

Post-Pandemic Resort Hotel Principles

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Abstract. The hospitality industry is one of the sectors of the tourism industry that is impacted by the COVID-19 pandemic. Based on the Tourism Trends Book issued by the Ministry of Tourism and Creative Economy of the Republic of Indonesia, the pandemic that has occurred has changed the tourism landscape that has been built into a new business landscape which is then referred to as the "Megashift Industry". This major change occurred on three different scales, namely mega (change), macro (customers), and micro (competition). Several changes after the COVID-19 pandemic forced the hotel business to adapt to the current situation. This is what then realized the importance of applying post-pandemic hotel principles so that visiting guests can still feel the experience and feel comfortable when visiting the hotel. The method used in this research is a data collection method in the form of a literature study and data analysis method. Through this research, several principles regarding post-pandemic hotels can be obtained, both related to hotel management systems and principles related to hotel building design. So that after the pandemic, existing hotels can better adapt to the possibilities that occur in the future.

Keywords: *change; hotel industry; post-pandemic; COVID-19; adaptive.*

1 Research Background

The COVID-19 pandemic has brought a huge impact on all industrial sectors in the world since early 2020. Since this virus was detected in Indonesia in early March 2020, this has forced people to enter a new life order which is then more commonly known as the new normal. Various efforts have been made by the government to prevent and suppress the spread of the COVID-19 virus by wearing masks, washing hands, and keeping a distance to avoid crowds. Several regions have also started implementing PSBB (Large-Scale Social Restrictions) and implementing work from home policies during this pandemic. The implementation of the PSBB was also followed by restrictions on air transportation, both domestic and international. This policy was applied to most industrial sectors in Indonesia and in the end, had a significant impact on economic conditions in Indonesia.

The tourism industry is one of the most affected sectors by the pandemic. Based on the Tourism Trends Book in, since February 2020, the number of foreign tourists entering Indonesia has experienced a very drastic decline and the most significant decline occurred in April 2020 with only 158,000 tourists visiting. In 2020, the number of foreign tourists visiting Indonesia was only 4.052 million people, where this number was only 25% of the number of tourists in 2019. This also resulted in a decrease in state revenue in the tourism sector by 20.7 billion. On the other hand, the decline in tourist arrivals also directly impacts various employment opportunities in the tourism sector. This pandemic caused 12.91 million people to experience a reduction in working hours in the tourism sector and 939 thousand people to be temporarily laid off from the tourism sector. On the other hand, guest criteria in choosing hotels to visit have also changed. This in the end gave a big change to the tourism industry. This change became known as the mega shift industry.

The Megashift industry that occurred was formed from several problems that arose in the field. The first problem is the regulatory factor, wherein the implementation of travel restrictions on both national and international scales which in turn forms “domestic micro tourism” as the main target of hotel visits. Awareness of the importance of health factors also requires the hotel industry to make several adjustments. According to the Gensler Hospitality Pulse Survey there have been several requests from tourists regarding the adjustment/rearrangement of bedrooms and public spaces that are in accordance with the recommended health protocols, both in terms of room layout, air circulation, and the capacity provided. The financial factor is also a problem that must be resolved by the hotel industry, especially when a crisis is happening. The drastic decline in guest visits requires the hotel to provide inclusive public facilities in the hotel area so it can be a side income when the hotel occupancy rate is low. Operational factors are the last problem, especially for hotel management to be able to manage their properties as efficiently as possible when tourist visits are low. According to Anindi in [1] the building is required to be partially operated or easy to maintain so it does not require high costs when hotel income decreases. The selection of building materials and the determination of the building mass pattern are important in solving this problem.

Indeed, the decline of the hotel industry in Bali as it is happening now is not the first time. The Bali bombings I and II in 2002 and the eruption of Agung Mount in 2017 had almost the same impact after the current pandemic. The decline in the hospitality industry indirectly gives a signal of the importance for hotels to have a sustainable and resilient concept, where later hotel operations can still run independently with all the strategies and designs that have been prepared and can return to being a hotel in general after the crisis is over. The COVID-19 pandemic that has occurred also requires architects to be more careful in selecting building

materials and determining zone and building mass patterns so the hotel buildings can operate efficiently and with low maintenance. Architects and the hotel management can also process the facilities program provided more creatively so the hotel operational costs do not only rely on profits from staying guests but from the availability of several inclusive public facilities. Hotels designed are also required to accommodate the visitor's needs for safe accommodation facilities and are in accordance with several health protocols as well as adaptation of new normal habits that have been regulated by various related institutions. So, this facility can provide confidence for tourists to visit and can slowly restore the Indonesian tourism sector which has been quite slumped due to the COVID-19 pandemic.

1.1 Definition of Hotel

A hotel is one of the various types of tourism accommodation that can be used for tourists as a means of recreation. The following are several definitions of hotels according to several sources, including:

- a. A hotel is a building that was established commercially as a place to stay, eat and enjoy entertainment. Star hotels depend on the facilities they provide to satisfy the visitors. (Suwena, I Ketut & Widyatmaja, I Gusti Ngurah, *Pengetahuan Dasar Ilmu Pariwisata*, Pustaka Larasan, 2017) in [2].
- b. Hotels are included in the business of providing accommodation. While the business of providing accommodation is a business that provides lodging services that can be complemented by other tourism services. (Peraturan Menteri Pariwisata dan Ekonomi Kreatif Republik Indonesia Nomor PM.53/HM.001/MPEK/2013 tentang standar usaha hotel) in [3].

1.2 Impact of Covid-19 on the Tourism Industry

The Ministry of Tourism and Creative Economy of the Republic of Indonesia issued the 2021 Tourism Trends book which contains some changes that have occurred in the tourism industry from the largest to the smallest scale due to the COVID-19 pandemic. The COVID-19 pandemic was able to change a solidly built business landscape into a completely new business landscape, this was later referred to as the "mega shift industry". These changes are divided into three different scales, including mega (changes) macro (customers), and micro (competition). Mega (changes) are major changes in the fields of technology, politics, regulation, social, economic, and environmental. Macro (customer) is a change based on consumer behavior, while micro (competition) is a change that produces a new competition map in the pandemic era.

The existence of the COVID-19 pandemic has also created a new tourism economy which is characterized by four characteristics including:

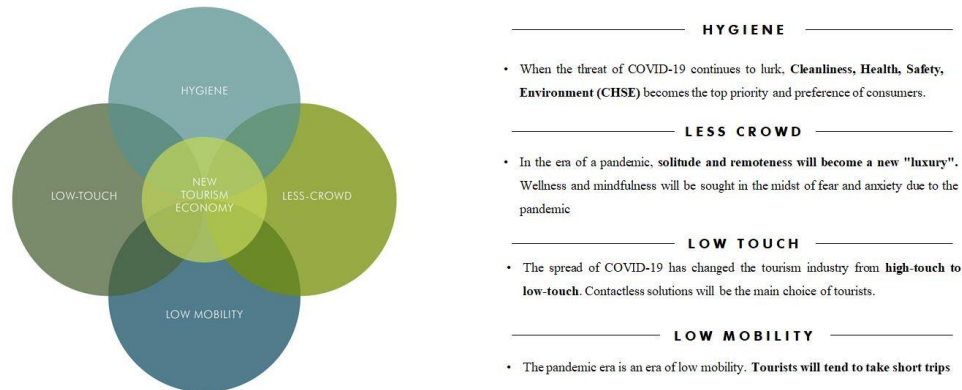


Figure 1 Four characteristic of the new tourism economy

In the era of the COVID-19 pandemic, the concept of A3: Attraction, Amenity, Access changed drastically as a consequence of the formation of a new tourism economy.

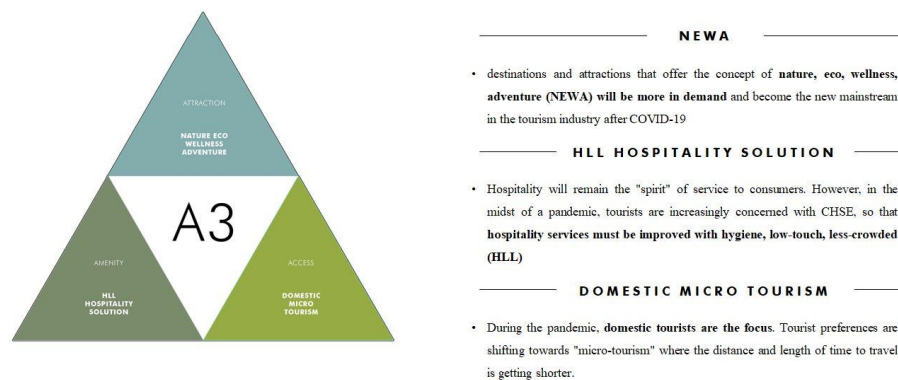


Figure 2 A3 concept after the new tourism economy

1.3 Effect of Covid-19 on the Hospitality Industry

Based on the occurrence of the Megashift Industry in the tourism world in general, this also has an impact on some changes that must be followed by the hospitality industry in Indonesia. Many aspects are problematic and must be considered by the hotel management to adapt themselves to the current pandemic, these aspects include:

a. Regulation

One of the rules implemented by the Government of Indonesia to reduce the spread of COVID-19 is the regulation regarding transportation restrictions, both nationally and internationally. This certainly has a big impact, especially in tourist areas such as Bali, Lombok, NTT, and other tourist areas due to the decline in the number of local and foreign tourists visiting the area. Therefore, "domestic micro tourism" has become the main market targeted by a number of the hospitality industry during this pandemic.

b. Health

Health factors are the biggest concern for tourists when deciding on their vacation activities. Based on the Gensler Architect in [4], there are some tourist requests regarding the adjustment of bedrooms and public spaces in hotels, both from the capacity provided, the air circulation in it, and many other important factors. Based on data from the Ministry of Tourism and Creative Economy of the Republic of Indonesia, health factors have also led to the formation of NEWA (Nature Eco Wellness Adventure) Tourism which can be taken into consideration by hotels regarding the facilities/activities that can be offered after the COVID-19 pandemic.

c. Financial

The financial aspect is the main problem for hotels during the pandemic. Hotels that rely too much on income from staying guests as their only source of income become paralyzed when hotel occupancy rates drop dramatically. In times like this, hotels should have public facilities that are inclusive and creative so that they can be a source of side income. On the other hand, according to Khan in [5], hotels should have a sustainable concept in their operations so that they can survive the pandemic.

d. Operational

Through a pandemic that has occurred for 1.5 years, hotels are required to have an efficient building operational system. The low tourist visits have an impact on reducing the number of employees. In this quiet condition, the hotel building should be able to function partially and with minimal maintenance so that operational costs can be reduced. Based on the Archinesia webinar entitled Building Materials, Design and Pandemic in [6], materials that are easy to clean, easy to move, anti-microbial and the concept of touch-less technology are several aspects that must be considered during a pandemic to reduce the operational costs of a hotel.

1.4 Spread of the Covid-19 Virus

According to Fezi in [7], the COVID-19 virus can spread at three different scales, including:

A. The scale of objects (lowest level)

At this level, the spread occurs from the surface of an object to a person (surface-to-person), where when a person touches a contaminated object surface and then touches a part of the face such as the mouth, nose, or eyes. On this scale, a person can take care of himself by maintaining personal hygiene.

B. Architectural scale (mid-level)

The spread of the virus does not only occur from person to person, but also through air transmission (aerosol transmission). Viruses can survive in the air for hours. Protection can be done in more complex ways, such as wearing a mask or face shield.

C. Urban scale (highest level)

On an urban scale, people can protect themselves by limiting their distance. According to an anthropologist Edward T. Hall, there are 4 zones in terms of spacing, including:

1. *Intimate distance* : close range (less than 6"/15 cm)
long range (6-18"/15-45 cm)
2. *Personal distance*: close range (1,5-2,5 ft / 45-75 cm)
long range (2,5-4 ft / 0.75-1.2 m)
3. *Social distance* : close range (4-7 ft / 1.2-2.1 m)
long range (7-12 ft / 2.1-3.7 m)
4. *Public distance* : close range (12-25 ft / 3.7-7.6 m)
long range (more than 25 ft / 7.6 m)

The spread of the covid-19 virus through droplets occurs up to 6ft/2 meters, which includes intimate, personal and social distance (close range).

1.5 Post Pandemic Architectural Elements

a. Materials in building

One of the causes of the spread of the COVID-19 virus is the surface of objects that are exposed to the spread of the virus. Therefore, choosing the type of material in the room is important to minimize the possibility of viruses surviving on the surface of the material. According to Zaher in [8], materials with non-porous, germ-resistant, and smooth surfaces can be considered for use in post-pandemic buildings. A study conducted by Doremalen in [9], stated that copper material is one of the best options because the virus can only survive for 4 hours. The UV sterilization process is also being considered, according to Fezi in [7] this method was tested on the Shanghai Bus public transportation in April 2020 and has been shown to kill 99.9% of viruses in 5-7 minutes.

b. Circulation in buildings

According to Chamass et al in [10], 4 parameters can be considered related to the arrangement of circulation in buildings to reduce the spread of the virus, including flexibility, social distancing, path configuration, and room expansion.

1. Flexibility : the ability of the room to adapt to different circumstances
2. *Sosial distancing* : the provision of distance to reduce the spread of the virus
3. Path configuration : layout related to circulation determined by space components
4. Room expansion : the ability of space to be enlarged to increase social distancing

c. The concept of ventilation

In the current pandemic conditions, the air conditioning system in the room is an important thing to consider. Based on the ASHRAE COVID-19 guidance, the air cleaning system can reduce the spread of the virus. This cleaning system consists of HVAC systems, In-room devices: HEPA filters, mechanical air filters, electronic air filters & UV-C systems. The air cleaning system can minimize the ability of the virus to survive in the room. According to Noti et al.in [11], maintaining room humidity >40% can significantly reduce the spread of the virus.

d. Arrangement of the building period

Based on research conducted by Gensler Architect in [12] flexibility and adaptability are the main considerations that must be considered in hotel design. Several hotels that have turned into quarantine centers show the importance of hotels in providing transformative spaces and building arrangements. On the other hand, according to Kusumadi, D in [13] after the pandemic, hotels should divide public facilities such as restaurants into separate areas, so that when occupancy rates are low, restaurant facilities can be partially operated.

2 Research Method

2.1 Data Collection Method

The data collection method was carried out by conducting interviews with some respondents who work in the tourism industry, especially in the hospitality sector, regarding some changes that occurred in the hospitality world after the pandemic. Data collection was also carried out by conducting literature studies through books and journals to support secondary data regarding post-pandemic hotel architecture.

2.2 Data Analysis Method

The data analysis method was carried out by processing all the data collected through field interviews, literature studies that have been carried out for further analysis into post-pandemic hotel principles.

3 Result and Discussion

3.1 Post-Pandemic Hotel Principles

The principles regarding post-pandemic hotels are divided into two parts; Post-pandemic hotel principles related to the management system carried out and post-pandemic hotel principles related to the design of the buildings they own.

a. Post-pandemic hotel principles related to the management system

1. Business strategy

The pandemic that hit has blurred the boundaries between work activities and leisure activities carried out by humans. According to research conducted by Gensler Architect in [4], the concept of working from anywhere is now commonplace in society. Hotels can support the concept of “bleisure” (business plus leisure) by providing various activities and facilities that can accommodate

these needs. The pandemic that has hit is a reminder of the importance of a hotel to be able to adapt to changes that may occur.

2. Market trend

Based on Ministry of Tourism and Creative Economy in [14], it was stated that the trend of hotel visitors after the pandemic has led to domestic micro tourism. So the hotel must pay attention to the characteristics of the market to adjust the facilities provided in hotel services. The characteristics of post-pandemic hotel visitors also prioritize the availability of various facility services in one location to minimize mobility.

3. Activity

NEWA (Nature Eco Wellness Adventure) tourism is something that hotels can consider regarding activities that can be offered after the COVID-19 pandemic. Activities that can combine a relaxing experience with business support services have also become relevant to the post-pandemic hotel concept.

4. Facility

According to a webinar conducted by Architecture Today, facilities at hotels after the pandemic will be more personalized. This can be realized by having a multifunctional bedroom (resting, working, meeting, exercising).

5. Location

The availability of health facilities near the hotel location is something that must be considered in the post-pandemic hotel concept. The tendency to do outdoor activities also demands a good relationship with the surrounding environment.

b. Post-pandemic hotel principles related to building design

1. Circulation

The circulation that connects each room function is mandatory to suppress the possibility of the spread of the virus. Circulation can at least accommodate the mobility of users who are engaged in activities while adhering to a distance of 6ft / 2 meters (intimate, personal & social distance). Circulation is also required to have good flexibility so that it can adapt to various possibilities.



Figure 3 Circulation principle in post pandemic hotel

2. Building materials

The choice of material in the building emphasizes the ease of maintenance of the material compared to the ability of the character of the material to minimize the spread of the virus. Material selection should use materials that are easy to clean. Materials such as glass, stainless steel, or laminated wood with smooth surfaces and dynamic shapes tend to be easier to clean regularly.

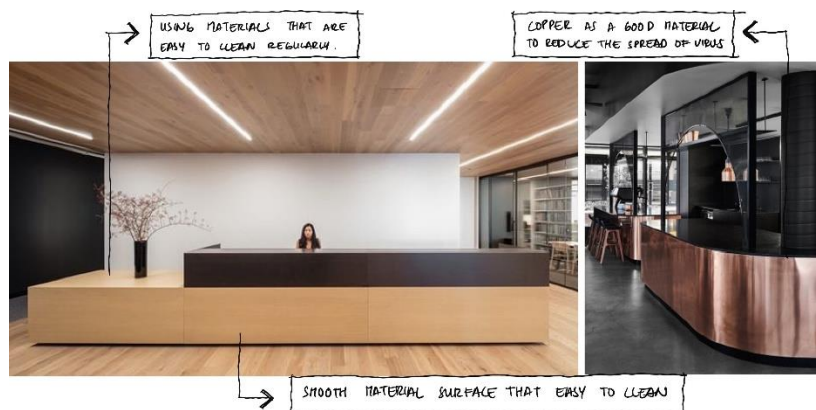


Figure 4 Material principle in post pandemic hotel

3. Ventilation

The air conditioning system in the room is focused on being able to channel fresh air in each room to maximize air exchange. On the other hand, air cleaning systems such as HVAC systems, In-room devices: HEPA filters, mechanical air filters, electronic air filters & UV-C systems can be used to minimize the ability of viruses to survive in the room.

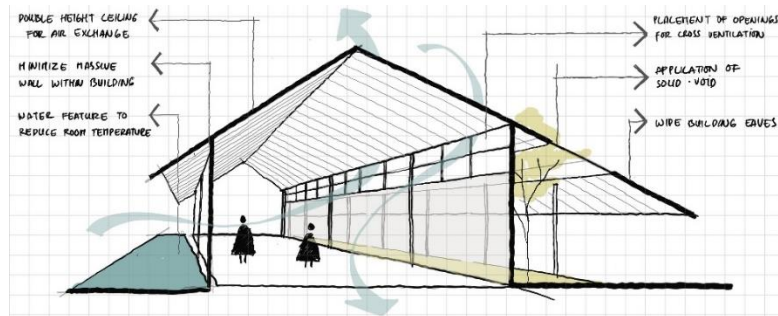


Figure 5 Ventilation principle in post pandemic hotel

4. Inner Room

Prioritizing functional items and minimizing decorative items in the room to reduce the possibility of the spread of viruses in the room. In certain rooms, a disinfecting area can be placed as a transition area before entering the main sterile room. Space flexibility is also important so that certain spaces can be used according to their needs at certain times. The interior layout should also separate the staff and visitor areas to minimize contact between visitors and hotel staff.

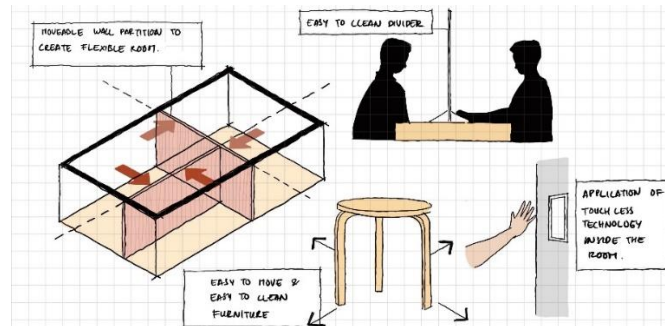


Figure 6 Inner room principle in post pandemic hotel

5. Furniture

Based on the Archinesia webinar entitled building materials, design, and pandemics, the selection of furniture is prioritized to have the characteristics of being easy to clean and easy to move so it is easy to clean or adjust the arrangement when needed. Furniture with a lightweight and simple shape is highly recommended for use.

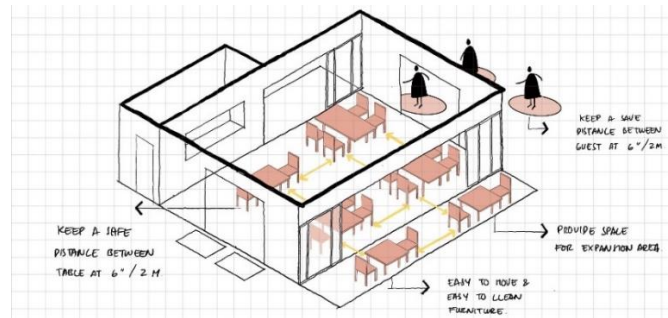


Figure 7 Use of furniture principle in post pandemic hotel

6. Dimensions of space

In the post-pandemic hotel concept, the rooms for visitors will be more personalized. This will have an impact on reducing public spaces and increasing private spaces for visitors. One of the embodiments is a bedroom that is multifunctional to accommodate various activities carried out by its residents.

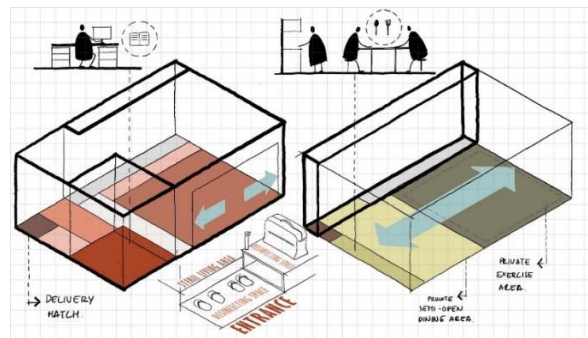


Figure 8 Dimensions of space principle in post pandemic hotel

7. Building mass

The mass of buildings in the post-pandemic hotel concept is expected to be used separately. This is to adjust to certain conditions where only part of the building is operational and other buildings can be disabled without disrupting hotel

operations.



Figure 9 Building mass principle in post pandemic hotel

To summarize the post-pandemic hotel principles, see the table below:

Table 1 Post-pandemic hotel principles related to management system

NO	POST-PANDEMIC HOTEL PRINCIPLE	RELATED TO MANAGEMENT SYSTEM	SOURCE
1	Business strategy	<i>Work from anywhere movement</i>	Gensler Architect
		<i>Bleisure concept</i>	
		<i>Alternative income</i>	
		<i>Work from hotel</i>	Kemenparekraf
2	Market Trend	<i>Stay-solation</i>	
		<i>Staycation is the new vacation</i>	
		<i>Adaptive to change</i>	Architecture today
		<i>Attention to hygiene</i>	Gensler Architect
3	Activities	<i>Domestik micro tourism (small scale local tourist)</i>	Kemenparekraf
		<i>Attention to hygiene</i>	
		<i>Various facility services in one location</i>	Architecture today
		<i>NEWA (Nature Eco Wellness Adventure)</i>	Kemenparekraf
4	Facilities	<i>Combine a relaxing experience with business support services</i>	Architecture today
		<i>Workout space & gym equipment in the room</i>	Gensler Architect
		<i>Special area for disinfection of goods</i>	
		<i>In-room workspace</i>	
5	Location	<i>Multifunctional bedroom (rest, work, meeting)</i>	Architecture today
		<i>Close to health facilities</i>	Gensler Architect
		<i>Good relationship with surrounding locations</i>	Architecture today

Source : summary of a number of recommendations from consultants and agencies

Table 2 Post-pandemic hotel principles related to building design

No	POST-PANDEMIC HOTEL PRINCIPLE	RELATED TO BUILDING DESIGN	SOURCE
1	Circulation	Circulation with the application of social distancing, flexibility, path configuration and space expansion	Chammas et al (2021)
		Able to accommodate the provisions of the distance between users as far as 6ft / 2m	Edward T. Hall
2	Building material	Material with a non-porous, germ-resistant and smooth surface	Zaher (2020)
		Material that easy to clean	Archinesia talks– Building materials, design and the pandemic
3	Ventilation	<i>HVAC systems, In-room devices : HEPA filter, mechanical air filter, electronic air filter & UV-C systems</i>	ASHRAE COVID-19 Guidance
		Room with natural ventilation system	Gensler Architect
		Maintain room humidity >40%	Noti et al. (2013)
4	Inner room	Minimizing decorative things	KEMENPAREKRAF
		Providing flexible spaces	Gensler Architect
		Minimize contact between staff and visitors	Mass Design Group
5	Furniture	Using furniture that “easy to move”	Archinesia talks– Building materials, design and the pandemic
		Using furniture that “easy to clean”	
6	Room dimension	Visitor’s activity spaces are becoming more personalized Private space becomes larger while public space becomes smaller	Archinesia talks - Design Approach Method – Dharmali Kusumadi
7	Building mass	Dividing the building mass into separate units	Archinesia talks - Design Approach Method – Dharmali Kusumadi

Source : summary of a number of recommendations from consultants and agencies

3.2 Space Expansion in a Post-Pandemic Hotel

Based on Gensler Architect in [12], several factors become the focus of guest considerations in carrying out activities in some rooms in the hotel. This in turn has an impact on the need for an expansion of the space to provide a sense of security and comfort for visiting hotel guests. Some of these factors include:

Types of activities that are accommodated (main room•• / support room•)

The intensity of visitors who come (a lot of visitors••/ few visitors•)

Room usage time (used together•• / not simultaneously/mandatory booking•)

nature of the use of the room (cannot be personalized••/ can be enchanted•)

the space character (inflexible•• / flexible•)

Assessment will be done with a point system with a value of 5-10. Points 1(•) are awarded for low risk of spread, and points 2(••) are awarded for high risk of

spread. Each reception room will be tested for its relationship with these five factors so that each room has different points based on its characteristics. The higher the points a certain space gets, the greater the risk of spreading the virus.

Table 3 Factor of space expansion in the reception area

RUANGAN	FAKTOR PERTIMBANGAN					TOTAL
	A	B	C	D	E	
LOBBY	••	••	••	•	•	8
LOUNGE	••	•	••	•	•	7
SOUVENIR SHOP	•	•	•	••	•	6
SPA	•	•	•	•	••	6
LIBRARY	•	•	•	•	••	6
BEACH CLUB	•	••	••	•	••	8
AMPHITHEATER	•	••	••	••	••	9
PLAYGROUND	•	•	•	•	•	5
RESTAURANT	••	••	••	•	•	8
GYM	•	•	••	••	••	8

Source : personal analysis

Description :

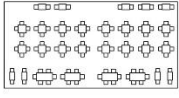
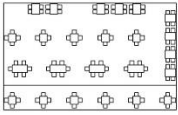
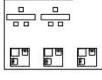
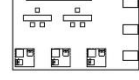
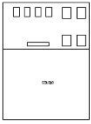
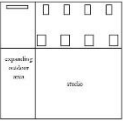
- A. Types of activities that are accommodated (main room•• / support room•)
- B. The intensity of visitors who come (a lot of visitors••/ few visitors•)
- C. Room usage time (used together•• / not simultaneously/mandatory booking•)
- D. nature of the use of the room (cannot be personalized••/ can be enchanted•)
- E. the space character (inflexible•• / flexible•)

-
- (main room, a lot of visitors, used together, cannot be personalized, inflexible)
 - (support room, few visitors, mandatory booking, can be enchanted, flexible)
-

- The risk of spreading the virus is relatively high
- The risk of spreading the virus is in medium level

Based on the space expansion points that have been made, it is known that the rooms that are included with a high level of virus spread are the lobby, restaurant, gym, beach club, and amphitheater. Meanwhile, rooms with medium-level virus spread consist of lounges, souvenir shops, spas, libraries, and playgrounds. Furthermore, research was carried out regarding the calculation of the area of the room to find out the percentage of additional space in the hotel after the COVID-19 pandemic.

Table 4 Calculation of additional space in a number of hotel room function after the pandemic

PRE PANDEMIC	POST PANDEMIC	PRE PANDEMIC	POST PANDEMIC
RESTAURANT  Total area = 200 m² (TSS) Capacity = 106 person Seats distance = 53 cm Circulation distance = 90 cm Area per person = 1,8 m²	RESTAURANT  Total area = 246 m² Capacity = 106 orang Seats distance = 180 cm Circulation distance = 180 cm Area per person = 2,3 m² Expansion percentage = 23%	LOUNGE  Total area = 71,5 m² (HMC) Circulation distance = 90 cm Area per room = 0,9-1,2 m²	LOUNGE  Total area = 101,5 m² Circulation distance = 180 cm Area per room = 1,4 m² Expansion percentage = 42%
SOUVENIR SHOP  Total area = 50 m² (TSS) Circulation distance = 130 cm Area per person = 0,9 m²	SOUVENIR SHOP  Total area = 62 m² Circulation distance = 180 cm Area per person = 1,16 m² Expansion percentage = 24%	LOBBY  Total area = 85,8 m² (HMC) Front desk area = 9,3 m² (HRP) Area per room = 1,2 m²	LOBBY  Total area = 107 m² Front desk area = 9,3 m² (HRP) Self check in (3) = 1,6 m²/unit Area per room = 2 m² Expansion percentage = 24%
GYM  Total area = 135 m² (AD) Gym = 54 m² Studio = 81 m² Circulation distance = 90 cm Capacity Gym = 5-10 station Studio = 12-28 orang	GYM  Total area = 189 m² Gym = 98 m² Studio = 82 m² Circulation distance = 180 cm Capacity Gym = 5-10 station Studio = 6-14 orang Persentase kenaikan = 40%	Description : AD = Architect Data TSS = Time Saver Standard for Building Type HMC = Hotel, Motel and Condominium HRP = Hotel & Resort Planning, Design and Refurbishment	

Source : personal analysis

Based on the studies that have been carried out, it can be concluded that each space function requires a different space after the pandemic. The expansion of this space is influenced by a number of factors such as the standard of the circulation distance, the standard of the distance between the furniture, the layout and the number of other design elements.

4 Conclusion

The post-pandemic hotel principle is an important principle to consider to be applied to the hotel design process, especially those designed after a pandemic such as COVID-19. Changes in guest characteristics, market trends, business strategies, and other aspects are mandatory for post-pandemic hotels. Principles related to building design such as circulation, material selection, ventilation, building mass, and many other post-pandemic principles must be observed to provide comfort and a sense of security for staying guests. The post-pandemic

hotel principle is not a principle that is only applied during and sometime after the pandemic, but this principle is a long-term principle that will continue to adapt to new conditions that may occur in the future. This pandemic not only reminds the importance of health and cleanliness in hotel design, but how to create a hotel that is resilient, self-sufficient, and sustainable.

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