



Reviewing The Underutilization Of Colour Psychology In Hotel Interior Design

¹Sreejith P Ajith, ²Ar. Jasmeen Kaur

¹Student, ²Assistant Professor/Architect

¹Interior And Furniture Design, School of Design II, Lovely School of Architecture and Design, Lovely Professional University, Phagwara, Punjab, India

Abstract : The use of colour as a principal element in interior design is well known. Colour can form the first impression of an interior space upon entering and influence emotions throughout one's stay. The field of hotel interior design presents an interesting opportunity for such an application of colours. By understanding how different colours can influence human behaviour and emotions, designers can create spaces that are aesthetically pleasing and functional and effective in achieving their intended purpose. The existing literature explains how individuals' behaviour could be influenced by various colours, but there is limited emphasis on the effect of colour psychology, which is an auspicious field of study within the exploration of the application of colours in interior design. This study aims to analyse (number) selected research papers to broaden the knowledge base about the strategic application of colour psychology principles concerning hospitality settings. Secondly, the study aims to analyse and discuss how the findings could be used to improve the humanisation levels within the hotel. Analysis of the literature has shown that people from different backgrounds, ages, and education levels react differently to different colours. Attractive and comfortable colour schemes can impact the duration of stay in a particular space. People tend to stay longer in visually pleasing and emotionally satisfying environments.

IndexTerms - Colour psychology, Hotel interiors, Guest experiences.

I. INTRODUCTION

Colour has been an integral part of both interior and architectural design. The application of colours to design hotel interiors that look great and evoke emotional responses is an area that continues to evolve and develop. The effective applications of colour psychology in hospitality settings have been analysed through a carefully selected collection of literature, drawing insightful conclusions that connect both the theoretical and practical aspects. Studying and utilizing colour psychology and its principles is crucial for achieving an interior space that is not only functional but also appeals aesthetically to users, and so far, there are not enough studies that showcase the same phenomenon. The hospitality industry has experienced significant growth and development in recent years to meet the demands of related industries such as tourism and business. It is essential to examine in-depth how COVID-19 has influenced consumer behaviour trends and the emotional states of hotel guests during the consumption process. This examination should incorporate ideas from emotion psychology, management science, and environmental psychology [1]. When using emerging technologies, like virtual reality, to attract travellers in destination marketing, it is crucial to address the challenge of effectively stimulating multiple senses in a multisensory context. Stimulating our other senses besides vision requires careful consideration. Hence, when designing hotel experiences, it is important to consider how different senses impact guests' emotional responses, making way for hoteliers to experiment.

As previously discussed, the colour scheme used in a hotel's interior design is a crucial tool in both its marketing efforts and in shaping the overall customer experience [3], [4]. The psychological impact of colours goes beyond just visual appeal. Colours can have a profound effect on our emotions, influencing our behaviour and feelings in different ways. For instance, warm and vibrant colours like red and orange can evoke feelings of excitement and enthusiasm, while cooler tones like blue and green can create a sense of calmness and relaxation. In addition, certain hues can also stimulate our appetite or suppress it, depending on the individual's preference. Moreover, colours can significantly affect our mood, making us feel either happy or sad, motivated, or lethargic. Finally, colours can impact our overall stress levels, with some shades having a calming effect, while others can be quite stimulating and energizing.

The literature available on this subject discusses the impact of colour application in hotel interiors on guests' emotional experiences[2]. It is essential to understand that the colour of a space plays a significant role in creating an atmosphere that affects the overall image of an interior [3]. Not just different colours but different colour combinations can evoke changes in client behaviour in a space like a hotel[4]. Also, there is always the need to analyse the works about the effects of colour psychology. Although the literature covers various aspects of the psychological impact of colours in hotels, a more focused approach is necessary to analyse the subject in detail. This review aims to fill the knowledge gap by comprehensively analysing the selected topics.

II. UNDERSTANDING COLOUR PSYCHOLOGY

Colour psychology is rooted in the principles of emotional psychology and aesthetic psychology. While the former explores the emotional responses and effects of different sensory stimuli, which include colours, the latter studies the “subjective” perception of objective things of human beings. Zhou Rong analyses the impact of different colour schemes on emotional and aesthetic psychology. The use of statistical analysis, such as regression and correlation, helps to understand the relationship between colours and emotional/aesthetic psychology. The study suggests that by incorporating emotional and aesthetic psychology into art design, people's quality of life can be improved, highlighting the practical significance of colour psychology, while designing things people interact with in general, including hospitality settings like hotel interiors [5].

The study conducted by Singh M. et al. revealed the connection between colour psychology and cognitive design and demonstrated how psychological and neuroscientific principles could be applied in the design of technology, environments, user interfaces, and products. The authors have established a proper foundation regarding colours in general and have discussed various important terminologies, especially colour theory was explained thoroughly making it a good introductory study about the topic of interest. It emphasized the importance of understanding the effects of different colour standards and the use of variety in colour application design. Designers can use the knowledge gained from this study to create visually appealing and effective interior spaces, especially in hospitality settings that consider the psychological effects of colours.[6]

Research into colour psychology has explored different aspects such as categorization, physiological responses, and associations with emotions, cognition, and behaviour. The study of colour and its impact on psychological functioning has been influenced by the concept of wavelength. Colours with longer wavelengths, such as red, are associated with warmth and arousal, while those with shorter wavelengths, such as blue, are associated with coolness and relaxation. Research has confirmed that the properties of colour, such as hue, lightness, and chroma, exert a significant influence on how people feel, think, and behave. The impact of situational and personal factors on colour perception, as well as the significance of moderation and contextual effects, has been explored by theoretical research. Understanding the link between colour and psychological functioning can have implications in various areas, according to Elliot and Maier, who demonstrated that colour can carry important meaning and have a significant impact on people's affect, cognition, behaviour etc. [7]

However, the theoretical study of colour and psychological functioning still needs improvement in several aspects, according to the authors. Establishing control over various properties of colour matched with ideal viewing conditions, as far as technology permits, is key to developing more accurate advancements in the future. The existing theoretical work in this area is either extremely specific or extremely general, and there is a need for mid-level theoretical frameworks that can explain and predict the links between colour and psychological functioning in specific contexts [8].

II. THE UTILIZATION AND PREFERENCES OF COLOURS IN HOTEL INTERIORS

Designers can create human-centred hotel interiors by understanding perception theory and creating visually appealing spaces. Hui Yu et al. identify three factors of perceptions within an interior space, namely, visual, space-time and logical perception. Studying perception and preference in hotel environments can help hoteliers and designers understand how different design elements impact guests' experiences. This fact, in turn, suggested that incorporating elements that stimulate visual perception (such as guide devices and contrasting space levels) and utilising space-time perception techniques can enhance the human experience in hotel interiors [9].

Choosing a suitable colour palette in hotel design, such as in-room décor, signage, and branding, can contribute to creating a desired ambience and conveying a specific brand identity. Research in consumer behaviour highlights the role of colour in creating a positive atmosphere, drawing consumers in, and enhancing their shopping experience, which is held in the case of retail spaces like hotel interiors as well. Blue colour is highly positive, relaxing, and trustworthy in the context of stores and websites.[7]

Hotel owners can improve their guests' emotional wellness by using the right colours in their guest rooms. This can be achieved without significant investment in additional facilities. According to a study conducted by Lee A. et al., guest rooms with cool colour themes, particularly green, are preferred for enhancing emotional wellness among hotel guests. The authors identified wellness as the most dominant dimension in emotional wellness by providing empirical evidence [10].

Designing hotel experiences that are likely to be remembered can increase the likelihood of return visits and positive word-of-mouth recommendations from guests [11]. The research conducted by Shruti Mehrotra et al. emphasises the importance of considering colour schemes in hotel interior design and focuses on the preference of colour in hotel guest rooms and its impact on guest satisfaction. The paper contributes to the understanding of how colour schemes employed within the hotel can impact emotions, cognition, and behaviour, emphasizing the significance of utilizing colours effectively in hotel environments to ensure guest comfort and satisfaction. The study revealed the significant relation between colour preference and gender and suggested incorporating blue colour and its related shades in the guest rooms to create a calm environment. Most respondents preferred neutral colours for their guest rooms [12].

Cultural factors play a significant role in influencing colour preferences. Different cultures across the world have different symbolic meanings concerning colours. Hence, Culture can also influence the emotional experience and associations individuals have with specific colours, further influencing their preferences. Potočnik J et al. mention the example of a study that found that cultural colour differences in preference curves were higher among Arabic and English females compared to Arabic and English males, indicating the impact of gender and culture on colour preference. The findings suggest that the preferred wall colours of occupants can have a substantial impact on the spatial distribution and duration of appropriate non-visual exposure in the indoor environment [13]. Similarly, the study by Crawford et al. aimed to investigate the role of educational and personal experiences in informing architects' understanding and use of colour, indicating a focus on understanding the factors influencing colour choices in architectural practice. The findings suggested cultural differences in the level of colour education depending on the country (of architectural study), indicating that the education and understanding of colour may vary across different cultural contexts. Considering cultural taboos, biases, and nationalities in colour selection can enhance the design appeal of hotel interiors.[14]

The colour-in-context theory proposed by Elliot and Maier suggests that colour associations can be influenced by social learning and the physical and psychological context in which colour is perceived [8]. The importance of obtaining information on individual colour preferences in the interior design of hotels was further analysed by Lilia R. Prado-Leon et al. They observed a preference for achromatic colours, especially white and even grey, in both the private and semi-private areas of the hotel, ahead of the most preferred chromatic colour, namely royal blue. According to the findings, people tend to have different colour preferences depending on the desired mood or atmosphere of the room. For instance, light blue is a popular choice for the living room as it creates a sense of calmness, while nearly white, green, blue, and yellow are preferred for bathrooms as they are perceived as being more hygienic and purer. The study just like the one before established a direct relationship between colour preference and gender, highlighting the importance of considering gender differences in the colour selection of hotels [15].

Xu J et al. conducted an experiment that discovered how people belonging to different demographics respond to the colour schemes within a hotel in China. The authors provided empirical evidence based on a VR device experiment followed by a questionnaire. The findings of the study offer insights into the emotional impact of different colour schemes, like Yellow, Gray and Blue on customers. These colours elicited different emotional responses, for example, hotel rooms that were decorated in yellow had a pleasurable effect, the rooms in grey colour had a calming effect and the ones in blue had a relatively neutral effect. The study recommends low grayscale colour schemes and indoor environments with complementary colours to be preferred. For budget hotels focusing on sleep, blue is suggested as the primary colour. In contrast, for high-end luxury and design hotels, grey is recommended as the main colour to create an atmosphere of sophistication and serenity [2].

Understanding the impact of various colour combinations, and not just colours, becomes important in creating memorable retail spaces like hotel interiors. The study conducted by Cho J et al. recommended the strategic application of colour combinations in hotel interiors to enhance the guests' "Perception of Luxury (PL)" and "Preference to Stay (PS)". The researchers used a "Remote Eye-Tracking Device Professional (RED)" to account for various factors. The experiment was conducted in a peaceful environment and the data was recorded at 60 Hz after undergoing calibration and validation processes. In the survey, participants were asked to choose the most luxurious setting from among six different spatial applications for each combination of high-luxury colours and low-luxury colours. The study's strength was its use of state-of-the-art technology to understand how individuals make decisions and express preferences in hotel environments. The findings can inform design choices and marketing strategies for hoteliers and designers/architects. The research also revealed that people prefer spatial applications with contrasting colours rather than those with extreme or minimal contrast. This insight can influence the preference to stay (PS). It was also dictated by other factors like brightness, along with contrast and colour combinations etc [4].

III. GUEST SATISFACTION IN HOTEL INTERIORS

Hotel design plays a significant role in creating value, conveying messages, and shaping the overall experience for guests. Factors like colour, lighting, and the availability of natural cues can enhance guest satisfaction and should be considered by hoteliers. The research carried out by Buenaño-Allauca M. et al. highlights the significance of colour in creating positive emotions and well-being in hotel environments [16]. This knowledge can be applied by hoteliers to enhance the overall guest experience and satisfaction. The use of colour influences moods and feelings and has lasting effects on the perception of the product. Alexander Kontic recommends ambient conditions within the hotel interior as well as calls for further research to explore the impact of interior design on guest pleasure, satisfaction, and loyalty, providing guidelines for improving customer experiences in hotels [17].

The work done by Alexandra Brunner-Sperdin et al. highlights the importance of considering factors related to the psychological environment, such as subjective personal reactions and feelings experienced by consumers, in assessing customer satisfaction in the tourism industry. Traditional service quality measures were found to be insufficient in evaluating the satisfaction of tourists with consumed services, as subjective personal reactions and feelings experienced by consumers play a crucial role in customer satisfaction [1].

The Research conducted by Bower I et al. suggested that thoughtful design choices, including colour selection, can enhance guest satisfaction by creating a more positive and engaging environment. This is because colour selection can impact emotional processing and neurophysiological activity. As a special case, the authors demonstrated that exposure to blue colouring in the built environments increases autonomic range and is associated with modulations of brain activity linked to emotional processing. The autonomic range was measured in terms of physiological responses like heart rate variability, skin conductance response (A measure of the skin's electrical conductance, influenced by sweat gland activity) and respiration range, which were found to increase after the exposure to the blue colouring of the space [18].

Distinctiveness is a crucial factor in creating a unique atmosphere in hotels, which is essential for attracting and satisfying guests. Guests tend to be satisfied in hotels with conventional designs and simple amenities if they are treated in a hospitable and welcoming manner [19]. This opens opportunities for the meticulous application of the colour psychology principles by painting the surfaces with vibrant and contrasting hues in hospitality interiors, shining light upon the fact that the complexity of the design process can be reduced.

IV. CASE STUDIES: SUCCESSFUL EXAMPLES

Hotel interior colour design should consider the emotional impact on customers' experiences. In the VR experimental study of hotels in China, it was revealed that Hotel interior designers can use colour psychology principles to create specific emotional experiences for hotel guests, colours like Yellow, Gray, and Blue can be used strategically based on the desired effect. Yellow can be used to create a pleasurable atmosphere, Gray for a calming ambience, and blue for a neutral environment. The researchers recommend prioritizing the use of low grayscale colours and synergistic colour combinations in the design of hotel interiors, which will help the hoteliers create a stable emotional experience for guests [2].

Issa Elsonan et al. contributed to the understanding of the relationship between colour and relaxation in the context of business hotels, providing valuable information for the hospitality industry in Semarang. The authors' focus in this study revolved around both warm and cool colours for relaxation, and they found out that both types of colours could contribute towards creating a relaxing atmosphere in hotels. The study also highlights the factors that affect the selection of colours in hotels, including the purpose of the stay, holiday experiences, and the desire for relaxation [20].

A case study based on the application of colour design in hotel interiors in Seoul, South Korea revealed the importance of colour in attracting users' attention and creating a better user experience in hotel environments. It emphasizes the importance of colour matching and diversity in hotel spaces, suggesting that managers should focus on improving the colour environment to create a more engaging and visually appealing experience. The study suggested that modern hotel spaces tend to have harmonious and unified colour schemes but lack diversity and interest, indicating a need for improvement in this aspect.

When the usual trend is to go about the colour picking without having any amount of risk and it usually involves the selection of stale and basic tones with perhaps one or two flashes of colour some hoteliers across the globe have experimented with colour palettes that would help their hotels stand out ahead of their competition. It is done based on the idea that the application of strong hues over large surfaces would be a catalyst in engaging the clients emotionally with their immediate physical environment. Let us consider the following examples:

- a) Byblos Art Hotel Villa Amista, Veneto, Italy: Using colour balance through a mix of colours.

The Byblos Art Hotel Villa Amista is an excellent example of using bold colours and prints in a room. The walls are painted in a calm blue shade that creates a serene atmosphere, while the vibrant hues and daring combinations of orange, yellow, and red on the duvet design, chairs, and mirror evoke emotions of happiness, vitality, passion, and love. Together, these colours create a balance and a colourful setting that is both daring and relaxing[21].

- b) Grecotel Pallas Athena, Greece: Using white colour as a base to add character to the lobby.

Grecotel Pallas Athena uses a timeless white base for its decoration, which allows playful tones to add character. Pink and green ceiling lights of the same design complement each other, while wooden furniture textures bring balance and gold pieces add charm. The hotel's white base creates a neutral atmosphere, providing a blank canvas for vibrant colours to stand out and add character. The vivid print on the floor complements the pink and green ceiling lights, resulting in a harmonious colour scheme. The hotel's unique use of colour creates a memorable guest experience that is both playful and sophisticated[21].

- c) Excelsior Hotel, Greece: Using dark tones to make the vibrant hues stand out even more.

At the Excelsior Hotel, the use of dark tones creates balance and increases the brilliance of the colours in the space. The flooring is flat black, and the walls are similarly painted black. Most of the colour selections are in dark shades and hues, with very few tables and chairs which is painted in a bright shade of yellow. Some of the other decorations, such as the bar lamps and the hive-like patterns, are in brilliant blue. Although there aren't many bright colours, they stand out against the darker background [21].

- d) Semiramis Hotel, Greece: Creating visual stimuli through a colourful exterior.

Hotel Semiramis offers an excellent example of how a unique hotel design can extend beyond the interior spaces. The hotel's exterior is designed with a colourful palette that is consistent with the colours used throughout the hotel. The pool features a bottom in bright green, which is complemented by other calming colours. The playful and unique atmosphere around the pool is enhanced by pink umbrellas, while the yellow-finished floor adds a lighter touch to balance all the elements. Additionally, the wooden flooring around the pool provides an earthy feel to the space [21].

V. IDENTIFICATION OF GAPS IN EXISTING RESEARCH

In the exploration of the application of colour psychology principles in the design of hotel interiors, it was revealed that even though the existing research talks about the psychological effects of colour perception in humans [7], there remains a sizeable gap between the theoretical understanding and the actual implementation of said principles in real life, within the hospitality industry. Hotels could enhance colour design by utilizing elements such as component modelling, decoration, material, and colour to stimulate visual perception and encourage the exploration of space. Analysing the works of Hui Yu et al., proved that there exists a gap in the utilization of colour psychology principles in hotel interiors, particularly in understanding how colour impacts human perception and experiences [9].

Hotels can enhance their interior spaces by incorporating principles from emotional and aesthetic psychology related to colour design. The extent to which different colour schemes and combinations specifically impact emotional and aesthetic responses in a hotel setting requires further understanding [5]. This was again observed in the works of Issa Elsonan et al., which shed light on the lack of exploration of a wider range of colour options beyond warm and cool colours in hotel interiors. The research also revealed that there is still a limited emphasis on how the principles of colour psychology can be used to enhance the feeling of relaxation inside hotels [20].

Often the colour design of hotels neglects the effect of functional factors such as the effect of lighting and materials, and this needs to be addressed through further research as well. The authors mention the importance of integrating colour psychology research into hotel interior design can lead to more evidence-based and impactful colour choices [14].

Implementing a well-balanced colour palette based on colour psychology principles could positively impact guests' emotions and overall comfort. This could be achieved by studying the effects of the various components of colours, like hue, purity, and lightness in detail. It is important to acknowledge the gaps and weaknesses that exist in the application of colour psychology for overall customer wellness in hotel interiors and from the analysis of the literature it can be derived that the nature of these environments can be and should be enhanced using a diverse colour palette along with optimized factors like the lighting of the space [6].

VI. DISCUSSION

Incorporating elements of colour psychology can help create a cohesive and inviting atmosphere that aligns with the hotel's branding and target clientele. It provides opportunities for hoteliers to experiment with various colour schemes, evoking specific moods of the hotel guests. However, the selection of a colour scheme depends on factors like cultural variations in colour preferences, and differences based on the gender of the occupant and the age group to which they belong. Incorporating a wider range of colours, beyond warm and cool colours would be a starting point. While the above-mentioned factors are strictly external, studying the effects of more closely associated properties of colour like hue, purity and lightness are important because they directly affect the overall guest satisfaction. More independent research is needed on the psychological effects of single colours in interior spaces, especially in the hospitality sector, where emotions like relaxation, peace and wellbeing are the priority. Existing research on the effects of the colour blue can be a reference point, for these studies, which would address the influence of different colours on guest behaviour (such as their intention to stay or willingness to pay more for a room of a certain colour).

Hotels can make use of the “QCharm” theory, which defines harmonic colour palettes based on a colour label (allowing for the association of specific emotions with colours in hotel rooms) during their colour selection. It allows for the automated generation of different decorations in the same room, enhancing the selection process based on the desired mood. While the client's exposure to the colours in the various spaces in the hotel, is important, the hoteliers must be mindful of the fact that prolonged exposure to certain colours may lead to stress. So, it is important to achieve balance in such an application of colours. The lighting is another key ingredient of a visually pleasing interior space. Implementing dynamic lighting options, for an example, using LED lamps to manipulate interior colours and create different moods, as light tone and temperature can influence the guest's emotions.

A systematic approach to colour selection is needed in hotel interior design, considering the psychological effects of different colours on emotion, cognition, and behaviour. This process can be aided by the use of a “spectrophotometer”, which assesses the colours at a spectral level, taking into account different lighting environments and viewing angles, leading to accurate colour measurements and adjustments. The designers must acknowledge the influence of gender and age on colour preferences. Studies have shown significant differences in colour preferences based on gender and age groups, which can guide the selection of colours in hotel design. Also, the continuous evaluation and adaptation of colour schemes in hotel interiors are essential to ensure alignment with guest preferences and evolving design trends. Hotels should consider incorporating cultural context and preferences into their colour schemes to create a more welcoming and comfortable environment for guests. Emphasize the importance of considering the physical and cultural context in colour decision-making. Understanding the cultural significance of colours can enhance the design's appeal to a diverse clientele. The collaboration among various professionals, namely Architects/designers should collaborate with other professionals to mediate various influences on colour use in design. This collaborative approach can lead to more comprehensive and culturally sensitive colour choices.

VII. REFERENCES

- [1] A. Brunner-Sperdin and M. Peters, ‘What influences guests’ emotions? The case of high-quality hotels’, in *International Journal of Tourism Research*, 2009, pp. 171–183. doi: 10.1002/jtr.718.
- [2] J. Xu *et al.*, ‘A VR Experimental Study on the Influence of Chinese Hotel Interior Color Design on Customers’ Emotional Experience’, *Buildings*, vol. 12, no. 7, Jul. 2022, doi: 10.3390/buildings12070984.
- [3] Z. Hang, Z. Xueying, and N. Kyeongsook, ‘Color Design Research Analysis of Hotel Public Space For User Interaction Experience’, in *Proceedings of the World Congress on Electrical Engineering and Computer Systems and Science*, Avestia Publishing, 2022. doi: 10.11159/mhci22.107.
- [4] J. Y. Cho and J. Suh, ‘Spatial Color Efficacy in Perceived Luxury and Preference to Stay: An Eye-Tracking Study of Retail Interior Environment’, *Front Psychol*, vol. 11, Mar. 2020, doi: 10.3389/fpsyg.2020.00296.
- [5] Z. Rong, ‘Research On the Application of Emotional Psychology And Aesthetic Psychology In The Color Of Art Design’, *Rev Psiquiatr Clín*, vol. 49, no. 5, pp. 140–147, 2022, doi: 10.15761/0101-60830000000483.
- [6] M. Singh, R. M. Singari, and M. Bholey, ‘A review study of cognitive design research on colors from a visual psychological perspective’, *International Journal of Experimental Research and Review*, vol. 30, pp. 75–86, 2023, doi: 10.52756/ijerr.2023.v30.009.
- [7] A. J. Elliot and M. A. Maier, ‘Color psychology: Effects of perceiving color on psychological functioning in humans’, *Annual Review of Psychology*, vol. 65. Annual Reviews Inc., pp. 95–120, 2014. doi: 10.1146/annurev-psych-010213-115035.

- [8] A. J. Elliot, 'Color and psychological functioning: A review of theoretical and empirical work', *Frontiers in Psychology*, vol. 6, no. APR. Frontiers Media S.A., 2015. doi: 10.3389/fpsyg.2015.00368.
- [9] H. Yu, G. Bai, and L. Wu, 'Application of Perception Theory in Hotel Interior Design', *Open Journal of Applied Sciences*, vol. 08, no. 07, pp. 285–295, 2018, doi: 10.4236/ojapps.2018.87021.
- [10] A. H. Lee, B. Denizci Guillet, and R. Law, 'Tourists' emotional wellness and hotel room colour', *Current Issues in Tourism*, vol. 21, no. 8. Routledge, pp. 856–862, May 24, 2018. doi: 10.1080/13683500.2016.1217830.
- [11] C. Spence, 'Sensehacking the guest's multisensory hotel experience', *Frontiers in Psychology*, vol. 13. Frontiers Media S.A., Dec. 19, 2022. doi: 10.3389/fpsyg.2022.1014818.
- [12] S. Mehrotra and S. Misra, 'A STUDY ON THE PREFERENCE OF COLOUR OF THE HOTEL GUEST AND EMOTIONAL EFFECT OF PRIMARY COLOURS'.
- [13] J. Potočnik, M. Košir, and M. Dovjak, 'Colour preference in relation to personal determinants and implications for indoor circadian luminous environment', *Indoor and Built Environment*, vol. 31, no. 1, pp. 121–138, Jan. 2022, doi: 10.1177/1420326X20977609.
- [14] S. J. Bosch and S. B. Ki Jain Malkin Inc, 'The Application of Color in Healthcare Settings', 2012. [Online]. Available: www.InnovativeDesignScience.com.
- [15] L. R. Prado-León, P. Liliana Zambrano-Prado, S. Herrada-Rodríguez, and S. Felizardo-Gómez, 'Color Preferences for Private and Semi-private Areas in Hotels', *Universal Journal of Psychology*, vol. 6, no. 4, pp. 113–120, Sep. 2018, doi: 10.13189/ujp.2018.060401.
- [16] M. Buenaño-Allauca, L. Museros, I. Sanz, Z. Falomir, and L. Gonzalez-Abril, 'Relation between the colour of a hotel room and its emotional effect'.
- [17] A. Kotic, 'THE ROLE OF PERCEPTIONS OF HOTEL INTERIOR DESIGN IN FORMING CUSTOMER SATISFACTION'.
- [18] I. S. Bower *et al.*, 'Built environment color modulates autonomic and EEG indices of emotional response', *Psychophysiology*, vol. 59, no. 12, Dec. 2022, doi: 10.1111/psyp.14121.
- [19] M. Heide and K. Grønhaug, 'Key factors in guests' perception of hotel atmosphere', *Cornell Hospitality Quarterly*, vol. 50, no. 1, pp. 29–43, 2009, doi: 10.1177/1938965508328420.
- [20] A. Issa Elsosan, E. E. Pandelaki, and W. Murtini, 'ROLE OF COLOR TO SUPPORT THE ACHIEVEMENT OF RELAXATION IN BUSSINES HOTEL (CASE STUDIES OF BUSINESS HOTEL IN SEMARANG)', vol. 36, no. 2, pp. 85–90, 2015, [Online]. Available: <http://ejournal.undip.ac.id/index.php/teknik>
- [21] '8 Colorful Hotel Design Examples that make a difference + clever design tips! - Hotelier Academy'. Accessed: Apr. 04, 2024. [Online]. Available: <https://www.hotelieracademy.org/colourful-hotel-design/>