

Tackling Energy Wastage while Enhancing Guest Experience



Source: Pixabay (2020)

Background

With air-conditioning close to being a necessity in any hotel, the question of how to minimize carbon footprint without compromising guest comfort presents a significant challenge for hotel managers. Traditionally, hotels have relied on conventional Heating, Ventilation, and Air Conditioning (HVAC) systems that operate on fixed schedules, often leading to energy wastage for heating and cooling empty rooms if guests forget to turn them off before leaving (Hotel Technology News, 2024).

Located in the island country of Cyprus, Prestige Bookings is a luxury resort offering high-end villas for holiday guests (Prestige Bookings, n.d.). Due to the hot and dry climate of the Middle East, the air conditioners at the resort are always running, especially during the busy summer months (Sensibo, n.d.). It was also difficult for management to monitor and control all the HVAC units, as they are spread out across the island. In an effort to meet their sustainability goals, the resort incorporated a smart HVAC management solution named Sensibo Airbend, which helped the resort save over 40% on their energy bills (Hotel Management Magazine, 2023).

Sensibo Airbend is a smart technology that manages all HVAC units for hotels. Through a centralized dashboard, staff can monitor key metrics like temperature and power usage, as well as remotely control individual HVAC units or make mass adjustments (Sensibo, n.d.). The system also allows smart rules and parameters to be set to optimize air-conditioning. For example, the hotel can program the air conditioner to auto-adjust when reaching a set temperature (Hotel Management Magazine, 2023). This keeps rooms at optimal temperature and enhances energy efficiency while ensuring guest comfort. Additionally, the system supports smart scheduling, allowing hotel managers to schedule HVAC settings for upcoming days or weeks based on weather and occupancy forecasts (Sensibo, n.d.).

Another key selling point for Sensibo Airbend is its air quality monitoring function. Besides temperature, the device also monitors humidity, carbon dioxide levels, and total volatile organic compound levels, and alerts hotel staff for quick action if air quality is poor (Sensibo,

n.d.). It also includes a mold prevention feature that automatically switches the HVAC unit to fan mode to prevent moisture buildup after air-conditioning use (Sensibo, n.d.). These functions ensure healthy and clean air quality and an optimal indoor environment for guests.

The setup process for Sensibo Airbend is simple. All that is required is to download the Sensibo app, register each device under the hotel's account by scanning the QR code on the back, connect the device to the local Wi-Fi network, place it near the HVAC unit, and pair the remote control of the HVAC unit with the device (Sensibo, n.d.). By doing so, the hotel will have remote control of all HVAC units through the Sensibo app. When used together with add-on gadgets such as motion detectors and window sensors, the system can even automatically switch off the air-conditioner with a delay when guests leave their rooms or open a window, further reducing energy waste (Sensibo, n.d.).

Challenges

Despite being a simple yet useful invention, affordable for hotels of all sizes, Sensibo Airbend is not particularly impressive, as there are many similar products on the market. Furthermore, the ability to set temperature thresholds for rooms may take away guests' freedom to adjust the air-conditioning as they please, which goes against the prerequisite of not compromising guest experience. Moreover, the Sensibo Airbend system relies solely on a local Wi-Fi connection to operate, making it vulnerable to malfunction in the event of any signal interference.

Discussion Questions

1. What are the environmental impacts of traditional HVAC systems in hotels?
2. How does Sensibo Airbend enhance energy efficiency in hotel HVAC systems, and how might this impact the hotel's operational costs?
3. What are the potential challenges or drawbacks of using a smart HVAC management system like Sensibo Airbend in terms of guest satisfaction and experience?
4. How does the air quality monitoring feature of Sensibo Airbend contribute to guest health and comfort, and what additional measures could hotels take to ensure optimal indoor air quality?
5. How might future technological advancements further improve the capabilities of smart HVAC systems in the hospitality industry?

References

Hotel Management Magazine. (2023). Sensibo launches smart HVAC management platform for hotels. Retrieved from <https://www.hotelmanagement.net/tech/sensibo-launches-smart-hvac-management-platform-hotels>

Hotel Technology News. (2024). How Smart Hotel Technologies Tackle Energy Wastage While Enhancing the Guest Experience. Retrieved from <https://hoteltechnologynews.com/2024/01/how-smart-hotel-technologies-tackle-energy-wastage-while-enhancing-the-guest-experience/>

Pixabay. (2020). Remote control, Remote, Electronic. Retrieved from <https://pixabay.com/photos/remote-control-remote-electronic-4806496/>

Prestige Bookings. (n.d.). Luxury Villas in Beautiful Coral Bay. Retrieved from <https://prestigebookings.com/>

Sensibo. (n.d.). Case Study: Optimizing Hotel HVAC Management With Sensibo. Retrieved from https://learn.sensibo.com/prestige-bookings-hotel-use-case?_gl=1*1c3lr2k*_gcl_au*MTU4NzQyOTI5Ny4xNzM4ODI5NjM3LjEwMzM1NzQ0NDYuMTczODgyOTc1Ni4xNzM4ODI5NzU2*_ga*MjEzODI5Nzg4OC4xNzM4ODI5NjM1*_ga_PMM1VX8MBQ*MTczODg5Nzk1OC4zLjEuMTczODg5Nzk1OS41OS4wLjA

Sensibo. (n.d.). Sensibo Airbend. Retrieved from https://sensibo.com/pages/airbend-hotels?srltid=AfmBOoroJtm6_pR2AHgvAJkRBRuu4br0qTIWdk-jqfI9WRj1A5KsM6ZV

Keywords

- Hotel
- Sustainability
- Energy consumption
- Carbon footprint
- Air-conditioning
- Technology