A study on influence of eco-friendly technologies in hospitality industry

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Abstract. The Hospitality sector contributes initiatives taken towards the eco-friendly environment and faces lots of challenges towards customer satisfaction and repeat business. With a new modernization of market segments, technology awareness, customers are getting advancement in the field of technology. They are conscious about their health and environment, which is why the hospitality industry needs to pay attention to the customer's and employee’s health and environment. Promoting eco-friendly technologies by the hospitality industry is useful in both the ways for the customers and sustainability for the environment by adopting the three Rs i.e. reduce, reuse, and recycle. The guests are also getting sensitive about environmental issues. The hospitality industry, therefore, strives to involve them in sustaining the mission of three Rs, which is good for the environment, customer, employee health and the hotel. This research paper aims to discover customer’s behavior, attitude, and level of satisfaction derived from the green technological approach of the hospitality industry and also to understand the level of satisfaction of the employee towards the Eco-Friendly technologies in the hospitality industry in terms of the employee engaging with eco-friendly hotels for the longer period.

1. Introduction
From the last few years, there are several initiatives taken by the hospitality industry for preserving our natural resources by utilizing sustainability and eco-friendly practices. The eco-friendly technologies in the hotel industry has been practiced by most of the hotel. Most of the hotel operation is done through the medium of technology which includes the concept of “green”. The most primary source of the energy is water and energy which produces the minimum waste and recycle the waste which has helped to save our environment which in both the helpful for our customer and employee. The practice of green with the help of technology is done by the hotel has involved the paper focuses and the hotel has implemented the saving of energy and water conservation. Another sources which involve system like lighting, heating, ventilation, and air conditioning system (HVAC), Recycled, recyclable and/or biodegradable content, Plant-based materials, Reduction of greenhouse gas emissions, Energy-efficiency, Reduction of polluting substances, introducing the LED lighting throughout their facilities with sensors has helped to cost down while reducing the energy waste. The influence of technology has proved beneficial in terms of our customers and should train the staff to collect recycle material from the hotel waste. It is noticed that the hospitality sector devours a considerable amount of fuel, energy, water, and other non-renewable
resources [1].

In the tourism industry, operating a natural environment through natural resources is equally significant [2-3]. It was found that the majority of hotels in the hospitality industry are environmentally friendly and are less harmful to customers, employees, and the environment [4]. The concept of adopting and sustaining, green, and eco-friendly should be assimilated in the hospitality industry. A great amount of research on the subject of eco-friendly practices was studied, which proved to be judgmental for initiatives of the green approaches by the hospitality industry. Many researchers studied the perception of hospitality managers, about their leading with green practices in their establishment, for creating an eco-friendly environment [5] and the attitude of customers on green management for sustaining the environment. (Kelly, J et al., 2007). Other researchers who studied were on green-practices [4, 6]. In this concept, sustainable products can assume a strategic role in offering an environment as eco-friendly by the social mean of economic terms [7-8].

The hospitality industry initiated green management because of the hotel reputation in terms of financial growth and lifestyle changing attitudes of the customers towards the eco-friendly environment. Green technologies can be used to conserve all the natural resources and preserve the Earth. Hence the green technologies are those, which have become a burgeoning industry attracting large amounts of investment capital. However, green tech benefits beyond financial opportunities and includes a safer and cleaner environment. Green technology, while it is popular in the hospitality industry, has hence proved for a thriving business sector. Many of them are designed in such a way to attract more numbers of customers. Consideration of ‘green’ in the hospitality industry is subjected to a variety of green approaches and includes a wide variety [9-10]. Motivation can be classified into three categories: legitimacy, competitiveness, and social responsibility [11]. This research focuses on finding a sustainable environment based on the concept of green practices, products benefiting both employees and customers of the hotel industry. There is much literature discussing the definition of eco-friendly and sustainability in the hotel industry. However, for this study, the terms eco-friendly as green, and sustainable are interchangeable. The research paper has structured with an introduction later with the literature review is work out within three important core areas of the research study to identify the study and analyze eco-friendly practices in the hotel industry and level of customer satisfaction and lastly, the level of employee satisfaction and loyalty on green initiatives. Comparably, root on literature review, individual studied green practices development, and customer satisfaction are identified carried out with the research methodology. Finally, the conclusion and result are carried out and findings are discussed.

2. Literature Review

2.1 Green Initiatives by the Hospitality sectors

To be successful in the hospitality sector, its manager must focus on the likes and dislikes of its customers, and smartly respond to retain them by introducing policies, beneficial for its customers. In turn, a satisfied customer can earn brand preference for the organization [12]. The sector is considered as the fastest growing economic sectors in all over the world [13]. The research studied refers to hospitality site–businessblog.trivago.com. The various brands in the hospitality industry are joining hands to reduce the negative effect on the surrounding and seek an original of green initiatives across the world to maintain sustainability. Most of the eco-friendly hotels follow the trends of the three "Rs" of environment conservation – reducing, reusing, and recycling. The hospitality Industry moves forward to have green hotel acceptance and practices with green-initiatives and leads to have a customer satisfaction and loyalty. The topmost level of recognition for the achievable results hotel must have a sustainable environment [14]. The hospitality industry should adopt an eco-friendly environment to create positive surroundings [15]. The researcher studied that the guest’s loyalty consists of both positive attitude and loyal commitment towards the relationship with eco-friendly hotels [16]. An example, such as a payment
incentive, definitely creates a positive attitude for repeat business to the organization. Satisfied customers have a positive attitude and perception which enhances sales perspective and their decision-making. As a result, satisfied and loyal customers prefer the same hotel more and willingly pay more. Some research studies mention that green practices in hotels have enabled them in maintaining an eco-friendly environment using green management of natural resources such as food and water. It also involves other practices like energy conversation, efficient use of materials and resources, solid waste management, managing workplace using the Internet to maximize paperless work [17-19]. Hotels introduce eco-friendly practices utilizing 3 Rs, reducing, reusing, and recycling [20]. The preference for eco-friendly hotels would increase if customers were-offered better services. This would also enhance customer satisfaction and the probability of customers choosing to visit such eco-friendly hotels frequently. With the use of 3 Rs, the hotels would not only be able to optimize their resource utilization, but also provide better facilities to their customers economically [21]. The tourism industry should adopt government policies and regulations and mend the public spirit towards the environment for their customers to provide an eco-friendly environment [22-23].

2.2 Customer satisfaction in eco-friendly practices
The hotel product is divided into three important traits [17]. The first one is intangibility, the second one is inseparability and the third one is variability. The satisfaction level of the hospitality industry depends on the total number of visits by a customer, thus giving repeat business to that hotel. Service experience by the customers is the product of their loyalty and satisfaction. Satisfaction is counted as an attribute of service, experienced by the customer for the goods and services provided to him by the hospitality industry. Measuring customer satisfaction helps the hospitality sector to improve their actions and facilities to provide customers with satisfactory services [24]. Customers prefer to purchase more goods and services if they are satisfied and anticipate more with their demands and choice for the product [25]. The management must seek for the customer’s behavior and attitude towards the purchase of services for the fulfillment of customers demand towards the satisfaction level with the way of perfect involvement of the customers in seeking the customers demand towards market segment could be high in terms of customer’s satisfaction and dissatisfaction can be further judged [26]. According to the researcher [27-30], a Customer’s loyalty is sustained in the organization with their long term association with the organization with regards to his preferences and satisfactory level of service given by the establishment. It is defined that the customer’s satisfaction and customer loyalty towards the organization is when customers are willing to return to the establishment and are satisfied with the service provided to them thus, shows the loyal behavior towards the establishment [31]. The researcher has studied that the customers with environment-friendly behavior tend to visit more of green hotels [32-33]. Customers with the motive of staying in eco-friendly hotels give more attention to the green environment and are loyal to the go-green establishments. The establishment with the design of green-initiatives attract more number of guests as the study was done by the researcher and as past studied it is stated that approximately 67% of American customers are ready to pay a higher amount for green hotels [34].

2.3 Level of employee satisfaction and loyalty on green initiatives
Establishing green initiatives are aimed at fulfilling social responsibility and achieving social satisfaction. Such initiatives may not increase revenues in the short term for the hotel. However, these initiatives have economic rewards in a long period [35]. With the motive of profitable ambitions towards the market segment, the study about customers’ behavior, and social challenges, and responsibility towards green initiatives has been considered [36]. Employees contribute by giving suggestions for the green-environment to its establishment for its successful growth [37]. According to the eco-concern, it is showed by the hotel employee influences tourist's awareness of the green practices followed by the hospitality sector [38]. A study says that the attitude of the hotel employee towards the recycling project certainly
impresses its tourists. The adoption of green environment processes by the employees in the establishment yields advantage to nature or helps to solve nature-related issues [39]. Green initiatives implemented by the employees demonstrate their positive attitude towards the environment, thus creating a positive impact on tourists and the establishment. The behavior of the employee towards green initiatives strangely varies with the change of his place. It is different at the workplace than it is when he is at home [40]. If the hotel employees were particular about environmental prevention, they would willingly implement the green initiatives at their property. Satisfied hotel staff not only becomes loyal to the organization but also remains associated with it for a longer period [41]. The two critical areas to keep its employee satisfied are the company and communication with the employee [42].

3. Methodology
The primary objectives of the present study are as:

- To examine the benefits of eco-friendly environment practices adopted by the hospitality industry.
- To study the perception and positive attitude of customer satisfaction and loyalty towards the eco-friendly hotels.
- To analyze employee’s satisfaction and loyalty towards the hospitality industry in terms of an eco-friendly environment.

3.1 Discussion of a conceptual model
The conceptual model describes the inter-relation between the hospitality industry, employees of the hotel, and segment of customers about eco-friendly management. Figure 1 shows the influence of a conceptual model of eco-friendly management in the hospitality industry. The conceptual model describes the three most important factors of Eco-Friendly Management. The figure describes the Hospitality Industry with the adoption of Eco-Friendly Technologies may attract more number of customers and with positive feedback hospitality industry could get repeat business and vice – versa the hotel employee could serve the company for a longer period. Hence Eco-friendly Management influences all the three-sector Hotels, customers, and the employee.

![Figure 1. Influence of a conceptual model of eco-friendly management in the hospitality industry.](image)

4. Discussion
After going through, past research studies on eco-friendly management. Most of the studies pointed out that the guest in the hospitality industry is sensitive to the environment, and therefore the hospitality industry needs to follow green sustainability practices to conserve the environment. Sustainability is good for the hotels, their employees, and their guests. It is vital to save our environment to sustain for a longer period. Most of the studies have indicated that preserving the environment in the hospitality industry
creates a positive impact on tourists. Using the concept of 3 Rs - reduce, reuse and recycle for introducing green initiatives enables the user not only to preserve the environment and keep hotel guests and employees satisfied but also brings in more business to that organization. Many researchers have studied that living green is in demand and hence proved in all procedures to adopt green in by hotels for guest and employee satisfaction. The researcher discloses that 75% of guests are willing to pay more and prefer to stay in hotels having green initiatives. This enables eco-friendly hotels to generate higher revenue. Average daily rate (ADR), (Private driving room rate) PDRR, and Average room rate (ARR) of eco-friendly hotels show great business. In this research paper, it has studied green initiatives adopted by hotels with referring to guest and the employee. The research study explores the attitude of individual customers and employee perception towards the green environment. The primary start-up of the study was eco-friendly management in the hospitality industry, followed by the impact of green initiatives by the hospitality sector towards the guest's behavior and attitude the finding lastly involves employee loyalty towards eco-friendly management.

The results and findings of the study point out that establishment eco-friendly orientation does have a positive impact on the customers; it makes them aware of the environmental norms and the care, concern, and caution taken by the organization to preserve the environment. Eco-friendly orientation also builds a positive attitude towards the environment in the hospitality staff. Employee satisfaction wins the organization his loyalty and a long association. The research also studied the attitude and behavior of the guests and employees towards the green initiatives adopted by hotels.

5. Conclusion
The research instruments used in the study were structure as a base of prior research papers which were done on eco-friendly management. Past few years research papers were studied and analyzed. The research indicated the finding which states that our guest is very delicate to the environment which is why the hospitality industry aspires themselves to involve sustainability which is good practice for the environment, thus sustainability is good in all ways for our guests, hotels, and employees. The researchers have found out that it is important to save our environment to sustain for a longer period. Most of the researcher's finding says that saving the environment in the hospitality industry puts lots of impact on the tourists. By the way of using 3 Rs (Reduce, Reuse and recycle) and introducing green initiatives it teaches us how to save the environment and satisfied hotel guests and employees and had also led the hospitality sector towards a successful business in the world. It has been observed that eco-friendly hotels generate good revenue. In this research paper, it was studied green initiatives adopted by hotels with referring to guest and the employee. The research study explores the attitude of individual customers and employee perception towards green-environmental technologies. The primary start-up of the study was eco-friendly management in the hospitality industry, followed by the impact of green initiatives by the hospitality sector towards the guest's behavior and attitude the finding lastly involves employee loyalty towards eco-friendly management. The result from finding showed that hospitality staff as an individual has a positive attitude and associated with the company and serves for a long period if the company adopts green management. The finding of the research study analyzes about the employee behavior towards the green initiatives has gone too high employee is now satisfied in terms of salary, health, and working hours with the green initiatives hotels. They now depend on the company and show the loyalty behavior and contributes to the success of the establishment that’s the reason employee serve longer with the Eco-friendly hotels.
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