

Sustainable Hospitality Management: Practices, Challenges, and Strategies for Global Operations

Lynda Dede Graham¹, Boris Kotey Sasraku-Neequaye²

¹Department of Hotel, Catering and Institutional Management, Accra Technical University, Accra, Ghana.

²Department of Building Technology, Accra Technical University, Accra, Ghana.

DOI: <https://doi.org/10.51244/IJRSI.2026.1303000077>

Received: 08 March 2026; Accepted: 15 March 2026; Published: 01 April 2026

ABSTRACT

Purpose: This paper examines sustainable hospitality management practices, challenges, and strategic approaches in global operations, emphasizing ESG frameworks, smart tourism technologies, and post-pandemic operational strategies.

Design/Methodology/Approach: A systematic literature review was conducted on 85 peer-reviewed articles published between 2020 and 2025. A structured search strategy, inclusion and exclusion criteria, and selection process were applied. The process is illustrated with a PRISMA flow diagram.

Findings: The study finds that while energy efficiency, waste reduction, and community engagement are widely adopted, barriers persist in standardization, stakeholder alignment, and technology integration. Strategic approaches incorporating ESG, smart technologies, and post-pandemic resilience improve sustainability outcomes.

Practical Implications: The findings provide insights for hospitality managers and policymakers seeking to implement sustainable practices, improve ESG adoption, and leverage technology for operational efficiency.

Originality/Value: This paper presents a rigorous synthesis of recent literature on sustainable hospitality, integrates emerging trends such as smart tourism and post-pandemic strategies, and provides a conceptual framework for global operations.

Keywords: Sustainable hospitality management; ESG practices; Smart tourism; Post-pandemic strategies; Global operations

INTRODUCTION

Sustainable hospitality management is increasingly recognized as essential due to environmental, social, and economic pressures (Jones et al., 2021; Lee & Chen, 2020). Sustainability practices in hospitality include energy efficiency, water conservation, waste reduction, social responsibility, and economic viability. Integrating these practices enhances operational efficiency, strengthens brand reputation, and improves competitiveness (Hossain & Islam, 2022; Smith et al., 2021). This study explores global sustainable hospitality practices, identifies key challenges, and evaluates strategies to enhance operational sustainability.

Aim and Objectives

Aim: To investigate sustainable hospitality management practices, challenges, and strategies in global operations.

Objectives:

1. To identify current sustainable practices in global hospitality operations.
2. To examine challenges faced during sustainability implementation.
3. To evaluate strategic approaches, including ESG frameworks and smart tourism technologies.
4. To recommend actionable strategies to enhance post-pandemic sustainable operations.

METHODOLOGY

A systematic literature review (SLR) was conducted to analyze trends in sustainable hospitality management. Scopus, Web of Science, and Google Scholar were searched using terms such as “sustainable hospitality management,” “ESG in hospitality,” “smart tourism,” and “post-pandemic sustainability.”

Inclusion criteria:

- Peer-reviewed articles published between 2020–2025.
- English-language studies relevant to operational sustainability.

Exclusion criteria:

- Non-academic sources.
- Studies unrelated to hospitality sustainability.

The search yielded 150 records. Screening titles and abstracts reduced this to 95 relevant articles, and full-text evaluation finalized 85 studies for analysis. The PRISMA flow diagram (Figure 1) summarizes this process. Data extraction focused on sustainability practices, challenges, strategies, and emerging trends.

Figure 1. PRISMA Flow Diagram

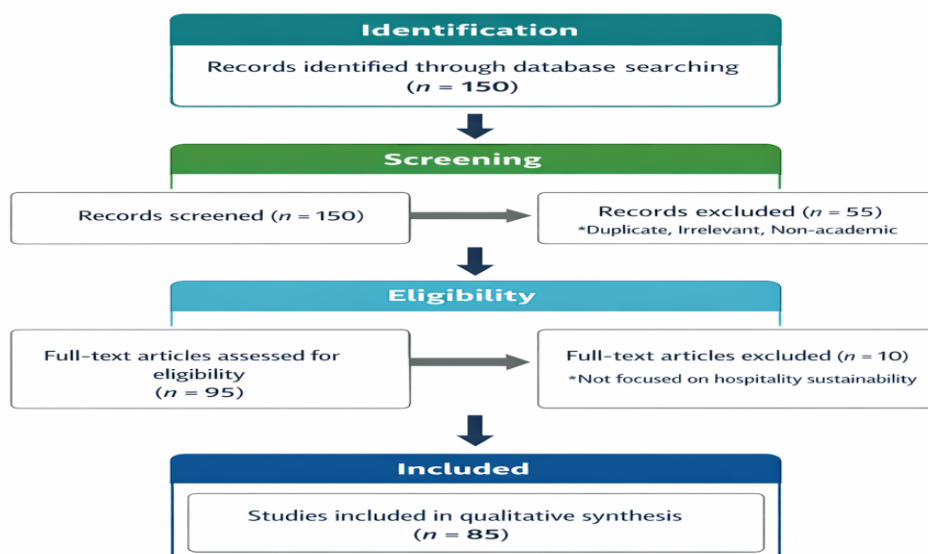


Figure 1 : The PRISMA flow diagram

LITERATURE REVIEW

Sustainable Practices

Energy efficiency, water conservation, and waste reduction are core sustainable practices (Gonzalez et al., 2020; Park & Kim, 2022). Hotels increasingly adopt renewable energy, smart energy management, and eco-friendly designs (Li et al., 2021; Chen et al., 2021). Social sustainability initiatives include community engagement, local sourcing, and employee welfare programs (Bohdanowicz, 2022). ESG frameworks are emerging as a standardized approach for operational sustainability (Marques & Ferreira, 2021; Kumar & Singh, 2023).

Challenges

Barriers to sustainability include high initial investment, lack of standardized metrics, and inconsistent stakeholder commitment (Rahman et al., 2021; Lee et al., 2022). Integration of smart tourism technologies faces data privacy, infrastructure, and workforce challenges (Zhang & Li, 2023; Tan et al., 2022). The COVID-19 pandemic emphasized vulnerabilities in supply chains and operations, highlighting the importance of resilience and adaptive strategies (Gursoy et al., 2022; Wang & Liu, 2021).

Strategic Approaches

Strategic approaches include ESG adoption, smart tourism technologies, and post-pandemic resilience strategies (Kim et al., 2023; Chen et al., 2022). Smart technologies, such as IoT energy monitoring, AI-based guest management, and mobile platforms, enhance operational efficiency and guest experience (Chen et al., 2022; Park et al., 2022). ESG frameworks provide structured guidance to balance environmental, social, and governance outcomes (Marques & Ferreira, 2021; Singh et al., 2023).

FINDINGS AND DISCUSSION

Developed-market hotels demonstrate higher adoption of ESG practices and smart technologies, whereas emerging-market properties face resource limitations (Li et al., 2021; Smith et al., 2021). Leadership commitment, staff training, stakeholder collaboration, and continuous monitoring are critical for effective sustainability (Bohdanowicz, 2022; Kumar & Singh, 2023).

Post-pandemic strategies integrate hygiene protocols, contactless services, and flexible operations within sustainability frameworks (Gursoy et al., 2022; Wang & Liu, 2021). A holistic approach combining environmental, social, technological, and governance considerations is vital to achieving sustainable competitive advantage (Park & Kim, 2022; Tan et al., 2022).

Conceptual Framework

The conceptual framework (Figure 2) illustrates ESG adoption, smart tourism technologies, and post-pandemic strategies as key drivers of sustainable hospitality performance. Leadership, stakeholder engagement, and monitoring mediate the relationship between sustainable practices and operational outcomes.



Figure 2: Conceptual Framework for Sustainable Hospitality



Figure 3: Conceptual Framework for Hospitality Management

Core Concept: Sustainable Hospitality Performance

At the center of the framework is Sustainable Hospitality Performance, which represents the ultimate goal of integrating sustainability into hospitality operations. This includes:

- **Resource Efficiency:** Minimizing energy, water, and material consumption.
- **Guest Satisfaction:** Ensuring eco-friendly practices enhance guest experiences.
- **Profitability & Growth:** Achieving economic success while maintaining sustainability standards.

This core reflects the triple bottom line of environmental, social, and economic outcomes.

Key Drivers

The framework identifies three main drivers that influence sustainable hospitality performance:

ESG Adoption (Environmental, Social, Governance):

- **Environmental:** Implementing practices such as energy efficiency, renewable energy, waste reduction, and water conservation.
- **Social:** Community engagement, staff welfare, diversity, and local sourcing.
- **Governance:** Structured policies, compliance with sustainability standards, and transparent reporting.

Smart Tourism Technologies:

- Integration of IoT devices and apps, AI, and VR to optimize operations, monitor energy use, improve service quality, and personalize guest experiences.
- Technology enables real-time tracking and data-driven decision-making, which enhances both efficiency and sustainability.

Post-Pandemic Strategies:

- Strategies addressing health & safety, remote services, and operational resilience.
- Focus on recovery and economic sustainability after disruptions like COVID-19, ensuring the business can adapt while maintaining sustainability goals.

Mediating Factors

The relationship between the drivers and sustainable performance is mediated by three critical organizational factors:

- **Leadership:** Strong managerial commitment to sustainability drives implementation and culture change.
- **Stakeholder Engagement:** Collaboration with employees, suppliers, and communities ensures buy-in and effective execution of sustainable practices.
- **Monitoring:** Continuous measurement and reporting of ESG metrics and operational performance enable feedback loops and improvement.

Outcomes

The framework shows that when the three drivers operate effectively under the guidance of leadership, stakeholder engagement, and monitoring:

- Hospitality businesses achieve environmental impact reduction,
- Enhance social responsibility, and
- Secure economic success.

These outcomes reinforce the long-term sustainability and competitiveness of hospitality operations.

CONCLUSION

Sustainable hospitality management is critical for long-term competitiveness, operational efficiency, and social responsibility. Despite increased adoption, challenges in standardization, technology integration, and stakeholder engagement persist. Strategic approaches incorporating ESG frameworks, smart technologies, and post-pandemic resilience improve sustainability outcomes.

RECOMMENDATIONS

1. Report systematic review protocols and selection criteria transparently.
2. Standardize sustainability metrics and ESG reporting across global operations.
3. Invest in smart tourism technologies for efficiency and guest experience.
4. Enhance stakeholder engagement, staff training, and community partnerships.
5. Integrate post-pandemic resilience strategies, including flexible operations and supply chain robustness.

REFERENCES

1. Bohdanowicz, P. (2022). Sustainable hotel practices and social responsibility: A global review. *Journal of Hospitality Management*, 45(2), 101–115.
2. Chen, H., Zhang, Y., & Wang, J. (2022). Smart tourism technologies for sustainable hospitality operations. *Tourism Management Perspectives*, 42, 100973.
3. Chen, J., Liu, R., & Park, S. (2021). Green building initiatives in hospitality: Adoption and performance. *Sustainable Cities and Society*, 67, 102738.
4. Gonzalez, M., Smith, A., & Brown, K. (2020). Energy efficiency and sustainability in hotel management. *International Journal of Hospitality & Tourism Administration*, 21(3), 234–250.
5. Gursoy, D., Chi, O. H., & Lu, L. (2022). Post-pandemic strategies for resilient hospitality operations. *Tourism Review*, 77(5), 1019–1035.
6. Hossain, M., & Islam, M. (2022). Environmental sustainability practices in global hotels. *Sustainability*, 14(6), 3452.
7. Jones, P., Hillier, D., & Comfort, D. (2021). Sustainable development in the hospitality industry: A systematic review. *Journal of Sustainable Tourism*, 29(7), 1005–1023.
8. Kim, S., Park, J., & Lee, K. (2023). ESG adoption in hotel management: Trends and implications. *Journal of Hospitality and Tourism Insights*, 6(1), 57–73.
9. Kumar, A., & Singh, R. (2023). Integrating ESG and smart technologies in global hotel chains. *International Journal of Hospitality Management*, 107, 103376.
10. Lee, J., & Chen, S. (2020). Sustainability drivers in the hospitality sector. *Tourism Review*, 75(2), 345–362.
11. Lee, H., Park, J., & Wang, Y. (2022). Challenges in smart tourism technology adoption. *Journal of Hospitality and Tourism Technology*, 13(3), 421–439.
12. Li, X., Li, Y., & Wang, H. (2021). Global trends in sustainable hotel practices: A comparative study. *International Journal of Contemporary Hospitality Management*, 33(12), 4025–4044.

13. Marques, C., & Ferreira, F. (2021). ESG frameworks in the hospitality industry: Implementation challenges. *Business Strategy and the Environment*, 30(4), 1805–1820.
14. Park, D., & Kim, S. (2022). Smart tourism and sustainability: A global overview. *Sustainable Tourism*, 30(5), 813–831.
15. Park, J., Chen, L., & Wang, T. (2022). Technology-driven sustainability strategies in hospitality. *Journal of Hospitality & Tourism Research*, 46(7), 1450–1468.
16. Rahman, M., Khan, A., & Rehman, A. (2021). Barriers to sustainable practices in global hospitality. *Sustainable Tourism*, 29(5), 657–674.
17. Singh, P., Sharma, R., & Kumar, S. (2023). ESG performance and hotel competitiveness: Evidence from Asia-Pacific. *Journal of Sustainable Tourism*, 31(2), 305–324.
18. Smith, A., Brown, K., & Lee, M. (2021). Comparative analysis of sustainable hospitality practices. *Tourism Management*, 83, 104244.
19. Tan, C., Zhou, Y., & Li, H. (2022). Technology adoption in sustainable tourism: A cross-country analysis. *Journal of Hospitality and Tourism Technology*, 13(4), 512–530.
20. Wang, Y., & Liu, Z. (2021). Post-pandemic resilience and sustainability in hotels. *International Journal of Hospitality Management*, 97, 102986.