

Guidelines for Facade Treatment of Hotel Buildings using Opinion Survey: A Case of Hotels in Delhi

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Abstract—*Facades are to a certain extent the letter of introduction to the architectural work, the first thing we see. It comprises part of the walls that make up a building, providing protection from the weather and the external environment. As external elements that are visible from outside the building, facades have reflected the cultural and aesthetic changes and the evolution of the customs of their users. As found from literature, facades can be described on the basis of different parameters such as colour, form, additional elements, context etc. This paper illustrates a survey conducted with ninety respondents to understand their opinion on above-stated facade parameters of seven case study hotels in Delhi and further the parameter wise guidelines are recommended for design of hotel facades.*

1. INTRODUCTION

As per definition by Ching [1] a façade is defined as the “*the front of a building or any of its sides facing a public way or space, especially one distinguished by its architectural treatment*”. Therefore a facade is an exterior of a building that is usually admired by an observer from a public space. As a common practice, façade is considered the front side of a building onto which it faces and hence is admired. But facade must not be limited to its front face but may also extend to its sides that may or may not face towards street but are be available for visual connection from a public space. Hence façade can be considered as an element of visual significance and must have special attention towards its architectural character. As per LA Walkability Checklist of Urban Design Studio [2], the façade design of visible building facades to done to create/reinforce neighbourhood identity and a richer pedestrian environment. There are various goals of façade conceived such as to add visual interest to the environment [3], value of structure [4], street, and neighbourhood through architectural elements that add scale and character and define the quality of city image [5], provide views beyond the street wall to enhance the public’s visual environment and use building elements to enhance comfort and security of pedestrians. As suggested by Askari [6], visual elements such as shape, color and architectural style influence the overall

image of building facades. Hui [7], conducted a public evaluation to find out the role of building façade on the city image in China, revealed that the style, color, volume, material of the building structure, and perceived value about building plays an important role in urban landscape and hence in the image of the city. Hence creating a visual interest, compatibility with the context, provide views to the public street and enhance comfort & safety of the pedestrians apart from functional requirements of a building, are the goals to be achieved in a facade. Hence the façade is one of the essential building element that enhances the street image, pedestrian waking experience and hence the overall urban image of the city.

2. NEED FOR A FAÇADE

As understood from literature, the façade is needed to fulfill the following two requirements:

Aesthetic requirements: The faced shall be in conformity to the context of the building. Facade are liable to change with the time and hence are developed as per latest design guidelines and reviews. Based on visibility factor/ light permeability, the facades are divided into two major parts, viz, Opaque Facades and Transparent/ Translucent facades.

Functional requirements: Facade of the building must meet requirements of habitability, stability and durability such as protection against moisture including rain, snow and condensation, Thermal Insulation, protection against the wind, acoustic insulation, fire protection, respect for structural joints etc.

3. THE METHODOLOGY

A survey was conducted with ninety (90) respondents to understand their perspective on various facade elements of different hotel buildings. After careful study of literature, the parameters selected for the study were colour, form, context (that whether or not the facade of the building matches with its

use) and additional elements (architectural style and ornamentation used over facade).

Seven hotel buildings were selected for the survey, located in Delhi's composite climate for a biased comparison of all the buildings, located in same climatic conditions. These are: 1. The Umrao, NH- 8, Rajokri Crossing, New Delhi, 2. Fraser Suites, Mayur Vihar, New Delhi, 3. Hotel Eros, Nehru Place, New Delhi, 4. Le Meridien, Windsor Place, New Delhi, 5. Holiday Inn, Aero City Hospitality District, New Delhi, 6. Kempinski Ambience, CBD, Maharaja Surajmal Marg, New Delhi, and 7. ITC Maurya, Sardar Patel Marg, New Delhi. The options for each parameter were least likely, likely, neutral, likely and most likely

4. THE ANALYSIS

The analysis was performed for the survey conducted and the opinion of each respondent was obtained for identified parameters for each selected building. The opinion obtained, of each respondent, was then enlisted to obtain the percentage as shown in Figure 1 to Figure 7.

The Umrao, New Delhi

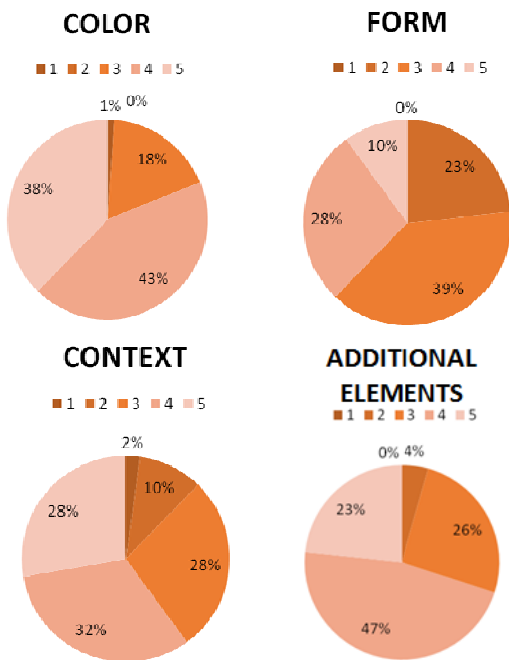


Figure 1: Percentage of respondents and their rating for the parameters, The Umrao, New Delhi

Fraser Suites, New Delhi

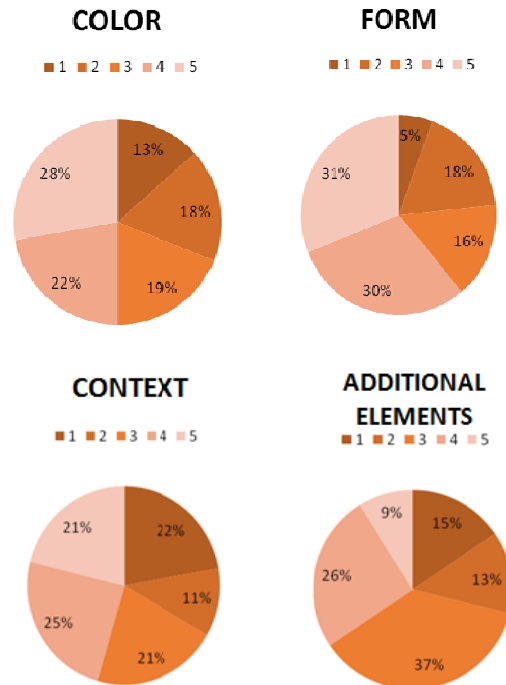


Figure 2: Percentage of respondents and their rating for the parameters, Fraser Suites, New Delhi

Hotel Eros, New Delhi

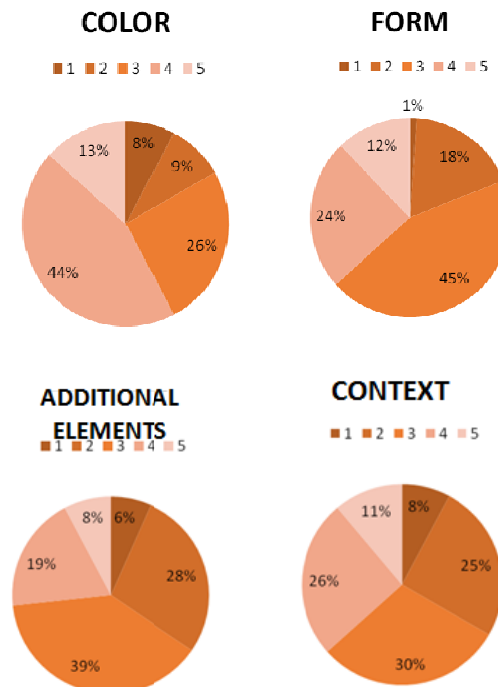


Figure 3: Percentage of respondents and their rating for the parameters, Hotel Eros, New Delhi

Le Meridien, New Delhi

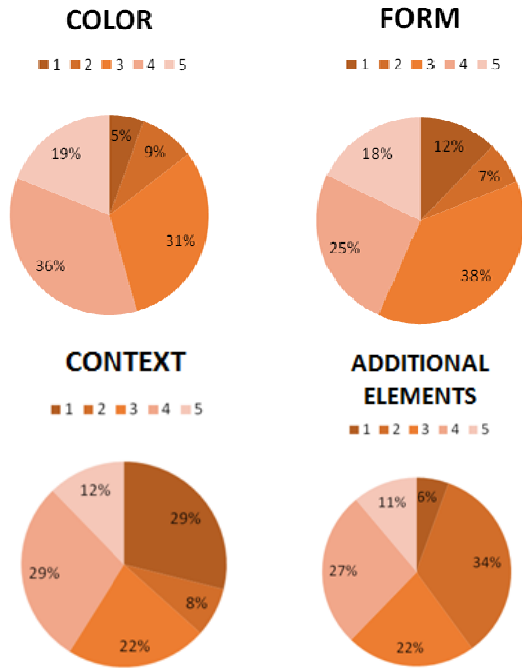


Figure 4: Percentage of respondents and their rating for the parameters, Le Meridien, New Delhi

Kempinski Ambience, New Delhi

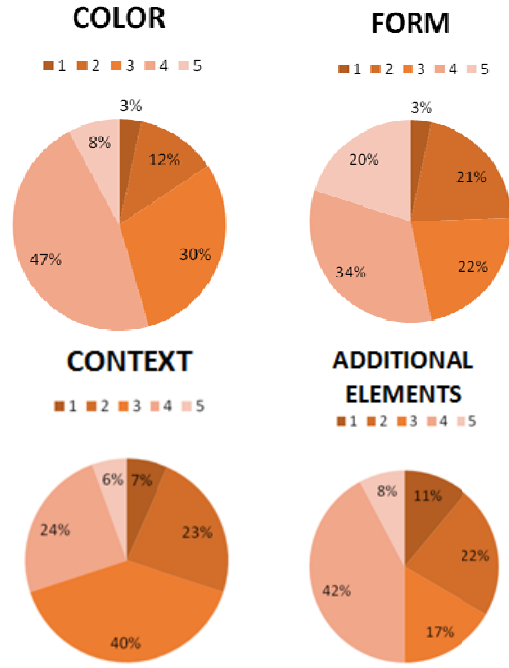


Figure 6: Percentage of respondents and their rating for the parameters, Kempinski Ambience, New Delhi

Holiday Inn, New Delhi

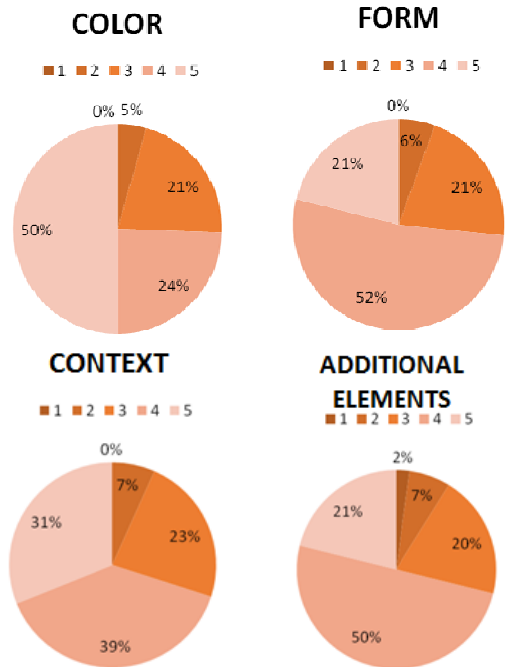


Figure 5: Percentage of respondents and their rating for the parameters, Holiday Inn, New Delhi

ITC Maurya, New Delhi

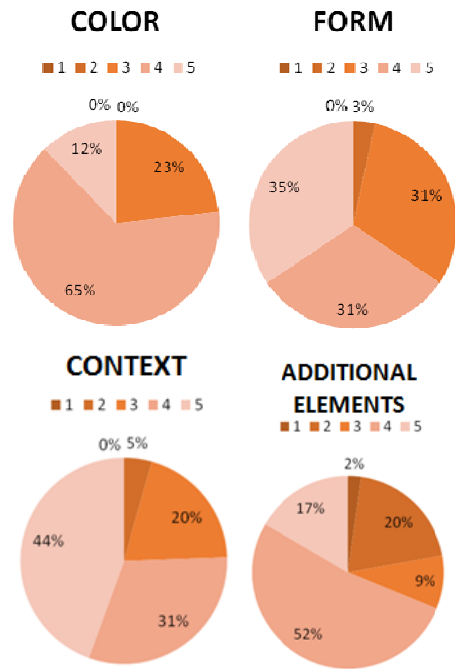


Figure 7: Percentage of respondents and their rating for the parameters, ITC Maurya, New Delhi

Further, the total opinion for each parameter of each building were listed and quantified using the weights to each opinion as per scale below:

1 – Least likely 2 – Unlikely 3 – neutral

4 – Likely 5 – Most likely.

The average weight for each parameter of each building were calculated and compared as shown in Figure 8 to Figure 11 for colour, form, context and additional elements respectively.

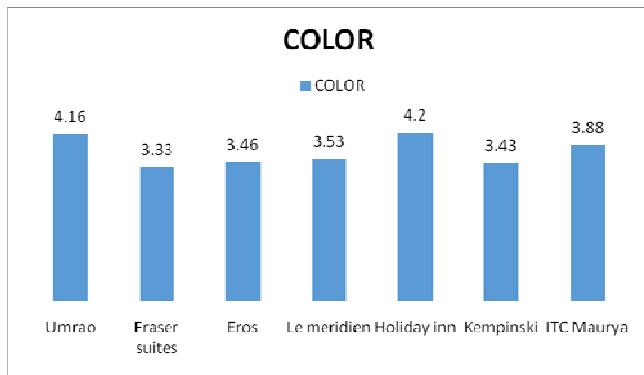


Figure 8: Comparison of averages of colour

Explanation: It is seen from Figure 8 that by comparing the average for colour for each building, it is found that in descending order averages came out to be highest 4.2 for Holiday Inn, 4.16 for The Umrao, 3.88 for ITC Maurya, 3.53 for Le Meridien, 3.46 for Eros, 3.43 for Kempinski, lowest 3.33 for Fraser Suites.

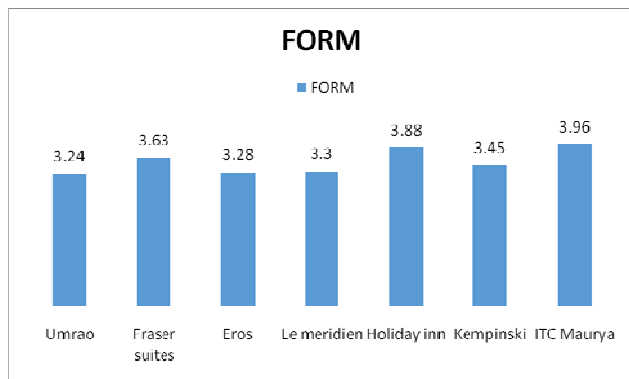


Figure 9: Comparison of averages of form

Explanation: It is seen from Figure 9 that by comparing the average for form for each building, it is found that in descending order averages came out to be highest 3.96 for ITC Maurya, 3.88 for Holiday Inn, 3.63 for Fraser Suites, 3.45 for Kempinski Ambience, 3.3 for Le Meridien, 3.28 for Hotel Eros, lowest 3.24 for The Umrao.

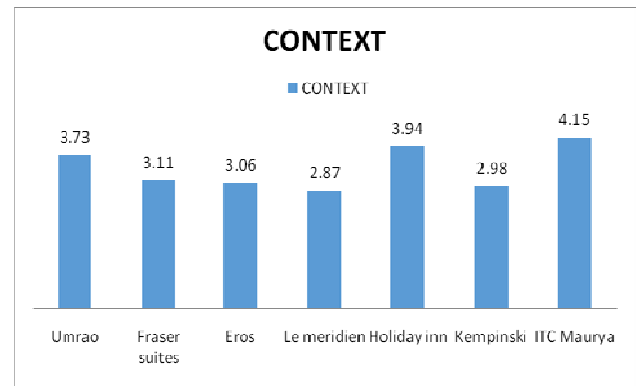


Figure 10: Comparison of averages of context

Explanation: It is seen from Figure 10 that by comparing the average for context for each building, it is found that in descending order averages came out to be highest 4.15 for ITC Maurya, 3.94 for Holiday Inn, 3.73 for The Umrao, 3.11 for Fraser Suites, 3.06 for Hotel Eros, 2.98 for Kempinski Ambience, lowest 2.87 for Le Meridien.

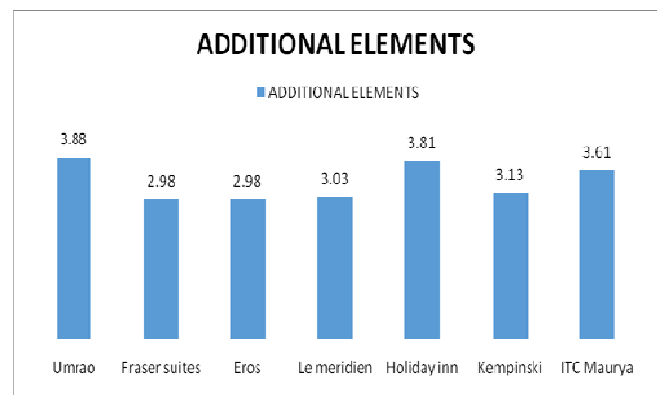


Figure 11 Comparison of averages of additional elements

Explanation: It is seen from Figure 11 that by comparing the average for additional elements for each building, it is found that in descending order averages came out to be highest 3.88 for The Umrao, 3.81 for Holiday Inn, 3.61 for ITC Maurya, 3.13 for Kempinski Ambience, 3.03 for Le Meridien and lowest 2.98 for both Fraser Suites and Hotel Eros.

5. CONCLUSION

In this paper the It is found that the typical elements which a hotel facade should have are:

1. FORM- Play of levels is preferable, rather than blocky shapes, buildings designed in depth (fan shaped) enhances the visibility of whole facade.
2. COLOUR- Use of light colours (e.g. light brown shades, beige, cream) is preferred

3. **ADDITIONAL ELEMENTS-** Too much of ornamentation and unnecessary facade treatment is not preferable, use of greens. Building foreground – enhances the view of whole facade.
4. **MATERIAL-**According to climatic conditions (e.g. Glass façade in Delhi is not preferable as it contributes to the overall heat gain). R.C.C., stone, veneer cladding (metal, terracotta, ACP panels, cement) etc. can be used.
5. **CONTEXT -** Greens and open spaces in foreground of the building gives it grandeur, minimal ornamentation, play of levels in elevation, building designed in depth (fan shaped, inviting structure) which also enhances the visibility of building.

6. ACKNOWLEDGEMENTS

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