

Title	Guest sustainability: Evidence from a popular tourist destination of a new type of sustainability
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Abstract

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Key words – Hotel sustainability; Stakeholder approach; Sri Lanka; Interviews

Introduction

For some time, both academics and professionals have been paying closer attention to the idea of sustainability. Sustainability practices return both financial and non-financial benefits to the organisation Bartolacci et al. (2020). Positive impacts on the brand image, organisation's reputation, preventing public relations disasters, retention of skilled employees are a few advantages of business sustainability (Cantele and Zardini, 2018). Sustainability includes five dimensions: economic, governance, social, environmental, and ethical (known as the EGSEE dimensions of sustainability) (Rezaee et al., 2019).

Globally, and particularly in Asia, interest in business sustainability has increased (Ghobakhloo et al., 2021). In many Asian nations, CSR programs and sustainability initiatives are shaped by external environmental constraints such as economic, cultural, political, social, and legal issues (Rezaee et al., 2019). These changes could have an impact on how corporate sustainability is developed globally.

Sustainability goals are critical. Whatever the type of organisation, whether it is an in-house engineer or an outsourced contracted engineering service, the engineering profession puts the sustainability targets on paper into practice – they are central to ‘walking the talk’. Our study is about the role played by engineers in the sustainability space and how the traditional engineer role is expanding due to the need to address sustainability issues. Additionally, advances in Asia might serve as a reference point for global standard-setters. Sri Lanka has been reckoned for several groundbreaking sustainability initiatives in Asia. Circularity initiatives, sourcing sustainably and PlaneTones (100% natural dye solution) by MAS Holdings is an example. Sri Lanka is also recognised as one of the world’s top tourist destinations. Therefore, this study is situated in Sri Lanka.

Literature review

Interest in business sustainability has widened in the world during the last decade due to some incidents such as the Rio Earth Summit, the introduction of Triple Bottom Line (TBL), Sustainable Development Goals (SDGs) and the rise of eco-friendly consumers (Stewart and Niero, 2018). Consumers in both developed and developing countries search for sustainable goods and services, hence, businesses need to address this call for healthy consumption, environment and society (Nguyen et al., 2020). Corporate world should strive to achieve all five EGSEE dimensions of sustainability to foster value for all primary and secondary stakeholders.

Economic sustainability

Economic sustainability refers to monetary transactions in the organisation (Herremans, 2020). Thus, it includes concerns about profitability, cash flows, resource management and profit growth in the organisation (Njoroge et al., 2019). Both primary and secondary stakeholders such as shareholders, creditors, employees, suppliers and customers must engage with business activities to create wealth from the business. The economic sustainability concept is related to the idea of sustainable capitalism since the purpose of a business is to create value for all members of society, not only shareholders (Herremans, 2020). Economic sustainability in a hotel context refers to hotel operations so that guests and stakeholders benefit from the hotel services (Jones et al., 2014). However, economic sustainability in a hotel is affected by several factors

such as intellectual capital (Sardo et al., 2018), online reviews (Xie and So, 2018), staff incentives (Bénet et al., 2022), and property size (DeFranco et al., 2017). Economic sustainability dimension overlaps with other dimensions of sustainability (Goodland, 1995). There is a strong link between economic and environmental sustainability and hotels' environmental-sustainability practices may affect their economic sustainability (Khatter et al., 2021b).

Social sustainability

Social sustainability concerns both favorable and unfavorable impacts of business organization on human life and society in general (United Nations Global Compact). This concept includes employees, customers, supervision of social capital, human rights, health and safety issues of people, social responsibility and community (Olya et al., 2021). Social sustainability developments are linked with business growth and derive various benefits to the business such as improved productivity, satisfaction of employees, innovations, maintaining strong relationships with business partners etc. Further, social sustainability issues include product responsibility, decent working conditions, education and training, job security, employment labour practices, community resilience, community well-being and cultural competence (Roca Puig, 2019, Balaman, 2019). However, the concept of social sustainability is under-theorised and ambiguous (Shirazi and Keivani, 2019, Roca Puig, 2019).

Environmental sustainability

Environmental sustainability refers to conducting business activities in favour of the natural environment (Danso et al., 2020). Thus, this idea includes minimising wastage, protecting water resources, conserving energy sources, reducing air pollution etc. Aguilera et al. (2021) added that using eco-friendly resources and environmental management systems also falls under the purview of environmental sustainability. Khatter et al. (2021b) mentioned that environmentally sustainable practices are regulations governing an organisation's environmental goals. An environmental management system helps organisations to maintain their competitive position (Alonso Almeida et al., 2017). Rachel Carson's book *Silent Spring*, published in 1962 first introduced this concept (Hardisty, 2010). Later, World Bank named this concept as environmentally responsible development (World Bank, 1992). Even the biosphere root of sustainability mentions about the adverse effects of non-compliance to environmental

sustainability. Similar to the other sustainability dimensions, environmental sustainability derives various benefits to the organisations such as increased revenue, innovations, new market segments etc (Filimonau and Magklaropoulou, 2020).

Ethical sustainability

Ethical sustainability is a timely topic due to financial scandals and crises in organisations. As Rezaee and Choi (2017) wrote, ethical sustainability establishes the moral conduct of the entire organisation, and everybody in the organisation is encouraged to do the right thing. The corporate culture promotes ethical values, moral principles, integrity, and competency (Gardetti and Torres, 2017). Ethical sustainability also includes the organisation's establishing a code of ethics, complying with all applicable laws, and developing ethics reporting and assurance programs (Rezaee and Choi, 2017).

Governance sustainability

This sustainability pillar focuses on compliance with rules and regulations. The responsibility for achieving governance sustainability, known as corporate governance, lies with the board of directors or top management. Rezaee and Choi (2017) introduced this pillar due to the importance of corporate governance that became much more obvious after the 2007-9 financial crisis. When corporate governance is successful, it promotes accountability for the board of directors and executives, enhances operational and financial performances, and improves the quality of financial information (Gardetti and Torres, 2017).

Sustainability and stakeholder involvement in hotels

Sustainability and stakeholder involvement are intertwined. Stakeholder involvement is a better approach to foster organisational sustainability (Juntunen et al., 2019). Managers and employees are one of primary social stakeholder groups. Not only managers, but also accountants, auditors, engineers and other professionals in the organisation have a direct stake in sustainability implementation. However, their contribution to organizational sustainability may vary in terms of engagement. For example, auditors ensure compliance with environmental regulations,

identify potential environmental hazards and establishing KPIs with regard to sustainability (Guix et al., 2019). They assure organisation's disclosures on sustainability to third parties to establish trustworthiness of sustainability reports (Guix and Font, 2020). Further, auditors ensure that sustainability reporting is aligned with relevant applicable regulations and standards. Apart from reviewing accuracy and consistency in sustainability data, auditors provide recommendations for the sustainability reporting process (Karagiannis et al., 2019).

Accountants contribute to organisational sustainability in multiple ways. They adopt relevant sustainability standards such as Global Reporting Initiatives (GRI), Sustainable Development Goals and Equator principles in organisation where necessary. Further, they incorporate these standardised environmental reporting frameworks into their accounting practices. According to the 2020 KPMG survey of sustainability reporting, 5200 companies from largest 100 firms have adopted sustainability reporting now (KPMG, 2020). Some companies are not yet satisfactorily measuring impact of carbon emissions, climate change and financial risk. Hence accountant's role in organizations sustainability is significant in terms of sustainability auditing, measuring and reporting (Lee and Schaltegger, 2018).

The luxury marketing segment in hotel guests now prefers travelling to eco-friendly hotel properties (González-Rodríguez et al., 2020). Hence, engineers look after hotel infrastructure facilities to ensure hotel property is sustainable friendly (Chan et al., 2018). This hotel infrastructure refers to installing renewable energy sources, waste management practices, reducing pollution, purchasing environmentally friendly construction materials, repairing equipment in the hotel and water management. Smart infrastructure facilities at hotels can improve hotel operations and minimize wastage through proper control of temperature and timely reporting of maintenance issues (Vladimirov and Williams, 2018). To do this, hotel engineers collaborate with architects and policymakers in the planning and designing stage of the hotel and in the daily hotel operations (Wan et al., 2017).

Hoteliers must consider guest comfort before introducing sustainability practices such as water- and energy-reduction methods. This suggests that achieving sustainability goals requires cooperation from other stakeholders such as employees and guests (Khatter et al., 2019).

Stakeholders at a hotel can be both a barrier and driver for sustainability implementations (Khatter et al., 2021a). Because hotels can be affiliated with international or local chains, or operate as individual star hotels (Gardetti and Torres, 2017), not all hotels may have written sustainability policies sent from a head office. If individual managers and owners of hotels do not support sustainability practices, they can be considered a barrier to sustainability. Sometimes the interests of stakeholders may conflict with each other. For example, interest in environmental sustainability may differ between the owners and operators of a hotel.

Alonso Almeida et al. (2017) emphasised the need for suppliers' collaboration to achieve sustainability. Better linkages between hotels and their suppliers are necessary to ensure hotel sustainability. Hotels require suppliers' support in obtaining food and beverages, culinary materials, linens, and other items. When providing these services, suppliers must abide by environmental-sustainability standards. Alonso Almeida et al. (2017) emphasise that networks and partnerships between stakeholders, such as supplier clubs, are essential for implementing sustainability measures. Similarly, hotels also need their customers' support for their sustainability practices.

Gázquez Abad et al. (2015) also emphasised the importance of stakeholder participation in sustainability implementations. They suggest that government agencies take responsibility for sustainable communication, and that other interested parties participate in sustainability implementations in the wine industry in Spain. Perrigot et al. (2021) examined the impact of key stakeholders on franchisors' decision to implement waste-management practices in chain restaurants in France. The study found that franchisees are the most influential stakeholder group in franchise chains, followed by consumers.

Stakeholders of a company are affected by company decisions, but they also affect company decisions (Lozano et al., 2015). Stakeholder participation is necessary to achieve organisational sustainability, which is linked with stakeholder expectations. Hence organisations must satisfy their stakeholders at different points along the supply chain to achieve sustainability (Hu et al.,

2019). For example, hotels need to obtain suitable-quality suppliers to deliver excellent service to guests. Suppliers' active participation in sustainability is essential. To provide sustainability input material, suppliers need to abide by sustainability guidelines. Hotels need to make an effort to choose sustainability-inclined suppliers or convince them of the importance of sustainability (Shi and Tsai, 2020). Commitment to sustainability does not cease here. To please guests, hotels need to deliver outstanding service. However, guests may not like some of the hotel's sustainability efforts, and hoteliers may thus need to choose their priorities.

Stakeholder theory

Stakeholder theory states that organisations must understand their relationship with traditional and non-traditional stakeholders; in other words, the organisation's primary obligation is to ensure its survival while considering the needs of other stakeholders, instead of focusing on maximising economic success (Freeman, 2010). Recent research in stakeholder theory has begun to address environmental issues by considering the natural environment as a stakeholder (Lozano et al., 2015). Stakeholders can be categorized as either primary or secondary. Primary stakeholders influence and are more influenced by the organisation than secondary stakeholders. Table 1 gives examples of firms' stakeholders.

Table 1- Firms' stakeholders

Category	Primary stakeholders	Secondary stakeholders
Social	Shareholders and investors Employees and managers Customers Suppliers and other business partners Union Local communities	Government and regulators Civil institutions and the general public Social-pressure groups The media and academia Trade bodies Competitors
Non-social	The natural environment	-

	Future generations	
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Source: Lozano et al. (2015)

Stakeholder theories include descriptive, instrumental, normative, and integrative (Donaldson and Preston, 1995). The two concepts of (integrative) stakeholder theory and sustainability have a number of similarities: both assert that the purpose of the business goes beyond maximising shareholder value in the short term while accepting that profit-making is not immoral. Moreover, they agree that business and ethics are interlinked, not separated from the business. Further, they are based on the assumption that companies integrate corporate responsibility into their core business (Lozano et al., 2015).

Sustainability studies in various industry sectors

Gröschl et al. (2019) conducted a longitudinal study on the athletic-wear company Puma to analyse its leader's cognitive complexity development and his views on and responses to sustainability. The study identified six different cognitive lenses: business, cultural diversity, Africa, norm breaching, environmental consciousness, spirituality, and philosophy. The study found that Puma's leader developed a more inclusive understanding of sustainability over time. Kelling et al. (2020) conducted a study in South Africa examining the challenges associated with establishing social sustainability in the mining sector. The study found that institutions instigated by state actors and mining companies' practices shape social sustainability in the institutional field. Certitude, compatibility, capacity, and corruption adversely affect regulative institutions, institutional uncertainty, and mining companies' gradual decoupling from regulation non-compliance.

Hossain et al. (2019) examined the nature of rhetoric and rhetorical strategies in the sustainability reports of the top 24 companies from the Fortune Global 500. The study used symbolic convergence theory to study the rhetorical situation and sustainability reporting. It was found that most companies communicate fantasy type and rhetorical vision in their sustainability reports. Joseph et al. (2020) investigated how tension management improves corporate sustainability

outcomes and how tension-management strategies might contribute to sustainability in the Australian forestry and wood-products industry. It was found that tension management is aligned closely with integrative and effective corporate sustainability outcomes, and synthesis is the industry's most common tension-management strategy.

The majority of these sustainability studies are from the non-hotel sector. The understanding of sustainability in the hotel sector needs to be expanded. The hotel sector depends on the natural environment to survive and grow its business. It is one of the most energy- and water-intensive industries (World Tourism Organization, 2021). It accounts for 2% of the tourism industry's total CO₂ emissions (World Tourism Organization, 2021). Further, the hotel sector is now being regarded as a global industry (Jones et al., 2016). Now, hoteliers are more aware of hotel developments' environmental and social impact (Jones et al., 2016). However, they need to shift from a focus exclusively on economic sustainability to an integrated approach that prioritises social and environmental sustainability aspects (Jones et al., 2016). The increasing awakening of hoteliers to sustainability issues in general forces the hotel industry to address environmental and social sustainability issues (Jones et al., 2016).

The literature regarding hotel sustainability is well-represented in Western and developed countries (Oriade et al., 2021). The western perspective on sustainability is a vital foundation for the development of a non-Western perspective on sustainability (Oriade et al., 2021). For example, in Sri Lanka, society expects corporate organisations to involve themselves in social and environmental sustainability as part of their business operations. This expectation is religiously and culturally motivated, as the Sri Lankan society incorporates the belief that privileged entities should take care of those considered less privileged. Charitable giving is a part of the local Sri Lankan culture, and managers in Sri Lankan corporations are concerned with social issues (Fernando, 2010). Further, the sustainability practices of managers are yet to be studied in the developing-country context (Oriade et al., 2021). A Sri Lankan understanding of sustainability should be well represented in the sustainability literature within this context.

Sustainability and hotels

Sustainability is now a concern in the global tourism industry. Despite the pressure from the tourism industry to use natural attractions as destinations, local governments can often constrain access to ecologically sensitive sites through new local environmental laws and regulations. Further, the tourism industry is challenged to meet sustainability goals by increasing demand from new markets and high local unemployment. Water resources may be subject to critical demand in tourist destinations. Tourism destinations need to consider green development options to ease severe income disparities. Sustainability tourism includes developing sustainable tourism-management strategies, investing in qualified human resources, handling increasing cost pressures, and ensuring effective communication (Budeanu et al., 2016).

The hotel industry is significant, as it is the main accommodation provider to the tourism industry. Sometimes hoteliers are forced to pay attention to environmental sustainability, and their thoughts on their environmental sustainability activities are of crucial importance because they have to deliver their hotels' sustainability goals with the support of other stakeholders. Kim et al. (2019) stated that pressure from other parties like media, consumers, and the public, cost-cutting needs, and intense competition are a few factors that force hoteliers to operate their properties in an environmentally sustainable way. However, there are both internal and external factors that motivate the adoption of environmental sustainability. Internal motivations include management conviction, improved efficiency, cost reductions, new clients, and organisational culture. External motivations include regulations, foreign clients' expectations, and stakeholder demands (Alonso Almeida et al., 2017).

The size of the organisation determines how it implements environmental sustainability. According to Khatter et al. (2021a), small and medium-sized organisations face difficulties achieving environmental sustainability goals. They experience low awareness, internal barriers, lack of knowledge about benefits, lack of pressure from significant parties, lack of expert advice, resource-allocation issues, and other barriers to implementing sustainability practices. As Khatter et al. (2021b) found, hoteliers hold different opinions on environmental sustainability

implementations. If the hotel has no written environmental-sustainability policy, they find it difficult to commit time to environmental-sustainability implementations. This highlights that a written environmental-sustainability policy can act as a decision-making framework. Hoteliers may think they lack expert advice on environmental-sustainability implementation. Thus, a clear environmental-sustainability policy may be an effective communication tool inside the organisation.

Hoteliers may think stakeholders such as owners, hotel management, guests, and staff are responsible for environmental implementations at a hotel. Hotel owners sometimes remain unconvinced of the importance and benefits of environmental sustainability. Hotel operators cannot support environmental-sustainability implementations (Alonso Almeida et al., 2017). Further, hoteliers do not want to hamper guests' comfort and holiday experience. They may think that guests wish to take a break from their sustainability responsibilities when they vacation in a hotel. Moreover, hotel staff who has been trained to look after guest comfort may also find it difficult to concentrate on environmental sustainability.

Alonso Almeida et al. (2017) found that hoteliers think funding environmental-sustainability practices is challenging as long as hotel owners and shareholders do not perceive the long-term benefits of sustainability to the overall business model. If hotel owners merely identify investments in environmental sustainability as a cost, they hesitate to spend money on it. This situation is exacerbated if the benefits of environmental sustainability are invisible or its implementation requires more resources. Hoteliers perceive that old buildings, which need many renovations for energy and water management, are a barrier to sustainability.

Barriers to sustainability can be categorized into i.e. internal barriers and external barriers. Internal barriers are related to finance, people, knowledge, and resources, while external barriers are related to customers, government, supply-chain partners, and other stakeholders. The following table shows some barriers hoteliers face in implementing sustainability in different parts of the world.

Table 2 - Barriers in sustainability implementation in hotels

Hotels in Malaysia	Highly significant barriers: • lack of green experts • lack of resources (e.g., staff and equipment) • difficulties in balancing the quality of service with environmental performance Less significant barriers: • high implementation costs • lack of government regulation and enforcement • challenges in managing and training staff Smaller barriers: • lack of green information and knowledge • uncertainty about green outcomes • lack of support from owners and management • high maintenance costs • lack of consumer support • lack of networking with green suppliers
Macau hotel industry	• lack of government regulations on environmental management • financial constraints • lack of environmental-management staff
Hotels in Honk Kong	• lack of understanding • lack of owner initiative • difficulty with measurements • a lack of stakeholder coordination and support • lack of a strong mediator • balancing interests • risky investment

Spanish hotel industry	• cost of implementing environmental practices • lack of customer awareness of environmental issues • customers are not proactive concerning the environment
Chile hotel industry	• economic barriers related to costs • knowledge-related difficulties • governmental logistics (such as dearth of recycling points) • lack of awareness among national guests

Source: Chan (2021)

As Khatter et al. (2021a) found, several drivers aid in achieving environmental sustainability goals in a hotel. One such driver is financial gains from environmental sustainability practices, which encourage hotel owners to support environmental sustainability implementations. Moreover, hotels can market their sustainability practices to outsiders, thus obtaining more market share.

The energy demand of the tourist accommodation sector is predicted to double by 2040 due to the growth in human mobility in the world (Filimonau et al., 2020). Because of the nature of business at service organisations, the hotel sector consumes more energy than other buildings (Filimonau et al., 2011). However, some energy management practices at hotels may impair guest comfort (Baloglu and Jones, 2015). Hence, guests' behaviours are also a major concern in energy management systems in hotels.

The active participation of shareholders, employees, suppliers, customers, the community, and governments is vital to achieving economic, environmental and social sustainability. Sustainability managers are hotels' key decision-makers in sustainability and the party who directly engages with all other stakeholder groups regarding hotel sustainability. Sustainability literature on stakeholder involvement rarely covers hoteliers' perspectives on stakeholder engagement in sustainability implementation (Vrontis et al., 2020). Sustainability literature

should address what sustainability managers think of this matter in all aspects of sustainability, not only environmental sustainability.

Methodology

The hotel business in Sri Lanka was chosen as the focus of this research. Sri Lanka is consistently ranked among the top tourist destinations globally (McGraw, 2023). Tourist arrivals in Sri Lanka exceeded the 1 million mark after 2020 (Shazuli, 2023). The 2019 edition of the tourist guide platform Lonely Planet selected Sri Lanka as the world's number one tourist destination (Wilson, 2018). Although tourist arrivals in Sri Lanka declined by 73.5% in 2020 due to the Easter Sunday attacks and travel restrictions due to the COVID-19 pandemic (Central Bank of Sri Lanka, 2020), the industry has shown an increasing trend in tourist arrivals in recent years (Table 3). In 2023, tourism in Sri Lanka achieved 767,913 tourist arrivals, a 6.7% increase over 2022 (Sri Lanka Tourism Development Authority, 2023).

Table 3 - Tourist arrivals in Sri Lanka

Year	Number of tourist arrivals
2023	767,913
2022	719,978
2021	194,495
2020	507,704
2019	1,910,000

Source: Sri Lanka Tourism Development Authority (2023)

In 2023, the number of tourists from the United Kingdom visiting Sri Lanka increased by 8.9%. Visitors from France and Germany in 2023 increased by 4.6% and 7% respectively (Sri Lanka Tourism Development Authority, 2023). Table 4 details tourist arrivals from different countries in 2023.

Table 4 - Tourist arrivals by different countries

Country	2023
United Kingdom	68,304
France	35,020
Germany	53,210
United States of America	25,886

Source: Sri Lanka Tourism Development Authority (2023)

The tourism industry is the third-largest foreign-income earner in Sri Lanka. The tourist industry's revenue climbed from US\$ 506.9 million in 2021 to US\$ 1093.9 million in 2023 (Sri Lanka Tourism Development Authority, 2023). Within the tourism industry, the scope of the hotel industry is significant in several ways. There were 156 classified tourist hotels and they provided 15,214 rooms in Sri Lanka in 2023. The total number of tourist accommodation and the number of rooms in Sri Lanka has grown by 46.1% and 19.2% respectively in 2022 (Sri Lanka Tourism Development Authority, 2022). Apart from being the leading accommodation provider for both foreign and domestic visitors, the Sri Lankan hotel industry employs 81.52% of all jobs directly related to tourism (Sri Lanka Tourism Development Authority, 2023). Furthermore, the Sri Lankan tourism sector received investment projects in 2022 worth US\$ 68 million (Central Bank of Sri Lanka, 2022). Table 5 shows the number of establishments under each hotel type.

Table 5 - Number of hotel establishments

Type of hotel	Number of establishments
Boutique hotels	40
One star hotels	37
Two-star hotels	37
Three-star hotels	26
Four-star hotels	28

Five-star hotels	28
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Source: Sri Lanka Tourism Development Authority (2023)

Sampling and the sample

The study recruited senior executives attached to any registered hotel in the Sri Lanka Tourism Development Board for the study sample. The sample consisted of 23 research participants. Seven were from five-star hotels, four were from four-star hotels, one was from a three-star hotel, one was from a two-star hotel, one was from a one-star hotel, two were from boutique hotels, two were from hotel chains, and the rest from other registered hotels. The hotel industry (star hotels, boutique hotels, guest houses, hotels, and headquarters in hotel chains) was included to capture the various sustainability issues in different hotel settings. Further, although all study participants were senior executives involved in sustainability decision-making in their work setting, recruited participants were in different functional specialisations including engineering, sustainability, and management. They had possessed different experiences before attaining their job role. The process of recruiting study participants involved snowball sampling which asked research participants to introduce other people to me who might also be interested in and suitable for participation in this study (Saunders et al., 2016). A semi- structured interview approach was followed to collect data. The interview guide contained open ended questions related to awareness, judgment, intention and behavior in sustainability related decision making in hotels. Semi-structured interviews allowed to use time effectively for interviews, and helped to systematically interview all my research participants on a set of open-ended questions.

Phases of thematic analysis

Braun and Clarke (2006) have pointed out six steps for thematic analysis. This process starts with transcribing interview data. Then, the transcription is read and reread to note down initial data. Meanwhile, the entire data set can be coded to capture interesting features of the data. Then, similar codes are grouped together to create a potential theme. After, all these themes can be arranged into a thematic map. Then, each theme needs to be clearly defined and named to build the analysis. Thematic analysis ends with selecting suitable extracts examples for the analysis.

Findings

Key stakeholders of sustainability

This study found that several stakeholders engage with hotel sustainability in Sri Lanka. They are suppliers, hotel guests and engineers in the hotel.

Suppliers

Hoteliers prefer to buy perishable items such as vegetables, eggs, and fruits, and other items such as wood, from local vendors. Hoteliers have to interact with locals in numerous ways physically and wish to increase local support for the hotel business.

Six interview participants were vocal about food sourcing, adhering to supplier guidelines, and choosing suppliers. Themiya said, *“We try to purchase all the things we need, such as fish, vegetables, fruits, and rice, within 20 kilometres”*. Themiya wanted to encourage local suppliers and provide them with a stable market to sell their products. Moreover, buying locally saves the hotel substantial transport costs for the items they purchase. Like Themiya, Pasan also would like to buy from local vendors. He stated, *“We are closer to the village, and we try to buy eggs and vegetables from villagers”*. Pasan is a general manager at Hotel G. Apart from purchasing local farm produce, he involves the villagers in other hotel activities. For example, he said, *“We hired artists from the local area to decorate table mats for rooms and the restaurant”*. Hotel G is decorated with paintings, hangings, and table mats demonstrating local craftsmanship.

Aruna, a general manger similarly commented, *“Villagers have started supplying various things to the hotel, including food items”*. He discussed how a government could partner with the private sector to develop the local area. He mentioned that the barber shop in the area was now busy because the hotel staff had become customers.

Malan, the manager of learning and development at Hotel H, said, *“Villagers now sell this Gliricidia wood to the hotel to use with the hot-water boiler.”* Gliricidia is a small, rapidly growing tree. Malan considered that by using this wood, the hotel was both saving money that otherwise would have been spent on diesel, which would have resulted in more greenhouse-gas

emissions, and supporting the local economy. The hotel also used cinnamon sticks to produce energy for boilers. Cinnamon cultivation is widespread in Sri Lanka, and cinnamon sticks are a waste product of this process. The hotel bought this wastage from cinnamon plantations to generate energy, rather than purchasing diesel.

Participants reported taking great care when choosing suppliers. Measures included supplier audits and inspections to check whether suppliers adhered to the given guidelines. Themiya added, *"If suppliers do not practice ethical guidelines, we put them on the blacklist."* Themiya further mentioned, *"We source food items with the least amount of chemicals. When there is a possibility of going for organic, we will buy them at a premium price."* Udaya, chief engineer at a five-star hotel, said, *"You need to select properly branded LED products; there are many technically cheap quality LED products on the market. We need to evaluate electronic items before purchase."* Aruna, general manager of a two-star hotel, said, *"We purchase heating systems and televisions as per hotel criteria. If the equipment does not fall under the hotel criteria, we don't purchase them."* He continued, *"We can purchase only biodegradable chemicals; we are prohibited from purchasing anything dangerous to nature, and these guidelines are provided in the purchasing policy".* Mohammad, head of sustainability operations at a famous hotel chain, said, *"We try to find local suppliers from the local area so that the investment remains local".*

Hotel guests

Today's consumers as global citizens can influence hotels and their sustainable operations in various ways: as simple consumers with their hotel visits, by choosing to stay in a certain hotel, and by making repeat visits. The majority of hotel guests are now sustainability-conscious. Guests are the driving force behind hotels' environmental sustainability now. Hotels cannot neglect the needs of the consumers. Even though a consumer is an individual who purchases a product or service for personal use, a new style of consumption has started. This high level of

guest consensus on sustainability also has compelled hoteliers to practice sustainability in the hotel.

Koliya commented, *"Customer satisfaction has a direct impact on sustainability."* Asitha said, *"We always go for best practices and highest standards because now we work with global citizens."* A significant number of consumers are concerned about hotel sustainability. Mohammad mentioned that *"guests that now we are getting are more and more sustainability-conscious. They look at how different business units are sustainable"*. A number of participants noted that consumers are concerned about the sustainable behaviour of hotels. Asitha said, *"More ethical tourists are visiting hotels now because people now understand the importance of sustainability."* Hotel guests are increasingly interested in hotel businesses regarding social and environmental sustainability. Dilina noted, *"Customers ask us what type of sustainability certifications we have"*. Lakmali pointed out that *"customers would like to travel to a hotel where sustainability is practised"*. Lakmali added, *"There is an increase in repeat guests to our hotel."*

Consumers are now more engaged with the process of consumption. Many engage in eco-tourism projects at the hotel, such as waste-sorting, reducing energy and water use, and tree-planting. Lakmali confirmed, *"We also involve guests in our CSR activities, so guests are attracted to our hotel."* Sometimes guests may visit farmers to witness hotels buying organic fruits and vegetables. Themiya said, *"We source fish directly from the board, and we also involve guests in buying fish"*. Dilina added, *"Customers recommend sustainability activities such as reducing water and electricity"*. Themiya further mentioned that *"guests mostly come here to relax and stay, but they are quite keen to learn what we do, and they sometimes participate with us as a donation, helping out and [participating in] school development"*.

Another type of engaged consumer may visit the hotel to get a personalised service such as information-gathering. Rafeek reflected on one guest who phoned him recently, saying, *"She wants to come and learn about the 12R concept to be practised at her hospital. She has seen that our hotel practices 12R via Facebook."* Niluka said, *"We obtain feedback from every guest who*

checks out from the hotel." Dilina similarly said, *"We collect ideas from our customers who stay with us."* Both these types of consumers are involved in hotel sustainability.

Tourists now largely prefer travelling to eco-friendly hotels that take the needs of the environment into consideration. Udaya indicated that *"tourists in the global hotel industry now prefer environmentally friendly hotels"*. Dilina added that *"tourists would like to come to a place where sustainability is practised"*. However, a hotel's environmental-sustainability performance depends upon its main client base. Malan complained that *"we do not get the tourists we want in the hotel; we look for eco-friendly tourists who can enjoy our hotel"*. Kanchana mentioned that *"we can promote our hotel as an environmentally friendly hotel among our guests; if they are environmentally friendly too, they will consider it"*.

Engineer

Controlling water usage at the hotel

Senior hoteliers may perceive scarce natural resources suffering if the hotel wastes water unnecessarily. Hence they implement various water-management techniques to control water usage at the hotel.

The study participants employed several strategies to control water usage in the hotel: reducing, monitoring, and recycling. Reducing included setting annual targets on water reduction, reducing water use, and replacing fixtures with more water-efficient ones. The monitoring strategy included conducting water audits, closely testing used water, monitoring water-consuming areas, and preventing leakages. Further, they used sewage-plant water and recycled water for gardening. *"We monitor every means of water consumption. We expect an annual reduction of 2 to 3% of water consumption every year. Our engineer sets it at the beginning of every year. Further, we calculate the water usage per guest."* (Aruna)

Aruna considered that the engineering team was responsible for water management in the hotel. He asserted that guests' water usage was a significant way to consume water, and that guests

could reduce water consumption if it was appropriately planned and monitored. Further, his hotel set annual targets for water management.

Udaya commented, *“We need to get to know more water-consuming areas like swimming pools, cooling towers, staff lockers and laundry and all, so we need to monitor closely for any leakage or unnecessary usage to prevent those.”*. Udaya believed swimming pools and laundry were the most significant water consumers. The hotel monitored water consumption closely to prevent leakages or unnecessary usage.

Dilina said, *“We treat waste water, and as a final product we get pure water. One hundred per cent of that water can be used for gardening. We use recycled water for many purposes other than drinking.”* Dilina mentioned that they recycled waste water and used treated waste water for gardening and washing. Table 6 summarises hoteliers’ strategies in managing water.

Table 6 - Water management strategies by hoteliers

Strategy	Actions
Reducing	Setting annual targets on water reduction Reducing the use of water Replacing fixtures with more water-efficient ones
Monitoring	Conducting water audits Closely testing used water Closely monitoring water-consuming areas Preventing leakages
Recycling	Recycling sewage-plant water

The water management at participants’ hotels focused on reducing and monitoring water usage and recycling water. They used a number of strategies to reduce water usage in their hotels. Aruna set targets to reduce water usage by 2 to 3% annually, and has replaced inefficient fixtures. Asitha mentioned that they also had fixtures in guest rooms that limited water use. Another strategy to manage water in the hotel was to monitor water usage. Rafeek said that his

hotel conducted monthly water audits and reported on them in monthly sustainability reports. Udaya added that they closely monitored water consumption in the hotel to prevent leakages and attended to repairs and maintenance immediately. Recycling water was another means of water management. Dilina reported that his hotel used recycling water for many purposes other than drinking. Nuwan mentioned that his hotel used sewage-plant water for gardening.

Controlling energy usage at the hotel

Participants reported employing three main strategies to manage electricity usage: controlling the energy bill, managing the AC system in the hotel, and reducing the electricity usage. Mohammad, said that the hotel's energy bill was the most significant contributor to its operational costs: *"Energy is a key part of it [key performance indicators] as well; evidence shows us that energy usage is close to 50-60% of our operational cost."*

Mohammad's hotel identified energy management as one of its key performance areas. Participants reported that their hotels realised they could reduce their operational cost and achieve better efficiency if energy usage was appropriately managed, and that one of the ways to do this was to control the energy bill:

"The main energy user in the commercial building is the air-conditioning system. The AC system consumes two-thirds of the monthly energy bill. So we need to control the AC system with maximum effort, and we need to get the daily meter reading and observe whether there is any abnormal temperature variance." (Udaya)

"We benchmark for electricity, the hotel is separated into different clusters, and in each cluster, we can monitor and see the consumption of electricity." (Damitha)

Electricity is one form of energy supply to the hotel (along with diesel, gas, and wood). Damitha reported using two strategies to manage electricity: benchmarking electricity usage to alert the hotel when preventive actions were needed; and, clustering hotel areas into sections so that the electricity usage of each section could be monitored for maximum, minimum, and abnormal usage. Table 7 shows hoteliers' energy-management strategies.

Table 7 - Energy management strategies

Strategy	Action
Controlling the energy bill	Key performance indicators
Managing the AC system	Daily meter readings Energy bill
Reduce the electricity usage	Benchmarking Clustering the hotel areas

Channa mentioned that through his hotel's proposed solar-power project, the energy bill could be reduced from 4.6 million to 3 million rupees per month. Gayan reported that his hotel sold excess solar power to the Ceylon Electricity Board, which offset their energy bill for purchased solar energy.

Participants reported paying particular attention to managing the AC system, which is the primary energy user in the hotel. Themiya explained that they had fixed AC sensors in the guest rooms so that the AC system could adjust itself to the indoor temperature. Malan mentioned that his hotel had two energy management engineers who manually coordinate their AC system.

Another approach to energy management is reducing the hotel's energy usage. A switch-off policy, colour-coded switches, and energy audits are implemented to reduce electricity use in the hotel. Damitha described clustering hotel areas to supervise electricity consumption. Aruna mentioned stressing to the hotel's engineer to monitor and reduce electricity usage. Malan said that his hotel had switched from burning diesel to burning wood to generate hot water for the hotel. Gayan spoke of using biogas to cook in the staff cafeteria and generate hot water. Regardless of the methods employed, the hoteliers try to become more energy efficient through these practices.

Technology and engineering

Protecting and conserving natural resources are beneficial to many parties, including the hotel itself. The technology factor goes hand in hand with hotel sustainability. As Dilina pointed out, technology is one of the ways to promote sustainability in the hotel. Two participants spoke

about technology usage in their hotels. Dilina said, *"There are various means to develop sustainability in the hotel. If we use new technology, we can reduce our cost further. But we have financial constraints."* Similarly, Mohammad mentioned that his hotel chain was also willing to invest in new technology: *"It is a bit hard for a new company or a new start-up to be able to think on these, but as pioneers in the industry, we are not afraid to invest in the technology because we have an internal encouragement system for best practices and financial incentives to implement technology"*. He mentioned that the chain's new flagship property employed the best technology available at the moment, and that the chain was planning to expand the technology to other properties once the flagship hotel staff were comfortable with it.

Because of the importance of technology, engineers play a key role in hotel sustainability. Nine participants talked about the role played by their hotels' engineering departments. Malan mentioned that his hotel had two engineers for energy management. *"We don't have an automated air-conditioning system. Our engineers manually manage the AC system, the main energy guzzler in a hotel. They look at both indoor and outdoor temperature to manage temperature properly to save energy."*

Similarly, Aruna said that water and energy management are the engineer's responsibility in the hotel: *"We monitor water and electricity consumption. We often delegate the responsibility for reducing water and electricity consumption and carbon footprint to the engineer."*

According to Sameera, the engineer's role in sustainability expands from water and energy management to obtaining relevant licenses (Figure 1):

"I am the engineer in the hotel. The total responsibility for repairing and maintaining buildings, electrical, electronic, CCTV, and networking lies with me. I have skilled professionals for these categories. In addition to these, I present my annual plan to the director for engineering in the head office and work according to the plan. Further, I am responsible for obtaining the hotel's environmental and marine protection licenses."

Mohammad had been a factory engineer before becoming a hotelier. As a factory manager, he said that he looked at efficiency in systems; specifically, systems maintenance, energy conservation, and resource efficiency. He said, *“Sustainability as a formal line of training is quite relatively new compared to traditional forms of education. Sustainability was a natural shift for me.”* He regarded his engineering training as the start of his sustainability journey.

Udaya explained how his engineering and technical staff managed energy consumption in the hotel: *“Our engineering and technical staffs obtain daily meter readings from each zone and section in the hotel and observe them. If there is any abnormal consumption, they immediately attend to it.”*

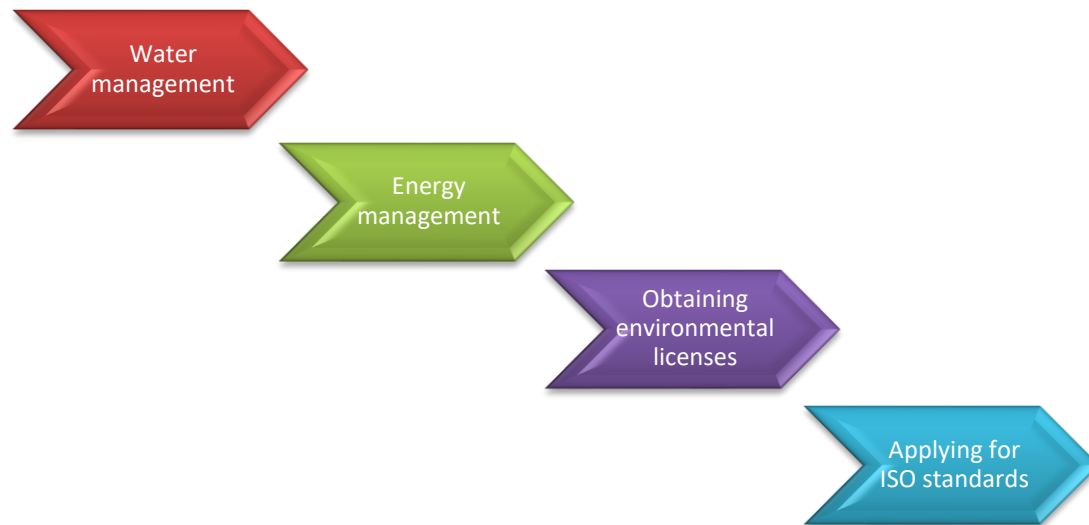
Similarly, Kanchana said, *“Technicians monitor water consumption in every department and check for any leakages. The hotel maintains sub-meters in different areas of water consumption.”*

Lakmali mentioned that her hotel’s engineering department obtained daily readings and kept records about every aspect of energy consumption. Records included electricity consumption per unit, per guest, and per energy source (such as diesel or gas). Similarly, the engineering team at Dhanushka’s hotel reports to the management team daily regarding energy and water consumption. Further, Nuwan commented that the engineering department in his hotel looks at every means of saving energy: *“They provide suggestions in morning meetings as to how we can reduce energy bills, how we can control energy. They have a yearly plan on energy management. They keep monitoring energy consumption and make sure it does not exceed the limit.”*

Malan reported how closely his hotel’s ISO 14001 committee worked with the engineering department

“The ISO 14001 committee proposes certain activities to be implemented by the engineering department because their involvement is very close to water services in the hotel. We propose water-management activities to them. Mainly, the operation of the water supply is managed by the engineering department.”

Figure 1 - The expanding role of the engineer in sustainability



Discussion

This study found that many hoteliers prefer to involve local suppliers in their supply chain. Hiring local suppliers over other suppliers would be a favourable factor when hotels apply for sustainability and other tourism related certifications (Cozzio et al., 2023). Once the villagers become suppliers to the hotel, they act as promoters of the hotel to tourists who visit the hotel. The favourable word of mouth by locals will give a good impression of the hotel among local tourists. Since most of the hotels serve for foreign tourists, hotels require their suppliers to adhere into purchasing standards. Afterwards, suppliers get familiarised with international standards while working with the hotel business (Ouyang et al., 2019). Then, these local suppliers sometimes expand their businesses to exporting. In this way, hotel businesses empower entrepreneurs.

Another finding of this study indicated that most of the hotel guests are now sustainability conscious. They prefer to stay in environmentally friendly hotels (Merli et al., 2019). Waste

management programs such as 12R, 7R, energy management programs, and community support programs could attract guests' attention to the hotel (Gupta et al., 2019, Gil-Soto et al., 2019). Hotel guests' satisfaction with sustainability practices may motivate them to repeat visits to the hotel. Overall, people worldwide are now well aware of the effect of nature on the planet. Climate change, global warming and natural disasters have widened the knowledge of the environment and nature among people (Sadiq et al., 2022).

The current study revealed that engineers' role in sustainability is expanding. Hotel sustainability emphasises the management of energy, water, and waste. The responsibility of these three areas primarily belongs to the engineering department, which is also generally responsible for obtaining various environmental licenses and ISO standards certification for the hotel. Engineering education encompasses many sustainability aspects. For example, the use of solar power, LED bulbs, and energy-efficient fixtures is often taught during instruction in electrical and electronic engineering. Water scarcity, water pollution, and water management are taught during training in chemical engineering (Davidson et al., 2010).

Theoretical Contribution

There are two key theoretical contributions from the findings of this study. First, with regard to stakeholder theory, the role of the engineer in sustainability implementation initiatives in the hotel industry emphasises and often ignored stakeholder in sustainability implementation. As a professional working behind the scenes away from the limelight, the engineers' role in sustainability implementation has been largely ignored. This is especially so concerning in the discourse on stakeholder theory. Our study findings highlight the need to recognise the organisation's often hidden but influential employees as critical stakeholders in the drive to achieve sustainability development goals. Second, from an investor perspective, our study findings from interviews with senior hoteliers in a popular tourist destination fill a gap in the literature on the attitudes to sustainability in the hotel industry in the Global South.

Practical implications

Findings related to the engineer's role in the field of hotel sustainability may be helpful for hotel associations worldwide. These associations can use these findings in their recruitment and training purposes. Further, Sri Lanka follows a tourism-led development strategy. This study's findings signal a need to call for engineers to develop policies with regard to hotel sustainability initiatives.

Conclusion

This study aimed to explore the stakeholder involvement in hotel sustainability in Sri Lanka. Twenty three (23) research participants were recruited for semi-structured interviews. Collected data were analyzed using thematic analysis. Study findings revealed that hoteliers prefer to involve local suppliers in the hotel's value chain and arrival of sustainability-conscious guests to hotels is increasing. Further, the study found that the role played by the engineer in hotel sustainability activities is expanding from water and energy management to obtaining relevant environmental licenses. The findings will be helpful for hotel associations and government policy-makers. Local supplier integration to the value chain of the hotel and its challenges, guest satisfaction and water management techniques in the hotel are some of possible future research avenues.

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