A Study on the Influence of Eco-Friendly Technologies in the Hospitality Industry

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Abstract: *The primary objective of the hospitality industry is to give customers excellent service in every area they have control over. For this reason, the industry must also place a strong emphasis on their guests' health and stay satisfaction, which results adversely from the inhospitable environment. Adopting eco-friendly technology would aid in consumer satisfaction and enhance the industry's reputation, as the sector needs to provide this for repeat business and client pleasure. Adopting such technology encourages the industry to apply the three Rs—reduce, reuse, and recycle—to become more sustainable and to appease environment-sensitive guests. This promotes the industry's self-sufficiency. The industry benefits from this positive attitude towards the environment by making it a more desirable place for employees to work and guests to stay.*

Keywords: Hospitality industry, Eco-friendly, technology, Green

I. INTRODUCTION

Over the years, technology has developed at a rapid pace due to which information on all topics can be easily exchanged and accessed by many, this leads to consumers having more transparency in making any purchases. The hospitality industry is affected by the same, one information that changed the mindset of many people was climate change and the harm various industries have done to the environment, which happens to include our industry, the hospitaliy sector has drawn attention as more and more tourists become aware of environmental issues each year. Studies show that the hotel industry is currently responsible for around 1% of global carbon emissions. Additionally, it states that by 2050, the hotel sector must reduce its carbon emissions per room by more than 90%. To mitigate the worst effects of climate change, hotelswill need to make significant changes. To lessen their negative environmental effects, some of the top hotel companies in the world have already integrated environmentally friendly practices into their operations. A recent study, particularly in the past ten years, indicates that visitors of today tend to favor "green" hotels due to growing awareness of environmental deterioration and the growing need for sustainability and conservation. The hotel sector has launched several projects in recent years to protect our natural resources through the use of eco-friendly and sustainable practices.

The objective of the research:

The main objective of this study is to understand the use of Eco-friendly technology within the hospitality industry and how it can benefit both the guest and hotels and encourage their use.

II. RESEARCH METHODOLOGY

This research paper is based on secondary data. The data is collected from research journals, magazines, and internet websites.

The Eco-friendly technologies and their uses:

The hospitality industry has long been a vital contributor to the global economy. However, it must also deal with environmental issues, hotels and resorts need to figure out ways to lessen the harm they do to the environment like excess energy consumption, water usage, and waste management without sacrificing their quality of service and comfort. Fortunately, the development of technology helps the industry in tackling these issues efficiently and safely.
The majority of hotels in the sector use environmentally friendly technologies. Which encompasses the "green" i

dea. The term "Green" is used to describe the environment, and the concerns to conserve and improve it, as well as taking care of it. "Green" hotels tend to be extremely self-sufficient by using various sustainable energy sources. Sometimes the type of hotel also benefits from these sources. For Example: The Falls Hotel & Spa in Co Clare, Ireland, is the only hotel in Ireland that is completely powered by hydroelectric energy powered by the nearby Inagh River, The Falls Hotel is dedicated to being environmentally aware and proactive. The entire 140-room hotel and leisure center are powered by a 220-kWh hydroelectric turbine.

The Landal Resort Maria Alm in Austria is situated next to the small River Urslau and has its hydroelectric power plant. The hydropower plant powers the entire resort with a capacity of approximately 550 beds with both electricity and heat. On top of its hydroelectric power use, the resort also focuses on raising awareness and educating guests about adequate waste separation. ITC Grand Chola, Chennai is the largest hotel in the world and a commercial building to achieve the LEED (Leadership in Energy and Environmental Design) Zero Carbon Certification. The ITC Windsor, Bengaluru had become the first hotel in the world to achieve the LEED Zero Carbon Certification. ITC Grand Chola has invested in a self-owned wind- and solar-energy farm to create its renewable energy footprint. It demonstrates their commitment to implementing building and design strategies to create an environment where artificial carbon dioxide is removed from the air.

The Orchid Hotel Mumbai Vile Parle is also one of the hotels in India that has achieved the standard of being Eco-Friendly. The Orchid Hotel is Asia's First Five Star Hotel to win the Ecotel Certification. There is a strict prohibition on plastic products entirely – so much so that even the people associated with the hotel refrain from the use of single-use plastic.

Using such sources not only aids the hotels in sustainability but also in improving their reputation, number of guests, and quality of guest stay, and helps them economically. This also influences other hotel brands to do the same or else they might not be able to put up competition in the industry, which further improves the quality of the environment. But this is not the only way the hospitality industry resolves environmental issues.

The hospitality industry is vast and contains various subdivisions within it, but the main focus in the hospitality industry is taken by,

• The Food & Beverage section
• The Travel & Tourism section

These sections are also influenced by Ecofriendly technologies and practices, which help in enhancing the quality of service in the sections and sustainability.

The Food & Beverage section:

The food and beverage sector must lessen its influence on the environment and natural resources. According to a survey, the food industry is responsible for over two-thirds of freshwater withdrawals and around one-third of greenhouse gas emissions that occur each year. This business uses a lot of power because it requires energy not only for processing but also for crop growth and harvesting as well as for moving food to processing facilities. Food and beverage packaging typically hurts the environment since it accumulates in landfills, contaminates the land and oceans, and requires energy and water to make new packaging. People's awareness regarding the value of a healthy environment is growing. Nowadays, consumers want fair trade practices, reduced emissions, organic products, and proof of sustainability from food and beverage producers down the supply chain. The industry has to meet these standards and expectations of their customers to avoid losing business and revenue, and if one follows the standards others will also do the same to remain in the competition. All this helps in the adoption of the three R's—reduce, reuse, and recycle— Green packaging materials are being used by the food and beverage industry at a rapid pace. Packaging made of plant-based, biodegradable materials is preferable. Biopolymers, which are made from waste plant materials and may be safely consumed and degraded swiftly, are used to generate biodegradable packaging.

The Travelling and Tourism section:

Among the main Sustainable Development Goals (SDGs) are social and economic progress as well as environmental preservation. By balancing the social, cultural, economic, and environmental aspects of tourism, sustainable tourism lessens its negative impact on these elements. It tackles the problem of striking a balance between a limited amount

of natural resources. Travel that is sustainable and environmentally friendly is growing in popularity as people become more aware of the dangers posed by global warming and climate change. The foremost principles of sustainability concerning the tourism industry consist of meeting the expectations of the tourists as well as local communities without causing any damage to the ecosystems and preservation of the environment. The industry and tourists ought to be aware and respect the culture, traditions, and economics of the local communities they adhere to and explore ways to benefit the natural environment.

II. LITERATURE REVIEW

Author Anjali Xess has stated that, in addition to supporting environmental activities, the hospitality industry faces many obstacles to repeat business and customer satisfaction. Customers are benefiting from technological advancements thanks to a new modernization of market segments and increased technology knowledge. Those are concerned about their surroundings and health, which is why the hospitality sector must pay consideration to the environment and health of both customers and employees. Adopting the three Rs—reduce, reuse, and recycle allows the hospitality sector to promote environmentally friendly technology that benefits both the environment and its patrons. Additionally, the guests are becoming more aware of environmental issues.

Author Cynthia Mejia said that, in addition to maintaining building systems to preserve an operation's potential for profit, facilities managers are also responsible for implementing green technology in line with a hospitality organization's sustainability program. Semi-structured interviews with multi-level facilities managers from American hotels, resorts, and conference centers provided the data for this qualitative study. The research findings, which drew upon technology acceptance frameworks, indicated that formal green leadership and green facilitating environments are the main factors impacting the usage of green technology in the hospitality sector. Furthermore, the existence of a "green champion," or informal green leader, was also found to be a significant factor that revealed aspects of sustainability projects that had not been seen in earlier studies.

Taiwanese author Yu-Chun Chung says experts and hotel managers alike agree that sustainable innovation is an essential component of contemporary hotel management. A novel integrated theoretical model of the relationships between sustainability innovations, environmental marketing strategy, innovation dissemination, and organizational environment is developed and tested in this article. The moderating function of the organizational environment and the mediation influence of environmental marketing strategy are also taken into account in this study. This approach is supported by the findings of a study that involved 367 managers of environmentally conscious hotels in Taiwan, covering a range of aspects of sustainable innovation in hotels.

Author Kannan Subbiah states the practice of running hotels with green technologies is known as eco-friendly management in the hospitality sector. A hotel is referred to as "green" if it uses resources efficiently, uses less water and energy, generates little trash recycles it, and has a smaller environmental effect. The goals of green hotels are to save resources, lower operating costs and pollution, boost profit margins, and promote ecotourism. The ecotourism industry depends on a clean environment, which benefits the national economy.

Author EunHa Jeong expresses' this study aimed to investigate the links between three constructs: the primary green practices that impact customers' perceptions of a restaurant's green image: customers' perceived green practices, perceived green image of a restaurant brand, and attitudes towards a restaurant brand. Firstly, the findings imply that consumers' perceptions of green practices impact their impression of a restaurant's greenness, which in turn affects their views towards the establishment. Second, the study finds that the three main green practices that influence how consumers perceive a restaurant's green image are recyclable take-out containers, recycling rubbish, and energy-efficient lighting.

Author Elnaz Akbari says that Scholars and practitioners have emphasized the critical role that positive customer experiences and the word-of-mouth they generate play in all industry sectors. Eco-friendly (green) goods and services attracted a lot of attention as a result of consumers' growing concern for environmental sustainability and their heightened awareness of the state of the environment. Our objective is to create a novel approach to soft computing by utilizing machine learning techniques to identify the most suitable eco-friendly hotels by considering multiple quality factors.

Author Sonali Tiwari stated that the tourism sector, and the hotel sector in particular, uses natural resources and generates waste. Because energy conservation has become essential to every industry—including the hospitality sector—there are extremely few energy resources on Earth. The hotel industry has begun implementing green practices, such as recycling programs, occupancy sensors, adjustable temperature control, and linen reuse programs, among many others, to save energy. Due to growing awareness of environmental issues, environmental concerns are becoming more and more popular in the hotel industry. Recognizing this fact, the current study focuses on investigating the eco-friendly practices used in Lucknow's star hotels as well as the difficulties the hotels have had implementing green practices.

Author Solomon Prince Nathaniel stated that over the last few decades, the tourism and hospitality industry has not only experienced rapid expansion but has also made significant contributions to economic advancement through lease inputs. Numerous environmental issues are brought about by this industry that is expanding at the fastest rate, particularly in developing nations where tourism accounts for a sizable portion of CO_2 emissions. This research investigates how CO_2 emissions in emerging markets are impacted by foreign travel, the use of renewable energy sources, and environmentally friendly technology.

III. DISCUSSION

The majority of research found that guests in the hospitality sector are environmentally conscious, so to protect the environment, the sector must adopt green sustainability practices. Sustainability is beneficial. For the hotels, the staff, and the visitors. Research has shown that protecting the environment in the hotel sector. Has a favorable effect on visitors. By implementing green initiatives based on the 3 R's—reduce, reuse, and recycle—users can not only protect the environment and ensure the satisfaction of hotel guests and staff but also increase revenue for their establishment. The study's conclusions and results demonstrate that an eco-friendly business approach positively affects its patrons by educating them about environmental standards and the organization's efforts to protect the environment. The hospitality staff's good attitude towards the environment is further enhanced by an eco-friendly orientation. When employees are happy, the company gains their loyalty and a long-lasting relationship.

IV. CONCLUSION

According to the research, there is a high level of environmental sensitivity among our guests. For this reason, the hospitality industry strives to incorporate sustainable practices, which are good for the environment and benefit guests, hotels, and employees alike. Researchers have discovered that protecting our environment is critical to its long-term viability. The majority of the researcher's findings indicate that tourists are greatly impacted by environmental preservation in the hospitality sector. Utilizing the three Rs—Reduce, Reuse, and Recycle—as well as implementing green initiatives, these practices teach us how to protect the environment, create happy, contented customers and staff, and steer the hospitality industry towards global success. It has been noted that environmentally conscious hotels bring in a healthy profit. This study report examined hotel green initiatives from the perspectives of both employees and guests. The study investigates how employees and specific customers feel about green and environmentally friendly technologies.

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