

## IMPLEMENTATION OF A LIGHTING CONCEPT IN BUSINESS HOTEL LOBBY AND LOUNGE AREA

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### ABSTRACT

*National economic recovery after COVID-19 crisis, DKI Jakarta has a chance to recover the economy in the hospitality and tourism sector since DKI Jakarta is the capital city of Indonesia, is a center of government and international business to create an opportunity to attract tourists to visit DKI Jakarta since tourism's sector, of course, can not be separated from the importance of accommodation provision along with adequate facilities through an innovative strategy of tourism accommodation. Planning of the supporting accommodation facilities will surely attract tourists to visit the site. Especially in the middle of Jakarta, which is known for its high activities, making lots of businesspeople do a business trip. The Akmani Hotel is a business hotel. Since they have located in the middle of Jakarta a busy city, the location around The Akmani Hotel is also occupied by other hotels as a competitor. Therefore, The Akmani Hotel is for sure should be able to show something as excellence, advantage, and differentiator from other hotels. This can be supported by good service, and complete and supporting facilities such as lighting which is an important part of an interior to support an activity in a room and create an appropriate and comfortable room atmosphere for users.*

**Keywords:** Business hotel, interior design, lighting.

### 1. INTRODUCTION

Jakarta is the largest metropolitan area in Southeast Asia and sits in second place in the world, known as a business center, politic, and culture. The Governor of DKI Jakarta, Anies Baswedan said that DKI Jakarta city is also a province that has an appreciable contribution to Indonesia's economic matters and become an important factor during the recovery of the COVID-19 critical phase. The government also encourages the tourism sector to recover through the support of National Economic Recovery for tourism and creative economy in the hospitality and tourism sector.

Therefore, aside from the support from the government to recover the hospitality sector, it is necessary to have attention to the display and facilities in a hotel to draw the visitors' attention. Especially, in the middle of Jakarta, which is known for its high activities, lots of businesspeople come to Jakarta to do business trips, and because of this COVID-19 pandemic, there is a new trend called "Work from Hotel" where the hotels used by businesspeople as a place to work with a new atmosphere other than the office. Many factors are significant in the customer service satisfaction in the global economy today (Crawford, 2013).

Therefore, it is needed to have an accommodation facility to support the business needs such as a working room/meeting room as well as a temporary place to rest for businesspeople. In this case, the lighting in a room is also an important factor to support the activity and productivity of visitors and to create an appropriate and comfortable room atmosphere. (Countryman & Jang, 2006). The top 10 hotel facilities (Soenarno, 2006) that could be enjoyed by customers were: (1) lobby, (2)

exclusive way to shopping center, (3) pick up facility in the airport, (4) outlets or stores around the hotel, (5) babysitting facility, (6) balcony, (7) meeting room, (8) business center, (9) cake shop, (10) coffee shop. The lobby is one of the most important areas in hotels because of its impact on creating a memorable impression for guests as they enter the hotel, which requires both the architect and the interior designer to be aware of how to employ the interior elements in creating a unique brand character and at the same time responding to guests needs and interest (Davarpnash, 2017).

The Akmani Hotel a business hotel located in Central Jakarta, a center of the city, a center of business and shopping needs a redesign to the lighting to support the visitors' activity and productivity as a business hotel. This is motivated by factual data in the field which is done through the field survey. The result of Google reviews and online reviews stated that the lighting in Akmani Hotel is still very lacking.

**Table 1**

*Visitors' review results towards the interior lighting in The Akmani Hotel Jakarta.*

No	Name	Rate	Review
1	Ms. R	4/10	Disappointing, the hotel's room is dirty and dark, from the outside of the hotel looks nice and cool
2	Mr. AZ	4/10	The room is so small, the furniture's model is outmoded, the room is dark, the breakfast is bland. The hotel needs to renovate not only the lobby, but also the room.
3	Mr. J	5/10	... The furniture in the room looks outdated. The lighting in the room is too dark at the night. Other options needed to create a different vibe – for sleeping or work (a brighter lighting).
4	Ms. T	8/10	... The only thing that I dislike is the indoor lighting and along the corridor is dim. In the night, it's hard to pack in the room because the room is kind of dark. The lighting in the corridor is dark, making me a little bit aware every time I walk from the lift to my room. I think this can be changed, if there's something happened in the corridor, how do you supposed to look at it through the CCTV camera if the lighting is so dim.

Bitner (1992) in (Countryman & Jang, 2006) took the concept of atmospherics a step further by developing a framework that addresses the effects of the physical environment on consumers in service settings. To distinguish this framework from that of atmospherics, Bitner (1992) used the term service scrape to describe the physical environment in which services take place. Three of the atmospheric elements (color, lighting, and style) were found to be significantly related to the overall impression of a hotel lobby (El-Sayed & Abed, 2021).

## 2. RESEARCH METHOD

To compile this research journal, data, and complete information is needed, therefore, the method being used in this research is 8 stage planning method (Kilmer & Kilmer, 2014). Commit, is getting to know the design problem and committing to finishing it, in this case, how to create a lighting concept in the lobby room & hotel's lounge that can support the activities and give comfort to the users?

The second stage, state, is focusing applying the hotel's lighting concept that can support the users' activities by using lighting standardization and applying the lighting technique. The third stage, collect, in this stage the primary data collection in form of field data/project during the observation process, a hotel survey and interview with the hotel's staff is carried out. The secondary data was also taken to strengthen the primary data in form of literature data as supporting planning theory through literature research associated with The Akmani Hotel Jakarta's lighting planning.

The fourth stage is to analyze, in this stage, the analysis process of lighting in the interior hotel is carried out after a complete data collection. The fifth stage, ideate, is where the idea needs to be produced only after acquiring a thorough understanding, involving a statement phase of the lighting concept in the hotel's interior which refers to the available theory and standardization.

The sixth stage, choosing, this stage is doing the alternative selection process to the most suitable ideas that are already gathered to proceed to the implementation stage. The seventh stage, implement, refers to the execution or taking an action on the chosen idea and serves out a physical form in form of the chosen application to the lighting concept. The eighth stage, evaluate is giving out an assessment and evaluating critically a thing that has already been achieved to determine whether the decision taken fixed the problem or not.

The research problem that will be discussed is what kind of interior lighting concept planning recommendation in Akmani Hotel to create a room atmosphere that supports visitors' activity and productivity as a business-supporting hotel. Next, it would be resulting in a planning objective in form of the hotel's interior lighting concept planning recommendation result for users that give relaxation and support. The data is gathered as information by doing observation and library research. Observation is in form of factual data in the field. This observation is carried out to find out visitors' needs and activities at The Akmani Hotel.

### **3. RESULTS AND DISCUSSIONS**

#### **Lighting Concept**

Lighting is the most important element to support people's daily activities. Therefore, the way to create the lobby's room & lounge hotel lighting concept is worth noting. Aside from that, the light source also helps to create an atmosphere and character in an interior room. Also with proper lighting planning, it can give an impression on the interior design interior. The lighting method that is being used will be influential on the quality of the resulting design and can be perceived by the room's users.

Several characteristics of light sources must be considered when designing lighting (Fleta, 2021):

1. The efficiency of the light source (luminous efficacy): the efficiency of the lamp in converting electricity into visible light. (Lumens/Watt).
2. Lamp life: the number of hours of operation required before the total light emitted by the lamp reduces to a certain level.
3. Color rendering index (CRI): the ability of a light source to reproduce the true colors of objects compared to an ideal light source or natural light.
4. Light color (correlated color temperature - CCT): the display of the color of the light source. This is often represented as warm, warm white, and cool daylight.

Some types of lighting and techniques can be applied in the interior room to give a lively atmosphere and can be perceived visually. There are two types of lighting:

### *Natural Lighting*

Natural lighting is sunlight that has advantages and disadvantages in the interior. The advantages are giving a natural impression, and the availability of light is unlimited and dynamic. Meanwhile, the disadvantages are erratic because it depends on the climate, the amount of its light cannot be regulated, and the violet light in it could damage certain materials and also could increase the temperature in the interior (Honggowidjaja, 2003)

In addition to the advantages and disadvantages of sunlight, natural lighting can still be designed properly and correctly. Sunlight can be processed in various ways to get into the interior. For example by applying openings such as ventilation, windows, or openings in the ceiling or roof. Then, utilizing certain materials such as curtains, window film, or planes that are arranged regularly for security aspects, can have a certain effect and impact on the room. Various ways to process natural lighting sources are also to fulfill the function as an important means for the continuity of indoor activities (Honggowidjaja, 2003).

### *Artificial Lighting*

Artificial lighting is lighting created by humankind (lamp) that works as a lighting source to support daily activities and adds an aesthetic value to a room. Artificial lighting has a meaning that is aimed at forming an atmosphere in the interior space, not just providing artificial light such as lamps and lighting. Therefore, artificial lighting is not only a practical problem but also an aesthetic one. Not only does it provide lighting for the continuation of activities, but lights can also create a comfortable atmosphere for users in the interior

These are some of the lighting in the interior:

- a) Ambient lighting / general lighting: The lighting has quite a large capacity since the light can brighten up the whole interior room.
- b) Task lighting: The lighting is needed to ease up/clear up specific work. Generally used for working rooms and writing with lighting that won't make the eyestrain so users can be more focused on the activities that are being carried out.
- c) Accent lighting: The lighting that intends to expose a certain area/object such as lighting up a drawing object, shelf, and more resulting in an aesthetic element rather than a functional need as a lighting tool.
- d) Decorative lighting: This lighting form has decorative elements in a spatial arrangement in the interior that also serve as lighting in a room.

The steps to get good artificial lighting design (Karlen et al., 2017) in (Nurcahyo et al., 2017):

- a) Step 1: Determination of design criteria lighting. Several criteria cover quantity and quality lighting, which ensures that you design the lighting for producing a large amount of light right.
  1. Lighting quantity
  2. Lighting quality
  3. Energy Coding (energy codes)
- b) Step 2: condition recording architecture and boundaries
- c) Step 3: visual assignment and work to be served
- d) Step 4: system selection of the lighting to be used

The Akmani Hotel lobby has large window openings, resulting in maximal natural lighting combined with artificial lighting that applies the types and techniques of the interior room's lighting. The following is a visual from the lobby & hotel's lounge that relies on both natural and artificial lighting :

**Figure 1**

*The Application of Artificial and Natural Lighting to the Lobby & Lounge of The Akmani Hotel*



This lobby & lounge area is applying natural lighting from the window openings and artificial lighting with ambient lighting that create a bright and clean room atmosphere so it can support the visitors' activities to focus and work productively, meeting or working on other business needs.

**Figure 2**

*The Application of Decorative Lighting to the Lobby & Lounge of The Akmani Hotel*



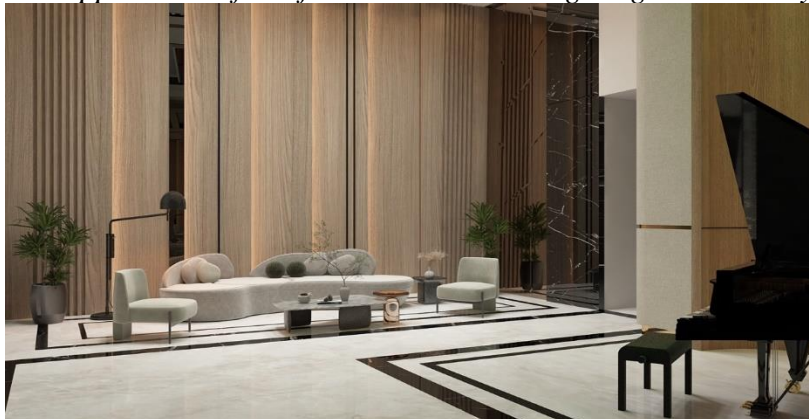
Next, other than using ambient lighting, task lighting is also applied in form of a spotlight for lighting that shines up several wall areas, accent lighting is also applied to the lobby & lounge from indirect light on the ceiling, furniture shelves, and wall panel so the room's atmosphere is more aesthetic which also supported by the application of decorative lamp from the hanging lamp.

After determining the types of lighting that are being used, the lighting techniques that are being carried out are as follows:

- a) Direct lighting: This lighting is placed on the area in which the light could directly brighten up the interior room without any help from other media, this technique is used for an interior room that needs a quality quite bright and stands out the shape of the used lamp.
- b) Indirect lighting: This lighting is an indirect technique since it is being placed in an area that is not visible to the interior user.
- c) Downlight: This is a lighting technique with the light source from above and shines up objects at its below with even properties

**Figure 3**

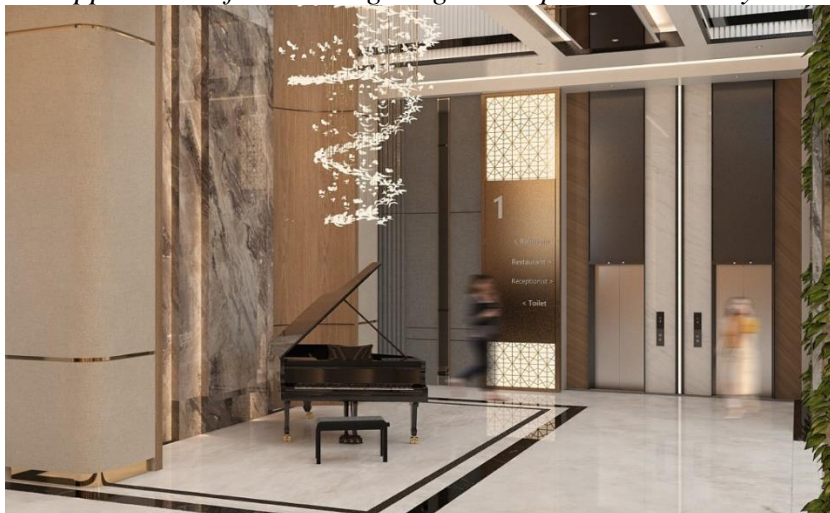
*The Application of Artificial and Natural Lighting to the Lobby & Lounge of The Akmani Hotel*



Lighting techniques that apply to this lobby & lounge are direct lighting, indirect lighting, and downlighting. The application of this direct lighting technique is direct lighting which intends to optimize general lighting, resulting in a bright intensity for supporting activities in the lobby & lounge. The correct setup placement for the direct lighting point will create a firm impression, functional and comfortable. The application of indirect lighting, it is aiming for creating an impression of a room that comes from a light reflection from behind certain objects. This technique will create a “light game” which will form a gradation or shadow effect on certain objects, this technique also aims to give a limitation to objects. Next, the light color that showed in this lobby & lounge is warm white and neutral white.

**Figure 4**

*The application of indirect lighting techniques to the Lobby & Lounge of The Akmani Hotel*



**Table 2**

*Correlation of Color Temperature on an Application of Artificial Light*

Warm White	Neutral White
2000K-3000K	3100K-4500K
Inviting, comfortable, relaxing	Bright, vibrant, clean
Also referred to as Candle White or Soft White	Also referred to as Bright White and Natural White



Warm white is a lighting color that is often used in a hotel. This lighting temperature is usually 2000K – 3000K, creating a white and yellowish lighting color which is similar to the natural color of sunlight in morning/evening. White yellowish color like morning sunlight is creating an impression to someone to spirit up the activities, optimist and increase creativity. This light color also seems like the sunlight in the evening, creating a dim impression, relaxation, and a warm atmosphere so the psychology of this atmosphere is giving out a person the feeling of tranquility, far from the hustle and relaxation.

**Figure 5**

*The Application of Warm White Color Temperature to the Lobby & Lounge of The Akmani Hotel*



**Figure 6**

*The Application of Warm White and Neutral White Color Temperatures to the Lobby & Lounge of The Akmani Hotel*



For the light color neutral white has a white lamp's color with a little yellowish tone, in between white and warm white color showing up the real color. The general lighting color with light

temperature 3100K – 4500K is very suitable if the lobby & lounge is needed for the visitors who need to concentrate for a long time since the shiny white light brightens up objects.

### **Design Concept**

The design concept at The Akmani Hotel wants to present a place atmosphere that can bring a sense of relaxation, calm, and freshness because urban human life is currently very active to improve the quality of life through interior design and lighting design that can support visitors activities comfortably and productively following the function of a business hotel, and is also expect to be able to provide an unforgettable essence for visitors following the vision and mission of The Akmani Hotel.

Visitors are motivated by everything for good feelings and comfort, and the hotel need to invest heavily in space design. Hotel operators can choose illuminance and color that affecting comfort experience of visitors (Nitidara NPA, Sarwono J, 2022). Comfort is a state in which people and environment are relatively balanced in psychology and physics. Comfort is defined as the physiological and psychological pleasure balance caused by external visual stimuli such as illuminance and color. Dițoiu and Cașuntu interviewed 500 young people and found that when they selected destinations, visual elements accounted for 98.2% of the perceptual evaluation factors (Dițoiu M-C, Cașuntu A-L, 2014). In residential environments, the visual comfort of lighting is most affected by illuminance and color temperature (Kim JT Yoon GH, 2014). Providing a user-friendly and user-controlled lighting system for hotel rooms helps to improve customer satisfaction (Akita T Yu H, 2019). Siamionava et al. found that hotel wall color would affect visitors' perception. The warm atmosphere created by lighting, color and other factors could guide visitors' behavior. Through the analysis of the key visual dimensions of the hotel lobby, it is found that the light illuminance and wall color are the factors affecting visitors comfort. There is an interaction between the senses (Lefebvre S, 2022).

And then, to support this design concept, analogous color compositions are also applied which is often found in nature because the colors are close to each other on the color wheel. The color combination is pleasing to the eye, neutral, giving a bright, cheerful, and harmonious impression, then balanced by choosing a lighting color temperature such as warm white and neutral white which can provide a calming effect and still support the productivity of business people who are the visitors to The Akmani Hotel.

## **4. CONCLUSIONS AND SUGGESTION**

According to the analysis result and data collection, this research resulted in a planning recommendation for the lighting concept in The Akmani Hotel to create a livelier atmosphere and support activity and productivity. This lighting concept will overcome the problems faced by visitors who come for business purposes and need a new working room atmosphere with a comfortable, calm, and relaxed, and supports all activities and working needs. This research has a weakness in the data collection process because the limitation of the data collection itself by only using visitors' online reviews makes the obtained data limited.

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