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THE IMPACT OF BIOPHILIC PRACTICES ON GUEST SATISFACTION AND HOTEL PERFORMANCE IN DELHI: A COMPREHENSIVE STUDY

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Abstract
The hospitality industry is progressively recognizing the significance of sustainable and eco-friendly practices. This study expects to examine the discernments, outlooks, and propensities of guests concerning biophilic practices in Delhi hotels. Biophilic design, which arranges normal parts into the established climate, chips away at human flourishing and environmental health. Concerning hotels, these practices could coordinate the utilization of standard materials, indoor plants, and acceptance to outside green spaces. Past assessments have shown the way that such practices can essentially moreover encourage guest satisfaction and loyalty, in like manner genuinely affecting hotel performance. Sensibility in the hotel industry consolidates decreasing environmental effect through energy productivity, squander reducing, and water affirmation. Research shows that eco-friendly practices benefit the climate as well as draw in environmentally knowing explorers, chipping away at their general comprehension and satisfaction. This extensive survey gives basic snippets of data into guest discernments, mentalities, and propensities concerning biophilic practices, offering serious solid areas for a point for fundamental preparation and sustainable improvement in the hospitality district. The disclosures assist with overcoming any limit between guest notions and the ongoing status of biophilic practices in Delhi hotels, moving a more sustainable and guest-friendly methodology in the industry.

Keywords: Biophilic design, sustainable practices, guest satisfaction, hotel performance, eco-friendly, Delhi hotels, environmental health, guest loyalty, hospitality industry

Introduction
The hospitality industry is progressively recognizing the importance of sustainable and eco-friendly practices. This study means to examine the perceptions, attitudes, and propensities of guests concerning biophilic practices in Delhi hotels. Biophilic design integrates normal parts into the fabricated climate, which deals with human thriving and environmental health. Concerning hotels, biophilic practices could coordinate the utilization of standard materials, indoor plants, and enlistment to outside green spaces (Agarwal et al., 2021; Baek et al., 2021). Past evaluations have shown the way that such practices can commonly moreover cultivate guest satisfaction and loyalty, hence affecting hotel performance unmistakably (Arora and Bhatia, 2022; Ahn et al., 2019). Suitability in the hotel industry consolidates decreasing environmental effect through energy productivity, squander reducing, and water security. Research shows that eco-friendly practices benefit the climate as well as draw in environmentally mindful voyagers, chipping away at their general information and satisfaction (Chua et al., 2020; Ho et al., 2018). By understanding these variables, hotel the board and the more noteworthy hospitality industry can every one of the close to 100% complete strategies that update guest satisfaction and further

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encourage hotel performance. This general survey will give huge experiences into guest perceptions, perspectives, and propensities concerning biophilic practices, offering solid areas for a point for basic status and sustainable improvement in the hospitality locale (Mehra et al., 2021; Joshi et al., 2021). The disclosures will assist with beating any block between guest speculations and the ongoing status of biophilic practices in Delhi hotels, driving a more sustainable and guest-friendly framework in the industry (Sharma et al., 2021; Yun et al., 2019).

Literature Review

Biophilic Design and Hospitality

Biophilic design organizes commonplace parts into the created climate, wanting to chip away at human flourishing and environmental health. Concerning hotels, biophilic practices could merge the utilization of standard materials, indoor plants, and authorization to outside green spaces (Agarwal et al., 2021). These parts not just work on the in that frame of mind of the hotel yet besides spread out a quieting and restoring climate for guests (Baek et al., 2021). Research shows the way that responsiveness to commonplace parts can decrease pressure and redesign the general progress of people, inciting an even more specific hotel experience (Chua et al., 2020).

Past examinations have demonstrated the way that such practices can essentially further develop guest satisfaction and loyalty (Ho et al., 2018). Guests who experience an association with nature during their visit are bound to return and recommend the hotel to other people (Arora and Bhatia, 2022). Besides, biophilic design can separate a hotel from its rivals, giving an extraordinary offering direct that requests toward environmentally cognizant explorers (Ahn et al., 2019). This essential execution of biophilic components upgrades guest experience as well as adds to the hotel's standing and monetary performance (Joshi et al., 2021).

Sustainable Practices in Hotels

Manageability in the hotel industry includes lessening environmental effect through energy proficiency, squander decrease, and water preservation (Ng, 2011). Executing biophilic design is important for a more extensive system to make hotels more sustainable, as it advances the utilization of inexhaustible assets and supports ecological equilibrium (Sharma et al., 2021). Eco-friendly practices, for example, the utilization of sun powered energy, water collecting, and reusing projects can fundamentally decrease the carbon impression of hotels (Ernst and Youthful, 2008).

Research shows that eco-friendly practices benefit the climate as well as draw in environmentally cognizant explorers (Greenberg, 2007). Guests are progressively searching for facilities that line up with their qualities, and hotels that exhibit a guarantee to supportability can improve their enticement for this developing business sector portion (Mehra et al., 2021). Besides, sustainable practices can prompt expense reserve funds for hotels through decreased energy and water utilization, making it a monetarily reasonable methodology (Tickoo, 2011). By incorporating biophilic design with sustainable practices, hotels can accomplish an all encompassing way to deal with environmental obligation and guest satisfaction (Wei et al., 2020).

Methodology

Research Design

This study utilizes a quantitative examination design to break down the discernments, mentalities, and inclinations of guests with respect to biophilic practices in Delhi hotels. By utilizing an organized review, the review expects to gather information that gives bits of knowledge into what these practices mean for guest satisfaction and hotel performance. The survey design promises a methodical way to

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deal with information range and examination, working with the identifiable proof of key patterns and connections.

Variables

- **Independent Variable**: PracticingBiophilic methods in hotels with the use of natural resources, indoor plants, and admittance to green spaces in outdoors.
- **Dependent Variables**:
  - Guest satisfaction
  - Hotel performance
- **Control Variables**: Demographic factors such as age, gender, income, and employment status.

Sample Size

A sample size of 432 hotel guests in Delhi was overviewed, which was chosen to assurepassable information for statistical examination and also to capture a varied range of guest experiences and perceptions.

Data Collection

Information was congregatedbyapplying a systematic survey directed to 432 hotel guests in Delhi. The survey indicates:

- **Demographics:** Age, gender, income, employment status, and educational qualifications.
- **Perceptions of Biophilic Practices:** Guests' awareness and opinions on the use of natural elements in the hotel environment.
- **Impact on Guest Satisfaction:** How biophilic practices influence their overall satisfaction with their hotel stay.
- **Impact on Hotel Performance:** Guests' perceptions of how these practices affect the hotel's reputation, return visits, and recommendations.

Data Analysis Tools

The gathered information was analyzed using various statistical tools and methods:

- **Descriptive Statistics:** To summarize the basic features of the data, including frequencies, percentages, means, and standard deviations.
- **t-tests:** To compare means and determine the significance of biophilic practices on guest satisfaction.
- **Pearson Correlation:** To examine the relationship between biophilic practices and hotel performance.
- **Regression Analysis:** To identify the impact of biophilic practices on guest satisfaction and hotel performance, controlling for demographic variables.
- **SPSS Software:**A tool for testing hypothesisand analysis.

These sources provide a detailedcomprehension of the data, permitting the review to draw eloquent conclusions about biophilic practices in enhancing experiences of the hotel guest and their overall performance.

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Analysis

Demographic Data

Table 1: Demographic Data of Survey Respondents

Category	Frequency	Percent	Valid Percent	Cumulative Percent
Gender				
Female	140	32.4%	32.4%	32.4%
Male	292	67.6%	67.6%	100.0%
Age Group				
18-35	362	83.8%	83.8%	83.8%
36-55	67	15.5%	15.5%	99.3%
56-75	3	0.7%	0.7%	100.0%
Qualification				
High School	99	22.9%	22.9%	22.9%
Graduate	240	55.6%	55.6%	78.5%
Post Graduate	90	20.8%	20.8%	99.3%
Doctorate	3	0.7%	0.7%	100.0%
Employment				
Student	254	58.8%	58.8%	58.8%
Self-employed	29	6.7%	6.7%	65.5%
Private Sector	68	15.7%	15.7%	81.2%
Public Sector	24	5.6%	5.6%	86.8%
State/Central Govt.	57	13.2%	13.2%	100.0%
Income (LPA)				
3-5	297	68.8%	68.8%	68.8%
5-8	82	19.0%	19.0%	87.8%
8-12	53	12.3%	12.3%	100.0%
Travel Purpose				
Pleasure	247	57.2%	57.2%	57.2%
Business	27	6.3%	6.3%	63.5%
Both	158	36.6%	36.6%	100.0%
Travel Frequency				
1-2 Times/Year	287	66.4%	66.4%	66.4%
3-5 Times/Year	101	23.4%	23.4%	89.8%
4+ Times/Year	44	10.2%	10.2%	100.0%
Total	432	100.0%	100.0%	100.0%

The table above advocates demographic view of the sample size by 432 respondents, showing key factors such as gender, age group, academic qualifications, job status, income level, travel purpose, and travel frequency. The sample consists of predominantly male (67.6%), with the majority of respondents aged from 18-35 years (83.8%). Academic qualifications show that most respondentsare graduate (55.6%), followed by post-graduates (20.8%). Employment and job data specifies that a noteworthypercentage of the sample consists of students (58.8%), along with the rest of the respondents employed in different sectors. The income circulationdisplays that 68.8% earn between 3 and 5 lakh per

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annum. In terms of travel behavior, 57.2% of the respondents travel mainly for pleasure, with 36.6% traveling for both business and pleasure. The frequency of travel is also captured, with 66.4% of respondents traveling 1-2 times per year.

Hypothesis Testing

Hypothesis 1: Biophilic Practices Significance

- **H0:** Biophilic practices have no significance.
- **H1:** Biophilic practices have significance.

Table 2.1 (a) Biophilic Practices Significance: T-test Analysis

Test	α	Mean (μ)	Standard Deviation (σ)	Test Statistic (t)	p-value	Result
T-test	0.01	4.5	0.8	-2.67	0.010	Reject H0

Interpretation: The t-test shows a significant result with a p-value of 0.010, indicating that biophilic practices are statistically significant in the hotel environment.

Table 2.1 (b) Biophilic Practices Significance: Frequency Percentage Analysis

Category	Frequency	Percentage
Perceived Significance		
Very Significant	199	46.1%
Significant	144	33.3%
Neutral	60	13.9%
Insignificant	24	5.6%
Very Insignificant	5	1.2%

Interpretation: The frequency percentage analysis shows that 46.1% of respondents perceive biophilic practices as very significant, while 33.3% consider them significant, further supporting the hypothesis that biophilic practices are significant in hotels.

Table 2.1 (c) Biophilic Practices Significance: Multiple Regression Analysis

Variable	Coefficient	Standard Error	t-Value	p-value	Significance
Biophilic Practices	0.40	0.11	3.64	0.000	Significant
Guest Perception	0.50	0.14	3.57	0.001	Significant
Environmental Impact	0.35	0.09	3.89	0.000	Significant
Constant	2.80	0.52	5.38	0.000	Significant

Interpretation: The multiple regression analysis indicates that biophilic practices have a significant positive effect, with a coefficient of 0.40 and a p-value of 0.000, reaffirming that biophilic practices are significant in enhancing guest perceptions and environmental impact.

Hypothesis 2: Impact on Hotel Performance

- **H0:** Biophilic practices do not significantly impact hotel performance.
- **H1:** Biophilic practices significantly impact hotel performance.

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Table 2.2 (a) Impact on Hotel Performance: T-test Analysis

Test	α	Mean (μ)	Standard Deviation (σ)	Test Statistic (t)	p-value	Result
T-test	0.01	4.7	0.9	3.12	0.003	Reject H0

Interpretation: The t-test analysis yields a p-value of 0.003, significantly below the α level of 0.01, leading to the rejection of the null hypothesis. This confirms that biophilic practices significantly impact hotel performance.

Table 2.2 (b) Impact on Hotel Performance: Frequency Percentage Analysis

Category	Frequency	Percentage
Impact on Hotel Performance		
Significant Positive Impact	239	55.3%
Moderate Positive Impact	144	33.3%
No Impact	49	11.4%

Interpretation: Frequency percentage analysis shows that 55.3% of respondents perceive a significant positive impact of biophilic practices on hotel performance, with an additional 33.3% indicating a moderate positive impact, reinforcing the significance of these practices.

Table 2.2 (c) Impact on Hotel Performance: Multiple Regression Analysis

Variable	Coefficient	Standard Error	t-Value	p-value	Significance
Biophilic Practices	0.35	0.10	3.50	0.001	Significant
Hotel Performance	0.45	0.12	3.75	0.000	Significant
Guest Satisfaction	0.30	0.08	3.75	0.000	Significant
Constant	2.50	0.50	5.00	0.000	Significant

Interpretation: The multiple regression analysis validates the importantaffirmativ impact of biophilic practices on the performance of the hotel, with a coefficient of 0.35 and a p-value of 0.001, representing that these practices are significant for enriching both guest satisfaction and the performance of the hotel.

Discussion

The conclusions from the comprehensive evaluationwitnesses the major impact of biophilic practices on the satisfaction of guestas well asthe performance of the hotels in the hospitality industry in Delhi. The incorporation of natural aspects, such as natural resources, indoor plantation, and approach to outdoor green area has been shown significant enhancement of guest -experience. T-test results assure that the statistical worth of biophilic practices was acknowledged with a p-value of 0.010, denoting their significance in the hotel -environment (Agarwal et al., 2021). Moreover, the frequency percentage discovers that a major portion of respondents, 46.1%, witnesssuch practices as important, and 33.3% reflecttheir significance, which underlines their importance in the hospitality sector (Baek et al., 2021). Multiple regression examinationsvalidate these findings ahead, showing that biophilic practices affirmativelyinfluencethe view pointof the guest impact, with a coefficient of 0.40 and a p-value of 0.000, indicating strong significance (Chua et al., 2020).

Regarding the performance of the hotel, the study verified that biophilic practices significantly contribute to improving the functional success and status of hotels. The t-test analysis for this hypothesis provided a p-value of 0.003, that is well below the significance level, advocating that these practices

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have anultimate impact on the performance of the hotel (Dev, 2012). The frequency percentage reinforced this conclusion, with 55.3% of respondents recognizing a significant positive influence of biophilic practices on the performanceof the the hotel, and 33.3% acknowledging a moderate positive impact (Kaur et al., 2020). This suggests that hotels that incorporate biophilic design elements experience better financial performance and loyaltyfrom guest. Multiple regression analysis further emphasizessuch practices, with a coefficient of 0.35 and a p-value of 0.001, indicating that biophilic practices are necessary for enhancing both guest satisfaction and overall performanceof the hotel (Joshi et al., 2021).

Conclusion

The study reveals the importance of biophilic practices in improvingboth the satisfactionof guest and the performance of the hotel. By implementing sustainable and eco-friendly practices, hotels in Delhi can appeal travelers who are environment-consciousthus improve their modest advantage. The results of the hypothesis testing assured the importance of biophilic practices, with the t-test results,displaying a great effect on satisfaction of the guest and the Pearson-Correlation test, indicating a major positive effect on the performance of the hotel. These findings underscore the two – way advantage of executing biophilic design elements, suggesting that the hotels that adopt these practices are probable to advocate improved guest reviews and enhanced business. Moreover, biophilic practices contribute to better functional outlets, making them a valuable asset for hotel management. The incorporation of biophilic methods line up sustainable goals and offer a competitive authority in the market, mesmerizingthe travelers and nurturing guest loyalty. The perceptionobtained from this research offersvaluable guidance for hotel management to implement effective biophilic strategies, ultimately contributing to sustainable hospitality industry. This study underscores the capability for biophilic practices to remove the gap between the expectationsof the guest and the present state of sustainable practices in hotels in Delhi, promoting a wide sustainable and guest-friendly approach in the industry.

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