

Theoretical and Methodological Contribution of Sustainable Practices to the Hospitality Industry

Alok Bihari Singh

Department of Mechanical Engineering, Malaviya National Institute of Technology

Khandelwal, Chandni

Department of Management Studies, University of Engineering & Management

Sarkar, Prabir

Department of Mechanical Engineering, Indian Institute of Technology

Govind Sharan Dangayach

Department of Mechanical Engineering, Malaviya National Institute of Technology

他

<https://doi.org/10.5109/7160865>

出版情報 : Evergreen. 10 (4), pp.2056-2073, 2023-12. 九州大学グリーンテクノロジー研究教育センター

バージョン :

権利関係 : Creative Commons Attribution 4.0 International



Theoretical and Methodological Contribution of Sustainable Practices to the Hospitality Industry

Alok Bihari Singh^{1,*}, Chandni Khandelwal^{2,3}, Prabir Sarkar⁴,
Govind Sharan Dangayach¹, Makkhan Lal Meena¹

¹Department of Mechanical Engineering, Malaviya National Institute of Technology, Jaipur, Rajasthan, 302017, India

²Department of Management Studies, University of Engineering & Management, Jaipur, 302006, India

³Department of Management Studies, Graphic Era (Deemed to be University), Dehradun, 248002, India

⁴Department of Mechanical Engineering, Indian Institute of Technology, Ropar, Punjab, 140001 India

*Author to whom correspondence should be addressed:

E-mail: meabsingh@gmail.com

(Received August 16, 2023; Revised October 22, 2023; accepted November 6, 2023).

Abstract: The hospitality industry is facing increasing pressure to adopt sustainable practices due to the growing recognition of its impact on the environment and society. This research article investigates the theoretical and methodological contributions of sustainable practices within the hospitality sector, aiming to enhance the understanding of how such initiatives can be effectively integrated into business operations and management. The findings emphasize the need to make sustainability a core component of hospitality sector plans. The suggested theoretical framework emphasizes how social, environmental, and economic factors interact to create sustainability, giving industry stakeholders a comprehensive and strategic viewpoint.

Keywords: Sustainable Development, Sustainable Development Goals, Sustainable Practices, Hospitality, Hotels

1. Introduction

The hospitality industry, encompassing hotels, restaurants, resorts, and other leisure-related services, has long played a pivotal role in global economies, tourism, and social experiences¹. However, the sector's rapid growth and resource-intensive operations have raised concerns about its environmental and societal impact². The hospitality industry's rapid expansion, driven by globalization and increasing travel demand, has put immense pressure on natural resources and the environment³. In response to raising concerns about long-term sustainability, scholars, practitioners, and policymakers have increasingly turned their attention to sustainable practices as a means to address these issues.

The hospitality industry is a significant contributor to greenhouse gas emissions, energy consumption, and water usage⁴. The enormous environmental effect of hospitality services, transportation, food services, and waste generation has been a critical focus of research to determine the industry's true impact on the ecosystem⁵. The adverse effects on biodiversity, air quality, and climate change necessitate urgent action to minimize the industry's ecological footprint⁶. Beyond environmental concerns, the hospitality industry's growth has raised

various societal issues⁷. Labor practices and rights, worker well-being, cultural appropriation, local community impacts, and the preservation of indigenous knowledge and heritage have emerged widely as societal concerns nowadays. The industry's responsibility to protect and uplift local communities is equally necessary while providing rewarding career opportunities for its workforce⁸.

Amidst growing awareness of environmental and societal challenges⁹, consumers, investors, and governments are increasingly demanding sustainable practices from hospitality businesses. The driving forces behind this demand include evolving consumer preferences, regulatory pressures, and the rise of responsible investment¹⁰. Transitioning to sustainable practices presents significant challenges for the hospitality industry¹¹. The primary obstacles in the path of implementing sustainable practices are financial barriers, resistance to change, lack of awareness, and coordination issues¹². Addressing these challenges requires collaborative efforts and innovative solutions¹³. Technological advancements offer substantial opportunities for the hospitality industry to improve sustainability¹⁴. The adoption of renewable energy, smart

building management, waste reduction technologies, and water-saving solutions are some examples¹⁵⁾. Integrating these innovations can enhance operational efficiency and reduce environmental impact¹⁶⁾.

Sustainable tourism practices are meant to prioritize the well-being of host communities and promote cultural preservation as a result of gaining momentum for positive societal impacts¹⁷⁾. Community-based tourism, fair trade practices, and the concept of regenerative tourism as ways to foster positive societal impacts¹⁸⁾. Raising awareness and educating stakeholders, including tourists, hospitality employees, and management, is reported as crucial for fostering a sustainable mindset¹⁹⁾. Education and campaigns are essential to promote responsible practices and encourage behavioral change¹⁴⁾.

Addressing the challenges and complexities of sustainability requires collaboration between industry players, governments, NGOs, and consumers²⁰⁾. The significance of forming partnerships is to pool resources, share knowledge, and implement joint initiatives. Governments play a vital role in promoting sustainability within the hospitality sector. Existing policy frameworks, such as environmental regulations and labor laws, are already formulated to be implemented. Still, there is potential for creating more comprehensive and effective policies for minimizing challenges and complexities for sustainability initiatives.

2. Research Background

2.1 Sustainability and hospitality industry

Sustainability, in the context of the hospitality industry, refers to the adoption of practices that meet present needs without compromising the ability of future generations to meet their own needs²¹⁾. The core principles of sustainability and their relevance to the hospitality sector emphasize the need for responsible environmental, social, and economic practices²²⁾. The hospitality industry faces various environmental challenges, including high energy consumption, water scarcity, waste generation, and carbon emissions²³⁾. The environmental impacts of hospitality operations and their potential consequences for the environment and society are still underrated²⁴⁾. In addition to environmental concerns, the hospitality industry grapples with social challenges, such as prolonged staff working conditions, cultural appropriation, and the impacts on local communities²⁵⁾. From an economic standpoint, sustainability in the hospitality industry has implications for cost savings, risk management, and long-term viability²⁶⁾. For sustainable hospitality businesses, the environmental implications, the value of community participation, fair labour practices, and cultural preservation, as well as financial benefits and competitive advantages, must be carefully considered²⁷⁾.

There are several compelling reasons why the hospitality industry must prioritize sustainability. For example, hotels, resorts, and restaurants in the hospitality

business all leave a significant imprint on the environment²⁸⁾. It results in massive quantities of waste and pollution and contributes to global warming by using excessive amounts of energy, water, and other resources²⁸⁾. Adopting sustainability strategies can mitigate this effect by decreasing energy use, lowering water use, improving waste management, and implementing other eco-friendly measures²⁹⁾.

The hotel industry can help in reducing the effects of climate change by cutting emissions. The sector may aid international efforts to battle climate change and cut greenhouse gas emissions by adopting energy-efficient measures, using renewable energy sources, and embracing sustainable transportation solutions³⁰⁾.

Sustainable methods in the hospitality industry help save these precious resources like water, energy, and materials. The industry may reduce its impact on the environment and help preserve resources for the future by adopting water conservation practices, switching to energy-efficient appliances and lighting, and instituting recycling and waste management programmes³¹⁾.

Hospitality organizations may save money by implementing sustainability strategies. Utility expenditures may be lowered by the use of energy-efficient appliances and practice, and waste management costs can be decreased through recycling and waste prevention. The financial advantages of sustainable practices are not limited to increased operational efficiency and less resource waste³¹⁾.

Travelers now care deeply about the places they stay and the food they eat, and they want to support businesses that share their values. Sustainable practices in the hotel industry may increase brand awareness, client retention, and competitiveness by appealing to ecologically and socially conscious customers³²⁾.

Various sectors, including the hotel industry, are seeing an increased focus on environmental responsibility from governments and regulatory organizations³³⁾. The avoidance of fines and other legal repercussions necessitates strict adherence to environmental legislation and standards. Businesses in the hotel industry may show their dedication to ethical business practices and prepare for future restrictions by implementing sustainable practices now¹²⁾.

The hospitality industry has a substantial effect on the neighbourhoods where it operates³⁴⁾. Promoting local sourcing, supporting local companies, and participating in socially responsible efforts like community development projects, education, and job opportunities are all examples of sustainable behaviours that may have a good impact on the local community¹²⁾.

Sustainability is critical to the hospitality industry's continued success and resilience¹¹⁾. Businesses may adapt to shifting consumer expectations, reduce exposure to risks linked with resource scarcity and climate change, and safeguard future profitability by focusing on environmental and social issues³⁵⁾.

Sustainability in the hospitality industry is essential for several reasons, including reducing adverse effects on the environment, saving money, pleasing customers, abiding by rules, and ensuring the industry's continued success in the future. The industry may help make the tourist industry more environmentally friendly and responsible if it adopts sustainability practices.

2.2 Why do we need to study the theoretical and methodological contributions?

The theoretical and methodological contributions of sustainable practices to the hospitality industry holds significant importance. It contributes to the academic literature by expanding the theoretical framework of sustainable practices within the context of hospitality. It adds depth to the understanding of how sustainable principles can be integrated into the complex operations of hotels, restaurants, and other hospitality businesses³⁶.

It also provides valuable insights for hospitality industry stakeholders, including managers, executives, and policymakers³⁷. It helps them make informed decisions about adopting sustainable practices by showcasing the benefits and challenges associated with such initiatives. Understanding the theoretical underpinnings and methodological strategies of sustainable practices enables hospitality businesses to operate more sustainably³⁸. Implementing environmentally friendly and socially responsible practices can lead to cost savings, improved brand reputation, and long-term business sustainability. Hospitality businesses that integrate sustainable practices gain a competitive edge. As environmentally conscious consumers become more prevalent, businesses that demonstrate commitment to sustainability can attract a loyal customer base and differentiate themselves from competitors³⁷.

The study of sustainable practices helps hospitality businesses optimize resource use, reduce waste, and minimize environmental impact³⁹. This contributes to the conservation of natural resources and helps combat issues like climate change and resource depletion. Guests are increasingly seeking out eco-friendly accommodations and experiences⁴⁰. Understanding the theoretical foundations and effective methodologies allows the hospitality industry to meet these demands and enhance guest satisfaction, which can lead to positive reviews, repeat business, and referrals. By understanding the long-term effects and benefits of sustainable practices, hospitality businesses can develop strategic plans that prioritize sustainability⁴¹. This leads to more resilient and adaptable operations in the face of changing consumer preferences and environmental challenges.

Research on sustainable practices fosters collaboration among various stakeholders, including industry associations, government bodies, and environmental organizations⁴². Such collaborations can lead to the development of industry standards, best practices, and

policy recommendations. Robust research in this area can influence policy decisions at local, regional, and national levels. Governments and regulatory bodies can use research findings to create incentives for sustainable practices, which can drive positive change across the industry.

The hospitality industry is a significant contributor to environmental degradation⁴³. By studying sustainable practices, the industry can proactively reduce its ecological footprint, conserve biodiversity, and contribute to a more sustainable planet. As responsible corporate citizens, hospitality businesses have an ethical obligation to minimize negative impacts on society and the environment. Research on sustainable practices empowers them to fulfill this responsibility and make meaningful contributions to a better world.

Demonstrating a commitment to sustainable practices enhances the industry's overall reputation. This can attract more investment, partnerships, and collaborations, fostering a positive image of the hospitality sector as a responsible and forward-thinking industry. So, Studying the theoretical and methodological contributions of sustainable practices to the hospitality industry is crucial for fostering responsible business practices, meeting consumer demands, and contributing to a more sustainable and resilient global economy.

3. Methodology

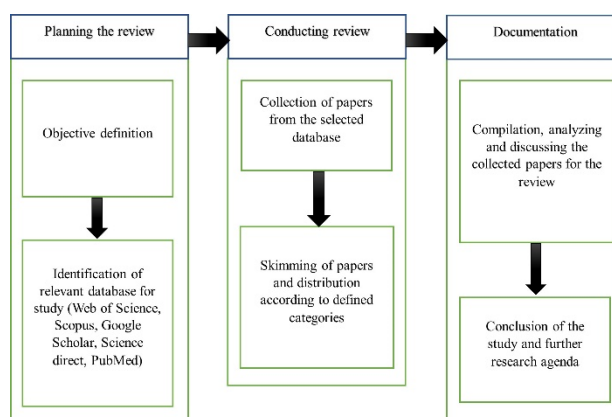


Fig. 1: Plan of the research

The plan of the research is shown in **Fig. 1**, which is reflecting various steps of current research. This review aims to contribute to the existing literature by providing an up-to-date analysis of recent research developments.

The study is completed by collecting research articles and similar material from reputable journals publishing literature on Sustainability using keywords such as Theoretical Contribution, Methodological Contribution, and Sustainable Practices in the hospitality industry. Table 2 shows the selection criteria of literature for the review process.

Table 1. Selection criteria of literature for the current review.

Databases	Web of Science, Scopus, Google Scholar
Document type	All
Language	English
Search string	“Theoretical Contribution” “Methodological Contribution” “Sustainable Practices” “Hospitality Industry”
Searched for	Title

On the basis of the selection criteria shown above, the articles from databases web of science, scopus, and google scholar were selected using the search string “theoretical contribution”, “methodological contribution”, “sustainable practices” “hospitality industry”. The articles written in a language other than English, and out of scope of sustainability were eliminated. and after eliminating non-relevant and duplicate articles a total of 108 articles selected for the current review.

4. Results and Discussion

4.1 Sustainable Practices Specific to Indian Hotel Industry

To address the methodological and theoretical contribution of sustainable practices in the hotel sector, nine research questions are generated and addressed using the available literature to substantiate the hypothesis proposed, which leads to the development of an appropriate research framework. The Sustainable practices specific to hotel industry are categorized into six different types according to their suitability and corresponding hypothesis is formulated scientifically as a proposed explanation for the level of commitment for the attainment of sustainable practice for prediction about a potential relationship between variables. It serves as a starting point for scientific investigation and research.

RQ1: What are the sustainable service practices specific to Indian hotel industry, and can these practices constitute sustainable practices?

Hotel practices are considered sustainable when they prioritize environmental, social, and economic responsibility to minimize negative impacts on the environment and local communities while promoting long-term viability and positive contributions ⁴⁴⁾.

Sustainable Operations (SO)

H1: Issues related to Sustainable Operations (SO) constitute Sustainable Practices.

Sustainable operations specific to the Indian hotel industry involve adopting practices that consider the country's unique environmental, cultural, and social

contexts. These practices focus on minimizing negative impacts on the environment, conserving resources, supporting local communities, and promoting responsible tourism.

Implementing energy-efficient technologies such as LED lighting, occupancy sensors, and energy-efficient HVAC systems to reduce electricity consumption, considering India's energy challenges⁴⁵⁾. Integrating renewable energy sources like solar panels and wind turbines to power hotel operations, contributing to the reduction of carbon emissions and dependence on non-renewable energy⁴⁶⁾.

Installing water-efficient fixtures, implementing rainwater harvesting systems, and reusing treated wastewater for landscaping and non-potable purposes to address India's water scarcity issues⁴⁷⁾. Implementing effective waste segregation, recycling programs, and composting to minimize the amount of waste sent to landfills and promote responsible waste disposal⁴⁸⁾. Minimizing single-use plastics through the use of eco-friendly alternatives and encouraging guests to bring reusable items.

Promoting eco-friendly transportation options for hotel guests, such as electric vehicle charging stations, bicycles, or facilitating public transportation access has marked as most recent requirement⁴⁹⁾.

Hotels are introducing carbon offset programs to neutralize the carbon emissions generated by hotel operations through investments in sustainable projects. They are actively obtaining recognized sustainability certifications like LEED (Leadership in Energy and Environmental Design) or EarthCheck to validate and demonstrate the hotel's commitment to sustainable operations⁵⁰⁾.

Hospitality industry is celebrating and promoting local culture and traditions through themed events, art exhibitions, and performances, providing an authentic experience to guests and supporting local artisans. They are emphasizing the use of locally sourced ingredients for food and beverages, supporting local farmers, and reducing the carbon footprint⁵¹⁾ associated with transportation. Collaborating with local communities to provide employment opportunities, training, and skill development, contributing to socio-economic development in the region⁵²⁾.

Hotels are focusing on employee well-being, fair wages, and opportunities for growth to ensure a motivated and committed workforce. They are offering workshops, seminars, and guided tours that educate guests about the local environment, culture, and sustainable practices⁵³⁾.

Incorporating traditional Indian architectural elements and design principles to maintain a connection with the local cultural heritage and aesthetic is a prime focus of the industry nowadays⁵⁴⁾.

If hotel is situated in ecologically sensitive areas, implementing measures to protect local flora and fauna, and offering guided eco-tours that educate guests about

local ecosystems⁵⁵).

The sustainable operations, which are customized to India's particular problems and possibilities, contribute to the hotel industry's resilience and responsible growth while also having a good influence on the environment and local people. It's essential for hotels to adopt a holistic approach, engaging stakeholders, guests, and local partners to create a positive and sustainable impact.

Sustainable Product Design (SPD)

H2: Issues related to Sustainable Product Design (SPD) constitute Sustainable Practices.

Sustainable product design in the Indian hotel industry involves creating products, amenities, and furnishings that prioritize environmental responsibility, resource efficiency, and local cultural considerations⁵⁶. Research articles covered some of the product design process hotels adopting towards sustainable practices are making strong point towards constituting sustainable practices.

Developing energy-efficient lighting solutions in hotels that utilize LED technology and smart controls to minimize energy consumption and extend the lifespan of bulbs⁵⁷. Designing charging stations for electronic devices powered by solar panels, enabling guests to charge their gadgets using clean energy. Integrating smart thermostats into room design to allow guests to easily control heating and cooling, optimizing energy use and guest comfort⁵⁸).

Providing guests with reusable water bottles to reduce the need for single-use plastic bottles and encouraging them to refill from filtered water stations⁵⁹. Designing disposable plates, cutlery, and packaging for in-room dining or events using compostable materials like palm leaf or sugarcane fiber. Creating guest amenities such as toiletries (shampoo, soap, etc.) using biodegradable and organic ingredients to minimize harm to water systems and aquatic life.

Designing faucets, showerheads, and other bathroom fixtures with water-saving features to promote water conservation in line with India's water scarcity challenges⁶⁰. Using bedding made from natural fibers such as organic cotton or bamboo, which are biodegradable and have a lower environmental impact compared to synthetic materials⁶¹. Designing carpets using sustainable materials and dyes that have a reduced environmental impact, as carpets are often associated with high resource consumption⁶².

Designing furniture using sustainable materials like reclaimed wood, bamboo, or recycled metals⁶³. Incorporating traditional Indian craftsmanship and design elements can add a cultural touch⁶⁴. Using recycled and upcycled materials for decor items like wall art, sculptures, and decorative fixtures, showcasing creativity while reducing waste⁶⁵. Collaborating with local artisans to design and produce unique products like textiles, rugs, and pottery, supporting the local economy and preserving

cultural heritage.

Designing interiors with eco-friendly building materials like low-VOC paints, non-toxic adhesives, and sustainable flooring options⁶⁶. Incorporating vertical gardens or green walls in hotel design to improve indoor air quality, aesthetics, and provide a connection to nature⁶⁷.

Sustainable product design in the Indian hotel industry not only reduces the environmental footprint but also reflects the country's rich cultural heritage and commitment to responsible practices. Incorporating these designs enhances the overall guest experience while contributing positively to local communities and ecosystems. Sustainable product design can significantly contribute to sustainable service practices in the hotel industry by reducing environmental impacts, enhancing guest experiences, and promoting responsible resource management

Sustainable Purchasing (SP)

H3: Issues related to Sustainable Purchasing (SP) constitute Sustainable Practices.

Sustainable purchasing in the Indian hotel industry involves making responsible and environmentally conscious decisions when sourcing products and services. This practice ensures that the goods and services used by hotels align with sustainability goals, contribute to local communities, and minimize negative impacts on the environment.

Hotels are buying products in bulk to reduce packaging waste and save costs over time⁶⁸. For example, purchasing bulk quantities of cleaning supplies or pantry staples. They are purchasing energy-efficient appliances and equipment, such as refrigerators, air conditioners, and water efficient equipment such as kitchen equipment, and faucets, showerheads, and toilets to reduce energy consumption, water consumption and operational costs.

Hotels are preferring to choose products that carry recognized sustainability certifications⁶⁹, such as organic, fair trade, or forest stewardship council (FSC) certifications for wood products. They are also prioritizing sourcing products and ingredients from local suppliers. This supports the local economy, reduces transportation-related emissions, and promotes traditional craftsmanship. They are also promoting source artwork, decor items, and furnishings from local artisans, showcasing their talent while supporting local economies. Prioritizing sourcing local and organic ingredients for restaurant menus, promoting regional flavors and supporting local farmers are also a key focus for hotel managements nowadays.

The industry is opting for cleaning products that are biodegradable, non-toxic, and eco-friendly, reducing harm to water systems and the environment⁷⁰, and investing in high-quality, durable linens made from organic or sustainable materials, designed to withstand frequent washing and reduce replacement frequency is one of the

central focus of hotels. Nowadays hotels are doing Partnership with waste management companies that prioritize recycling, composting, and responsible waste disposal⁷¹).

Purchasing sustainable furniture, biodegradable plates, cutlery, and packaging for events and room service, and providing reusable amenities like refillable shampoo and soap dispensers in guest rooms to reduce single-use plastic waste and environmental impact. Assessing the carbon footprint of suppliers and products to make informed decisions about transportation and choose suppliers with lower carbon impacts, along with choosing products that are certified Fair Trade, ensuring that workers involved in their production receive fair wages and safe working conditions are some new horizons authors are discovering.

Collaborating with suppliers to reduce excessive packaging and promote minimal packaging practices and choosing only those suppliers who demonstrate ethical labor practices and social responsibility, contributing positively to supply chain ethics can also actively contribute to sustainable purchasing.

Sustainable purchasing practices in the Indian hotel industry help reduce the ecological footprint, support local communities, and showcase the industry's commitment to responsible practices. These practices also contribute to guest satisfaction by aligning with their increasing preference for eco-friendly and ethical choices. common themes and correlations across multiple studies and its findings consistently show that sustainable purchasing decisions lead to the adoption of sustainable practices in hotels.

Sustainable Service Process Design (SSPD)

H4: Issues related to Sustainable Service Process Design (SSPD) constitute Sustainable Practices.

Sustainable Service Process Design (SSPD) in the Indian hotel industry involves creating service processes that prioritize environmental responsibility, cultural preservation, and social considerations while delivering high-quality guest experiences⁷². These processes aim to minimize negative impacts on the environment, support local communities, and align with sustainable development principles.

Sustainable Check-In and check-Out at hotels, which streamline check-in and check-out processes using digital technology to reduce paper consumption and improve guest convenience³⁵. Hotels are offering cultural workshops and experiences that educate guests about local traditions, arts, and crafts, contributing to cultural preservation and guest engagement, and designing processes that educate guests about the hotel's sustainability initiatives, encouraging them to participate and make responsible choices during their stay⁷³. They are organizing guided eco-tours in collaboration with local experts to showcase the region's natural beauty, wildlife, and ecosystems while promoting environmental

awareness, and facilitating sustainable transportation options for guests arriving at the hotel, such as shuttle services using electric⁷⁴ or hybrid vehicles⁷⁵.

Sustainable menus design for hotels involves design of restaurant menus that feature locally sourced, organic, and seasonal ingredients, reducing the carbon footprint associated with food transportation⁷⁶ and promoting healthy eating⁷⁷. Designing sustainable spa treatments using organic, locally sourced ingredients and eco-friendly products to provide holistic wellness experiences⁷⁸, and implementing eco-friendly housekeeping practices that involve using non-toxic cleaning products, water-efficient cleaning methods⁷⁹, and minimizing the use of single-use plastics are some of the recent process designs in hotel industry⁷⁰.

In addition, developing processes for hosting events, meetings and conferences that incorporate carbon offsetting measures and eco-friendly practices to reduce the environmental impact of gatherings by using digital communication tools, energy-efficient lighting, and sustainable catering options has been added priority of hotels nowadays⁸⁰.

Hotels are motivated to develop a robust waste segregation and recycling process⁶⁸, implement processes for water conservation such as water-efficient landscaping, greywater reuse, and encouraging guests to participate in towel and linen reuse programs⁸⁰, and also offers guests the chance to engage in community service or environmental initiatives during their stay, promoting responsible tourism and community engagement⁸¹. Due to community awareness these days hotels are creating processes that ensure fair wages, employee well-being, and opportunities for skill development for hotel staff, enhancing social sustainability.

By integrating the Sustainable Service Process Designs, the Indian hotel industry can contribute to environmental conservation, cultural preservation, and social development while providing guests with unique and responsible experiences. Several studies have shown the similar kind of correlations for Sustainable Service Process Design and its positive impact towards sustainable hotel practices.

Agile Service Development and Customization (ASDC)

H5: Issues related to Agile Service Development and Customization (ASDC) constitute Sustainable Practices.

Agile Service Development and Customization (ASDC) in the Indian hotel industry involve adopting flexible and responsive approaches to create and tailor services to meet the diverse needs and preferences of guests. This concept encompasses quickly adapting to changing trends, incorporating local culture, and providing personalized experiences while ensuring sustainability and efficiency.

Rapid menu innovation involves designing a process that allows for quick changes to restaurant menus to incorporate seasonal, locally sourced ingredients and accommodate dietary preferences⁸²⁾, also creating a system for guests to customize their stay with options like wellness packages, adventure experiences, or cultural immersion programs, efficiently rearrange room layouts to accommodate different group sizes and event types, ensuring optimal space utilization are some of the hotel practices in this category⁸²⁾.

Sustainable Event Planning is something that incorporating sustainable practices into event planning processes, such as minimizing food waste and reducing plastic usage during conferences and celebrations. Offering agile event planning services that can quickly adapt to changing guest requirements and preferences during conferences, weddings, and other events⁸³⁾.

Some other similar practices concerning to hotels are allowing guests to make real-time changes to their reservations, room preferences, and activities to enhance their convenience. Implementing a system for gathering immediate feedback from guests and adapting services accordingly to enhance their experience. Utilizing digital platforms to provide guests with real-time updates about hotel services, amenities, and events, and utilizing data analytics to track guest preferences and behaviors, enabling the hotel to make proactive adjustments to services and offerings⁸²⁾.

Some additional agile developments include establishing a network of local partners, local chefs, tastings, and food tours that highlight regional cuisines artisans, and experts to quickly collaborate on unique guest experiences, such as guided tours or workshops, creating interactive maps and guides that allow guests to explore nearby attractions, cultural sites, and hidden gems based on their interests, creating personalized wellness programs that consider guests' individual needs and goals, incorporating elements of ayurveda and yoga. Establishing agile supply chain processes that can swiftly adjust to changes in demand and availability is also highly needed one⁸⁴⁾.

Responsive Marketing Campaigns is another modern agile development for the sake of developing a process for rapidly launching marketing campaigns that align with current trends and events, capturing guest interest in real-time along with developing processes to seamlessly integrate emerging technologies like virtual reality, AI concierge, or mobile apps to enhance guest engagement and convenience³⁷⁾.

By adopting Agile Service Development and Customization practices, the Indian hotel industry can provide memorable and tailored guest experiences while staying responsive to market shifts and maintaining sustainability goals, which is evident from the literature study of this domain, as identified by common themes of the studies.

Sustainable Return and Recovery Practices (SRRP)

H6: Issues related to Sustainable Return and Recovery practices (SRRP) constitute Sustainable Service Practices.

Sustainable Return and Recovery Practices (SRRP) in the Indian hotel industry involve planning and implementing strategies that ensure a responsible and environmentally conscious approach to business operations during times of crisis, recovery, and beyond. These practices are designed to support resilience, minimize negative impacts on the environment, and contribute to the well-being of local communities⁸⁵⁾.

Resource efficiency in hotels is meant to implement energy-saving measures, such as using LED lighting and energy-efficient appliances, to reduce resource consumption as operations ramp up⁸⁶⁾. Prioritizing water conservation practices⁸⁷⁾ and fix any leaks or inefficiencies to minimize water wastage during the recovery phase⁸⁸⁾ and developing processes to minimize waste generation through proper waste segregation, recycling, and composting, ensuring responsible waste management⁶⁸⁾.

Collaborating with local communities, NGOs, social enterprises, and stakeholders to provide employment opportunities, training, and support for local residents during the recovery phase can also contribute. It can also help in participating in biodiversity conservation and restoration efforts. In addition, this collaboration help them recover from economic setbacks, supporting local economies and supply chains²⁾.

Some modern horizons are Developing a comprehensive crisis preparedness plan that addresses various scenarios, ensuring a swift and responsible response to any crisis²⁾, and introducing initiatives to offset carbon emissions associated with increased operations during the recovery phase. Investing in renewable energy sources like solar panels to power operations more sustainably can be a value addition.

Sustainable Return and Recovery Practices are essential to ensuring that the Indian hotel industry not only recovers from crises but does so in a manner that aligns with responsible and sustainable business practices. These practices contribute to the industry's long-term stability, environmental stewardship, and good influence on local communities.

On the basis of research questions and hypothesis formulated a conceptual model for sustainable practices is presented as shown in **Fig. 2**, which is indicating the connection between sustainable practices and different hotel service measures.

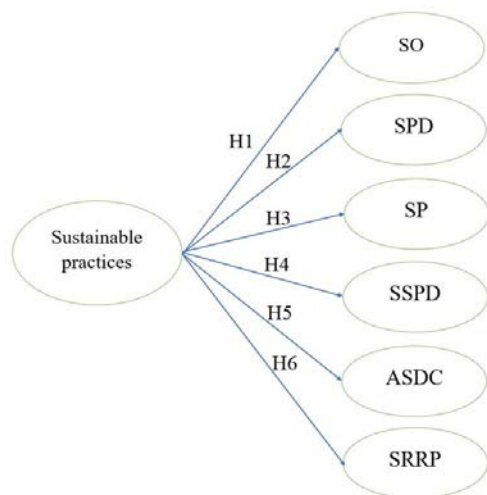


Fig. 2: A Conceptual Model for Sustainable practices

The research question framed is both pertinent and significant, especially in the context of the growing emphasis on sustainability and responsible business practices. The analysis has revealed several sustainable service practices that are specific to the Indian hotel industry. These practices encompass various aspects of hotel operations, from resource management to community engagement. The sustainable service practices specific to the Indian hotel industry not only align with the research question but also represent a positive step towards achieving sustainability in multiple dimensions. These practices not only serve the interests of the hotel industry but also benefit the environment, local communities, and the broader economy. The findings underscore the potential for sustainable service practices to constitute a vital aspect of sustainable development within the Indian hotel industry, highlighting the industry's role in achieving broader sustainability goals.

4.2 Stakeholder commitment for sustainable practices

RQ 2: Can Stakeholder Commitment leads to the Sustainable Practices in Indian Hotel industry?

H 7: There is a positive relationship between Stakeholder Commitment and Sustainable Practices in Indian Hotel industry

Stakeholder commitment plays a pivotal role in driving sustainable practices within the Indian hotel industry. Stakeholders include a wide range of individuals and entities who have a vested interest in the success and operations of hotels, including owners, managers, employees, guests, local communities, suppliers, and regulatory bodies. When these stakeholders are committed to sustainability, it creates a conducive environment for the adoption and implementation of sustainable practices. Stakeholder commitment can lead to sustainable practices in the Indian hotel industry.

Owners and managers who prioritize sustainability in their business strategy can drive the implementation of

eco-friendly initiatives⁸⁹⁾. Their commitment can influence decisions related to energy-efficient technologies, waste management, and responsible sourcing. When employees are trained and engaged in sustainability efforts, they can contribute ideas, participate in energy-saving practices, and promote responsible behavior among guests and colleagues.

Today's travelers, both domestic and international, increasingly value environmentally and socially responsible accommodations²⁸⁾. Stakeholder commitment to meeting guest demands for sustainable practices encourages hotels to adopt eco-friendly measures.

Engaging with the local community through partnerships, sourcing local products, and contributing to local development⁹⁰⁾ fosters goodwill and enhances a hotel's social sustainability. Commitment from suppliers to provide sustainable products and services can influence hotels to prioritize eco-friendly sourcing and reduce the carbon footprint of their supply chains⁹¹⁾.

Adhering to sustainability regulations and certifications requires commitment from hotels to align their practices with environmental and social standards. Media coverage and public perception on this can influence stakeholders' commitment to sustainability by highlighting the positive impact of eco-friendly practices.

Stakeholders who understand the long-term benefits of sustainable practices, such as energy savings, cost reductions, and enhanced brand reputation, are more likely to invest in and support these initiatives. Collaborative efforts among stakeholders, such as partnerships with local organizations or industry associations, can lead to collective action for sustainability⁷⁸⁾.

Commitment to sustainability can differentiate a hotel from competitors, attracting environmentally conscious guests and potential investors. Stakeholders with a long-term vision recognize that sustainable practices contribute to the hotel's longevity, resilience, and adaptability in a changing world⁹²⁾.

Investors interested in supporting environmentally responsible ventures may encourage hotels to adopt sustainable practices. Hotels that educate stakeholders about the benefits of sustainable practices can foster greater commitment and awareness. Stakeholders who prioritize ethical considerations understand the importance of minimizing negative impacts on the environment and local communities.

So, stakeholder commitment is a driving force behind the adoption and success of sustainable practices in the Indian hotel industry. When stakeholders collectively embrace sustainability as a core value, it creates a culture of responsibility and innovation, leading to positive impacts on the environment, society, and the industry as a whole. The consistency in findings of literatures reviled a positive relationship between stakeholder commitment and sustainable practices.

RQ 3: Is there a relationship between Stakeholder Commitment and Sustainable Performance Measure?

H 8: There is a positive relationship between Stakeholder Commitment and Sustainable Performance Measure

There is a strong relationship between stakeholder commitment and the sustainable performance measures of the Indian hotel sector. The level of commitment demonstrated by various stakeholders within the industry directly impacts the extent to which sustainable practices are implemented and the subsequent performance of hotels in terms of sustainability.

When stakeholders, including hotel owners, managers, employees, and suppliers, are committed to sustainability, they are more likely to implement eco-friendly practices such as energy and water conservation, waste reduction, and responsible sourcing of materials⁹³. This directly contributes to improved sustainable performance metrics.

Stakeholder commitment to sustainability drives the adoption of resource-efficient technologies and practices⁹⁴. This, in turn, reduces resource consumption, operational costs, and environmental impacts, leading to favorable sustainable performance indicators⁹⁵.

Guests are increasingly seeking eco-conscious accommodations²⁸. When stakeholders commit to providing sustainable services and experiences, guest satisfaction improves, leading to positive reviews, repeat business, and enhanced sustainable performance.

Stakeholder commitment to sustainability often leads to the identification and elimination of wasteful practices, resulting in cost savings⁹⁶. Reduced energy and water consumption, as well as minimized waste generation, positively affect a hotel's financial performance and sustainability.

Hotels that prioritize sustainability gain a positive reputation among guests, communities, and industry peers. This commitment enhances brand image, differentiation, and market positioning, contributing to sustainable performance⁹⁷.

When stakeholders emphasize sustainable practices, employees are more likely to feel motivated and engaged. Their commitment to sustainability leads to improved service quality, operational efficiency, and positive guest interactions, all of which reflect in sustainable performance metrics.

Stakeholder commitment to social responsibility, such as engaging with local communities and supporting local development, leads to a positive impact on the society. Such efforts contribute to sustainable performance indicators related to community well-being.

Investors who observe a hotel's commitment to sustainability are more likely to invest in the property. Stakeholder dedication to sustainability can enhance investor confidence, enabling the hotel to secure funding for sustainable initiatives⁹⁵.

Stakeholder commitment to adhering to sustainability

regulations and certifications ensures that hotels meet environmental standards. This compliance positively influences sustainable performance measures.

Commitment to sustainability indicates a forward-thinking approach. Hotels that prioritize sustainability are better equipped to adapt to changing market demands, regulatory requirements, and environmental challenges, enhancing their long-term sustainable performance.

Stakeholder commitment fosters an environment of innovation, encouraging the development and adoption of new technologies and practices that improve sustainable performance metrics.

Stakeholder commitment serves as a driving force behind the adoption and success of sustainable practices in the Indian hotel sector. It directly impacts a hotel's environmental, social, and economic performance, creating a positive feedback loop where improved sustainable performance further reinforces stakeholder commitment to sustainability. After summarizing the main findings and conclusions related to the impact of stakeholder commitment on sustainable performance measures, a positive relationship between Stakeholder Commitment and Sustainable Performance Measure is clearly evident.

RQ 4: Is there a relationship between Sustainable Service Competitiveness and Sustainable Performance Measure?

H 9: There is a positive relationship between Sustainable Service Competitiveness and Sustainable Performance Measure

There is a significant relationship between Sustainable Service Competitiveness (SSC) and Sustainable Performance Measures (SPM) in the Indian hotel sector. Sustainable Service Competitiveness refers to a hotel's ability to offer sustainable services and experiences that meet the demands of environmentally and socially conscious travelers while also enhancing its competitive advantage. Sustainable Performance Measures encompass various metrics that evaluate a hotel's environmental, social, and economic performance in terms of sustainability.

Sustainable services that cater to guests' preferences for eco-friendly and socially responsible experiences contribute to guest satisfaction⁹⁸. Satisfied guests are more likely to leave positive reviews, recommend the hotel, and contribute to positive word-of-mouth marketing, all of which influence the hotel's sustainable performance.

Hotels with strong Sustainable Service Competitiveness stand out in a crowded market by offering unique, responsible, and immersive experiences. This differentiation can lead to a competitive edge and improved market positioning, positively affecting the hotel's sustainable performance⁹⁹.

Sustainable services contribute to the hotel's reputation as an environmentally and socially conscious establishment. This positive brand image enhances the

hotel's appeal, attracting a growing segment of travelers seeking sustainable options and boosting its sustainable performance.

Sustainable Service Competitiveness attracts eco-conscious travelers who actively seek accommodations that align with their values. The presence of such guests positively impacts occupancy rates and revenue, directly affecting sustainable performance.

Sustainable services often involve resource-efficient practices such as energy and water conservation, waste reduction, and responsible sourcing. These practices lower operational costs, positively influencing the hotel's economic performance within the realm of sustainability.

Hotels that prioritize Sustainable Service Competitiveness often have engaged and motivated staff. Employees who are committed to sustainable practices contribute to improved service quality, efficient operations, and a positive guest experience, all of which contribute to sustainable performance.

Sustainable Service Competitiveness emphasizes practices that align with long-term environmental and social sustainability. This focus on responsible practices ensures that the hotel's performance metrics reflect its commitment to lasting positive impacts.

Offering sustainable services and experiences can lead to positive guest feedback and reviews. Such positive sentiment not only attracts more guests but also contributes to the hotel's sustainable performance in terms of guest satisfaction.

To maintain Sustainable Service Competitiveness, hotels often innovate by adopting new technologies and practices. These innovations can lead to resource savings, improved efficiency, and enhanced sustainable performance.

Hotels with strong sustainable service competitiveness are better positioned to adapt to changing consumer preferences and market trends. Their ability to respond to evolving demands contributes to sustained economic performance.

Sustainable Service Competitiveness and Sustainable Performance Measures are interrelated concepts in the Indian hotel industry. Offering sustainable services enhances a hotel's appeal, guest experience, and differentiation, ultimately impacting various aspects of its sustainable performance, including guest satisfaction, resource efficiency, brand value, and long-term resilience. The similar pattern of observations, common set of findings, and similar themes of working in several past studies clearly indicating a positive relationship between sustainable service competitiveness and sustainable performance measure.

RQ 5: Is there a relationship between Stakeholder Commitment and Sustainable Business Excellence?

H 10: There is a positive relationship between Stakeholder Commitment and Sustainable Business

Excellence

There is a direct and significant relationship between stakeholder commitment and sustainable business excellence in the Indian hotel sector. Stakeholder commitment, which includes the dedication and involvement of various individuals and entities invested in the success of a hotel, strongly influences the hotel's ability to achieve and maintain sustainable business excellence.

When stakeholders, including owners, managers, employees, and partners, are committed to sustainability, they align their efforts and strategies with the goal of achieving sustainable business excellence. This alignment ensures that sustainability is integrated into all aspects of the hotel's operations¹⁰⁰.

Stakeholder commitment drives the comprehensive implementation of sustainable practices across the hotel's operations. This includes resource efficiency, waste reduction, responsible sourcing, and community engagement, all of which contribute to sustainable business excellence¹⁰⁰.

Stakeholders who are committed to sustainability encourage a culture of innovation and continuous improvement. This leads to the development of new strategies, technologies, and practices that enhance the hotel's efficiency, guest experience, and overall excellence.

When stakeholders prioritize sustainability, employees are more likely to be engaged and motivated. Engaged employees contribute to better service quality, efficient operations, and the pursuit of excellence in delivering sustainable services.

A commitment to sustainability often results in enhanced guest experiences. Satisfied guests contribute to positive reviews, word-of-mouth referrals, and repeat business, all of which are indicators of sustainable business excellence.

Stakeholder commitment drives the implementation of resource-efficient technologies and practices. Efficient resource utilization not only reduces costs but also showcases the hotel's commitment to excellence in sustainability.

A hotel's reputation and brand value are closely tied to its commitment to sustainable practices. A strong commitment enhances the hotel's brand image, attracting environmentally conscious travelers and contributing to overall business excellence.

Stakeholders who emphasize sustainability demonstrate a long-term vision for the hotel's success. This vision aligns with the principles of sustainable business excellence, which focus on enduring success through responsible practices.

A commitment to sustainability differentiates a hotel in the competitive market. Differentiation contributes to brand recognition, customer loyalty, and, ultimately, sustainable business excellence.

Stakeholders who are committed to sustainability ensure that the hotel complies with environmental

regulations and certifications. This compliance is a fundamental aspect of sustainable business excellence¹⁰⁰.

Stakeholders who engage in social responsibility initiatives positively impact local communities and contribute to the well-being of society. This ethical commitment enhances the hotel's overall excellence.

Investors are more likely to support hotels with a strong commitment to sustainability. Their confidence contributes to financial stability and opportunities for growth, both of which are indicators of business excellence.

So, stakeholder commitment is a driving force that influences the implementation of sustainable practices and, consequently, the achievement of sustainable business excellence in the Indian hotel sector. It's a collaborative effort that involves various stakeholders working together to create a positive impact on the environment, society, and the hotel's long-term success, as recorded in many studies with similar findings.

RQ 6: Is there a relationship between Sustainable Business Excellence and Sustainable Service Competitiveness?

H 11: There is a positive relationship between Sustainable Service Competitiveness and Sustainable Business Excellence.

There is a strong and interconnected relationship between Sustainable Business Excellence (SBE) and Sustainable Service Competitiveness (SSC) in the Indian hotel sector. These two concepts are closely linked and mutually reinforcing, with each contributing to the other's success.

Sustainable Business Excellence involves achieving high levels of sustainability across all aspects of a hotel's operations, including environmental, social, and economic dimensions⁸². This commitment to excellence in sustainability directly impacts how a hotel is perceived by guests, partners, and stakeholders. In turn, Sustainable Service Competitiveness focuses on offering eco-friendly, socially responsible, and unique guest experiences. When a hotel achieves Sustainable Business Excellence, it enhances its ability to offer competitive and appealing services, boosting its Sustainable Service Competitiveness⁸².

Sustainable Business Excellence requires the integration of sustainable practices into various operational areas, such as energy efficiency, waste reduction, responsible sourcing, and employee well-being. When these practices are integrated and consistently implemented, they positively affect the quality of services offered to guests, contributing to Sustainable Service Competitiveness¹⁰¹.

Sustainable Service Competitiveness emphasizes providing guests with environmentally conscious and socially responsible experiences. This aligns with the expectations of modern travelers who seek authentic and eco-friendly accommodations. Hotels that excel in

Sustainable Business Excellence are better equipped to offer the sustainable services that guests demand, enhancing their competitive edge and overall guest experience.

Sustainable Business Excellence contributes to a hotel's reputation as a responsible and ethical establishment. This positive brand image resonates

with guests who value sustainability, increasing their likelihood to choose the hotel over competitors. Such brand reputation directly influences the hotel's Sustainable Service Competitiveness.

Achieving Sustainable Business Excellence often involves innovative practices and technologies that improve resource efficiency and guest experiences. These innovations can set a hotel apart from competitors, leading to differentiation and enhancing its Sustainable Service Competitiveness.

Both Sustainable Business Excellence and Sustainable Service Competitiveness emphasize a long-term perspective. Hotels that prioritize sustainable practices are more likely to maintain their commitment over time, leading to enduring excellence in both business operations and service offerings.

Employees who work in an organization committed to Sustainable Business Excellence are likely to be engaged and motivated. Engaged staff can deliver exceptional guest experiences and contribute to Sustainable Service Competitiveness through their dedication and positive attitude.

Achieving Sustainable Business Excellence and offering Sustainable Service Competitiveness allow a hotel to position itself as a leader in sustainability within the market. This leadership status attracts eco-conscious guests, further enhancing the hotel's competitiveness.

Guests who have positive experiences at a hotel known for its Sustainable Service Competitiveness are more likely to become loyal patrons. Sustainable Business Excellence contributes to consistent, high-quality service delivery, strengthening guest loyalty and repeat business.

Sustainable Business Excellence and Sustainable Service Competitiveness are intertwined aspects of a hotel's overall sustainability strategy. Achieving excellence in business operations contributes to the hotel's ability to offer competitive, sustainable services, while offering competitive, sustainable services enhances the hotel's overall business excellence. This relationship fosters a cycle of continuous improvement and success in both dimensions.

RQ 7: Can adoption of Sustainable Practices in Hotel Industry leads to a better Sustainable Performance measure?

H 12: There is a positive relationship between Sustainable Practices and Sustainable Performance measure in context of Indian Hotel Industry.

The adoption of sustainable practices in the hotel industry can lead to better sustainable performance

measures. When hotels implement and integrate eco-friendly, socially responsible, and economically viable practices into their operations, it positively impacts their overall sustainable performance. The sustainable performance measures can be indicated in terms of resource efficiency, waste reduction, reduced environmental impact, guest satisfaction, cost savings, more committed employee engagement, improved social responsibility, market differentiation in competitive market, improved regulatory compliance, and innovation and continuous improvement.

The adoption of sustainable practices often requires innovation and continuous improvement⁸²⁾. Innovative solutions enhance a hotel's ability to adapt to evolving market demands and industry trends, positively impacting sustainable performance.

The adoption of sustainable practices is closely linked to improved sustainable performance measures in the hotel industry. It not only benefits the environment and local communities but also enhances guest experiences, cost-effectiveness, employee engagement, and overall business resilience.

RQ 8: Can adoption of Sustainable Practices in Hotel Industry leads to Sustainable Service Competitiveness?

H 13: There is a positive relationship between Sustainable Practices and Sustainable Service Competitiveness in context of Indian Hotel Industry.

The adoption of sustainable practices in the hotel industry can lead to Sustainable Service Competitiveness (SSC). Sustainable practices contribute to enhancing a hotel's ability to offer eco-friendly, socially responsible, and unique guest experiences, which are key components of Sustainable Service Competitiveness.

Sustainable practices set a hotel apart from competitors by offering unique, responsible, and authentic experiences. This differentiation enhances the hotel's competitive edge, contributing to Sustainable Service Competitiveness⁹²⁾.

Travelers increasingly seek accommodations that align with their values, including sustainability. Hotels that adopt sustainable practices can attract environmentally conscious guests, expanding their customer base and contributing to SSC¹⁰²⁾.

Sustainable practices enable hotels to provide eco-friendly amenities, services, and activities that appeal to guests looking for environmentally responsible options. These offerings contribute to SSC by meeting guest preferences¹⁰³⁾.

Sustainable practices often result in improved guest experiences, such as energy-efficient rooms, locally sourced cuisine, and responsible tourism activities. Positive experiences lead to guest satisfaction and contribute to SSC¹⁰²⁾.

Adopting sustainable practices enhances a hotel's reputation as an environmentally conscious establishment. This positive brand image resonates with guests seeking

responsible options, positively influencing SSC¹⁰⁴⁾.

Hotels that adopt sustainable practices can position themselves as leaders in sustainability within the market¹⁰⁵⁾. Such leadership enhances the hotel's appeal to guests who value sustainability, contributing to SSC. The adoption of sustainable practices often requires innovative solutions. Innovation can lead to the development of new services and offerings that differentiate the hotel and enhance its SSC.

Sustainable practices provide compelling stories that can be incorporated into marketing efforts. Effective storytelling enhances the hotel's brand value and attracts guests seeking unique experiences, boosting SSC.

So, the adoption of sustainable practices positively influences a hotel's ability to offer competitive and appealing services, thereby leading to Sustainable Service Competitiveness. By aligning with guest preferences for environmentally friendly and socially responsible options, hotels can differentiate themselves, attract a broader customer base, and enhance their overall market competitiveness.

RQ 9: Can adoption of Sustainable Practices in Hotel Industry leads to Sustainable Business Excellence?

H 14: There is a positive relationship between Sustainable Practices and Sustainable Business Excellence in context of Indian Hotel Industry.

The adoption of sustainable practices in the hotel industry can lead to Sustainable Business Excellence. Sustainable practices, when integrated into a hotel's operations and strategies, contribute to overall excellence in terms of environmental responsibility, social impact, and economic viability. Here's how the adoption of sustainable practices can lead to Sustainable Business Excellence:

Sustainable practices involve considering environmental, social, and economic impacts³⁸⁾. Adopting these practices requires a comprehensive approach to business operations, which aligns with the principles of Sustainable Business Excellence³⁸⁾.

Adopting sustainable practices demonstrates a commitment to environmental stewardship⁵⁷⁾. This commitment enhances the hotel's reputation, brand value, and overall excellence. Sustainable practices often result in enhanced guest experiences, such as eco-friendly amenities, responsible dining options, and engagement in local culture. Positive guest experiences contribute to positive reviews, word-of-mouth referrals, and business excellence¹⁰⁶⁾.

Emphasizing sustainable practices boosts employee morale and engagement. Engaged employees deliver better service, contribute to efficiency, and align with the values of Sustainable Business Excellence¹⁰⁷⁾. Sustainable practices involve community engagement, fair labor practices, and ethical sourcing. Demonstrating social responsibility enhances a hotel's reputation and societal impact, contributing to business excellence. Sustainable

practices encourage long-term thinking and planning. This perspective aligns with the principles of Sustainable Business Excellence, which emphasize enduring success and adaptability.

Investors are increasingly interested in sustainable ventures¹⁰⁸⁾. Hotels that adopt sustainable practices enhance investor confidence¹⁰⁹⁾ and open opportunities for growth, contributing to business excellence. Sustainable practices often ensure compliance with environmental regulations¹¹⁰⁾ and certifications¹¹¹⁾. This compliance positively influences the hotel's overall business excellence. Hotels that prioritize sustainability are better equipped to adapt to changing consumer preferences, regulatory requirements, and environmental challenges. This resilience aligns with the principles of business excellence¹¹²⁾. The key terms and commonalities between several studies and their findings indicate that there is a positive relationship between sustainable practices and sustainable business excellence in context of Indian hotel industry.

The adoption of sustainable practices contributes to enhanced resource efficiency, positive guest experiences, social responsibility, and innovation—all of which are key components of Sustainable Business Excellence. By integrating sustainability into their core operations, hotels can achieve higher levels of overall excellence in their business practices. On the basis of research questions and hypothesis formulated A conceptual model for the relationship of SHC, SPM, SSC, SBE, and sustainable practices in the hotel industry is presented as shown in *Fig. 3*, which is indicating the connection between various constructs and different hotel service measures. On the basis of the analysis of literature it is clear that the results after implementing sustainable practices contribute to enhancing the competitive advantage of hotels and other hospitality businesses. Sustainable practices may lead to cost savings, improved reputation, and increased customer loyalty, all of which can bolster a company's position in the market, and affect the environmental sustainability of the hospitality industry. Sustainable practices can lead to reduced resource consumption, lower emissions, and a smaller carbon footprint. The findings align with or expand upon the theoretical framework established in the paper, and confirm the theories and concepts outlined in the framework.

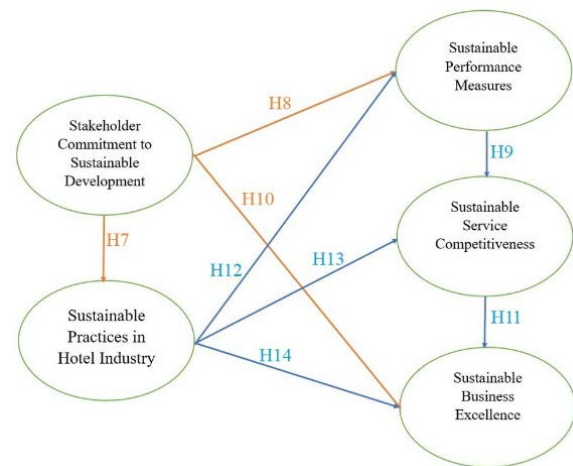


Fig. 3: A conceptual model for the relationship of SHC, SPM, SSC, SBE, and Sustainable Practices in the Hotel Industry

5. Conclusions

This research article has delved into the multifaceted realm of sustainable practices within the hospitality industry, aiming to uncover their theoretical and methodological contributions. The exploration of this vital subject has provided valuable insights into the profound impact of sustainable practices on various dimensions of the hospitality sector.

There are some central research questions guiding this study sought to investigate the theoretical and methodological underpinnings of sustainable practices as they relate to the hospitality industry. Through an in-depth review of existing literature, we have critically examined the theoretical foundations that underscore the adoption of sustainable practices in hospitality, shedding light on the ecological, economic, and social theories that drive these transformative initiatives. Furthermore, the methodological inquiry has encompassed an analysis of the diverse research methodologies employed in assessing the effectiveness and implications of sustainable practices in real-world hospitality contexts.

Building on the comprehensive review of existing research, some hypothesis emerged with the research questions formulated, positing that the integration of sustainable practices and stakeholder commitment in the hospitality industry leads to enhanced Sustainable service competitiveness, sustainable performance measure, sustainable business excellence, operational efficiency, heightened guest satisfaction, and a more resilient and responsible business model. These hypotheses, rooted in the amalgamation of various theoretical frameworks and methodological approaches, serves as a guiding thread throughout this article.

The journey through this research has underscored the far-reaching implications of sustainable practices, touching upon aspects ranging from energy efficiency and waste management to community engagement and cultural preservation. By synthesizing and interpreting a

wealth of scholarly work, this article has contributed to a deeper understanding of the intricate connections between sustainable practices and the multifaceted landscape of the hospitality sector.

The study has practical implications summarized from available literature, so that hotels and other businesses in the hospitality industry can use these findings to inform their sustainability strategies and practices. This study is suggesting the policy implications too, so that the summarized results may inform or influence government or industry regulations and standards related to sustainable practices in the hospitality sector.

So, this research article has aimed to unravel the theoretical and methodological contributions that sustainable practices bring to the forefront of the hospitality industry. As the global pursuit of sustainability continues to gain momentum, the insights gleaned from this study can serve as a foundation for further inquiry, policy formulation, and strategic decision-making within the realm of hospitality. This research inspires future investigations that propel the industry toward a more sustainable and harmonious future.

References

- 1) C.M. Hall, and A.A. Lew, "Understanding and managing tourism impacts: An integrated approach," Routledge, 2009.
- 2) A.B. Singh, C. Khandelwal, P. Sarkar, G.S. Dangayach, and M.L. Meena, "Recent research progress on corporate social responsibility of hotels," *Eng. Proc.*, **37** (1) 41 (2023).
- 3) F. Neto, "A new approach to sustainable tourism development: Moving beyond environmental protection," in: *Nat. Resour. Forum*, 2003: pp. 212–222.
- 4) L.H.U.W. Abeydeera, and G. Karunasena, "Carbon emissions of hotels: the case of the sri lankan hotel industry," *BUILDINGS*, **9** (11) (2019). doi:10.3390/buildings9110227.
- 5) B.A. Singh, G. Gaurav, P. Sarkar, S.G. Dangayach, and L.M. Meena, "Present, past, and future of lean six sigma applications: from evolution to the era of artificial intelligence 2," *Recent Patents Eng.*, **18** (5) 2–17 (2024). doi:http://dx.doi.org/10.2174/187221211866623051111808.
- 6) A.L. Radu, M.A. Scricciu, and D.M. Caracota, "Carbon footprint analysis: towards a projects evaluation model for promoting sustainable development," *Procedia Econ. Financ.*, **6** 353–363 (2013).
- 7) S.R. Hamid, C.B. Cheong, A. Shamsuddin, N.R. Masrom, and N.A. Mazlan, "Sustainable development practices in services sector: a case of the palace hotel from malaysia," (2021).
- 8) A.S. Ashton, "How human resources management best practice influence employee satisfaction and job retention in the thai hotel industry," *J. Hum. Resour. Hosp. Tour.*, **17** (2) 175–199 (2018).
- 9) M. Muslihudin, W.R. Adawiyah, E. Hendarto, R.D. Megasari, and M.F. Ramadhan, "Environmental constraints in building process a sustainable geothermal power plant on the slopes of slamet mount, central java, indonesia," (2022).
- 10) L. Renneboog, J. Ter Horst, and C. Zhang, "Socially responsible investments: institutional aspects, performance, and investor behavior," *J. Bank. Financ.*, **32** (9) 1723–1742 (2008).
- 11) P. Jones, and D. Comfort, "The covid-19 crisis and sustainability in the hospitality industry," *Int. J. Contemp. Hosp. Manag.*, **32** (10) 3037–3050 (2020). doi:10.1108/IJCHM-04-2020-0357.
- 12) A. Kasim, "Corporate environmentalism in the hotel sector: evidence of drivers and barriers in penang, malaysia," *J. Sustain. Tour.*, **15** (6) 680–699 (2007).
- 13) M. Sigala, "A supply chain management approach for investigating the role of tour operators on sustainable tourism: the case of tui," *J. Clean. Prod.*, **16** (15) 1589–1599 (2008).
- 14) P. Bohdanowicz, "Environmental awareness and initiatives in the swedish and polish hotel industries—survey results," *Int. J. Hosp. Manag.*, **25** (4) 662–682 (2006).
- 15) A.H. Abdou, T.H. Hassan, and M.M. El Dief, "A description of green hotel practices and their role in achieving sustainable development," *SUSTAINABILITY*, **12** (22) (2020). doi:10.3390/su12229624.
- 16) J.-S. Horng, C.-H. Liu, S.-F. Chou, C.-Y. Tsai, and Y.-C. Chung, "From innovation to sustainability: sustainability innovations of eco-friendly hotels in taiwan," *Int. J. Hosp. Manag.*, **63** 44–52 (2017). doi:10.1016/j.ijhm.2017.02.005.
- 17) T. Jamal, M. Borges, and A. Stronza, "The institutionalisation of ecotourism: certification, cultural equity and praxis," *J. Ecotourism*, **5** (3) 145–175 (2006).
- 18) A. Chettiparamb, and J. Kokkranikal, "Responsible tourism and sustainability: the case of kumarakom in kerala, india," *J. Policy Res. Tour. Leis. Events*, **4** (3) 302–326 (2012). doi:10.1080/19407963.2012.711088.
- 19) T.B. Dangi, and T. Jamal, "An integrated approach to 'sustainable community-based tourism,'" *Sustainability*, **8** (5) 475 (2016).
- 20) O. Mont, and A. Plepys, "Sustainable consumption progress: should we be proud or alarmed?," *J. Clean. Prod.*, **16** (4) 531–537 (2008).
- 21) T. Kuhlman, and J. Farrington, "What is sustainability?," *Sustainability*, **2** (11) 3436–3448 (2010). doi:10.3390/su2113436.
- 22) A. Kasim, "The need for business environmental and social responsibility in the tourism industry," *Int. J.*

- Hosp. Tour. Adm.*, **7** (1) 1–22 (2006).
- 23) A. Kyriakidis, and J. Felton, “Too hot to handle? The hospitality industry faces up to climate change,” in: *Travel Tour. Compet. Report*. Geneva World Econ. Forum, 2008.
 - 24) M. Honegger, A. Michaelowa, and J. Roy, “Potential implications of carbon dioxide removal for the sustainable development goals,” *Clim. Policy*, **21** (5) 678–698 (2021).
 - 25) E.M. Tretter, “Contesting sustainability: ‘smart growth’ and the redevelopment of austin’s eastside,” *Int. J. Urban Reg. Res.*, **37** (1) 297–310 (2013).
 - 26) Z. Wu, and M. Pagell, “Balancing priorities: decision-making in sustainable supply chain management,” *J. Oper. Manag.*, **29** (6) 577–590 (2011).
 - 27) E. Santos, “From neglect to progress: assessing social sustainability and decent work in the tourism sector,” *Sustainability*, **15** (13) 10329 (2023).
 - 28) R. Merli, M. Preziosi, A. Acampora, and F. Ali, “Why should hotels go green? insights from guests experience in green hotels,” *Int. J. Hosp. Manag.*, **81** 169–179 (2019). doi:10.1016/j.ijhm.2019.04.022.
 - 29) P. Bohdanowicz, “European hoteliers’ environmental attitudes: greening the business,” *Cornell Hotel Restaur. Adm. Q.*, **46** (2) 188–204 (2005). doi:10.1177/0010880404273891.
 - 30) D. Scott, P. Peeters, and S. Gössling, “Can tourism deliver its ‘aspirational’ greenhouse gas emission reduction targets?,” *J. Sustain. Tour.*, **18** (3) 393–408 (2010).
 - 31) A. Bruns-Smith, V. Choy, H. Chong, and R. Verma, “Environmental sustainability in the hospitality industry: best practices, guest participation, and customer satisfaction,” (2015).
 - 32) L.B. DeLind, “Are local food and the local food movement taking us where we want to go? or are we hitching our wagons to the wrong stars?,” *Agric. Human Values*, **28** 273–283 (2011).
 - 33) S. Graci, and R. Dodds, “Why go green? the business case for environmental commitment in the canadian hotel industry,” *Anatolia*, **19** (2) 251–270 (2008). doi:10.1080/13032917.2008.9687072.
 - 34) J. Oskam, and A. Boswijk, “Airbnb: the future of networked hospitality businesses,” *J. Tour. Futur.*, **2** (1) 22–42 (2016).
 - 35) J.M. Rodríguez-Antón, and M.D.M. Alonso-Almeida, “COVID-19 impacts and recovery strategies: the case of the hospitality industry in spain,” *Sustain.*, **12** (20) 1–17 (2020). doi:10.3390/su12208599.
 - 36) N.T. Pham, Z. Tuckova, and C.J.C. Jabbour, “Greening the hospitality industry: how do green human resource management practices influence organizational citizenship behavior in hotels? a mixed-methods study,” *Tour. Manag.*, **72** 386–399 (2019). doi:10.1016/j.tourman.2018.12.008.
 - 37) F. Jabeen, S. Al Zaidi, and M.H. Al Dhaheri, “Automation and artificial intelligence in hospitality and tourism,” *Tour. Rev.*, (2021).
 - 38) S. Asadi, S. OmSalameh Pourhashemi, M. Nilashi, R. Abdullah, S. Samad, E. Yadegaridehkordi, N. Aljojo, and N.S. Razali, “Investigating influence of green innovation on sustainability performance: a case on malaysian hotel industry,” *J. Clean. Prod.*, **258** 120860 (2020). doi:10.1016/j.jclepro.2020.120860.
 - 39) Y.M. Yusoff, M. Nejati, D.M.H. Kee, and A. Amran, “Linking green human resource management practices to environmental performance in hotel industry,” *Glob. Bus. Rev.*, **21** (3) 663–680 (2020).
 - 40) H. Han, L.-T.J. Hsu, J.-S. Lee, and C. Sheu, “Are lodging customers ready to go green? an examination of attitudes, demographics, and eco-friendly intentions,” *Int. J. Hosp. Manag.*, **30** (2) 345–355 (2011).
 - 41) L.K. Cvelbar, and L. Dwyer, “An importance-performance analysis of sustainability factors for long-term strategy planning in slovenian hotels,” *J. Sustain. Tour.*, **21** (3) 487–504 (2013). doi:10.1080/09669582.2012.713965.
 - 42) S. Vachon, and R.D. Klassen, “Extending green practices across the supply chain: the impact of upstream and downstream integration,” *Int. J. Oper. Prod. Manag.*, **26** (7) 795–821 (2006).
 - 43) A. Khan, S. Bibi, H. Li, X. Fubing, S. Jiang, and S. Hussain, “Does the tourism and travel industry really matter to economic growth and environmental degradation in the us: a sustainable policy development approach,” *Front. Environ. Sci.*, **11** 1147504 (2023).
 - 44) T. Sato, “How is a sustainable society established?: a case study of cities in japan and germany,” (2016).
 - 45) P. Mohandas, J.S.A. Dhanaraj, and X.-Z. Gao, “Artificial neural network based smart and energy efficient street lighting system: a case study for residential area in hosur,” *Sustain. Cities Soc.*, **48** 101499 (2019).
 - 46) F. Fazelpour, N. Soltani, and M.A. Rosen, “Feasibility of satisfying electrical energy needs with hybrid systems for a medium-size hotel on kish island, iran,” *Energy*, **73** 856–865 (2014).
 - 47) V.G. Varma, “Water-efficient technologies for sustainable development,” in: *Curr. Dir. Water Scarcity Res.*, Elsevier, 2022: pp. 101–128.
 - 48) A. Omidiani, and S. Hashemihezaveh, “Waste management in hotel industry in india: a review,” *Int. J. Sci. Res. Publ.*, **6** (9) 670–680 (2016). www.ijsrp.org.
 - 49) K.N. Genikomsakis, N.-F. Galatoulas, and C.S. Ioakimidis, “Towards the development of a hotel-based e-bike rental service: results from a stated preference survey and techno-economic analysis,” *Energy*, **215** 119052 (2021).

- 50) C.G. Chi, O.H. Chi, X. Xu, and I. Kennedy, "Narrowing the intention-behavior gap: the impact of hotel green certification," *Int. J. Hosp. Manag.*, **107** 103305 (2022).
- 51) S. Agarwal, M. Tyagi, and R.K. Garg, "Circular economy reinforcement to diminish ghg emissions: a grey dematel approach," (2023).
- 52) I.Q.K. Al-Hussein, R. Hesarzadeh, and F.N. Zadeh, "The effect of social responsibility disclosure on corporate performance in five arab countries: evidence on the moderating role of stakeholder influence capacity and family ownership," (2022).
- 53) A.T. Nugraha, G. Prayitno, A.W. Hasyim, and F. Roziqin, "Social capital, collective action, and the development of agritourism for sustainable agriculture in rural indonesia," (2021).
- 54) H. Ayala, "Ecoresort: a 'green' masterplan for the international resort industry," *Int. J. Hosp. Manag.*, **14** (3-4) 351-374 (1995).
- 55) D. Che, "Developing ecotourism in first world, resource-dependent areas," *Geoforum*, **37** (2) 212-226 (2006).
- 56) X. Font, "Sustainability in the hospitality industry: principles of sustainable operations," *Tour. Manag.*, **63** 10-11 (2017). doi:10.1016/j.tourman.2017.05.011.
- 57) I. Persic-Zivadinov, "THE environmental and economic impact of sustainable hotels," *Econ. Res. Istraz.*, **22** (2) 98-110 (2009).
- 58) P. Byrne, N. Putra, T. Maré, N. Abdallah, P. Lalanne, I. Alhamid, P. Estelle, A. Yatim, and A.-L. Tiffonnet, "Design of a solar ac system including a pcm storage for sustainable resorts in tropical region," (2019).
- 59) N.T. Bui, A. Kawamura, D. Du Bui, H. Amaguchi, D.D. Bui, N.T. Truong, H.H.T. Do, and C.T. Nguyen, "Groundwater sustainability assessment framework: a demonstration of environmental sustainability index for hanoi, vietnam," *J. Environ. Manage.*, **241** (February) 479-487 (2019). doi:10.1016/j.jenvman.2019.02.117.
- 60) H. Han, and S.S. Hyun, "What influences water conservation and towel reuse practices of hotel guests?," *Tour. Manag.*, **64** 87-97 (2018). doi:10.1016/j.tourman.2017.08.005.
- 61) M. ADNAN ALI, and M. IMRAN SARWAR, "Sustainable and environmental freindly fibers in textile fashion (a study of organic cotton and bamboo fibers)," (2010).
- 62) J.-J. Kim, "Qualities, use, and examples of sustainable building materials," National Pollution Prevention, 1998.
- 63) S.S. Suhaily, H.P.S.A. Khalil, W.O.W. Nadirah, and M. Jawaid, "Bamboo based biocomposites material, design and applications," in: Mater. Sci. Top., IntechOpen, 2013.
- 64) F.-W. Tung, "Weaving with rush: exploring craft-design collaborations in revitalizing a local craft," *Int. J. Des.*, **6** (3) (2012).
- 65) C.A. Montana-Hoyos, and L. Scharoun, "Adaptive reuse in craft, design, and art in the city," *Int. J. Architecton. Spat. Environ. Des.*, **8** (2) 1-20 (2014).
- 66) W.A.A. Abdelslam, "Criteria for the selection of eco-friendly materials in interior architecture," (2017).
- 67) A. Wood, P. Bahrami, D. Safarik, and others, "Green walls in high-rise buildings: An output of the CTBUH sustainability working group," Images Publishing, 2014.
- 68) R. Al-Aomar, and M. Hussain, "An assessment of green practices in a hotel supply chain: a study of uae hotels," *J. Hosp. Tour. Manag.*, **32** 71-81 (2017). doi:10.1016/j.jhtm.2017.04.002.
- 69) I. Heras-Saizarbitoria, O. Boiral, and G. Arana, "Renewing environmental certification in times of crisis," *J. Clean. Prod.*, **115** 214-223 (2016). doi:10.1016/j.jclepro.2015.09.043.
- 70) Y.J. Hsieh, Y. Apostolopoulos, K. Hatzudis, and S. Sönmez, "Occupational exposures and health outcomes among latina hotel cleaners," *Hisp. Heal. Care Int.*, **12** (1) 6-15 (2014). doi:10.1891/1540-4153.12.1.6.
- 71) S. Sunaryo, and M.A. Aidane, "Development strategy of eco ship recycling industrial park," (2022).
- 72) G.M. Sanjeev, and R. Bandyopadhyay, "Innovations in the indian hospitality industry: an overview," *Worldw. Hosp. Tour. Themes*, **8** (4) 408-415 (2016). doi:10.1108/WHATT-05-2016-0026.
- 73) K. Brazyte, F. Weber, and D. Schaffner, "Sustainability management of hotels: how do customers respond in online reviews?," *J. Qual. Assur. Hosp. & Tour.*, **18** (3) 282-307 (2017). doi:10.1080/1528008X.2016.1230033.
- 74) A. Habibie, M. Hisjam, W. Sutopo, and M. Nizam, "Sustainability evaluation of internal combustion engine motorcycle to electric motorcycle conversion," (2021).
- 75) N. Singh, D.A. Cranage, and A. Nath, "Estimation of ghg emission from hotel industry," *Anatolia*, **25** (1) 39-48 (2014). doi:10.1080/13032917.2013.822817.
- 76) N.S. Zulkefly, H. Hishamuddin, F.A.A. Rashid, N. Razali, N. Saibani, and M.N. Ab Rahman, "The effect of transportation disruptions on cold chain sustainability," (2021).
- 77) A. de Visser-Amundson, "A multi-stakeholder partnership to fight food waste in the hospitality industry: a contribution to the united nations sustainable development goals 12 and 17," *J. Sustain. Tour.*, (n.d.). doi:10.1080/09669582.2020.1849232.
- 78) T. Goeschl, and D.C. Igliori, "Reconciling conservation and development: a dynamic hotelling model of extractive reserves," *Land Econ.*, **80** (3) 340-354 (2004). doi:10.2307/3654725.
- 79) E.P. Putri, "Performance measurement using dea-

- multipliers method: a case study of clean water companies in indonesia,” (2022).
- 80) V. Pereira, G.M. Silva, and A. Dias, “Sustainability practices in hospitality: case study of a luxury hotel in arrabida natural park,” *SUSTAINABILITY*, **13** (6) (2021). doi:10.3390/su13063164.
 - 81) K.J. Jithendran, and T. Baum, “Human resources development and sustainability? the case of indian tourism,” *Int. J. Tour. Res.*, **2** (6) 403–421 (2000). doi:10.1002/1522-1970(200011/12)2:63.O.CO;2-3.
 - 82) M. Kozak Akoğlu, and D. Acar Gürel, “Service design in hotels: a conceptual review,” *Tourism*, **63** (2) 225–240 (2015). <https://hrcak.srce.hr/139579>.
 - 83) J. Sharma, A. Bhardwaj, R.S. Walia, and others, “Factors assessment for encumbering the implementation of sustainability based lean six sigma practices in food supply chain,” (2023).
 - 84) R. Huerta-Soto, F. Francis, M. Asf-Yis-López, and J. Panduro-Ramirez, “Implementation of machine learning in supply chain management process for sustainable development by multiple regression analysis approach (mraa),” (2023).
 - 85) N. Bhasin, R.N. Kar, and N. Arora, “Green disclosure practices in india: a study of select companies,” (2015).
 - 86) P. Bohdanowicz, and I. Martinac, “Attitudes towards sustainability in chain hotels – Results of a European survey,” in: Proc. CIB Int. Conf. Smart Sustain. Built Environ., 2003.
 - 87) A.B. Singh, C. Khandelwal, P. Sarkar, G.S. Dangayach, and M.L. Meena, “Achieving sustainable development in the hospitality industry: an evidence-based empirical study,” (n.d.).
 - 88) L.B. Vlad, D.C. Vasile, O.-I. Macovei, and C.E. Tuclea, “DETERMINANT factors of green marketing adoption in the hospitality sector,” *AMFITEATRU Econ.*, **18** (10) 862–874 (2016).
 - 89) I. Mensah, “Environmental management practices among hotels in the greater accra region,” *Int. J. Hosp. Manag.*, **25** (3) 414–431 (2006). doi:10.1016/J.IJHM.2005.02.003.
 - 90) D.A. Susanto, “Implementation of standards in international trade: benefit or barrier? a case study from indonesia,” (2022).
 - 91) A. Singh, “Recent research progress on corporate social responsibility of,” 1–6 (2023).
 - 92) F. Jose Saez-Martinez, L. Avellaneda-Rivera, and A. Gonzalez-Moreno, “OPEN and green innovation in the hospitality industry,” *Environ. Eng. Manag. J.*, **15** (7) 1481–1487 (2016). doi:10.30638/eemj.2016.159.
 - 93) F.F. Tang, Y. Xi, G. Chen, and R. Wang, “Ownership, corporate governance, and management in the state-owned hotels in the people’s republic of china,” *Cornell Hotel Restaur. Adm. Q.*, **47** (2) 182–191 (2006). doi:10.1177/0010880405284845.
 - 94) S. Singhal, A. Deepak, and V. Marwaha, “Green initiatives practices in indian hotels,” *IOSR J. Bus. Manag.*, **20** (8) 10–13 (2018). doi:10.9790/487X-2008031013.
 - 95) R. Samans, and J. Nelson, “Sustainable enterprise value creation: Implementing stakeholder capitalism through full ESG integration,” Springer Nature, 2022.
 - 96) A. Triguero, L. Moreno-Mondéjar, and M.A. Davia, “Drivers of different types of eco-innovation in european smes,” *Ecol. Econ.*, **92** 25–33 (2013). doi:10.1016/j.ecolecon.2013.04.009.
 - 97) A.A.A. Putri, and S. Hartini, “Sustainable value stream mapping design to improve sustainability performance of animal feed production process,” (2021).
 - 98) M.S. Balaji, Y. Jiang, and S. Jha, “Green hotel adoption: a personal choice or social pressure?,” *Int. J. Contemp. Hosp. Manag.*, **31** (8) 3287–3305 (2019). doi:10.1108/IJCHM-09-2018-0742.
 - 99) T. Tyrrell, C.M. Paris, and V. Biaett, “A quantified triple bottom line for tourism: experimental results,” *J. Travel Res.*, **52** (3) 279–293 (2013). doi:10.1177/0047287512465963.
 - 100) A. Sajjad, A. Jillani, and M.M. Raziq, “Sustainability in the pakistani hotel industry: an empirical study,” *Corp. Gov.*, **18** (4) 714–727 (2018). doi:10.1108/CG-12-2017-0292.
 - 101) A. Garcia-Pozo, J.-L. Sanchez-Ollero, and A. Marchante-Mera, “ENVIRONMENTAL sustainability measures and their impacts on hotel room pricing in andalusia (southern spain),” *Environ. Eng. Manag. J.*, **12** (10) 1971–1978 (2013). doi:10.30638/eemj.2013.246.
 - 102) B. Sun, L.Y. Liu, W.W. Chan, C.X. Zhang, and X. Chen, “Signals of hotel effort on enhancing iaq and booking intention: effect of customer’s body mass index associated with sustainable marketing in tourism,” *SUSTAINABILITY*, **13** (3) (2021). doi:10.3390/su13031279.
 - 103) H.V. Nam, A. Lo, P. Yeung, and R. Hatter, “Hotel icon: towards a role-model hotel pioneering sustainable solutions,” *ASIA PACIFIC J. Tour. Res.*, **25** (5) 574–584 (2020). doi:10.1080/10941665.2020.1746367.
 - 104) S. Srivastava, and N. Singh, “Do corporate social responsibility (csr) initiatives boost customer retention in the hotel industry? a moderation-mediation approach,” *J. Hosp. Mark. & Manag.*, **30** (4) 459–485 (2021). doi:10.1080/19368623.2021.1841705.
 - 105) J. Butler, “The compelling ‘hard case{’} for ‘green{’} hotel development,” *CORNELL Hosp. Q.*, **49** (3) 234–244 (2008). doi:10.1177/1938965508322174.
 - 106) S. Bharwani, and D. Mathews, “Customer service innovations in the indian hospitality industry,” *Worldw. Hosp. Tour. Themes*, **8** (4) 416–431 (2016).

doi:10.1108/WHATT-04-2016-0020.

- 107) V. Abaeian, K.W. Khong, K.K. Yeoh, and S. McCabe, "Motivations of undertaking csr initiatives by independent hotels: a holistic approach," *Int. J. Contemp. Hosp. Manag.*, **31** (6, SI) 2468–2487 (2019). doi:10.1108/IJCHM-03-2018-0193.
- 108) A.J. Singh, and M. Thadani, "Performance of india's hotel industry in the era of economic reforms: a critical assessment of the investment and business climate," *J. Hosp. Financ. Manag.*, **15** (1) 77–77 (2007). doi:10.1080/10913211.2007.10653834.
- 109) R. McKittrick, and K.P. Green, "Pipelines or policies: what's behind the fall in investor confidence in alberta?," *Fraser Alert*. < <https://www.fraserinstitute.org/sites/default/files/pipelines-or-policies-whats-behind-the-fall-in-investor-confidence-in-alberta.pdf>>, as March, **7** 2016 (2016).
- 110) A. Singh, H. Meena, C. Khandelwal, and G. Dangayach, "Sustainability assessment of higher education institutions: a systematic literature review," *Eng. Proc.*, **37** (2023).
- 111) P. Martinez, A. Herrero, and R. Gomez-Lopez, "Corporate images and customer behavioral intentions in an environmentally certified context: promoting environmental sustainability in the hospitality industry," *Corp. Soc. Responsib. Environ. Manag.*, **26** (6) 1382–1391 (2019). doi:10.1002/csr.1754.
- 112) L. Campus, "Taylor's university, lakeside campus, malaysia **school of hospitality, sunway university, malaysia," **1** (1) 15–29 (2017).