the study seeks to offer a comprehensive understanding of the factors shaping the dynamics of the green lodge sector in Oman.

To facilitate questionnaire distribution, the study collaborated with the Ministry of Heritage and Tourism in the Sultanate of Oman. A Google Forms survey link was shared with the ministry, which then disseminated it to all registered green lodges across the Sultanate. Google Forms is widely recognized as a reliable and adaptable platform for administering online

surveys in scientific research (Mondal *et al.*, 2019), offering cost-effectiveness, ease of use, and operational efficiency. Of the 134 green lodges in Oman, which represent the entirety of this category within the country, 71 completed the survey, yielding a response rate of approximately 53%. This rate exceeds the typical threshold of 25%, commonly regarded as above average for similar studies (Ramshaw, 2024).

The data collection process employed a structured questionnaire, developed based on insights from prior research (*e.g.*, Bohdanowicz *et al.*, 2009; Budeanu *et al.*, 2016; Reid *et al.*, 2017; Abdou *et al.*, 2020; Trišić *et al.*, 2021; Guden *et al.*, 2021; Asadi *et al.*, 2020; Khalil *et al.*, 2022; Prakash *et al.*, 2022; Akhtar, 2023; Apolloni *et al.*, 2023), with modifications tailored to the specific context of Oman's hospitality sector. The questionnaire was designed with three main sections to ensure comprehensive data collection and alignment with the study's objectives. The first section, **General Information**, gathered essential background details about the green lodges, including size and years of operation. The second section, **Challenges**, assessed the primary obstacles faced by green lodge operators, with perceptions quantified using a Likert scale to provide measurable insights. The third section, **Opportunities**, explored potential growth avenues identified by operators, also measured using a Likert scale. This structured approach enabled the systematic collection and analysis of data relevant to the research objectives.

To ensure the reliability and validity of the questionnaire, a pilot study was conducted with four green lodge operators in Al Hamra and Nizwa. The feedback gathered led to refinements such as rewording ambiguous questions, adjusting response scales for clarity, and incorporating additional questions to capture nuanced perspectives on sustainability challenges. Feedback from these participants was instrumental in refining the questionnaire, enhancing the clarity and relevance of the questions. Pilot studies are essential for identifying potential issues with measurement instruments and confirming their applicability and effectiveness (Malmqvist *et al.*, 2019).

Over a four-week period, data collection was conducted in collaboration with the Ministry of Heritage and Tourism, whose support was crucial in facilitating participant access. To maximize engagement and response rates, periodic reminder notifications were sent throughout the data collection phase.

Data analysis was performed using the Statistical Package for Social Sciences (SPSS), version 30. Initial tests were conducted to ensure adherence to normality and reliability assumptions, confirming that the responses were normally distributed and reliable. These assessments were

carried out separately for each construct, recognizing that mean responses may vary across different constructs within the questionnaire.

The data analysis was conducted through a structured two-stage process to ensure a comprehensive understanding of the factors influencing the growth and sustainability of the green lodge sector in Oman. The first stage, descriptive analysis, focused on summarizing the data to highlight key trends and general characteristics. This step provided an overview of the dataset, facilitating a preliminary understanding of the respondents and their operations. The second stage involved factor reduction analysis, which aimed to uncover underlying patterns and relationships within the data. This method simplified the complexity of the dataset while preserving essential insights. Together, these analytical steps were instrumental in addressing the study's objectives and deriving meaningful conclusions.

Ethical considerations were rigorously upheld to ensure the protection of operator confidentiality and the integrity of the data. Given the sensitivity of business-related information, additional measures were taken, including secure encrypted data storage and restricting access to only authorized research personnel. Participants were also given the option to withdraw from the study at any time. Informed consent was obtained from all participants, ensuring they were fully aware of their rights and the study's objectives. Participant responses were anonymized to safeguard identities, and all data were securely stored with access restricted to the research team. The study adhered to the ethical guidelines set forth by the Ethics Committee of the University of Technology and Applied Sciences, Oman, for research involving human participants.

This comprehensive methodological approach enabled the collection of valuable quantitative data, enhancing the understanding of Oman's green lodge sector and informing strategic development in alignment with Oman Vision 2040.

### **3. Results:**

This study investigated the primary challenges faced by operators of green lodges and explored opportunities for advancing the sector's sustainability and competitiveness. Utilizing a quantitative research methodology, data were collected through structured surveys administered to green lodge operators. By analyzing these insights, the study aims to inform strategies for fostering sustainable practices within the industry.

### 3.1 The demographic profile of respondents:

A total of 71 green lodge operators in Oman participated in the survey, resulting in a response rate of 53%, with 71 out of 134 registered operators completing the questionnaire. The demographic characteristics of these respondents are summarized in Table 1.

In terms of years of operation, 63.4% of respondents indicated they have 6 to 10 years of experience, followed by 29.6% with 3 to 5 years, and 7% with over 10 years of experience. Notably, none reported having between 0 and 2 years of experience.

Regarding workforce size, the majority of operators (77.5%) employ between 1 and 10 staff members, while 12.6% employ between 11 and 50 staff members. Additionally, 9.9% of operators have between 51 and 100 employees, and none reported employing more than 100 individuals.

**Table 1. Demographic Characteristics of Respondents**

General Information	N	%
Years of Experience:		
0-2 years	0	0
3-5 years	21	29.6
6-10 years	45	63.4
Over 10 years	5	7
Total	71	100
Staff Size:		
1-10	55	77.5
11-50	9	12.6
51-100	7	9.9
Over 100	0	0
Total	71	100

### 3.2 Reliability and adequacy of the construct:

This study assessed internal consistency through the application of Cronbach's alpha. The reliability analysis produced Cronbach's alpha values of 0.840 for the 13-item scale measuring challenges faced by green lodges and 0.848 for the 14-item scale evaluating opportunities within the green lodge sector. Both values exceed the acceptable threshold for reliability. As noted by Kumar (2024), a research scale with an alpha value of 0.70 or higher is considered

reliable and internally consistent. Thus, these findings confirm that the scales employed in this study demonstrate adequate reliability.

### 3.3 Principal Component Factoring of Challenges in the Green Lodges Sector:

To identify the underlying factors contributing to the primary challenges faced by green lodge operators in Oman, principal component factor analysis (PCA) with varimax rotation was employed. This analytical approach aimed to condense a broad dataset into a concise subset of key measurement variables, thereby facilitating a clearer understanding of the challenges.

The analysis encompassed 13 items representing significant challenges. Missing data were imputed using variable means. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy yielded a value of 0.772, indicating strong sampling adequacy in line with prior research (*e.g.*, Nkansah, 2018). Bartlett's test of sphericity was highly significant ( $\chi^2 = 525.515$ ,  $df = 78$ ,  $p < 0.001$ ), confirming that the correlation matrix was appropriate for factor analysis. Internal consistency of the factors was assessed using Cronbach's alpha.

The anti-image correlation matrix values ranged from 0.589 to 0.869, exceeding the minimum threshold of 0.50 recommended by Sarstedt and Mooi (2014). Thus, all variables were deemed suitable for inclusion in the analysis. Communality values ranged from 0.610 to 0.885, indicating adequate shared variance among variables. PCA identified four distinct factors with eigenvalues exceeding 1.0, which collectively accounted for 76.75% of the total variance. The scree plot further validated the appropriateness of the four-factor structure. Each factor was labeled according to the shared traits of the associated variables:

- **Factor 1 (Resource and Cost Barriers):** This factor explained 36.41% of the variance and included challenges such as high initial investment costs, inadequate financial support, high operational costs, and limited access to renewable energy resources. The reliability for this factor was high ( $\alpha = 0.903$ ).
- **Factor 2 (Policy, Technological, and Skill Barriers):** Contributing 19.82% of the variance, this factor encompassed certification difficulties, regulatory barriers, technological barriers, and inadequate training and skills. The reliability coefficient was  $\alpha = 0.796$ .
- **Factor 3 (Market and Awareness Challenges):** Accounting for 11.03% of the variance, this factor highlighted issues such as low consumer awareness, seasonal

demand fluctuations, and intense market competition. The reliability for this factor was  $\alpha = 0.784$ .

- **Factor 4 (Operational and Behavioral Constraints):** Representing 9.49% of the variance, this factor included challenges such as limited supplier networks and difficulties in managing guest expectations and behaviors. The reliability was  $\alpha = 0.836$ .

The data summarized in Table 2 provide a detailed account of the challenges perceived by green lodge operators in Oman. Among the identified factors, "Operational and Behavioral Constraints" emerged as the most critical, with a mean score of 4.81, reflecting widespread concern in this domain. This was followed by "Policy, Technological, and Skill Barriers" ( $M = 4.32$ ) and "Market and Awareness Challenges" ( $M = 4.08$ ), both of which were also identified as significant obstacles. In contrast, "Resource and Cost Barriers" received the lowest mean score of 3.40, indicating that operators perceive these challenges as relatively minor.

These findings collectively offer a comprehensive overview of the key challenges confronting green lodge operators. By addressing these challenges, stakeholders can better align operational and strategic initiatives to enhance the sustainability and competitiveness of the sector.

**Table 2: Principal Component Analysis with Varimax Rotation for Challenges in Green Lodges Sector**

Factor Name and Items	Factor Loading	Communalities	Eigenvalues	% of Variance Explained
<b>Factor 1: Resource and Cost Barriers (<math>\alpha=0.903</math>) (mean = 3.30)</b>			4.733	36.41%
High Initial Investment Costs	0.915	0.874		
Inadequate Financial Support	0.869	0.830		
Limited Access to Renewable Energy Resources	0.922	0.867		
Operational Costs	0.763	0.695		
<b>Factor 2: Policy, technological and Skill</b>			2.577	19.82%

<b>Barriers (<math>\alpha=0.796</math>) (mean = 4.32)</b>				
Certification Challenges	0.827	0.751		
Regulatory Barriers	0.743	0.610		
Training and Skill Development	0.758	0.675		
Technological Barriers	0.782	0.724		
<b>Factor 3: Market and Awareness Challenges (<math>\alpha=0.784</math>) (mean = 4.08)</b>			1.434	11.03%
Low Consumer Awareness	0.829	0.832		
Market Competition	0.769	0.669		
Seasonal Demand Fluctuations	0.683	0.748		
<b>Factor 4: Operational and Behavioral Constraints (<math>\alpha=0.836</math>) (mean = 4.81)</b>			1.234	9.49%
Limited Supplier Networks	0.915	0.885		
Guest Expectations and Behaviors	0.867	0.819		

\*KMO = 0.772, Bartlett's  $\chi^2 = 525.515$  ( $p < 0.001$ ), Rotation converged in 6 iterations.

Cumulative Variance = 76.75%

### 3.4 Principal Component Factoring of Opportunities in the Green Lodges Sector

To identify the key factors shaping perceived opportunities for green lodge operators in Oman, principal component factor analysis (PCA) with varimax rotation was conducted. This method reduced a wide range of variables into distinct dimensions, offering a focused understanding of the main opportunities within the sector.

The analysis included 14 variables representing potential opportunities. Missing data were replaced using variable means. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was 0.772, indicating strong suitability for factor analysis. Bartlett's test of sphericity was highly significant ( $\chi^2 = 543.307$ ,  $df = 91$ ,  $p < 0.001$ ), confirming that the correlation matrix

was appropriate for PCA. To ensure internal consistency, Cronbach's alpha was calculated for each identified factor.

The anti-image correlation matrix values ranged from 0.504 to 0.838, exceeding the minimum threshold of 0.50, confirming the suitability of all variables for the analysis. Community values ranged from 0.420 to 0.852, reflecting sufficient shared variance. Following Kaiser's (1974) recommendations, variables with factor loadings or communalities below 0.40 only must be excluded from the final factor structure. PCA identified four distinct factors with eigenvalues greater than 1.0, collectively explaining 73.77% of the total variance. The scree plot further validated this four-factor solution. Each factor was labeled to capture the common themes of its constituent variables:

- **Factor 1: Government Support and Eco-Friendly Market Demand:** This factor explained 34.43% of the variance and comprised opportunities such as partnerships with environmental organizations, access to eco-certifications, government support initiatives, and the growing demand for eco-friendly accommodations. This factor demonstrated high reliability ( $\alpha = 0.863$ ).
- **Factor 2: Market Positioning and Sustainable Tourism Innovation:** Contributing 20.36% of the variance, this factor included variables related to enhanced market positioning, innovative marketing strategies, promotion through eco-tourism networks, and access to sustainable tourism markets. The reliability coefficient was  $\alpha = 0.789$ .
- **Factor 3: Education, Conservation, and Community Engagement:** Accounting for 10.06% of the variance, this factor highlighted opportunities related to guest education, contributions to biodiversity conservation, and engagement with local communities to promote sustainable practices. The reliability for this factor was  $\alpha = 0.804$ .
- **Factor 4: Resilience and Cost Optimization through Sustainability:** Representing 8.93% of the variance, this factor emphasized opportunities for long-term resilience against market fluctuations and cost savings through sustainable practices. While its Cronbach's alpha was relatively low ( $\alpha = 0.474$ ), this could be attributed to the limited number of items within the factor (Kılıç, 2016).

The data presented in Table 3 illustrate the key opportunities identified by green lodge operators in Oman. Among the four factors, "Resilience and Cost Optimization through Sustainability" emerged as the most significant, with a mean score of 4.84, highlighting the critical importance of achieving financial and operational sustainability. This was followed by

"Government Support and Eco-Friendly Market Demand" ( $M = 4.70$ ) and "Education, Conservation, and Community Engagement" ( $M = 4.32$ ), both of which were recognized as substantial opportunities within the sector. In contrast, "Market Positioning and Sustainable Tourism Innovation" received the lowest mean score of 4.06, indicating that it is viewed as a relatively lower priority by operators.

Taken together, these factors provide a strategic framework for harnessing opportunities to enhance the growth and sustainability of the green lodging sector in Oman. They underscore the pivotal roles of government support, rising market demand for eco-friendly accommodations, educational and conservation efforts, innovation, and cost-efficient practices in shaping a resilient and competitive future for the sector.

**Table 3: Principal Component Analysis with Varimax Rotation for Opportunities in the Green Lodges Sector**

Factor Name and Items	Factor Loading	Communalities	Eigenvalues	% of Variance Explained
<b>Factor 1: Government Support and Eco-Friendly Market Demand (<math>\alpha=0.863</math>) (mean = 4.70)</b>			4.820	34.43%
Support from Government Initiatives	0.841	0.817		
Growing Demand for Eco-Friendly Accommodations	0.828	0.805		
Partnerships with Environmental Organizations	0.813	0.848		
Access to Eco-Certifications and Labels	0.797	0.670		
Promotion through Eco-Tourism Networks	0.774	0.735		
<b>Factor 2: Market Positioning and Sustainable Tourism</b>			2.850	20.36%

<b>Innovation (<math>\alpha=0.789</math>) (mean = 4.06)</b>				
Enhanced Market Positioning	0.840	0.777		
Innovative Marketing Strategies	0.836	0.785		
Positive Brand Image and Guest Loyalty	0.756	0.741		
Access to Sustainable Tourism Market	0.617	0.420		
<b>Factor 3: Education, Conservation, and Community Engagement (<math>\alpha=0.804</math>) (mean = 4.32)</b>			1.408	10.06%
Educational Opportunities for Guests	0.814	0.788		
Contribution to Biodiversity Conservation	0.801	0.746		
Opportunities for Local Community Engagement	0.765	0.605		
<b>Factor 4: Resilience and Cost Optimization through Sustainability (<math>\alpha=0.474</math>) (mean = 4.84)</b>			1.250	8.93%
Long-Term Resilience Against Market Shifts	0.899	0.852		
Cost Savings from Sustainable Practices	0.637	0.739		

\*KMO = 0.772, Bartlett's test  $\chi^2 = 543.307$  ( $p < 0.001$ ), Rotation converged in 6 iterations, Cumulative Variance = 73.77%.

#### 4. Conclusion, Discussion and Implications:

A comprehensive understanding of the challenges and opportunities within any industry is essential for shaping a successful and sustainable trajectory. This study examines the opportunities and obstacles faced by green lodges in Oman, emphasizing their potential contribution to sustainable tourism. The findings provide critical insights into the operational dynamics of green lodge enterprises and propose a strategic framework to leverage opportunities while mitigating key challenges.

The challenges identified through Principal Component Analysis (PCA) underscore significant impediments to sustainability and competitiveness in the green lodging sector. "Operational and Behavioral Constraints" emerged as the most pressing issue, with operators reporting difficulties in managing guest expectations and navigating limited supplier networks. This finding underscores the necessity of capacity building, the optimization of supply chains, and the implementation of tailored guest management strategies. Similarly, challenges associated with "Policy, Technological, and Skill Barriers" and "Market and Awareness Challenges" emphasize the importance of developing targeted policies, enhancing training programs, and raising consumer awareness about green lodging. Addressing these challenges requires a collaborative effort involving policymakers, industry stakeholders, and local communities to create an enabling environment for sustainable tourism.

Extant literature underscores the vital role of managing guest expectations in fostering sustainability by enhancing guest satisfaction and cultivating customer loyalty (e.g., Karadakova, 2020; Suryanarayanan *et al.*, 2021; Meng *et al.*, 2024). These findings highlight the necessity of developing marketing and promotional strategies that set realistic and accurate expectations among green lodge customers. In this context, Manhas and Tukamushaba (2015) argue that effectively managing guest expectations in hotels can significantly enhance guest experiences, given the frequent discrepancies between guests' expectations and actual experiences.

The importance of capacity building and supply chain enhancement is well-documented in the literature, with numerous studies emphasizing the role of sustainable supply chain management in the hospitality industry (e.g., Jenkins *et al.*, 2015; Mohamed *et al.*, 2020; Alreahi *et al.*, 2023). Sustainable supply chain practices have been shown to enhance both operational efficiency and the overall sustainability of hospitality operations.

The formulation of targeted policies and the expansion of training programs are critical for advancing sustainability, as demonstrated by research emphasizing the significance of policy

frameworks and skill development (Sakshi *et al.*, 2019; Frisch, 2023; Bilderback, 2023). Studies grounded in the Theory of Planned Behavior (TPB) reveal that factors such as perceived behavioral control and personal norms significantly influence the adoption of sustainable practices in green hotels (Shrivastava & Gautam, 2024). These findings highlight the necessity of implementing policies that empower employees and provide them with the requisite skills to integrate and promote sustainability within the hotel sector.

Addressing technological barriers in the green lodging sector necessitates strategic investments in green technologies and innovative solutions (Asadi *et al.*, 2020; Kaschuck, 2024). Existing research underscores the critical role of adopting advanced technologies to enhance energy efficiency and minimize environmental impact (Singh, 2024; Kinailiuk, 2024). These advancements are essential for achieving sustainability goals and aligning operations with environmentally conscious practices.

Enhancing consumer awareness of green lodging is pivotal to improving market competitiveness (Chung, 2019; Melé *et al.*, 2019). Research on customer patronage intentions in green hotels indicates that environmental awareness and personal norms are key determinants influencing consumer decision-making (Wang *et al.*, 2022; Shrivastava & Gautam, 2024). These findings suggest that marketing strategies should prioritize consumer education, emphasizing the environmental and personal benefits associated with choosing green lodging.

Effectively addressing market and awareness challenges in sustainable tourism necessitates collaboration among policymakers, industry stakeholders, and local communities. Research underscores the importance of a collective approach in fostering an enabling environment that supports sustainability (Williams & Ponsford, 2009; Chiwaridzo, 2023).

Green lodges in Oman can enhance their growth, sustainability, and competitiveness through the implementation of comprehensive and well-structured strategies. First, targeted marketing initiatives, strategic partnerships, and the effective communication of green practices can significantly enhance market visibility and attract environmentally conscious consumers (Yadav *et al.*, 2016; Mishra *et al.*, 2021; Tölkes, 2018). Second, operational efficiency can be improved by developing robust green supplier networks, investing in renewable technologies, and fostering industry collaboration to share innovative practices and cost-effective solutions (Melander & Pazirandeh, 2019; Liu & Giovanni, 2019; Wong *et al.*, 2020).

Furthermore, adopting clear and actionable sustainability policies, coupled with regular staff training, can embed eco-friendly practices into daily operations and ensure accountability

(Abro, 2023; Yoo, 2024). Stakeholder engagement—including local communities, customers, and policymakers—is also critical, as it fosters broader support for sustainability initiatives. Organizational commitment to these goals can be reinforced by appointing sustainability champions, incentivizing staff contributions, and publicly celebrating achievements (Journeault *et al.*, 2021; Hashemi *et al.*, 2024; Ezeh *et al.*, 2024).

By integrating these strategies, green lodges in Oman can effectively overcome existing challenges, strengthen their competitive positioning, and contribute meaningfully to global sustainability objectives.

Conversely, the opportunities identified in this study highlight the substantial potential of green lodges in advancing sustainable tourism in Oman. "Resilience and Cost Optimization through Sustainability," recognized as the most significant opportunity, underscores the importance of adopting sustainable practices to enhance financial stability and operational efficiency. "Government Support and Eco-Friendly Market Demand" and "Education, Conservation, and Community Engagement" further emphasize the need for strategic partnerships, environmental stewardship, and community involvement in advancing the sector's goals.

Previous research highlights the economic advantages of adopting sustainable practices in the hospitality sector (Bux & Amicarelli, 2022; Elshaer *et al.*, 2023; Kholijah, 2024). Empirical evidence indicates that implementing green certifications and eco-friendly initiatives can lead to substantial cost savings and enhanced financial performance (Hellmeister & Richins, 2019; Samad *et al.*, 2020; Kaithlin, 2024). These findings align with the broader concept of resilience, wherein sustainable practices contribute to businesses' ability to navigate economic fluctuations while improving operational efficiency.

The significance of government support and market demand in advancing eco-friendly practices is well-established. Research highlights that government policies and incentives play a pivotal role in fostering sustainable tourism development (Joo & Suh, 2017; Jolai *et al.*, 2021; Shanmugapriya, 2022). Increasing consumer demand for eco-friendly accommodations also serves as a key driver of sustainability (Londoño & Hernandez-Maskivker, 2016; Shanmugapriya, 2022). Together, these factors underscore the dual influence of policy frameworks and market dynamics in promoting sustainability in tourism.

Advancing sustainable tourism in Oman's green lodging sector requires a multifaceted approach, as evidenced by existing studies and theoretical frameworks (Higgins-Desbiolles, 2018; Pan *et al.*, 2018; Liangco *et al.*, 2024). This approach should prioritize sustainable practices to achieve both financial and operational benefits while leveraging government

support and responding to growing market demand for eco-friendly accommodations. Equally important is the promotion of education and community engagement, which can enhance local awareness and participation in sustainable tourism initiatives.

From the perspective of technology integration, the Ministry of Heritage and Tourism is encouraged to develop a **blockchain-based platform** to enhance transparency and accountability in sustainable tourism. This initiative would enable green lodges across Oman to systematically document and share their experiences, best practices, and sustainability efforts. By facilitating knowledge exchange and fostering collaboration among stakeholders, the platform would promote a more cohesive and cooperative approach to sustainable tourism. Furthermore, it would reinforce the industry's commitment to environmentally responsible practices while enhancing the overall credibility and ethical standards of Oman's tourism sector (Tyan *et al.*, 2020; Prados-Castillo *et al.*, 2023; Baydeniz, 2024).

This research significantly contributes to the literature on sustainable tourism by offering a focused analysis of green lodges in Oman, an area that remains relatively underexplored. By identifying key challenges and opportunities, the study provides actionable insights for practitioners and policymakers aiming to enhance sustainability within the lodging sector. Moreover, the application of PCA to systematically examine these challenges and opportunities represents a methodological advancement that can inform future studies in both regional and international contexts.

Sustainability in the accommodation sector is not merely a luxury but a necessity for promoting a positive and responsible image of the tourism industry. Given the sector's significant environmental, social, and cultural impacts, the integration of sustainable practices is essential for ensuring long-term viability and mitigating adverse effects. As Kofi Annan, the seventh Secretary-General of the United Nations (1997–2006), emphasized, “Our biggest challenge in this new century is to take an idea that seems abstract—sustainable development—and turn it into a reality for all the world's people” (John, 2023). This statement underscores the urgent need for concrete actions that translate sustainability principles into meaningful and effective practices within the tourism and hospitality sectors.

## 5. Limitations and Future Research Directions:

This study, while providing valuable insights into the opportunities and challenges facing green lodges in Oman, has several limitations. Firstly, the reliance on Principal Component Analysis (PCA) to identify key barriers and opportunities may not capture the full complexity of the

issues faced by green lodge operators. The qualitative aspects of these challenges, such as nuanced operational difficulties and specific regional constraints, might be underrepresented. Secondly, the study's focus on operators' perspectives may introduce bias, as it does not fully account for the views of other stakeholders, such as guests, policymakers, and local communities. This limited scope could affect the comprehensiveness of the findings and the proposed strategic framework. Thirdly, the research is geographically confined to Oman, which may limit the generalizability of the results to other regions with different socio-economic and environmental contexts. Comparative studies across different regions or countries could provide a broader understanding of the challenges and opportunities in the green lodging sector. Additionally, the study's cross-sectional design captures a snapshot in time, which may not reflect the dynamic nature of the tourism industry and the evolving challenges and opportunities. Longitudinal studies would be beneficial to understand the long-term impacts of sustainable practices in green lodges. Finally, the study emphasizes the need for capacity building, improved supply chains, and tailored guest management strategies, but it does not delve deeply into the specific mechanisms for implementing these recommendations. Future research should build upon these findings by examining the long-term environmental, social, and economic impacts of green lodge initiatives in Oman, offering a more comprehensive understanding of their effectiveness. Investigating the role of digital technologies and innovative practices in overcoming operational and behavioral constraints could yield valuable insights for improving efficiency and enhancing guest satisfaction. Comparative studies across different regions or countries could identify best practices and context-specific solutions, enabling tailored approaches to sustainability. Additionally, an in-depth exploration of consumer perceptions and preferences regarding green accommodations is crucial to ensure that operator strategies effectively align with market demands.

## References

- Abdou, A. H., Hassan, T. H., & El Dief, M. M. (2020). A description of green hotel practices and their role in achieving sustainable development. *Sustainability*, 12(22), 9624. <https://doi.org/10.3390/su12229624>.
- Achmad, F., Prambudia, Y., & Rumanti, A. (2023). Sustainable Tourism Industry Development: A Collaborative Model of Open Innovation, Stakeholders, and Support System Facilities. *IEEE Access*, 11, 83343-83363. <https://doi.org/10.1109/ACCESS.2023.3301574>.

- Adedoyin, F., & Bekun, F. (2020). RETRACTED ARTICLE: Modelling the interaction between tourism, energy consumption, pollutant emissions and urbanization: renewed evidence from panel VAR. *Environmental Science and Pollution Research*, 27(31), 38881 - 38900. <https://doi.org/10.1007/s11356-020-09869-9>.
- Akhtar, S. (2023). Exploring Sustainability Excellence: An In-depth Analysis of Select Hotels Embracing Best Practices. *Ecology, Environment and Conservation*, 29(04), 1954–1961. <http://dx.doi.org/10.53550/eec.2023.v29i04.084>.
- Albreem, M. A., Sheikh, A. M., Bashir, M. J., & El-Saleh, A. A. (2023). Towards green Internet of Things (IoT) for a sustainable future in Gulf Cooperation Council countries: Current practices, challenges and future prospective. *Wireless Networks*, 29(2), 539-567. <https://doi.org/10.1007/s11276-022-03133-3>.
- Alreahi, M., Bujdosó, Z., Dávid, L. D., & Gyenge, B. (2023). Green Supply Chain Management in Hotel Industry: A Systematic Review. *Sustainability*, 15(7), 5622. <http://dx.doi.org/10.3390/su15075622>.
- Alsawafi, A.M. and Al Ghafri, N. (2023). The influence of religious commitment on eco-friendly travel intentions in the Middle East: the moderating role of gender and environmental knowledge. *Int. J. Leisure and Tourism Marketing*, 8(1), pp.53–80. <https://doi.org/10.1504/IJLTM.2023.138760>.
- Apolloni, M., Volgger, M., & Pforr, C. (2023). Analysis of accommodation providers' carbon footprint in Australia: motivations and challenges. *International Journal of Contemporary Hospitality Management*, 36(5), 1490–1511. <http://dx.doi.org/10.1108/ijchm-09-2022-1183>.
- Asadi, S., Pourhashemi, S., Nilashi, M., Abdullah, R., Samad, S., Yadegaridehkordi, E., Aljojo, N., & Razali, N. (2020). Investigating influence of green innovation on sustainability performance: A case on Malaysian hotel industry. *Journal of Cleaner Production*, 258, 120860. <https://doi.org/10.1016/j.jclepro.2020.120860>.
- Asif, M. (2016). Growth and sustainability trends in the buildings sector in the GCC region with particular reference to the KSA and UAE. *Renewable and Sustainable Energy Reviews*, 55, 1267-1273. <https://doi.org/10.1016/j.rser.2015.05.04>.
- Ayres, R. (2008). Sustainability economics: Where do we stand?. *Ecological Economics*, 67, 281-310. <https://doi.org/10.1016/J.ECOLECON.2007.12.009>.
- Bandara, C., Dissanayake, D. M. P. P., Karunasena, G., & Madhusanka, N. (2018). Mitigation of challenges in sustaining green certification in the Sri Lankan hotel sector. *Built Environment*

*Project and Asset Management*, 8(5), 515–527. <http://dx.doi.org/10.1108/BEPAM-10-2017-0102>.

Barakat, B., Milhem, M., Naji, G. M. A., Alzoraiki, M., Muda, H. B., Ateeq, A., & Abro, Z. (2023). Assessing the Impact of Green Training on Sustainable Business Advantage: Exploring the Mediating Role of Green Supply Chain Practices. *Sustainability*, 15(19), 14144. <https://doi.org/10.3390/su151914144>.

Baydeniz, E. (2024). Blockchain Technology in Tourism: Pioneering Sustainable and Collaborative Travel Experiences. *Journal of Tourismology*, 10(1), 1-12. <https://doi.org/10.26650/jot.2024.10.1.1312994>.

Biermann, F., Kanie, N., & Kim, R. (2017). Global governance by goal-setting: the novel approach of the UN Sustainable Development Goals. *Current Opinion in Environmental Sustainability*, 26, 26-31. <https://doi.org/10.1016/J.COSUST.2017.01.010>.

Bilderback, S. (2023). Integrating training for organizational sustainability: the application of Sustainable Development Goals globally. *European Journal of Training and Development*, 48(7/8), 730–748. <http://dx.doi.org/10.1108/ejtd-01-2023-0005>.

Bohdanowicz, P., & Zientara, P. (2009). Hotel Companies' Contribution to Improving the Quality of Life of Local Communities and the Well-Being of Their Employees. *Tourism and Hospitality Research*, 9, 147 - 158. <https://doi.org/10.1057/thr.2008.46>.

Boluk, K., Cavaliere, C., & Higgins-Desbiolles, F. (2019). A critical framework for interrogating the United Nations Sustainable Development Goals 2030 Agenda in tourism. *Journal of Sustainable Tourism*, 27, 847 - 864. <https://doi.org/10.1080/09669582.2019.1619748>.

Boynton, P., & Greenhalgh, T. (2004). Selecting, designing, and developing your questionnaire. *BMJ: British Medical Journal*, 328, 1312 - 1315. <https://doi.org/10.1136/BMJ.328.7451.1312>.

Budeanu, A., Miller, G., Moscardo, G., & Ooi, C.-S. (2016). Sustainable tourism, progress, challenges and opportunities: an introduction. *Journal of Cleaner Production*, 111, 285–294. <http://dx.doi.org/10.1016/j.jclepro.2015.10.027>.

Butler, J. (2008). The Compelling “Hard Case” for “Green” Hotel Development. *Cornell Hospitality Quarterly*, 49, 234 - 244. <https://doi.org/10.1177/1938965508322174>.

Butler, R. (2018). Challenges and opportunities. *Worldwide Hospitality and Tourism Themes*, 10(6), 635-641. <https://doi.org/10.1108/WHATT-07-2018-0042>.

- Bux, C., & Amicarelli, V. (2022). Circular economy and sustainable strategies in the hospitality industry: Current trends and empirical implications. *Tourism and Hospitality Research*, 23, 624 - 636. <https://doi.org/10.1177/14673584221119581>.
- Camisón, C. (2020). Competitiveness and Sustainability in Tourist Firms and Destinations. *Sustainability*, 12(6), 2388. <http://dx.doi.org/10.3390/su12062388>.
- Chandran, C., & Bhattacharya, P. (2022). Development and implementation of sustainability criteria and indicators for eco-lodges and resorts in ecotourism destinations: Case studies from India. *Turizam*, 26(3), 161–175. <http://dx.doi.org/10.5937/turizam26-30594>.
- Chen, L. (2019). Green certification, e-commerce, and low-carbon economy for international tourist hotels. *Environmental Science and Pollution Research*, 26, 17965-17973. <https://doi.org/10.1007/s11356-018-2161-5>.
- Cheruon, R., Burugu, R., & Bor, T. (2015). Eco-Lodges, a Future for Sustainable Tourism in Kenya. *Journal of Tourism, Hospitality and Sports*, 8, 38-41.
- Chiwaridzo, O. T. (2023). The extrication of complex dynamics and the impact of government policies on tourism supply chain behavior for sustainable tourism in Zimbabwe. *Sustainable Development*, 32(4), 3021–3036. <http://dx.doi.org/10.1002/sd.2822>.
- Chung, K. (2019). Green marketing orientation: achieving sustainable development in green hotel management. *Journal of Hospitality Marketing & Management*, 29, 722 - 738. <https://doi.org/10.1080/19368623.2020.1693471>.
- Daneshwar, D., & Revaty, Dr. E. V. (2024). A Paradigm Shift towards Environmental Responsibility in Sustainable Green Tourism and Hospitality. *International Journal of Social Science and Human Research*, 7(05). <http://dx.doi.org/10.47191/ijsshr/v7-i05-33>.
- De Freitas Netto, S., Sobral, M., Ribeiro, A., & Da Luz Soares, G. (2020). Concepts and forms of greenwashing: a systematic review. *Environmental Sciences Europe*, 32, 1-12. <https://doi.org/10.1186/s12302-020-0300-3>.
- De Oliveira, R. A., Baracho, R. M. A., & Cantoni, L. (2022). The perception of UNESCO World Heritage Sites' managers about concepts and elements of cultural sustainability in tourism. *Journal of Cultural Heritage Management and Sustainable Development*, 14(3), 297–311. <http://dx.doi.org/10.1108/jchmsd-03-2021-0058>.
- Delmas, M., & Burbano, V. (2011). The Drivers of Greenwashing. *California Management Review*, 54(1), 64 - 87. <https://doi.org/10.1525/cm.2011.54.1.64>.

- Dube, K. (2020). TOURISM AND SUSTAINABLE DEVELOPMENT GOALS IN THE AFRICAN CONTEXT. *International Journal of Economics and Finance Studies*, 88–102. <http://dx.doi.org/10.34109/ijefs.202012106>.
- Elsawy, M., & Youssef, M. (2023). Economic Sustainability: Meeting Needs without Compromising Future Generations. *International Journal of Economics and Finance*, 15(10), 23. <http://dx.doi.org/10.5539/ijef.v15n10p23>.
- Elshaer, I., Azazz, A., & Fayyad, S. (2023). Green Management and Sustainable Performance of Small- and Medium-Sized Hospitality Businesses: Moderating the Role of an Employee's Pro-Environmental Behaviour. *International Journal of Environmental Research and Public Health*, 20. <https://doi.org/10.3390/ijerph20032244>.
- Ezeh, M., Ogbu, A., Ikevuje, A., & George, E. (2024). Stakeholder engagement and influence: Strategies for successful energy projects. *International Journal of Management & Entrepreneurship Research*, 6(7), 2375–2395. <http://dx.doi.org/10.51594/ijmer.v6i7.1330>.
- Frisch, M. (2023). Focus on Sustainability. *IST International Surface Technology*, 16, 34-35. <https://doi.org/10.1007/s35724-023-1170-1>.
- Godovykh, M., Fyall, A., & Baker, C. (2024). Sustainable Labels in Tourism Practice: The Effects of Sustainable Hotel Badges on Guests' Attitudes and Behavioral Intentions. *Sustainability*, 16(6), 2484. <http://dx.doi.org/10.3390/su16062484>.
- González-Rodríguez, M., Díaz-Fernández, M., & Font, X. (2020). Factors influencing willingness of customers of environmentally friendly hotels to pay a price premium. *International Journal of Contemporary Hospitality Management*, 32(1), 60-80. <https://doi.org/10.1108/ijchm-02-2019-0147>.
- Graci, S. (2013). Collaboration and Partnership Development for Sustainable Tourism. *Tourism Geographies*, 15, 25 - 42. <https://doi.org/10.1080/14616688.2012.675513>.
- Guden, N., Unal Girgen, M., Saner, T., & Yesilpinar, E. (2021). Barriers to sustainable tourism for small hotels in small island developing states and some suggested remedies. *Worldwide Hospitality and Tourism Themes*, 13(4), 510-521. <https://doi.org/10.1108/WHATT-02-2021-0032>.
- Halkos, G., & Ekonomou, G. (2023). Can Business and Leisure Tourism Spending Lead to Lower Environmental Degradation Levels? Research on the Eurozone Economic Space. *Sustainability*, 15(7), 6063. <http://dx.doi.org/10.3390/su15076063>.

- Hardy, A., Beeton, R. J. S., & Pearson, L. (2002). Sustainable Tourism: An Overview of the Concept and its Position in Relation to Conceptualisations of Tourism. *Journal of Sustainable Tourism*, 10(6), 475–496. <http://dx.doi.org/10.1080/09669580208667183>.
- Hashemi, S., Singh, K. S. D., & Xiang, E. (2024). Cultivating stakeholders' willingness to participate in sustainable tourism development: A research proposition. *International Journal of Asian Social Science*, 14(9), 330–342. <http://dx.doi.org/10.55493/5007.v14i9.5193>.
- Hellmeister, A., & Richins, H. (2019). Green to Gold: Beneficial Impacts of Sustainability Certification and Practice on Tour Enterprise Performance. *Sustainability*, 11(3), 709. <http://dx.doi.org/10.3390/SU11030709>.
- Higgins-Desbiolles, F. (2018). Sustainable tourism: Sustaining tourism or something more?. *Tourism Management Perspectives*, 25, 157–160. <http://dx.doi.org/10.1016/J.TMP.2017.11.017>.
- Ibnou-Laaroussi, S., Rjoub, H., & Wong, W.-K. (2020). Sustainability of Green Tourism among International Tourists and Its Influence on the Achievement of Green Environment: Evidence from North Cyprus. *Sustainability*, 12(14), 5698. <http://dx.doi.org/10.3390/su12145698>.
- Ibrahim, Y., & Yusof, Y. (2017). Towards sustainable environmental management through green tourism: Case study on Borneo rainforest lodge. *Asian Journal of Tourism Research*, 2(3), 123-143. <https://doi.org/10.12982/AJTR.2017.0020>.
- Jackson, L. (2010). Toward a framework for the components of green lodging. *Journal of Retail & Leisure Property*, 9, 211-230. <https://doi.org/10.1057/RLP.2010.6>.
- Jenkins, Andrew Kevin, Cameron, Derek and Crompton, Richard (2015). Supply Chain Management in the Hospitality Industry: A research agenda. In: *Asia Pacific CHRIE Conference 2015: Hospitality and Tourism in a Greening World, 10th - 13th June 2015*, Auckland, New Zealand.
- Jhansi, B., Ankit., R., Reddy, P., Y., Patil, S., Sahare, H., & Upadhyay, H. (2023). Green Hotels and their effect on Urban Sustainability. *Ecology, Environment and Conservation*. 29 (4): 2023; pp. (1871-1876). <https://doi.org/10.53550/eec.2023.v29i04.069>.
- John, M. (2023, July 7). *64 Best Quotes About Sustainability (Including Inspiring, Funny & Short)*. Green Coast. <https://greencoast.org/quotes-about-sustainability/>.
- Jolai, H., Hafezalkotob, A., & Reza-Gharehbagh, R. (2021). Pricing and greening decisions of competitive forward and reverse supply chains under government financial intervention:

- Iranian motorcycle industry case study. *Computers & Industrial Engineering*, 157, 107329. <http://dx.doi.org/10.1016/j.cie.2021.107329>.
- Jones, P., Hillier, D., & Comfort, D. (2014). Sustainability in the global hotel industry. *International Journal of Contemporary Hospitality Management*, 26(1), 5-17. <https://doi.org/10.1108/IJCHM-10-2012-0180>.
- Joo, H., & Suh, H. (2017). The Effects of Government Support on Corporate Performance Hedging against International Environmental Regulation. *Sustainability*, 9, 1-25. <https://doi.org/10.3390/SU9111980>.
- Journeault, M., Perron, A., & Vallières, L. (2021). The collaborative roles of stakeholders in supporting the adoption of sustainability in SMEs. *Journal of environmental management*, 287, 112349. <https://doi.org/10.1016/j.jenvman.2021.112349>.
- Jung, S., Draper, J., Malek, K., Padron, T. C., & Olson, E. (2024). Bridging Theory and Practice: An Examination of How Event-Tourism Research Aligns with UN Sustainable Development Goals. *Journal of Travel Research*, 63(7), 1583–1605. <http://dx.doi.org/10.1177/00472875241231273>.
- Kaiser, H. F. (1974). An index of factorial simplicity. *Psychometrics*, 39, 31-36. <https://doi.org/10.1007/BF02291575>.
- Kaithlin, J. (2024). Green Certification and Its Impact on Hotel Marketability and Profitability. *Journal of Modern Hospitality*, 3(2), 39–51. <http://dx.doi.org/10.47941/jmh.1959>.
- Kang, S., & Nicholls, S. (2021). Determinants of willingness to pay to stay at a green lodging facility. *International Journal of Hospitality Management*, 94, 102834. <http://dx.doi.org/10.1016/j.ijhm.2020.102834>.
- Karadakova, I. (2020). Achieving Customer Loyalty Through a Hotel Brand Differentiation. In *Anniversary Scientific Conference with International Participation TOURISM AND CONNECTIVITY 2020* (No. 1, pp. 423-432). University publishing house" Science and Economics", University of Economics-Varna.
- Kaschuck, K. (2024). INNOVATIVE TECHNOLOGIES AS A FACTOR IN IMPROVING THE QUALITY OF SERVICE ORGANIZATION IN THE HOTEL AND RESTAURANT BUSINESS. *Economics. Management. Innovations*, 1(34), 50–61. [http://dx.doi.org/10.35433/issn2410-3748-2024-1\(34\)-4](http://dx.doi.org/10.35433/issn2410-3748-2024-1(34)-4).
- Khalil, N., Che Abdullah, S. N., Haron, S. N., & Hamid, M. Y. (2022). A review of green practices and initiatives from stakeholder's perspectives towards sustainable hotel operations

and performance impact. *Journal of Facilities Management*, 22(4), 653–682.  
<http://dx.doi.org/10.1108/jfm-03-2022-0025>.

Khatter, A. (2023). Challenges and Solutions for Environmental Sustainability in the Hospitality Sector. *Sustainability*, 15(15), 11491. <http://dx.doi.org/10.3390/su151511491>.

Kholijah, S. (2024). Analysis of Economic and Environmental Benefits of Green Business Practices in the Hospitality and Tourism Sector. *Involvement International Journal of Business*, 1(1), 60–74. <http://dx.doi.org/10.62569/ijb.v1i1.7>.

Kılıç, S. (2016). Cronbach's alpha reliability coefficient -. *Journal of Mood Disorders*, 6, 47. <https://doi.org/10.5455/JMOOD.20160307122823>.

Kim, S., Lee, K., & Fairhurst, A. (2017). The review of “green” research in hospitality, 2000-2014. *International Journal of Contemporary Hospitality Management*, 29(1), 226-247. <https://doi.org/10.1108/IJCHM-11-2014-0562>.

Kinailiuk, M. (2024). Foreign experience in designing energy-efficient hostel buildings. *Current Problems of Architecture and Urban Planning*, 68, 268–279. <http://dx.doi.org/10.32347/2077-3455.2024.68.268-279>.

Kumar, R. (2024). Cronbach's Alpha: Genesis, Issues and Alternatives. *IMIB Journal of Innovation and Management*. <https://doi.org/10.1177/ijim.241234970>.

Lee, W., & Chhabra, D. (2015). Heritage hotels and historic lodging: perspectives on experiential marketing and sustainable culture. *Journal of Heritage Tourism*, 10, 103 - 110. <https://doi.org/10.1080/1743873X.2015.1051211>.

Legrand, W., Chen, J. S., & Laeis, G. C. (2022). *Sustainability in the hospitality industry: Principles of sustainable operations*. Routledge. <http://dx.doi.org/10.4324/9781003081128>.

Liangco, N. C., Khong-Khai, S., Leelapattana, W., Thongma, W., Guntoro, B., & Thongma, W. (2024). Wings of change: Empowering agro-rural tourism stakeholders through a multifaceted approach for sustainable development. *Multidisciplinary Reviews*, 7(10), 2024232. <https://doi.org/10.31893/multirev.2024232>.

Liu, B., & Giovanni, P. (2019). Green process innovation through Industry 4.0 technologies and supply chain coordination. *Annals of Operations Research*, 1-36. <https://doi.org/10.1007/s10479-019-03498-3>.

Llaci, S., & Xhani, B. (2023). Eco-Innovation in the Accommodation Sector in Albania. In *LIMEN - International Scientific-Business Conference - Leadership, Innovation, Management and Economics: Integrated Politics of Research* (pp. 69–78). Association of Economists and Managers of the Balkans, Belgrade, Serbia. <http://dx.doi.org/10.31410/limen.s.p.2023.69>.

- Londoño, M. L., & Hernandez-Maskivker, G. (2016). Green practices in hotels: the case of the GreenLeaders Program from TripAdvisor. *WIT Transactions on Ecology and the Environment*, 201, 1-13. 10.2495/ST160011.
- Malmqvist, J., Hellberg, K., Möllås, G., Rose, R., & Shevlin, M. (2019). Conducting the Pilot Study: A Neglected Part of the Research Process? Methodological Findings Supporting the Importance of Piloting in Qualitative Research Studies. *International Journal of Qualitative Methods*, 18. <https://doi.org/10.1177/1609406919878341>.
- Manhas, P., & Tukamushaba, E. (2015). Understanding service experience and its impact on brand image in hospitality sector. *International Journal of Hospitality Management*, 45, 77-87. <https://doi.org/10.1016/J.IJHM.2014.11.010>.
- Marghany, M., Morgan, N., Finniear, J., & White, P. (2023). Heritage hotels: An exploration of staff experiences in these unique hospitality environments. *Tourism and Hospitality Research*. <http://dx.doi.org/10.1177/14673584231215707>.
- Meeroff, D., Scarlatos, P., Bloetscher, F., & Sobel, L. (2020). Implementation of Sustainability Practices in the Hospitality Industry. *Journal of Service Science and Management*, 13, 189-208. <https://doi.org/10.4236/jssm.2020.132013>.
- Melander, L., & Pazirandeh, A. (2019). Collaboration beyond the supply network for green innovation: insight from 11 cases. *Supply Chain Management: An International Journal*, 24(4), 509–523. <http://dx.doi.org/10.1108/SCM-08-2018-0285>.
- Melé, P., Gómez, J., & Garay, L. (2019). To Green or Not to Green: The Influence of Green Marketing on Consumer Behaviour in the Hotel Industry. *Sustainability*, 11(17), 4623. <http://dx.doi.org/10.3390/SU11174623>.
- Meng Z, Bhatti SM, Naveed RT, kanwal S, Adnan M (2024) Green sustainability in the hotel sector: The role of CSR, intrinsic green motivation, and personal environmental norms. *PLoS ONE* 19(6): e0295850. <https://doi.org/10.1371/journal.pone.0295850>.
- Metwally, E. (2019). Use energy efficiency, eco-design, and eco-friendly materials to support eco-tourism. *Journal of power and energy engineering*, 7(12), 15-41. <https://doi.org/10.4236/jpee.2019.712002>.
- Ministry of Heritage and Tourism. (2024). *Statistics*. Retrieved December 9, 2024, from <https://mht.gov.om/ar/statistics>.
- Mishra, A., Sahu, D., Ranjan, D., & Varma, P. (2021). Green Marketing Practices Prevailing In Hotel Industry. *The Journal of Contemporary Issues in Business and Government*, 27, 1359-1364. <https://doi.org/10.47750/CIBG.2021.27.02.145>.

- Mohamed, M., Mohamed, A., & Elkashak, H. (2020). Influence of Sustainable Hospitality Supply Chain Management on Customers' Satisfaction and loyalty. (2020). *Minia Journal of Tourism and Hospitality Research MJTHR*, 10(1), 27–50. <http://dx.doi.org/10.21608/mjthr.2020.139533>.
- Mondal, H., Mondal, S., Ghosal, T., & Mondal, S. (2019). Using Google Forms for Medical Survey: A Technical Note. *International Journal of Clinical and Experimental Physiology*, 5, 216-218. <https://doi.org/10.5530/IJCEP.2018.5.4.26>.
- Morales-Contreras, M.-F., Bilbao-Calabuig, P., Meneses-Falcón, C., & Labajo-González, V. (2019). Evaluating Sustainable Purchasing Processes in the Hotel Industry. *Sustainability*, 11(16), 4262. <http://dx.doi.org/10.3390/SU11164262>.
- Murni, N., Ruki, M., & Antara, D. (2019). Model of Community Participation in Environmental Conservation to Support Sustainable Tourism. *Proceedings of the International Conference On Applied Science and Technology 2019 - Social Sciences Track (iCASTSS 2019)*. <https://doi.org/10.2991/icastss-19.2019.50>.
- Niemczewska, Z. E. (2020). Increasing the socio-cultural influence of immovable cultural heritage on local communities – the case of historic residential buildings in Wielkopolska used as hotels. *Studia Periegetica*, 32(4), 43–57. <http://dx.doi.org/10.5604/01.3001.0014.6582>.
- Nkansah, B. (2018). On the Kaiser-Meier-Olkin's Measure of Sampling Adequacy. *Mathematical theory and modeling*, 8, 52-76.
- Oman Vision 2040. (2023). *Oman Vision 2040 publication. Oman Vision 2040*. Retrieved December 9, 2024, from [https://www.oman2040.om/uploads/publication/20231105221146-2023-11-05publication221143\\_.pdf](https://www.oman2040.om/uploads/publication/20231105221146-2023-11-05publication221143_.pdf).
- Onwuzulike, O. C., Ononiwu, M. I., & Shitu, K. (2024). Strategic management in emerging markets: Challenges and opportunities. *World Journal of Advanced Research and Reviews*, 23(3), 309-322. <https://doi.org/10.30574/wjarr.2024.23.3.2671>.
- Pan, S., Gao, M., Kim, H., Shah, K., Pei, S., & Chiang, P. (2018). Advances and challenges in sustainable tourism toward a green economy. *The Science of the total environment*, 635, 452-469. <https://doi.org/10.1016/j.scitotenv.2018.04.134>.
- Papallou, E., Katafygiotou, M., & Dimopoulos, T. (2024). Emerging sustainability trends in tourist facilities: A comparative assessment of multiple hotels and resorts. *Sustainability*, 16(9), 3536. <https://doi.org/10.3390/su16093536>.
- Peterson, C., & McCarthy, C. (2003). Hotel Development of Cultural Tourism Elements. *Tourism Review*, 58, 38-42. <https://doi.org/10.1108/EB058409>.

- Prados-Castillo, J. F., Torrecilla-García, J. A., Andraz, G., & Guaita Martínez, J. M. (2023). Blockchain in Peer-to-Peer Platforms: Enhancing Sustainability and Customer Experience in Tourism. *Sustainability*, 15(22), 15968. <http://dx.doi.org/10.3390/su152215968>.
- Prakash, S., Sharma, V. P., Singh, R., Vijayvargy, L., & Nilaish. (2022). Adopting green and sustainable practices in the hotel industry operations- an analysis of critical performance indicators for improved environmental quality. *Management of Environmental Quality: An International Journal*, 34(4), 1057–1076. <http://dx.doi.org/10.1108/meq-03-2022-0090>.
- Preziosi, M., Acampora, A., Lucchetti, M. C., & Merli, R. (2022). Delighting Hotel Guests with Sustainability: Revamping Importance-Performance Analysis in the Light of the Three-Factor Theory of Customer Satisfaction. *Sustainability*, 14(6), 3575. <http://dx.doi.org/10.3390/su14063575>.
- Pulido-Fernández, J. I., Cárdenas-García, P. J., & Espinosa-Pulido, J. A. (2019). Does environmental sustainability contribute to tourism growth? An analysis at the country level. *Journal of Cleaner Production*, 213, 309–319. <http://dx.doi.org/10.1016/J.JCLEPRO.2018.12.151>.
- Ramshaw, A. (2024). *The complete guide to acceptable survey response rates*. Genroe. Retrieved December 10, 2024, from <https://www.genroe.com/blog/acceptable-survey-response-rate-2/11504>.
- Reid, S., Johnston, N., & Patiar, A. (2017). Coastal resorts setting the pace: An evaluation of sustainable hotel practices. *Journal of Hospitality and Tourism Management*, 33, 11-22. <https://doi.org/10.1016/J.JHTM.2017.07.001>.
- Roberts, C., Reynolds, J., & Dolasinski, M. J. (2022). Meta-Analysis of Tourism Sustainability Research: 2019–2021. *Sustainability*, 14(6), 3303. <http://dx.doi.org/10.3390/su14063303>.
- Roberts, S. (2022). Socio-cultural sustainability and small tourism businesses. *Tourism and Hospitality Research*, 23, 298 - 311. <https://doi.org/10.1177/14673584221093537>.
- Sakshi, Shashi, Cerchione, R., & Bansal, H. (2019). Measuring the impact of sustainability policy and practices in tourism and hospitality industry. *Business Strategy and the Environment*, 29(3), 1109–1126. <http://dx.doi.org/10.1002/bse.2420>.
- Samad, N., Abdul-Rahim, A., Yusof, M., & Tanaka, K. (2020). Impact of Green Building Certificate on Firm's Financial Performance. *IOP Conference Series: Earth and Environmental Science*, 549. <https://doi.org/10.1088/1755-1315/549/1/012076>.
- Santos-Roldán, L., Castillo Canalejo, A. M., Berbel-Pineda, J. M., & Palacios-Florencio, B. (2020). Sustainable Tourism as a Source of Healthy Tourism. *International Journal of*

*Environmental Research and Public Health*, 17(15), 5353.

<http://dx.doi.org/10.3390/ijerph17155353>.

Sarstedt, M., & Mooi, E. (2014). *A concise guide to market research: The process, data, and methods using IBM SPSS statistics (2nd ed.)*. Springer. <https://doi.org/10.1007/978-3-642-53965-7>.

Saufi, A., Andilolo, I. R., Othman, N., & Lew, A. A. (2015). Balancing development and sustainability in tourism destinations. In *Proceedings of the Tourism Outlook Conference* (p. 1).

Shanmugapriya, M. M. (2022). A Study on Eco Hotels and Green Operations in Indian Hospitality (Hotel) Industry. *Journal of Social Responsibility, Tourism and Hospitality*, 26, 31–40. <http://dx.doi.org/10.55529/jsrth.26.31.40>.

Sharma, A. (Ed.). (2019). *Sustainable tourism development: futuristic approaches*. CRC Press.

Shrivastava, P., & Gautam, V. (2024). Examining patronage intentions of customers: a case of green hotels. *Frontiers in Sustainable Tourism*, 3. <http://dx.doi.org/10.3389/frsut.2024.1429472>.

Singal, M. (2014). The Link between Firm Financial Performance and Investment in Sustainability Initiatives. *Cornell Hospitality Quarterly*, 55(1), 19–30. <https://doi.org/10.1177/1938965513505700>.

Singh, A. B., Mishra, Y., & Yadav, S. (2024). Toward Sustainability: Interventions for Implementing Energy-Efficient Systems into Hotel Buildings. *Engineering Proceedings*, 67(1), 80. [10.3390/engproc2024067080](https://doi.org/10.3390/engproc2024067080).

Singh, C. (2019). Understanding Sustainable Tourism. In *Sustainable Tourism* (pp. 1–8). IGI Global. <http://dx.doi.org/10.4018/978-1-5225-7504-7.ch001>.

Singh, R. (2024). Impact of Technological Progress on Energy Consumption in the Hotel Industry in North-East Europe (Latvia). *INTERANTIONAL JOURNAL OF SCIENTIFIC RESEARCH IN ENGINEERING AND MANAGEMENT*, 08(01), 1–10. <http://dx.doi.org/10.55041/ijrsrem28299>.

Singh, S., & Dutt, C. S. (2023). The adoption of the UN sustainable development goals in hotels in Dubai. *Tourism and Hospitality Research*, 24(4), 515–534. <http://dx.doi.org/10.1177/14673584231164941>.

Sobhani, P., Esmaeilzadeh, H., Sadeghi, S. M. M., Wolf, I. D., & Deljouei, A. (2022). Relationship Analysis of Local Community Participation in Sustainable Ecotourism

Development in Protected Areas, Iran. *Land*, 11(10), 1871.  
<http://dx.doi.org/10.3390/land11101871>.

Sotomayor, S., Ventas, N., & Gronau, W. (2021). Corporate social responsibility in luxury hotels in Cusco (Peru) to benefit indigenous communities. *Hospital Medicine*, 1-21.  
[https://doi.org/10.1386/HOSP\\_00036\\_1](https://doi.org/10.1386/HOSP_00036_1).

Stratton, S. (2015). Assessing the Accuracy of Survey Research. *Prehospital and Disaster Medicine*, 30, 225 - 226. <https://doi.org/10.1017/S1049023X15004719>.

Štreimikienė, D., Švagždienė, B., Jasinskas, E., & Simanavicius, A. (2020). Sustainable tourism development and competitiveness: The systematic literature review. *Sustainable Development*, 29, 259 - 271. <https://doi.org/10.1002/sd.2133>.

Suryanarayanan, S., Srinivasan, S. R., Lin, W., Wang, L., & Sabharwal, J. K. (2021). Managing Customer Expectations: A Study of Two Four-Star Hotels in Malaysia and Singapore. In *Tourism, Hospitality & Event Management* (pp. 41–53). Springer International Publishing. [http://dx.doi.org/10.1007/978-3-030-57694-3\\_4](http://dx.doi.org/10.1007/978-3-030-57694-3_4).

Tölkes, C. (2018). Sustainability communication in tourism – A literature review. *Tourism Management Perspectives*, 27, 10–21. <http://dx.doi.org/10.1016/J.TMP.2018.04.002>.

Trišić, I., Štetić, S., Privitera, D., Petrović, M., Maksin, M., Vujović, S., Jovanović, Z., & Kalinić, M. (2021). Perspectives on Sustainable Tourism Development in the Hotel Industry— A Case Study from Southern Europe. *Sustainability*, 13(10), 5563. <https://doi.org/10.3390/SU13105563>.

Tyan, I., Yagüe, M. I., & Guevara-Plaza, A. (2020). Blockchain Technology for Smart Tourism Destinations. *Sustainability*, 12(22), 9715. <http://dx.doi.org/10.3390/su12229715>.

United Nations Development Programme. (2015). Sustainable development goals. Retrieved December 9, 2024, from <https://www.undp.org/sustainable-development-goals>.

Wang, C., & Nguyen, H. (2022). Evaluating the sustainability of hotels using multi-criteria decision-making methods. *Proceedings of the Institution of Civil Engineers - Engineering Sustainability*. <https://doi.org/10.1680/jensu.21.00084>.

Wang, L., Zhang, Q., Ding, Y., & Wong, P. (2022). The Effect of Social and Personal Norm on Intention to Patronize Green Hotels: Extension of Theory of Planned Behavior. *Journal of China Tourism Research*, 19, 311 - 334. <https://doi.org/10.1080/19388160.2022.2070567>.

Wang, S., Abbas, J., Al-Sulati, K. I., & Shah, S. A. R. (2024). The Impact of Economic Corridor and Tourism on Local Community's Quality of Life under One Belt One Road Context. *Evaluation Review*, 48(2), 312-345. <https://doi.org/10.1177/0193841X231182749>.

- Wetzel, A. (2010). Internet, mail, and mixed-mode surveys: The tailored design method. *Journal of Continuing Education in The Health Professions*, 30, 206-206. <https://doi.org/10.1002/CHP.20083>.
- Williams, J. (2024). Greenwashing: Appearance, illusion and the future of 'green' capitalism. *Geography Compass*, 18(1), e12736. <https://doi.org/10.1111/gec3.12736>.
- Williams, P., & Ponsford, I. (2009). Confronting tourism's environmental paradox: Transitioning for sustainable tourism. *Futures*, 41, 396-404. <https://doi.org/10.1016/J.FUTURES.2008.11.019>.
- Wong, C., Wong, C., & Boon-Itt, S. (2020). Effects of green supply chain integration and green innovation on environmental and cost performance. *International Journal of Production Research*, 58, 4589 - 4609. <https://doi.org/10.1080/00207543.2020.1756510>.
- Yadav, R., Dokania, A., & Pathak, G. (2016). The influence of green marketing functions in building corporate image: Evidences from hospitality industry in a developing nation. *International Journal of Contemporary Hospitality Management*, 28, 2178-2196. <https://doi.org/10.1108/IJCHM-05-2015-0233>.
- Yoo, D. Y. (2024). Eco-Leadership in Action: Integrating Green HRM and the New Ecological Paradigm to Foster Organizational Commitment and Environmental Citizenship in the Hospitality Industry. *Sustainability* (2071-1050), 16(20). <https://doi.org/10.3390/su16209044>.
- Zaidan, E., Al-Saidi, M., & Hammad, S. H. (2019). Sustainable development in the Arab world—is the Gulf Cooperation Council (GCC) region fit for the challenge?. *Development in Practice*, 29(5), 670-681. <https://doi.org/10.1080/09614524.2019.1628922>.