

**A comparative analysis of global sustainability initiatives
in luxury and budget hotels and how these can be applied
to Chandigarh region in North India**

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Abstract

This research compares and makes suggestions about possible adaptations of global sustainability initiatives in luxury and budget hotels into hospitality sector in Chandigarh, India. The hospitality industry faces growing pressure to adopt sustainable practices to help minimize ecological impact, while still working within economic viability. From an energy efficiency, water conservation, a waste management, a responsible sourcing and a corporate social responsibility view, the study looked at the sustainability strategies hotels worldwide are implementing. This research analyses how these initiatives differ across hotel categories based on secondary data and their adaptability to the local region of Chandigarh through a qualitative research approach. The findings indicate that luxury hotels are generally the leaders in sustainability because of financial resources, but budget hotels are also taking on sustainable green solutions. Chandigarh's planned infrastructure, ecological tradition and the sector's emerging tourism potential make it a favourable environment for sustainability managed hospitality development. A strategy and implementation plan are proposed to enable local hotels to take up global sustainability models adapted to local context. It makes three important contributions that enable a better understanding of sustainable tourism in emerging markets and informs actionable insights for policymakers, hotel operators, and sustainability advocates in the Indian hospitality industry.

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Chapter 1: Introduction and background study

1.1 Background of research

As sustainability becomes a core focus for hotels, the global hospitality industry is undergoing a significant transformation. In the world of luxury and budget hotels, environmental concerns, changing expectations of consumers and regulations have prompted as a courtesy to the planet and as a business necessity. Sustainability initiatives in the hospitality sector range from energy efficiency and waste reduction to responsible sourcing and community engagement. Many luxury hotels have the financial means to commit to high level sustainability practices such as green building certifications and installation of renewable energy systems.



Figure: Sustainable tourism approaches in Chandigarh

Source: Tourism.gov.in. (2025)

On the other hand, the cost-conscious business model of budget hotels results into focusing on more practical and low-cost solutions like water conservation, biodegradable amenities and local supply chain integration. Based on the above image, this fact can be stated that the government of Chandigarh has incorporated effective sustainable strategies for the sustainability initiatives. Nevertheless, the success and impact of these initiatives will be varying across regions dependent on the economic conditions, policies of the government and the consumer demand. It is still restricted in adoption of sustainable practices in hotels in India particularly in Chandigarh and there is growing awareness of the issues about the environment.

This study investigates the environmental initiatives implemented on the global scale in the luxury and budget hotels and evaluates how the same can be adopted onto Chandigarh's visualisation of hospitality sector commercially viable while maintaining responsibility.

1.1 Research aim

This research aims at analysing the prevalence and effectiveness of sustainability initiatives in luxury and budget hotels' districts globally. Through a study of best practices from varied regions, the study intends to formulate sustainable practices that can be adopted in the hospitality sector of Chandigarh. Since luxury hotels, which can often set industry best practice in sustainability, typically operate on a budget compared with budget hotels, a comparison of the two approaches provides useful lessons. This research also intends to examine the impacts of these sustainability initiatives on hotel operations, financial performance, and consumer satisfaction. The study will also examine regional factors that affect the adoption of sustainability in Chandigarh as they pertain to government regulations, infrastructure availability, and consumer awareness. The findings are based on which the study will create a structured framework for integrating global sustainability practices into the hotel industry of Chandigarh. This will be a guide to hotels which wish to keep their environment and operations future proof by balancing environmental responsibility with operational efficiency and profitability. Thus, the research intends to contribute to the sustainable development of Chandigarh's hospitality sector in line with the global environmental goals.

1.3 Research objectives

- Identify key sustainability practices in luxury and budget hotels worldwide.
- Analyse Chandigarh's regional factors influencing sustainability adoption.
- Develop a framework for adapting global practices to Chandigarh's hotels.
- Propose a sustainability implementation strategy for Chandigarh's hotel industry.

1.4 Research questions

- What are the most effective global sustainability practices in the hotel industry?
- What regional factors affect sustainable hospitality in Chandigarh?
- How can global sustainability frameworks be adapted to Chandigarh's hotel industry?
- How can Chandigarh hotels adopt sustainability while staying viable?

1.5 Research rationale

Hospitality industry has become a critical area of sustainability in terms of rising environmental concerns, changing consumer expectations and regulatory pressure. From across the world, hotels are introducing diverse types of sustainability initiatives, such as energy efficiency programs and waste reduction programs, as well as responsible sourcing. However, the implementation of these initiatives is wide and significant in luxury hotels but limited and not effective in budget hotels. Unlike budget hotels, luxury hotels have the financial ability to invest in the advanced green technologies while budget hotels only have the option to use the most economical green solutions subject to the operational constraints of the hotel. The benefits of sustainability in hospitality are proven, however research is limited in terms of what can be adapted from global principles to specific regional contexts like Chandigarh. As a planned city much of its tourism industry is growing, Chandigarh can be the model for sustainable hospitality. Yet, green practices in local hotels are not effectively adopted. Many hotel operators do not know, have the resources or the inclination to implement effective sustainability strategies. This research is important to bridge the gap between the best practices in India and its practical implementation in hotel industry of Chandigarh. This study attempts to identify adaptable sustainability frameworks, for strategic recommendations to improve environmental responsibility in luxury and budget hotels.

1.6 Problem statement

It is estimated that the hospitality industry is responsible for high energy consumption, water consumption, and waste generation, and this is the highest contribution to the environmental degradation. Although sustainability initiatives have gathered momentum in all around the world, luxury and budget hotels vary from each other in their adoption of similar initiatives. Budget hotels may be constrained by the financial and operational heavy burden, but luxury hotels may have the capacity to invest in some green technologies. Though environmental awareness has increased in Chandigarh, many hotels have not developed structured sustainability plans. Lack of clear frameworks on what should be followed, and region-specific frameworks make the adoption of sustainable practices more difficult. In addition, there is not much research on how global sustainability initiatives can be adapted to Chandigarh Hotel industry. Without adopting an integrated view, hotels in the region can lose competitiveness and not live up to evolving environment and consumer expectations. Thus, the purpose of this study is to bridge the research gap by developing an adaptable sustainability framework.

1.7 Structure of the dissertation

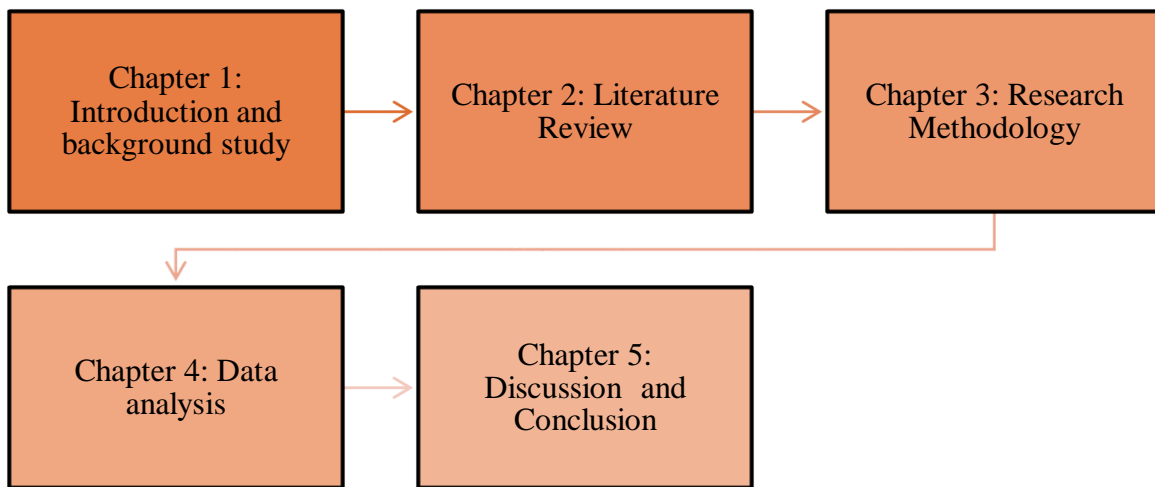


Figure 1: Structure of the dissertation

Source: Self-created

Based on the above image this fact has been observed that, the five key chapters which make this dissertation are. The background, aim, objectives, research questions, rationale and problem statement of the research are introduced in chapter 1. In the second chapter, a literature review is presented regarding the global sustainability practices in the luxury and budget hotels, the topic of corporate social responsibility, and financial and consumer perspective as well as regional considerations in Chandigarh. Chapter 3 illustrates the research methodology, namely the qualitative study method, research data collection strategy and ethical considerations. The data analysis in chapter 4 analyses the sustainability practices and determines how it can be applied to Chandigarh. Thus, Chapter Five addresses questions raised in the introduction and goes on to discuss findings, reach conclusions, and suggest tips for sustainable hotel administration in Chandigarh.

Chapter 2: Literature review

2.1 Introduction

However, sustainability has become an essential issue for the global hospitality industry, which is why hotels have developed different initiatives to reduce ‘environmental footprint’ and

increase corporate social responsibility (Goffi, Masiero, & Pencarelli, 2022). However, while luxury and budget hotels are embracing sustainable practices, their approaches to do so differ because of the different financial capacities, operational models, consumer expectations. Luxury hotels tend to spend on high tech green solutions and budget hotels on doable sustainability strategies. Success of these initiatives depends on such factors as regulations of government, and customer preferences, and regional economic condition. In this chapter existing literature about global sustainability practice in luxury and budget hotels is discussed focusing on three major outlines of energy efficiency, water conservation, waste management and responsible sourcing.

Author(s) & Year	Title	Key Findings	Methodology	Relevance to Sustainability in Hospitality
Bicego, A. (2024)	TOP 100 Sustainable Hotels & Resorts	Highlights top sustainable luxury hotels	Review of luxury eco-hotels	Provides case studies on best practices in sustainable hospitality
Business Standard (2022)	Indian Hotels to eliminate single-use plastic by 2030	Commitment to eliminating plastic	Policy announcement	Key industry-wide sustainability goal
Chandigarh Envis (2024)	Green Getaway Exploring Eco-Tourism in Chandigarh	Promotes eco-tourism	Case study analysis	Emphasizes regional sustainability initiatives
Dar, S.A., et al. (2022)	Eco-Friendly Customer	Discusses customer	Qualitative research	Focuses on behavioural

	Engagement Practices in Hotels	engagement strategies for sustainability		changes for sustainability
Donnellan, L. (2024)	The Future Of The Hospitality Industry In 2025	Examines sustainability trends in hospitality	Market analysis	Predicts future sustainability trends
FALLZ HOTELS (2025)	The Rise of Sustainable Practices in Hotels	Growing trend of sustainability in hotels	Industry report	Industry-wide shift towards green practices
Food & Wine (2025)	Sustainability retreat reshaping hotel kitchens	Focuses on sustainable culinary practices	Case study	Innovation in hotel sustainability practices
Ghani, B., et al. (2022)	Employee retention in hospitality	Examines challenges and strategies for employee sustainability	Literature review	Employee engagement in sustainable practices
Goffi, G., et al. (2022)	CSR & Performance in Hospitality	Links CSR to financial performance	Empirical study	Shows economic benefits of sustainability
Gupta, M., & Hasnain, A. (2022)	Sustainable tourism & local collaboration	Discusses local community collaboration	Case study	Community involvement in sustainability

Hotel Tech Report (2022)	Sustainability in Hotels: Statistics for 2025	Statistical insights on hotel sustainability	Industry report	Quantifies trends in green hospitality
IHCL (2024)	‘ACCELERATE 2030’ STRATEGY	Sustainability roadmap for Indian Hotels	Corporate strategy report	Industry-leading sustainability initiatives
Khatter, A. (2025)	Challenges & Solutions for CSR in Hospitality	Examines CSR issues and solutions	Literature review	Key CSR challenges in the hospitality sector
Killarney (2023)	The Europe Hotel & Resort	Environmental policy initiatives	Policy document	Example of best environmental practices
Lemon Tree Hotels (2021)	Sustainability at Lemon Tree Hotels	Green initiatives of the brand	Corporate sustainability report	Case study of a sustainable hotel chain
Leyva, E.S., & Parra, D.P. (2021)	Environmental Approach in Hospitality	Discusses transition to sustainable hotels	Empirical research	Shift in industry practices towards sustainability
PwC (2024)	Consumers willing to pay sustainability premium	Consumer willingness to pay more for sustainable hotels	Market survey	Economic viability of sustainable hotels

Ricaurte, E., & Jagarajan, R. (2024)	Hotel Sustainability Benchmarking Index	Industry sustainability benchmarking	Industry index	Hotel sector sustainability benchmarking
Šerić, M., & Šerić, M. (2021)	Hospitality Marketing & Sustainability	Marketing strategies for sustainability	Content analysis	Consumer engagement through sustainability marketing
Simon-Kucher (2024)	Expanding customer base via sustainability	Strategies for leveraging sustainability	Market analysis	Business benefits of sustainability initiatives
Statista (2024)	Paying more for sustainable hotels	Willingness of consumers to pay more for green hotels	Market research	Economic feasibility of green hospitality
The Hospitality Daily (2023)	CSR Impact on Luxury Hotels	Discusses CSR in luxury hotels	Case studies	Sustainability efforts in high-end hospitality
UNWTO (2021)	Cornell Hotel Sustainability Benchmarking Index	Environmental performance benchmarking	Sustainability benchmarking	Industry-wide measurement tools for sustainability

Table 1: Systematic literature table

2.2 Global Sustainability Practices in Luxury and Budget Hotels

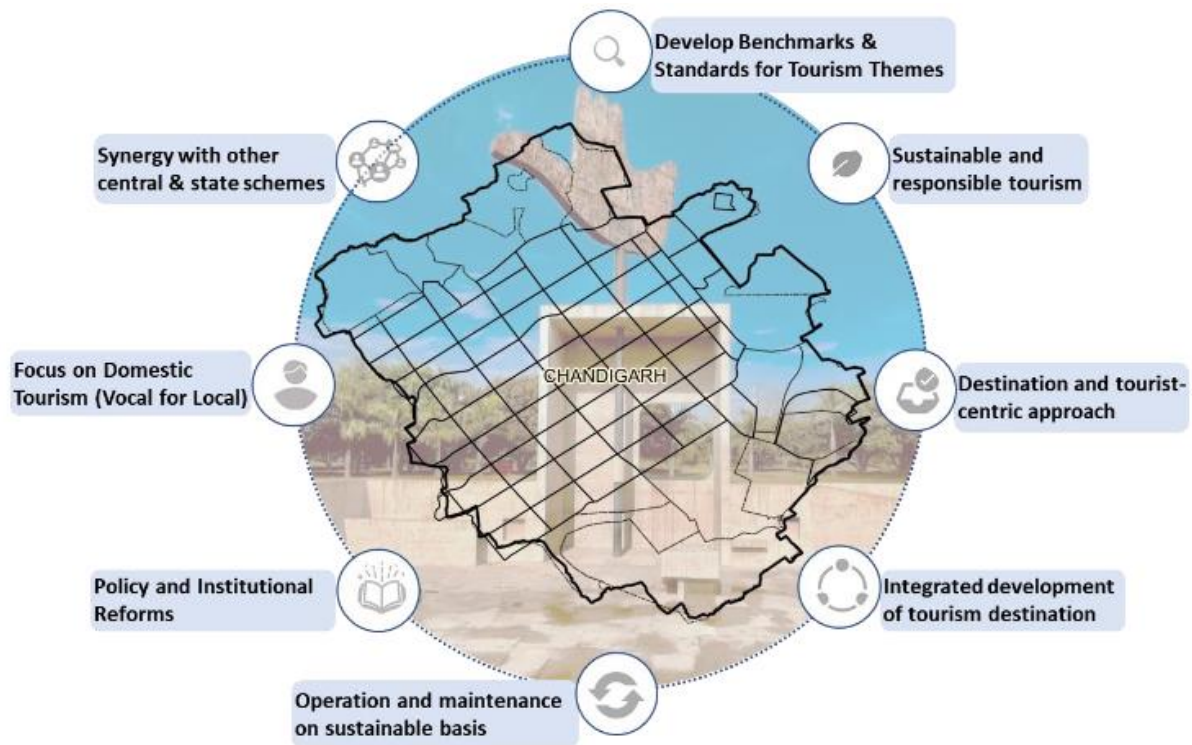


Figure 2: Sustainability Practices in Luxury and Budget Hotels in Chandigarh

Source: Tourism.gov.in. (2025)

As sustainability has been a growing focus for the hospitality industry, both luxury and budget hotels have been utilizing several eco-friendly practices to reduce environmental impact as well as satisfying consumer demands. Based on the above image, this fact is evident that the activities in these areas include energy efficiency, waste reduction, water conservation and responsible sourcing that are designed specifically according to the operational capacity and financial resources of each segment. Energy saving technologies have been widely adopted by most hotels. As per FALLZ HOTELS (2025), the number of hotels which include such systems like smart thermostats, LED lighting and renewable energy sources like solar and wind is 85%. In this area many luxury hotels take the lead, investing in more advanced systems for increasing comfort of guests without increasing energy consumption.

Waste reduction programs are prevalent across the hotel industry. According to FALLZ HOTELS (2025), approximately 78% of properties have introduced initiatives such as recycling, composting, and the elimination of single-use plastics. Major chains like IHG and Marriott have committed to removing single-use toiletries, aiming to save over 200 million tiny bottles annually (Hotel Tech Report, 2022). Budget hotels contribute by adopting bulk

dispensers and encouraging guests to minimize waste. According to FALLZ HOTELS (2025), water-saving measures are implemented by 72% of hotels, including low-flow fixtures, greywater recycling, and rainwater harvesting. For example, Caesars Palace in Las Vegas achieved a reduction of 30 million gallons of water usage in a year through a towel reuse program, demonstrating the effectiveness of such initiatives in both luxury and budget settings (Hotel Tech Report, 2022).

Particularly in their culinary operations, luxury hotels are diversifying their supply chains to emphasize local and sustainable sourcing. The Luxury Collection with René Redzepi's MAD Academy were experts in promoting sustainability in hotel kitchens across the world with an aim to encourage chefs to focus on local sourcing to enhance biodiversity and support local communities (Food & Wine, 2025). Responsible sourcing is also sold by budget hotels in that they procure local products and services, thus lowering transportation emissions and supporting local economies. Apart from this environmental concern, these sustainability practices address consumer preferences. According to FALLZ HOTELS (2025) more than 60% of travellers are ready to pay more for ecofriendly accommodations proving how vital sustainability is for attracting the ecofriendly visitors.

2.3 The Role of Corporate Social Responsibility (CSR) in Sustainable Hospitality

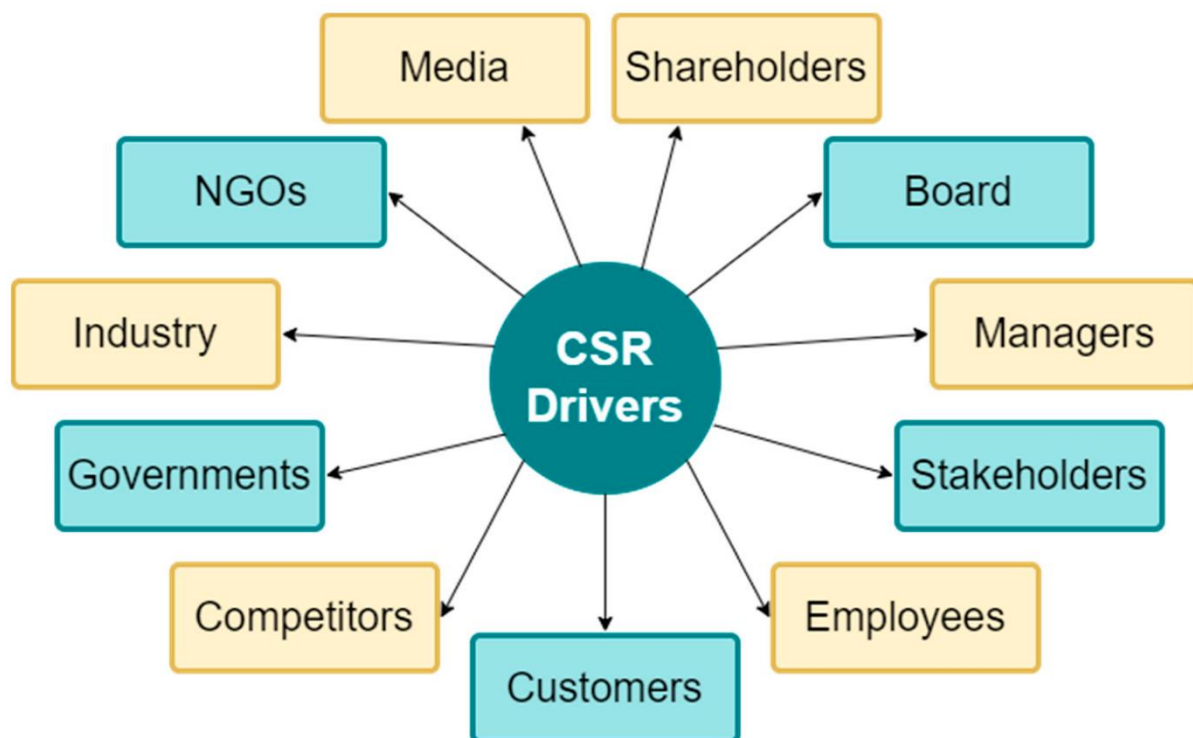


Figure 3: Role of Corporate Social Responsibility (CSR) in Sustainable Hospitality

Source: Tourism.gov.in. (2025)

Based on the above image, this fact has been observed that Corporate Social Responsibility has various stakeholders involved within it. Corporate Social Responsibility, also known as CSR, has now become part of the hospitality industry's search for Sustainability, which is Environmental stewardship, social equity, and economic viability. IMHO, hotels worldwide are achieving an integration of CSR into their core strategy as the answer to pressing global challenges and meeting with the social expectations of their socially conscious traveller. Hotels are putting into action sustainable operations just to make a positive environmental impact. According to The Hospitality Daily (2023), practices such as energy-efficient lighting, water conservation, waste reduction, and green cleaning are becoming standard.

Engaging with local communities is a pivotal aspect of CSR in hospitality. Hotels are fostering relationships with local artisans, sourcing food from nearby farms, and supporting community projects (Gupta and Hasnain, 2022). This approach not only enriches the guest experience but also promotes local economies and cultural preservation. For example, some hotels have integrated community engagement into their operations, benefiting both the community and the hotel. Prioritizing employee well-being is a key CSR focus. According to Ghani *et al.* (2022), providing fair wages, professional development opportunities, and healthy working conditions leads to increased staff satisfaction and retention. Hotels that invest in their employees often see enhanced guest satisfaction, as motivated staff deliver superior service.

The hospitality industry significantly impacts global economies. In 2024, the global hospitality market is projected to grow from \$4.67 trillion in 2023 to \$4.99 trillion, reflecting a compound annual growth rate (CAGR) of 6.8% (Donnellan, 2024). By adopting CSR practices, hotels contribute to economic development through job creation, infrastructure investment, and by attracting tourism that supports local businesses. Sustainable practices in hotels are increasingly recognized and celebrated. For instance, the 2024 TOP 100 Sustainable Hotels & Resorts list highlights properties excelling in combining sustainability with luxury, demonstrating the industry's commitment to responsible practices (Bicego, 2024).

2.4 Comparative Analysis of Sustainability Initiatives: Pre-2019 vs. post-2019

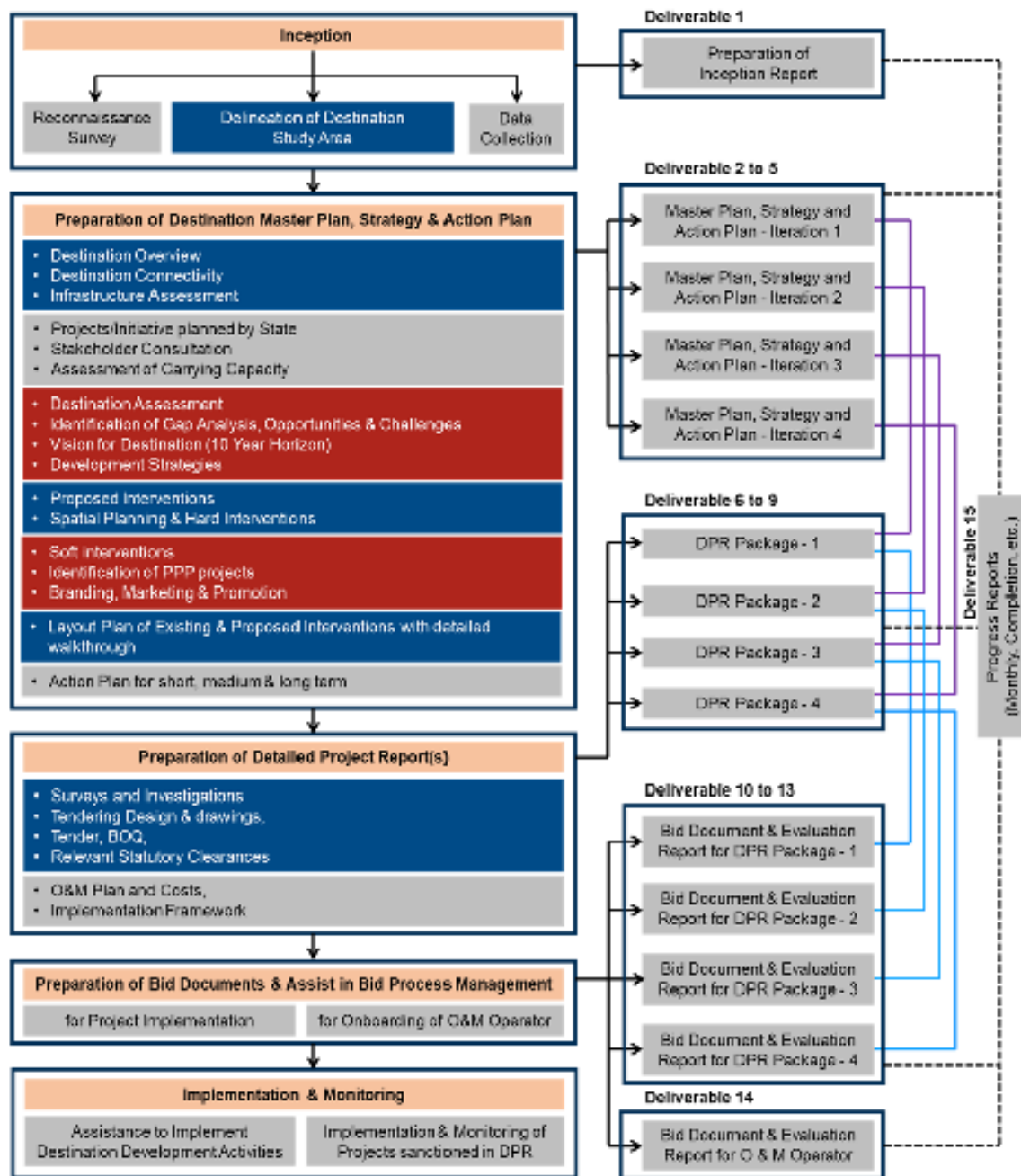


Figure 4: Chandigarh Master Plan

Source: Tourism.gov.in. (2025)

According to Šerić and Šerić (2021), the hospitality industry's approach to sustainability has evolved notably between the periods before and after 2019, influenced by heightened environmental awareness, technological advancements, and global events such as the COVID-19 pandemic. Prior to 2019, many hotels had begun integrating sustainability practices, focusing on energy efficiency, water conservation, and waste reduction. The Cornell Hotel

Sustainability Benchmarking (CHSB) Index reported data from over 21,000 hotels in 2019, indicating a growing commitment to environmental responsibility (Unwto, 2021). However, these initiatives were often fragmented, with varying levels of adoption across regions and hotel categories. In the case of Chandigarh this fact has been seen that the implementation of the effective Master Plan can enhance the level of sustainability initiatives within the location. The COVID 19 pandemic since 2020 has thrown unprecedented challenges to the hospitality sector causing a significant drop in hotel occupancy rates and temporary hotel closures. The operational changes described above led to a decrease in the general energy and water consumption, as reported in the CHSB Index (Unwto, 2021). The pandemic has also meant that the focus has been increasingly on the industry's sustainability, which had been caught up by increasing energy costs and the changing traveller preference for ecofriendly accommodations. One of the significant post 2019 trends has been the rise of Environmental, Social and Governance (ESG) initiatives. Reporting on the sustainability efforts of the hotels are more transparent nowadays in alignment with the global standards and following the stakeholder's expectations (Khatter, 2025). Moreover, the ruthless adoption of advanced technologies, including real time analytics and paperless systems, is witnessed for the sake of strengthening the sustainability management.

2.5 Financial and Consumer Perspectives on Sustainability

Emerging Trends	Key Considerations
Rise in Millennials and Gen-Zs	<ul style="list-style-type: none">• Millennials and Gen-Zs currently make up -50% of the world's population• Characterized by increased use of technology and focus on sustainability• Inclination towards remote work drives creation of new tourism products such as digital nomads and staycation
Heritage and Culture-based Tourism	<ul style="list-style-type: none">• Cultural tourism is one of the fastest growing tourism segments, estimated to be 40% of all tourism globally (UNWTO)• Engaging communities providing authentic experiences to travelers seeking to learn about the destination's culture
Nature Tourism	<ul style="list-style-type: none">• Nature-tourism is based on natural attractions of the area• Nature-tourism has high synergy with wellness offerings, which can be explored• Nature-tourism presents exceptional opportunities for individuals to engage in learning and interpretation of both natural and cultural heritage.
Digital Transformation	<ul style="list-style-type: none">• Travelers prefer digital media for selection and planning trips• Allows businesses and regulatory authorities to capture detailed information from tourists for planning and strategy• Enables round the clock support to tourists while surpassing traditional barriers• The transparency of online reviews and ratings shared by previous guests help the travelers

Figure 5: Consumer Perspectives on Sustainability in Chandigarh

Source: Tourism.gov.in. (2025)

It is evident from the above image that consumer perspective plays a vital role in the development of sustainability initiatives. It should be noted that sustainability initiatives have been integrated into the hospitality industry and have garnered much attention; both financial performance and consumer behaviour have been influenced. Operational cost reduction particularly in energy and water conservation measures is most often experienced when hotels adopt ecofriendly practices. Ricaurte and Jagarajan (2024) point out that during the time hotels recovered to the pre pandemic occupancy, there was also an increase in the energy and water consumption, both things that will be key to help lessen the continued rise in utility consumption. Sustainability has now become a main consideration for a consumer to make a choice. As PwC (2024) notes, 9.7 per cent more on sustainably produced or sourced goods is

OK in consumers' books, a sign of increasing desire for environmental responsibility in the face of economic difficulties. Nevertheless, this willingness varies by region and demographic. According to Statista (2024), while 5% of U.S. consumers are willing to pay more than 50% more than the prices of the standard hotels and 58% are not willing to pay at all. The Simon-Kucher & Partners' 2024 Sustainability Study globally states that 54 percent of consumers are willing to pay more for sustainability alternatives than they had been previously (around 35 percent) (Simon-Kucher, 2024).

Despite the positive consumer sentiment, the financial implications of implementing sustainable practices can be complex. Initial investments in green technologies and certifications may be substantial, potentially impacting short-term profitability. Nonetheless, long-term benefits such as enhanced brand loyalty, competitive differentiation, and compliance with evolving regulations can offset these initial costs. For instance, hotels like The Europe Hotel in Ireland, which operates sustainably from farm to kitchen, exemplify the potential for aligning environmental stewardship with financial viability (Killarney, 2023).

2.6 Regional Considerations for Sustainability in Chandigarh's Hospitality Sector

Name of the destination	Aerial Distance	Distance (By Road from Sector 17)	Travel Time (By Road)
Primary Influence Area (20 km)			
Panchkula	9 km	12 km	25 min
Kalka	18 km	30 km	53 min
Mohali	7 km	8 km	17 min
Masol (ASI)	12 km	15 km	37 min
Secondary Influence Area (40 km)			
Sanghol	37 km	42 km	56 min
Fatehgarh Sahib	38 km	42 km	64 min
Rupnagar	35 km	46 km	61 min
Ambala	40 km	47 km	70 min
Nalagarh	35 km	65 km	90 min
Tertiary Influence Area (60 km)			
Sadhaura	58 km	75 km	98 min
Patiala	60 km	72 km	104 min
Anandpur Sahib	60 km	82 km	98 min
Influence area is defined based on aerial distances. Distance and travel time by road is considered from Sector 17 of Chandigarh to the respective places.			

Figure 6: Regional focus areas off sustainable hospitality and tourism development in Chandigarh

Source: Tourism.gov.in. (2025)

Chandigarh, renowned as “The City Beautiful,” has been initiative-taking in integrating sustainability within its hospitality sector, aligning with its original comprehensive plan emphasizing environmental sensitivity and green urban planning. As shown in the above image, the city’s tourism department has identified and developed eco-tourism sites, to promote sustainable tourism (Chandigarh Envis.gov, 2024). Local hotels are increasingly adopting eco-friendly practices to minimize their environmental impact. For example, Lemon Tree Hotels have resorted to intense sustainability measures in areas of energy efficiency, water conservation, as well as waste management (Lemon Tree Hotels, 2021).

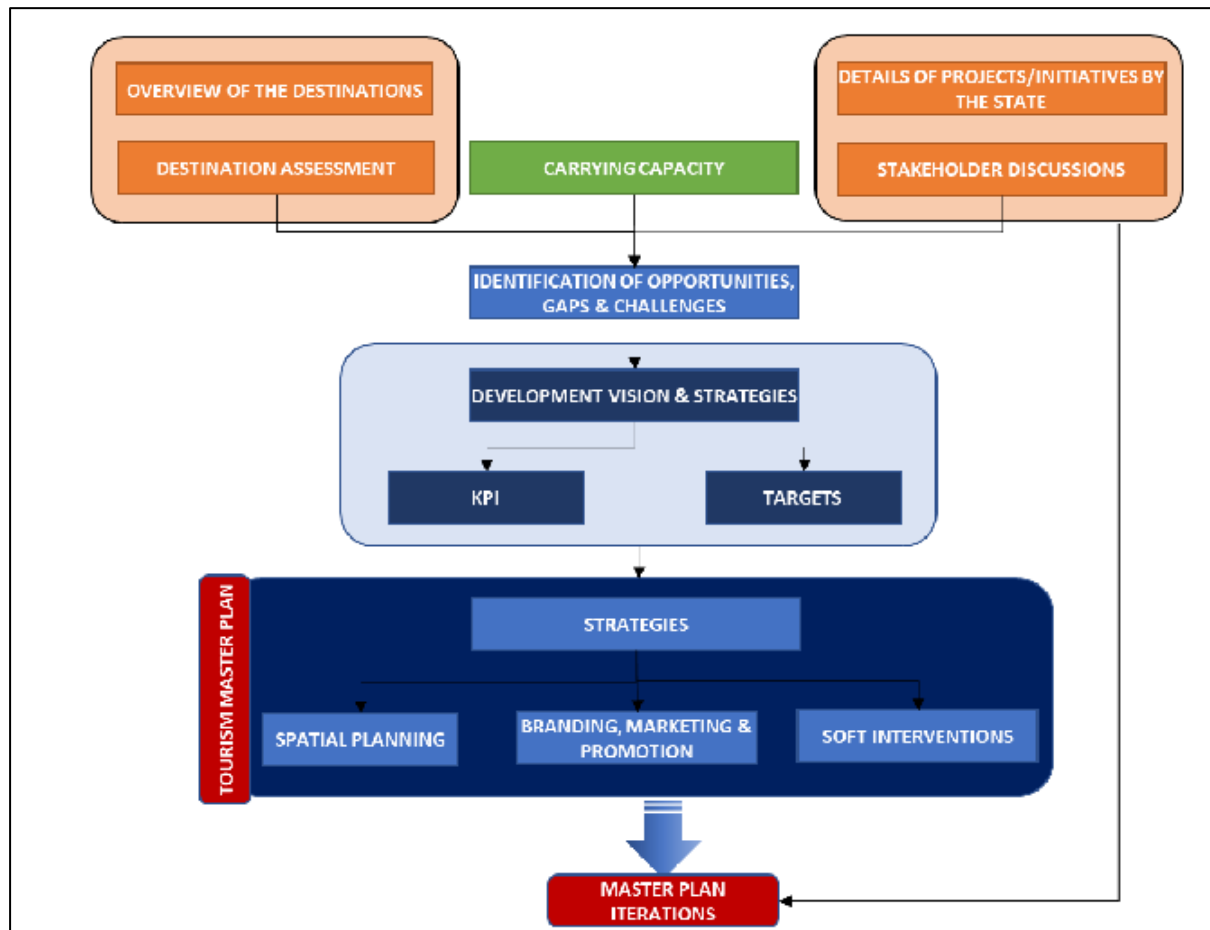


Figure 7: Approach to Chandigarh masterplan

Source: Tourism.gov.in. (2025)

Chandigarh Envis.gov (2024) further mentions that the Chandigarh Administration has also made efforts to encourage sustainable development according to the masterplan of Chandigarh,

with green towns strategies and regional cooperation for sustainability. It also is being complemented by the Ministry of Tourism's initiatives in the field of sustainable tourism to develop the Union Territory. Though these advancements have been made, sustainability still does not permeate into Chandigarh's hospitality sector completely. The problem requires continuous efforts to build environmental practices up and facilitate awareness by stakeholders in terms of the benefits of sustainable tourism.

2.7 Strategic Framework for Sustainability Adoption in Chandigarh Hotels



Figure 8: Strategic Framework for Sustainability Adoption in Chandigarh Hotels and tourism

Source: Tourism.gov.in. (2025)

As the above image depicts, the adoption of sustainability in Chandigarh's hotel industry calls for a comprehensive approach, comprising environmental stewardship, economic viability, and social responsibility, to develop a strategic framework for sustainability. Hotels should buy energy efficient systems and look for renewable energy sources reduce carbon footprint and reduce operation cost. For instance, The Indian Hotels Company Limited (IHCL) is also committed to end the use of individual use plastic and achieve water neutrality by 2030 (Business Standard, 2022). Installation of water saving fixtures and good waste segregation can reduce environmental impact. As stated by Lemon Tree Hotels (2021), Lemon Tree Hotels have followed such practices being energy efficient, water conservation and waste management. It prioritizes local and sustainable product as they help in supporting regional

economies and lessening transportation emissions. Social sustainability is achieved through the employment of local communities as well as the combined influence of employment from cultural programs. Guest education on how these practices were built and calls to action for guests to become involved in them will increase the effectiveness of these practices. Dar, Kour, and Wani (2022) point out that hotels can give information about ecofriendly practices and offer options to the guests for participating in conservation efforts. The pursuit of certifications such as the Global Sustainability Standards Board (GSSB) ensures maintaining rigid standards of international sustainability. As per IHCL (2024), IHCL strives that all its hotels achieve GSSB certification by 2030, an indication of global standards.

2.8 Conclusion

Environmental conservation and urban planning goals in Chandigarh make it no longer an option, but a need, for the hospitality industry to adopt sustainability initiatives. In luxury and budget hotels, per as global sustainability practices, energy efficiency, waste management, water conservation, and community engagement are calls to discuss measures for the sustainability of hotels. Initial investment may be needed from a financial perspective but can deliver in the long term through cost savings, enhanced brand reputation, and more loyal customers. It is already happening that consumer trends favour ecofriendly hotels due to the way it can benefit the business. Chandigarh's hospitality sector can blend its regional context with international best practices by creating a strategic framework. Implementation of this approach will enhance environmental sustainability, economic growth, and social wellbeing in the region.

Chapter 3: Methodology

3.1 Introduction

This chapter outlines the research methodology adopted for this study, providing a detailed explanation of the approach, design, and methods used to collect and analyse data. The chosen methodology enables the research objectives being addressed in a systematic and effective manner. It starts with the justification of research philosophy and approach and then discusses research strategy and data collection techniques. Reasons for choosing qualitative, quantitative, or a mix of methods are explored according to the research aims. This chapter also relates to the sampling strategy, ethical considerations and the limitations whilst carrying out the research. To achieve credibility, reliability and validity in the presented findings in subsequent chapters, a methodology is adopted.

3.2 Research method

The methodology used in this research is mainly based on a qualitative method to explore the impact of global sustainability initiatives in luxury and budget hotels and the way these can be implemented in the hospitality industry of the Chandigarh region in North India, through secondary data. It is appropriate for studies that involve in-depth qualitative insight into phenomena that are complex such as corporate social responsibility, global sustainability or cost related challenges (Mey, 2022). This method involves analysing the current trends and challenges as well as the best practices of the industry by means of analysing the existing literature, industry reports, the academic publications and case studies. Mazhar et al. (2021) explain that this data allows access to a great deal of previous and already established safeguards of perspectives and findings by scholars and practitioners. Additionally, this approach tends to be more time efficient and resource effective with respect to the scale of the issue in question, which for this topic is within the Indian Region. But because the study is qualitative, it permits critical evaluation and interpretation of data, emergence of patterns, and drawing of conclusions rooted in previous knowledge. Secondary data differs from primary research because it offers a much greater scope of information than could be obtained based solely on sample size or participant availability (Walliman, 2021). However, this approach perfectly suits for the study of the global sustainability initiatives in luxury and budget hotels as well as figuring out the way these can be implemented on the Chandigarh region in North India.

3.3 Research approach

This research uses a deductive research methodology where a theoretical construction from existing knowledge is developed and then tested against the secondary qualitative data. This research is suitable for the deductive approach as it proceeds from the theories already established of sustainability initiatives in luxury and budget hotels. Specific research questions and objectives to guide the analysis were formulated based on these theories. Fife and Gossner (2024) suggest that the deductive approach ensures the progression towards data from theory is structured, logical and consistent with academic and industry frameworks and thus maintain research focus. The study tests established assumptions on the sustainability initiatives in luxury and budget hotels by using secondary sources such as peer-reviewed journals, industry reports and published case studies. It combines robust validation and challenge of theoretical propositions with everyday life contexts in real world hospitality. Additionally, the use of the deductive method provides an anchoring to the reliability of the findings as it derives them from well-established literature (Okoli, 2023). It also provides support for the critical analysis by comparison of actual observations reported in data to theoretically derived expected outcomes.

3.4 Research philosophy

The interpretivist philosophy forms the basis of this research which takes meanings attached to objects as a base for understanding of social phenomena. Interpretivism is particularly suitable for studies in hospitality industry, where the experience and perception of customers about sustainability initiatives in luxury and budget hotels, and the interactions between human being are primary factors (Yao, Chan and Yao, 2024). Interpretivism differs from positivism, which relies on objective measurements and quantifiable data, as in an interpretation it allows for a more flexible and in-depth exploration of such subjective experiences and contextual factors. Because this research focuses on the sustainability initiatives in luxury and budget hotels companies, an interpretivist stance facilitates understanding of the way it can be implemented in the Chandigarh region in North India. The use of qualitative secondary data is supported by this philosophical approach in that qualitative secondary data such as, case studies, industry insights, existing academic research are prioritized over measure in terms of their meaning. It gives the freedom to analyse multiple views, cultural diversity and emerging consumer expectations in the global landscape of the hospitality. Following interpretivism, the research attempts to go beyond ascertaining what digital tools are used; how and why they can contribute to customer satisfaction, loyalty and service perception (Sakib, 2022). By bringing in this

approach, the research findings include depth and richness to the research from the analysis of the sustainability initiatives in luxury and budget hotels.

3.5 Data collection

This study relies on secondary data collection method, in which actual data is collected from secondary source instead of primary source. Using secondary data is very useful especially while researching wide trends and infer generalisations about trends from an individual study (Mazhar et al., 2021). For this research, data will be sourced from peer reviewed academic databases like Google Scholar and MDPI since they provide journals and scholarly publications within area of sustainability initiatives and hospitality industry for this paper. These platforms are very reliable and of high quality and therefore the data used in this research is of high academic standards. The use of secondary data signifies a large stock of already well tested data that can be utilized for a deeper and more educated studying of the theoretical and practical issues presently existing. For instance, the data collected includes the recent development, expert opinion, and real-world application of various digital tools applied in the development of sustainability initiatives within the hospitality industry (Taherdoost, 2021). Also, this approach enables comparing various perspectives, thereby uncovering the overall findings more cohesively. The data collection method used here is the secondary data collection and it is ideal for the research aims because it will allow the exploration of sustainability initiatives in luxury and budget hotels as well as figuring out the approaches that can be adapted to implement them within the Chandigarh Region in North India.

3.6 Data analysis

To facilitate data analysis for this research, thematic analysis, a qualitative method, will be used to find and interpret patterns or themes in the data. As described by Lochmiller (2021), thematic analysis is a powerful method for secondary qualitative work because it allows the researcher to systematically collate large amounts of data to find the insights that inform the research question. Familiarisation with the data, looking at data and associated other information, coding them with some significant information for future use, groupings of the codes into potential themes, reviewing these themes, checking the grouping, checking the interpretation. In this study, thematic analysis will be used on the secondary sources such as academic articles, industry case studies, and expert commentaries from the platforms like Google Scholar and MDPI. The research applies focus on recurring idea and concept, including sustainability, consumer perception and government actions to analyse the sustainability initiatives in luxury

and budget hotels within Chandigarh. Thematic analysis offers a flexible, but structured, approach that ensures that findings are both insightful and based on existing literature (Ayre and McCaffery, 2022). Additionally, this method works towards interpretivist philosophy like the researcher can immerse into subject meaning and contextual nuances for the understanding of the approaches that are followed by the hospitality companies while implementing sustainability initiatives within Chandigarh. Additionally, it will also allow to develop effective recommendation for the enhancement of sustainability initiatives within the luxury and budget hotels in Chandigarh.

3.7 Ethical considerations

Kumavat (2024) asserts that ethical considerations are very important in guaranteeing the integrity and credibility of any academic research. In this study, all ethical guidelines have been nearly observed especially on the use of secondary data. There are no human participants or primary data collection involved as part of the research thus making issues linked to informed consent and privacy irrelevant. Despite this, proper citation and referencing of all sources has always remained a top priority to avoid plagiarism and offer a sense of academic honesty (Lal and Sharma, 2023). No information has been modelled out of published articles without due acknowledgement of the original sources and authors. Google Scholar and MDPI academic databases include material that is credible, peer reviewed, carefully selected and cited based on a consistent referencing style. Furthermore, transparency and objectivity have been maintained while conducting the analysis of secondary data (Bhardwaj and Mittal, 2024). There have been no alterations or misrepresentations made to the outcomes and conclusions from the reviewed articles to fit the narrative. This research, instead, aims to faithfully replicate the original conclusions and insights brought forth in the literature. This way, the study maintains all the ethical integrity, and conclusions are always made on valid and accurate data. This serves to increase the validity of the research and thereby the contribution to the field of hospitality management.

3.8 Research timeline

Tasks	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8
Background research								
Developing aims and objectives								
Literature review								
Methodology								
Data collection								
Data analysis								
Discussion and conclusion								
Submission								

3.9 Summary of the chapter

The methodological framework through which the research has been conducted is outlined in this chapter. To investigate sustainability initiatives in luxury and budget hotels in Chandigarh, a qualitative approach based on the secondary data collection was adopted. This research was deductively based on interpretivist philosophy by means of deep analysis of existing literature and industry case studies. The data was validated through credible sources like the Google Scholar and MDPI to ensure reliability. Key patterns and themes of the data were identified through thematic analysis. Proper citation and data integrity were carefully examined as ethical considerations.

Chapter 4: Data analysis

4.1 Current Sustainability Practices in Luxury and Budget Hotels Globally

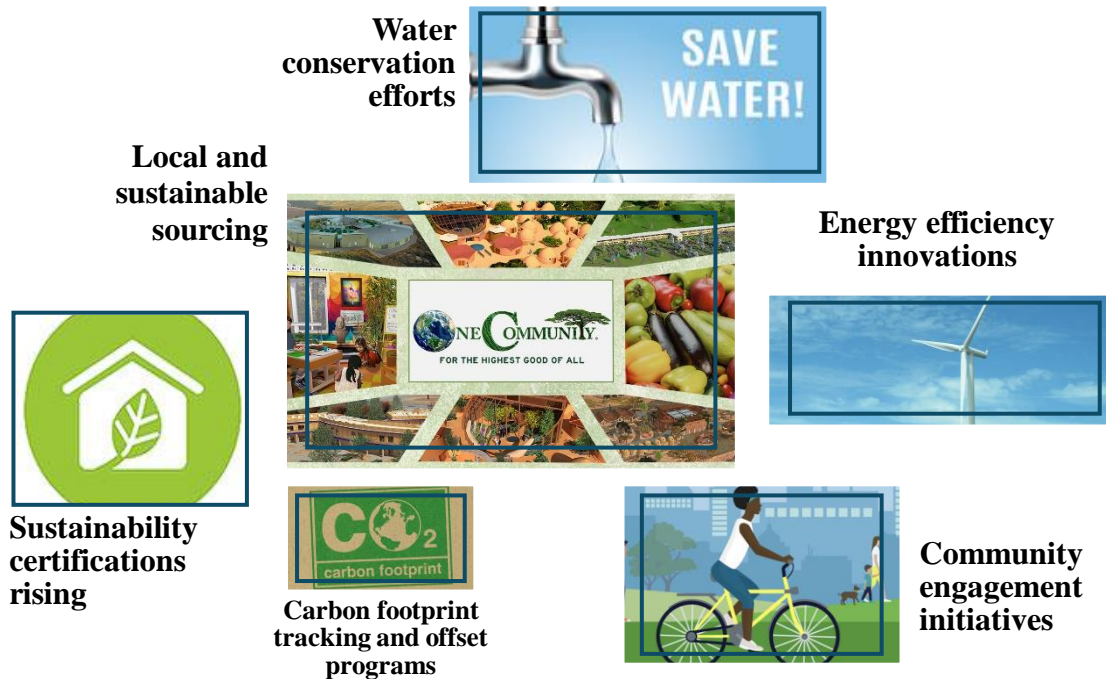


Figure: Sustainability Practices in Luxury and Budget Hotels Globally

Source: Self-created

Sustainability is an important aspect in the hospitality industry as both budget as well as luxury hotels have adopted different ecofriendly measures to reduce environmental impact as well as fulfil the need for responsible tourism. DPMI (2024) defines these initiatives as energy efficiency, water conservation, waste reduction, sustainable sourcing, and community engagement. Luxury hotels across the world are investing in the latest technologies to lower energy consumption. For instance, the Soneva Fushi resort in Maldives has implemented a solar power system that delivers over 60 percent of the resort's energy requirements (The Hospitality Daily, 2023). In addition, air cooling of the resort is performed through underground pipes, which greatly reduces the usage of traditional air conditioning systems. Budget hotels are also following suit to control electricity usage by adopting energy efficient measures, including LED lighting, energy saving appliances, smart room controls, etc. These cost-effective solutions not only reduce operational expenses but also help in the development of environmental conservation.

There is widespread concern over water conservation across hotel segments. DPMI (2024) states that Marriott International turned to low flow showerheads and toilets and adopted towel

and linen reuse programs leading to the saving of millions of gallons of water every year. The Hospitality Daily (2023) confirms that budget hotels too are following the path brought about by airlines by installing water efficient fixtures and urging guests to take part in reuse initiatives to promote responsible water usage. The sourcing from locally is catching up. The Ritz Carlton and Oberoi Group purchases their ingredients from local farms and concentrate the use of organic food to be used in their restaurants (DPMI, 2024). This practice supports local economies and reduces the carbon footprint associated with transportation. Budget hotels are increasingly offering locally sourced food options and eco-friendly amenities to align with sustainable practices.

Achieving recognized sustainability certifications is a goal for many hotels. According to DPMI, (2024), the Radisson Blu in India and the InterContinental Hotel in San Francisco have obtained Green Key certification, reflecting their commitment to environmental stewardship. Notably, over 5,000 hotels across more than 80 countries have committed to the World Travel & Tourism Council's Hotel Sustainability Basics program, which provides a 12-step framework for eco-friendly practices (Tomelty, 2024). Engaging with local communities is integral to sustainable hospitality. Accor Hotels' "Plant for the Planet" program supports local reforestation efforts and involves guests in community activities. Budget hotels also contribute by partnering with local organizations, promoting cultural experiences, and supporting local artisans, thereby fostering socio-economic development. The Green Lodging Trends Report 2024, encompassing data from 20,000 hotels across 50 countries, reveals significant advancements in sustainability (Hasek, 2024). Over 90% of hotels now track greenhouse gas emissions monthly and have reduction plans in place. According to Hospitality Today (2024), approximately 90% offer guests the option to purchase carbon credits, though only 5% of hotels purchase credits themselves to offset emissions. More than 90% have implemented towel reuse programs, encouraging guests to minimize water and energy consumption.

According to Legrand, Chen and Laeis (2022), both luxury and budget hotels globally are increasingly prioritizing sustainability through diverse initiatives tailored to their capacities and resources. By focusing on energy efficiency, water conservation, waste reduction, sustainable sourcing, and community engagement, these establishments not only reduce their environmental impact but also enhance guest experiences and contribute positively to local communities. The widespread adoption of sustainability certifications and programs further reflects the industry's dedication to responsible tourism and environmental stewardship.

4.2 Financial Implications of Sustainability Initiatives in the Hospitality Industry



Figure: Financial Implications of Sustainability Initiatives in the Hospitality Industry

Source: Self-created

The integration of sustainability initiatives within the hospitality industry has evolved from a mere ethical consideration to a strategic business imperative. Papallou, Katafygiotou and Dimopoulos (2024) state that hotels and resorts all over the world are now beginning to realize the importance of applying environmentally sustainable practices not only for ecological goodness but also for their financial prowess. These advantages come in various shapes in the form of cost savings, more revenue and higher brand reputation, as well as better looks to investors. Sustainable practices often significantly reduce an organization's operational expenses. Energy efficient technologies like LED lighting, smart thermostats and solar panels can dramatically reduce the amount of electricity used. For example, in the case of Travelodge by Wyndham hotels in Lakeland, Florida, after installing energy management thermostats, utility costs of the company decreased by an estimated 20% as energy waste was reduced in unoccupied rooms (Glickman, 2025). Similarly, water conservation measures like low-flow fixtures and water recycling systems contribute to lower utility bills. According to the Gómez *et al.* (2024), implementing such energy-efficient systems can save up to 30% in operating costs.

Waste reduction initiatives also play a crucial role in cost management. Programs aimed at minimizing food waste and enhancing recycling efforts can lead to significant savings in disposal costs. MeetGreen, a conference and event management company, reported saving clients \$5.3 million since 2008 through sustainable practices, including waste reduction strategies (Pretorius, 2023). Sustainability has become a key differentiator in attracting environmentally conscious consumers. A 2024 Booking.com survey revealed that 83% of global travellers consider sustainable travel important, indicating a strong market preference for eco-friendly accommodations (Stefi, 2024). Hotels that adopt green practices often experience higher occupancy rates and can justify premium pricing, thereby enhancing revenue streams. For example, the Populus Hotel in Denver, designed to be carbon-positive, aims to appeal to eco-conscious travellers by offsetting more carbon than it emits through initiatives such as composting and tree planting (Hardy, 2024).

Sustainable practices significantly bolster a hotel's brand image and reputation. Consumers are increasingly aligning their spending with their values, favouring businesses that demonstrate environmental responsibility. According to Alyahia *et al.* (2024), hotels that engage in sustainability reporting and obtain eco-friendly certifications build trust and credibility among guests, leading to increased brand loyalty and advocacy. Collaborations with local communities and environmental organizations further enhance a hotel's image as a responsible business. Investors also find sustainability initiatives attractive, as they support ESG factors. According to the Green Plants for Green Buildings (2023) report owner and developers stated about two thirds of owners and developers feel that green building raises a new building's asset value by 6 percent or more. Therefore, it is likely that investors for a sustainable hotel are interested in long-term returns, and sustainable hotels will merit higher property values like that of standard hotels. The benefits are clear, but it is difficult to measure the ROI of sustainability initiatives. The implementation of sustainable technologies involves initial costs and is difficult to quantify nonfinancial effects of the customer satisfaction and brand reputation. In response to these challenges, hotels are implementing comprehensive measurement strategies and aim to monitor multiple dimensions of sustainability impacts, including balanced scorecards and frameworks such as Global Reporting Initiative (GRI) and Sustainability Accounting Standards Board (SASB) (Ratnayake, 2024). Sustainability initiatives in the hospitality industry led to multiple financial outcomes, including cost saving, revenue growth, improved brand reputation, and increased investor appeal. Participation in ecofriendly practices helps the hotels not only preserve the environment but also place itself competitively in a market that is becoming

increasingly aware about environmental issues. Despite the difficulties in calculating ROI, strategic implementation of sustainable efforts generates tangible financial benefits and are vital to the long-term sustainability of hospitality businesses.

4.3 Consumer Perception and Response to Sustainable Practices in Hotels

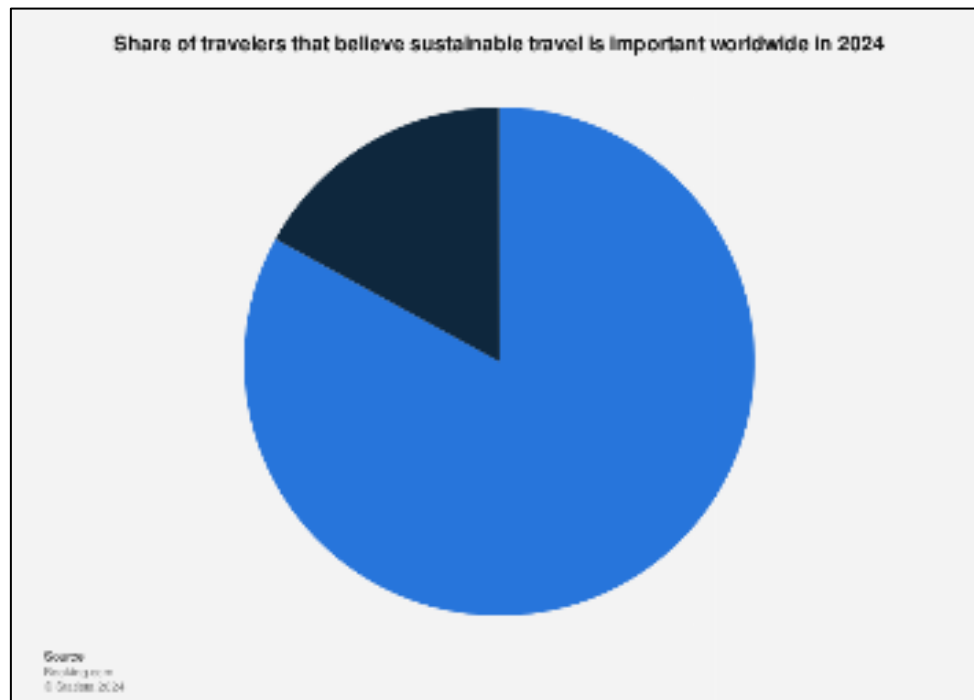


Figure: Share of travellers that believe sustainable travel is important

Source: Statista (2024)

Based on the above image it is evident that, at the same time, the hospitality industry is shifting significantly, considering that consumers increasingly seek a sustainable travel option. The decision is motivated by heightened environmental awareness as well as an urge to reduce the ecological implications of tourism. Sustainable practices are not only regulatory requirements but also are synonymous with the evolving guest preferences these days. Recent studies highlight that travellers are increasingly concerned with sustainability. Statista (2024) indicate that as of February 2024, 83 percent of the global travellers believe sustainable travel is important. Bennett (2023) also noted that 76% of respondents will support sustainable travel plans in the next year. This signifies a marked consumer willingness to make environmentally responsible travel choices. More importantly, the consumers also showed interest in sustainable accommodations and can pay extra for them.

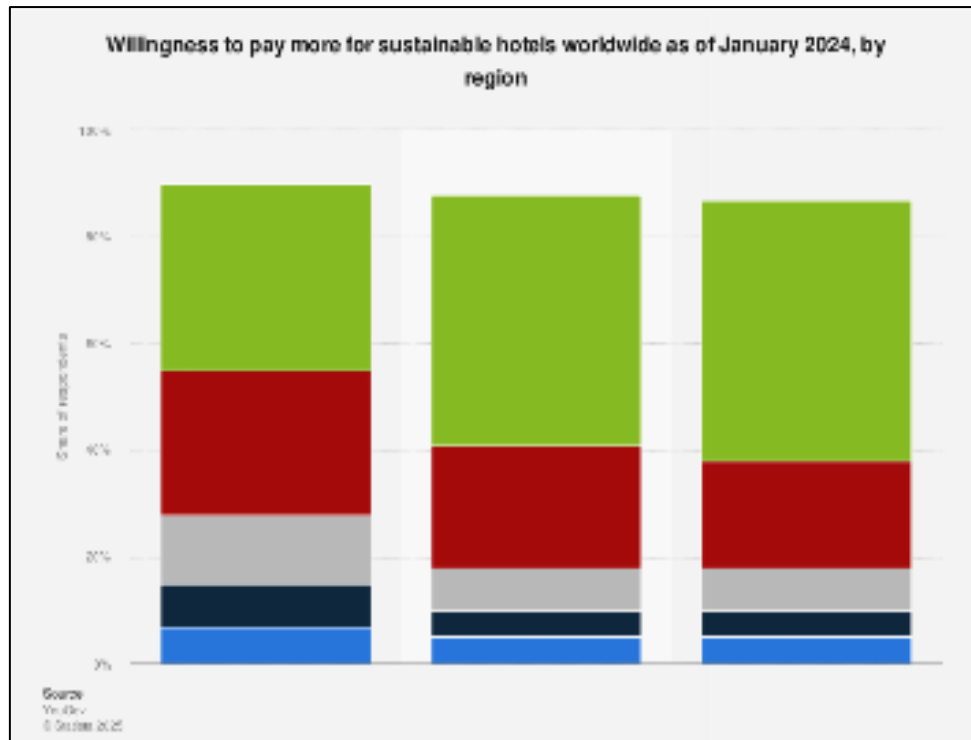


Figure: Willingness to pay more for sustainable hotels worldwide

Source: Statista (2024)

According to Statista (2024), up to 7% of consumers in the Asia-Pacific region would spend more than 50% over for sustainable hotels, while among consumers in EMEA and AMERS up to 5% say the same. Besides, research conducted in China showed that, guest satisfaction has a positive correlation with the willingness to pay premium prices for green hotels (Yang et al. 2024). There is a notable effect between implementation of environmentally sustainable practices and guest satisfaction and retention. In a study in Adamawa State, Nigeria it was found that significant positive relationship between such practices and guest satisfaction has a calculated t value of 7.001 and a p value of 0.000 (Ndalnamu, Ezenagu and Olugbemi-Gabriel, 2024). This demonstrates that hotels' efforts about sustainability receive guests' favourable reception. Also, Wang et al. (2024) reports that guests' attitude and intention to stay in green hotels exhibit a positive inclination toward trust in hotel's environmental claims. While there are positive trends, the gap between traveller desires for sustainable options versus confidence in hotel's efforts to address these remain.

Approximately 88% of travellers consider sustainability in their booking decisions; however, 58.7% believe that hotels do little to recycle bathroom amenities, indicating scepticism about the authenticity of green practices (Clean the World, 2024). This highlights the need for hotels

to transparently communicate and demonstrate their sustainability initiatives. Generational disparities also influence perceptions of sustainability in travel. A YouGov survey revealed that nearly half of Gen-Z travellers (aged 18-27) are concerned about the environmental impact of their holidays, compared to fewer than a third of those over 60 (Clatworthy, 2025). This suggests that younger travellers are more inclined towards eco-friendly accommodations and practices. Consumer perception and response to sustainable practices in hotels are increasingly positive, with a substantial number of travellers valuing and willing to invest in eco-friendly accommodations. However, to fully capitalize on this trend, hotels must address consumer scepticism by transparently highlighting their sustainability efforts. Understanding and catering to the preferences of environmentally conscious travellers, particularly among younger demographics, can enhance guest satisfaction, loyalty, and ultimately, the hotel’s competitive advantage in the market.

4.4 Regional Factors Influencing Sustainability Adoption in Chandigarh’s Hospitality Sector

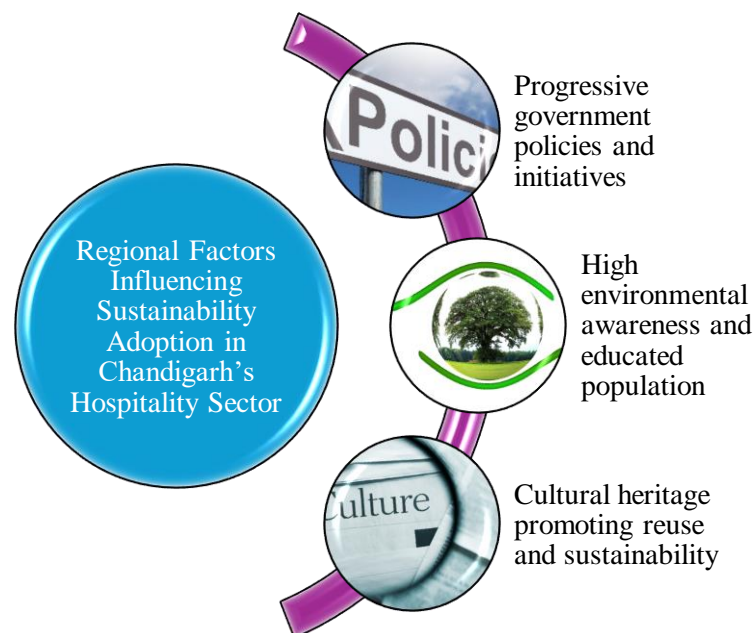


Figure: Regional Factors Influencing Sustainability Adoption in Chandigarh’s Hospitality Sector

Source: Self-created

Chandigarh, often referred to as “The City Beautiful,” is renowned for its urban planning and architectural elegance (Chandigarh.gov, 2024). As a prominent hub in northern India, the city

has witnessed significant growth in its hospitality sector, driven by both tourism and business activities. The adoption of sustainable practices within this sector is influenced by a confluence of regional factors, including governmental policies, environmental awareness, socio-economic conditions, and cultural heritage. The administration of Chandigarh has been proactive in promoting sustainability across various sectors, including hospitality. Along with this it can also be seen that the Swadesh Darshan initiative by the government also aims to enhance sustainable tourism (Tourism.gov, 2023). These initiatives also have the potential to enhance sustainable tourism within Chandigarh.

Chandigarh, being a planned city founded by the designer of the Le Corbusier, has nurtured an enviable culture of environmental awareness. The city plan was laid out with huge green belts like Leisure Valley, measuring to 8 km stretch, serving as a symbol to the city's effort to be green (Chandigarh.gov, 2024). The population of Chandigarh is environmentally conscious and largely educated which contributes to the importance of sustaining in the hospitality sector. That is because consumers are increasingly opting to stay in ecofriendly accommodations, forcing hotels into implementing green initiatives to meet the demand. However, this shift is not only a result of local preferences but also guided by global trends that give preference to sustainable lodging choices by travellers. The rock garden in Chandigarh, which represents the reuse of waste materials as a cultural landmark, is an important element of Indian culture based on the reuse of available resources and a tradition of thrift. At the age of 76, Nek Chand created the Rock Garden, a 40-acre sculpture garden comprised of industrial and home waste and visitors each year number over 1.5 million (Chandigarh District.nic, 2025). Such examples of sustainable artistry have inspired local businesses, including the hospitality industry to include ecofriendly practices that connects to the city history.

However, there are some challenges associated with adoption of sustainability practices in hospitality sector of Chandigarh. An audit of the city's tourism department showed deficiencies in strategic planning and governance for setting up tourism, suggesting more systematic approaches to sustainability. Moreover, while luxury hotels can afford to invest in green technologies, smaller establishments may be limited by financial constraint (Gunduz Songur, Turktarhan and Cobanoglu, 2023). But these challenges provide a platform for innovation and partnership. Hotel sustainability is very much dependent on public-private partnerships that can render support and resources to hotels in achieving the practice. Even more, the introduction of eco certification and sustainability workshops can increase awareness and trained hospitality professionals as how to successfully incorporate green solutions. Tripathi

and Shukla (2024) explain that the adoption of sustainability in the hospitality sector of Chandigarh has been shaped by the web of intertwined regional factors such as progressive efficient governmental policies, the legacy of environmental stewardship, socio economic dynamics, and rich cultural heritage. However, by using these factors, Chandigarh can serve as a model city for sustainable hospitality which can develop alongside the economic growth without neglecting the significance of environment.

4.5 Assessing the Adaptability of Global Sustainability Practices to Chandigarh's Hotel Industry



Figure: Assessing the Adaptability of Global Sustainability Practices to Chandigarh's Hotel Industry

Source: Self-created

The adaptability of global sustainability practices to the Chandigarh hotel industry hinges on how effectively international frameworks align with regional realities such as economic constraints, infrastructural readiness, and consumer preferences. Globally, luxury hotels like the Soneva Fushi in the Maldives have demonstrated success through renewable energy adoption and eco-centric designs, achieving over 60% of energy requirements via solar power (The Hospitality Daily, 2023). Similarly, budget hotels worldwide are integrating cost-effective solutions such as LED lighting, low-flow fixtures, and towel reuse programs, practices that are both affordable and replicable within the Chandigarh context. Chandigarh's urban

infrastructure, characterized by its planned green spaces and eco-tourism initiatives under the Swadesh Darshan 2.0 scheme, presents a strong foundation for implementing such practices. According to the Tourism.gov.in (2025), Chandigarh is earmarked as a pilot city for sustainable tourism development, supported by funds and planning from the central government. Furthermore, the Lemon Tree Hotels chain operating in the region has already embraced water conservation, energy-saving devices, and waste segregation demonstrating the local viability of sustainability-driven operational models.

Consumer readiness in Chandigarh also supports adaptability. As of 2024, 83% of global travelers value sustainable travel, and 58% prefer hotels that demonstrate tangible eco-friendly efforts (Statista, 2024). This aligns with the high literacy rate and environmental consciousness in Chandigarh, reinforcing consumer demand for sustainable lodging. However, challenges persist particularly among smaller, independent budget hotels facing capital and knowledge gaps. While luxury chains can invest in certifications such as the Global Sustainability Standards Board (GSSB), smaller operators may struggle without financial support or government incentives (Mey, 2022). Nonetheless, scalable practices such as sourcing locally, reducing single-use plastics, and offering guest-involvement programs are achievable across hotel categories. Public-private partnerships, targeted workshops, and eco-certification programs can bridge implementation gaps. Hence, while full-scale replication of international practices may require adaptation, the fundamental sustainability principles are highly applicable and hold significant potential for Chandigarh's hospitality sector.

4.6 Framework for Integrating Sustainability in Chandigarh's Luxury and Budget Hotels



Solar & smart
energy use



Rainwater &
greywater reuse



Plastic-free &
composting



Local sourcing
& crafts



Staff & guest
eco-training

Figure: Elements of Framework for Integrating Sustainability in Chandigarh's Luxury and Budget Hotels

Source: Self-created

Creating an effective sustainability framework tailored to Chandigarh's hospitality sector requires a balanced approach that integrates environmental, social, and economic dimensions. Luxury and budget hotels must adopt scalable models that fit their operational capacities while aligning with global sustainability goals. Drawing from successful international practices, the framework for Chandigarh can be categorized into five pillars such as energy efficiency, water management, waste reduction, responsible sourcing, and stakeholder engagement. Energy efficiency stands as the cornerstone of sustainable operations. Hotels in cities like Las Vegas have implemented advanced systems such as motion-sensor lighting and smart thermostats, with Caesars Palace reducing over 30 million gallons of water annually via towel reuse programs (Hotel Tech Report, 2022). Chandigarh hotels can emulate this through solar panels particularly viable given the region's high solar insolation levels. The Punjab Renewable Energy Systems Co. (PRESCO) reports that Chandigarh receives an average solar radiation of 5.5 kWh/m²/day, making solar adoption cost-effective.

Water conservation technologies like greywater recycling, rainwater harvesting, and low-flow fixtures should be mandated in both luxury and budget properties. According to Lemon Tree Hotels (2021), Lemon Tree Hotels in Chandigarh have already implemented such systems, demonstrating their feasibility even in mid-tier settings. Waste management can be addressed by eliminating single-use plastics, introducing food composting systems, and encouraging waste segregation. The Indian Hotels Company Limited (IHCL) aims to become 100% plastic-free by 2030, a goal that regional hotels can mirror with government support. Responsible sourcing involves purchasing goods from local farmers, artisans, and vendors. It reduces carbon emissions from transportation and helps the regional economy. PwC (2024) has noted that more than 54% of consumers would prefer to support those businesses who highlighted local products. A long way in ensuring long term commitment, this includes stakeholder engagement such as employee training, community involvement, guest participation. Through partnerships with Chandigarh's environmental NGOs, Accor's 'Plant for the Planet' campaign (partnerships with guests involved locally to undertake reforestation programs) can be adapted in the local context. When such policy incentives, eco-certification programs and awareness campaigns are

thrown over it, this framework can serve as a road map for sustainable growth in Chandigarh's luxury and budget hotels.

4.7 Implementation Strategy for Sustainable Hospitality Practices in Chandigarh



Figure: Implementation Strategy for Sustainable Hospitality Practices in Chandigarh

Source: Self-created

The continued implementation of sustainable hospitality practices in Chandigarh will be achieved by a phased, multi stakeholder approach adopting luxury and budget hotels capability and the unique characteristics of the region. Long term success requires an anchor of a hybrid of regulatory frameworks, financial incentives, capacity building and community engagement. The first step is entering the green standards into local government mandate aligned with global benchmarks, such as the Global Sustainable Tourism Council (GSTC) and the Hotel Sustainability Basics program by the World Travel & Tourism Council adopted in about 5,000 hotels around the world (Tomelty, 2024). As these standards would hold true for any city anywhere, Chandigarh's Department of Tourism should follow it with a localized version, adopting tiered certification schemes for hotels to achieve basic to advanced sustainability targets. They should be tied to the incentives of the tax rebates, expedited approvals and eligibility of the government tourism grants under schemes such as Swadesh Darshan 2.0 (Tourism.gov, 2023).

Capacity building is vital, especially for budget hotels and independent operators with limited knowledge or resources. The government, in partnership with hotel associations and NGOs, should conduct regular sustainability workshops and digital training modules. These could be modeled after IHCL's "Paathya" initiative, which offers internal training on sustainability

practices. Public-private partnerships (PPPs) can provide technical expertise and funding support. For instance, companies specializing in solar infrastructure or waste-to-energy solutions can partner with hotel chains to scale green technologies at subsidized rates. With Chandigarh receiving over 5.5 kWh/m²/day solar radiation, rooftop solar adoption is both practical and cost-saving (MINISTRY OF NEW AND RENEWABLE ENERGY, 2024). Consumer engagement is another key pillar. According to Statista (2024), as 83% of travellers globally now prioritize sustainability, hotels must transparently communicate their efforts. Simple strategies like digital dashboards showing energy savings, eco-labels on local products, and guest opt-in conservation programs (e.g., linen reuse) create a sense of participation and accountability. regular auditing and progress tracking via digital platforms can help hotels evaluate their environmental performance. Using such tools as the Cornell Hotel Sustainability Benchmarking Index (CHSB) helps Chandigarh hotels to benchmark themselves against the best global practices.

Chapter 5: Discussion and Conclusion

5.1 Discussion on the findings

The findings in this study point out that sustainability is no longer a merely peripheral issue in the hospitality sector, but it is turning out to be a dominant figure as an operational strategy and consumer engagement. Although the luxury and budget hotels across the global hotel sector are moving towards the goals of environmental, social, and economic sustainability, their approaches have differed significantly attributed to their financial capacity, target market, and brand identity. Global examples such as brand names like Soneva Fushi in the Maldives and The Europe Hotel and Resort Ireland have integrated high tech such as solar energy systems, smart automation and Green Key as well as LEED certified to reduce their environmental footprint. These initiatives are not only helping reduce the utility expenses but also increasing the guest's satisfaction and pulling the eco conscious traveller demographics into the fold. Even though budget hotels are limited in their finances, they are now becoming resilient by adopting simple and cost-effective practices like LED lighting, towel reuse programs and biodegradable amenities program that collectively led to broader sustainability outcomes.

The growing concern of sustainability from the consumer's point of view is a critical finding. According to Data from Statista (2024) 83% of the Global Travellers give importance to Sustainable Travel. The Surveys from PwC (2024) indicate that more than half of the consumers are willing to pay a premium for an Eco responsible accommodation. And this changing demand suggests that hotels in Chandigarh must match the why they provide, namely, consumers expectations, especially from the younger generation; GenZ is that not so kind to bookings that do not favour ecofriendly travel selection options. Additionally, scientific papers demonstrate association between environmentally friendly activities and guest's satisfaction as well as brand loyalty. Hotels that employ active communication of their efforts, engage their guests in sustainable activities and report on them transparently are more likely to attract trust and repeat business.

The context of Chandigarh's regional landscape provides an ideal location for the recreation of the hospitality industry in ways that are sustainable. Chandigarh, being a planned city with strong green foundation and literate and environment aware population as well as government support through schemes like Swadesh Darshan 2.0, has strong potential to be a model city for sustainable hospitality practice in India. It is already a city with the Lemon Tree Hotels' environmental policies and the Rock Garden's cultural upcycling and environmental

stewardship. Although there are these assets, however, the adoption of sustainability by hotels is not even amongst hotel categories, and independent and budget hotels face several prohibitions such as financial, technical, and strategic impasses. Therefore, there exists a need for targeted policy interventions and financial incentives that can support smaller operators to adopt sustainable practices.

The analysis of global and local practices according to themes showed that there were 5 pillars of sustainability initiatives broadly: energy efficiency, water conservation, waste management, responsible sourcing and stakeholder engagement. These pillars, though, in luxury hotels are largely handled via a formidable infrastructure and formality in certifications. For instance, most of the luxury chains are looking to eliminate single use plastics totally by 2030 and get themselves certified by Global Sustainability Standards Board (GSSB) which forms an eco-benchmark of the entire world. Whilst less capital intensive, budget hotels are even adopting modular, scalable solutions like smart room control and local working arrangements to reduce carbon emissions through local buying and injection, the latter helping the local economy. This is in line with sustainable development goals and finds ways of improving the operational efficiency and profitability.

It was found that while global frameworks are robust, they need to be localized to be functional when assessing adaptability in Chandigarh. Since Chandigarh is blessed with good climatic conditions like high solar potential for solar rooftop installations is ideal. In addition, the educated consumer-base in the city makes the receptive market of the green hotels. However, the implementation must be conducted in a way that is responsive to local economic conditions especially in budget hotels. Tiered certification models, public private partnerships and access to green financing, could be instrumental to bring sustainability to the mainstream when considering it as a business decision across the hospitality spectrum in the region. Moreover, it enriches the guest experience by supporting the local culture, for instance eco-tourism and support of the local artisans.

5.2 Conclusion

This research, while examining global sustainability practices in the hospitality industry, also focuses in on their adaption to Chandigarh's (India's) singular context. With the aim of establishing understanding about how luxury and budget hotels worldwide are advancing using different eco-friendly strategies such as energy efficiency, water conservation, waste reduction and responsible sourcing; the study explored how these could practically be applied on to

Chandigarh's hospitality system. However, the findings showed that the level of adaption may be different depending on the size and the financial capabilities of the hotel, however, the core sustainability principle apply for any scale and financial facilities. Many of the advanced sustainability practices have been pioneered by luxury hotels around the world. Sustainable culinary practices, formal green certifications, smart energy systems, water recycling and renewable energy sources like wind and solar are some of them. In fact, these investments help improve brand image, minimize long term costs and are consistent with growing consumer preferences towards increasing environmental consciousness. Though often financially constrained, budget hotels are developing methods of sustainability through practical and lean ways such as towel reuse programs, LED lighting, making the most of locally sourced amenities, and zeroing in on minimal use of single use plastics.

Assessing these global insights in the light of Chandigarh revealed the potential for the city to be a national model for sustainable hospitality. Chandigarh already has a congenial environment for a transformation through planned infrastructure, greenery, and growing tourism sector. One of the city's readiness's for sustainable hospitality is government led projects, such as the Swadesh Darshan 2.0 scheme and local hotel's initiatives like Lemon Tree, as well as its affinity for environmental preservation highlighted in landmarks such as the Rock Garden. However, the study found that smaller hotels had limited awareness or expertise and did not have access to financial resources required to invest in sustainability as the main challenges. While these hurdles are important, they are not insurmountable if concerted policy effort, industry co-operation and community involvement are coordinated. Thus, a roadmap of bridging these gaps is proposed for hotels in Chandigarh, in terms of the proposed framework and implementation strategy for the sustainability in hotels of Chandigarh. To ensure that the city is on the path of sustainability, energy efficiency, water management, waste reduction, and responsible sourcing as well as stakeholder engagement can be focused on by the city in line with local and global best practices. Government support cannot be disregarded in this endeavour. Basic environmental standards as documented in regulatory policies will be necessary along with financial incentives programs and capacity building to ensure that lack of impact on the smaller and independent hotels. Likewise, eco-certification programs and public private partnerships can promote their diffusion across the whole industry of the economy.

From a consumer point of view, the based findings strongly suggest integration of sustainability in the hospitality business model. For example, in 83% of their travel decisions, 46% of global travellers prefer eco-friendly accommodations, and 39% say they are likely to pay more for them, meaning hotels that do not heed such preferences risk falling short when it comes to

competitive advantage. Chandigarh is a city where most of the population has education and some knowledge of environment conservation and so it has got a natural demand for green hotels. By transparent communication, interactive conservation initiatives and easy to see eco labels, guests will be engaged with improving this experience, and the behaviour will follow in line with sustainability. Looking on the financial front: initial expenditures related to green technologies and processes are large, but the long-term benefits are well known. Energy and water bills, waste management costs, brand reputation and investor interest are all reduced, which is a favourable return on investment. As global bench markers like Cornell Hotel Sustainability Benchmarking Index and reporting frameworks like Global Reporting Initiative (GRI) have become industry standards, Chandigarh hotels have a means to gauge their sustainability journey with the help of both the tools.

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Appendix

Appendix A: Comparison of Sustainability Initiatives in Luxury vs. Budget Hotels

Sustainability Practice	Luxury Hotels	Budget Hotels
Energy Efficiency	Solar panels, smart thermostats, green HVAC	LED lighting, energy-efficient appliances
Water Conservation	Greywater recycling, rainwater harvesting	Low-flow fixtures, towel reuse programs
Waste Management	Food composting, plastic elimination	Basic recycling, bulk amenities
Responsible Sourcing	Organic, local farm procurement	Local vendors, limited imported goods
Certifications	LEED, Green Globe, GSSB	None or minimal due to cost

Appendix B: SWOT Analysis – Sustainable Hospitality in Chandigarh

Strengths	Weaknesses
Planned urban infrastructure	Limited adoption in budget hotels
Government support (Swadesh Darshan)	Lack of awareness and training

Opportunities	Threats
Eco-tourism development	Competitive lag if sustainability ignored
Access to solar energy	Resistance to change from smaller operators

Appendix C: Barriers to Sustainability Adoption in Small Hotels

Barrier	Description	Potential Solutions
Financial Limitations	High cost of green tech and retrofitting	Govt subsidies, micro-financing
Lack of Awareness	Limited understanding of sustainability practices	Training programs, digital toolkits

Technological Gaps	Absence of systems like water reuse, solar setups	PPP models for shared tech infrastructure
Resistance to Change	Perception of inconvenience or added workload	Incentives, success stories showcase
Limited Guest Engagement	Belief that guests do not value sustainability	Visible indicators, guest opt-in schemes

Appendix D: Stakeholders in Chandigarh’s Sustainable Hospitality Ecosystem

Stakeholder Group	Role in Sustainability Implementation	Examples/Organizations
Government Bodies	Policy creation, subsidies, certification	Chandigarh Tourism Dept., MNRE
Hotel Operators	Implementation of green initiatives	Lemon Tree, IHCL, Budget hotel owners
Tourists and Guests	Demand for sustainable options, behavior change	Eco-conscious travellers
Local Communities	Suppliers of goods/services, cultural ambassadors	Local artisans, farm producers
NGOs and Training Institutes	Capacity building, awareness, CSR execution	TERI, EcoRoots Foundation