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ปัจจัยทางกายภาพที่ส่งเสริมการปฏิสัมพันธ์ในพื้นที่ส่วนกลางของโฮสเทลในกรุงเกียวโต ประเทศญี่ปุ่น

Physical Factors that Enhance Customer Interaction in Communal Spaces of Hostels in Kyoto, Japan

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บทคัดย่อ

ตลาดโฮสเทลเชียงใหม่ในปัจจุบันมีการแข่งขันสูง แต่ส่วนใหญ่แข่งขันกันด้วยราคาทำให้ราคากลางของโฮสเทลมีราคาต่ำและมีแนวโน้มลดลง ในขณะเดียวกัน ตลาดโฮสเทลในกรุงเกียวโต ประเทศญี่ปุ่น กลับแข่งขันกันด้วยคุณภาพ (โนกามิ, 2019) ผู้วิจัยจึงต้องการทราบแนวทางส่งเสริมคุณภาพของโฮสเทลในกรุงเกียวโตผ่านงานวิจัยนี้ โดยมีวัตถุประสงค์เพื่อศึกษาลักษณะสภาพแวดล้อมทางกายภาพที่ส่งเสริมการปฏิสัมพันธ์ของลูกค้าในพื้นที่ส่วนกลางของโฮสเทล เก็บข้อมูลโดยการสำรวจลักษณะสภาพแวดล้อมทางกายภาพ และการสังเกตพฤติกรรมของลูกค้าที่มาใช้บริการภายในพื้นที่ส่วนกลางของโฮสเทลชั้นนำ ในกรุงเกียวโต ซึ่งได้รับการเสนอชื่อจาก HOSCARs awards ให้เป็นโฮสเทลที่ดีที่สุด จำนวน 5 แห่ง (โฮสเทลเวิร์ด, 2019) และนำมาเปรียบเทียบเพื่อแสดงลักษณะทางกายภาพที่มีความสัมพันธ์กับการปฏิสัมพันธ์ของลูกค้า

ผลการศึกษาพบปัจจัยทางกายภาพที่มีความสัมพันธ์ระหว่างการตอบสนองทางพฤติกรรมและการปฏิสัมพันธ์สามกลุ่ม คือ 1) ปัจจัยที่ส่งเสริมการเข้าใช้พื้นที่ ได้แก่ การกำหนดสัดส่วนผู้เข้าพักให้มีจำนวนเตียงในห้องพักแบบแชร์ห้องน้ำมากกว่าแบบที่มีห้องน้ำในตัว เป็นโฮสเทลขนาดเล็กรองรับลูกค้าไม่เกิน 75 เตียง มีพื้นที่ส่วนกลางประมาณ 1.16 ตารางเมตรต่อผู้เข้าพัก 1 คน มีกิจกรรมที่เปิดโอกาสให้บุคคลภายนอกใช้พื้นที่ร่วมกับลูกค้าโฮสเทลได้สะดวกและต่อเนื่อง เป็นทางเข้าเดียวกันกับทางเข้าอาคาร เพื่อผ่านไปสู่พื้นที่อื่นๆ ของอาคาร และสามารถมองเห็นและเข้าถึงพื้นที่ส่วนกลางได้โดยง่าย 2) ปัจจัยที่ส่งเสริมการเกิดกิจกรรมทางสังคมโดยรวมภายในพื้นที่ทั้งหมด ได้แก่ การไม่ใช่วัสดุไม้กับพื้นผิวพื้นที่ การจัดให้มีฟังก์ชั่นที่ส่งเสริมให้ลูกค้าได้พูดคุยกับพนักงาน เช่น แผนกต้อนรับ คาเฟ่ และบาร์ และการจัดให้จำนวนที่นั่งที่เพียงพอแก่ลูกค้า 3) ปัจจัยที่ส่งเสริมการเกิดกิจกรรมทางสังคมเฉพาะบริเวณที่นั่ง ได้แก่ การออกแบบที่นั่งให้คนอยากนั่งเช่น การใช้สีที่นั่งโทนอบอุ่น เก้าอี้ไม้ โต๊ะไม้ การออกแบบที่นั่งที่ส่งเสริมให้เกิดการสนทนา เช่นการจัดให้ที่นั่งสามารถเข้าถึงได้ง่ายจากทางสัญจรหลัก หันหน้าไปสู่ด้านที่มีคน มีระดับความสูงไม่แตกต่างมากระหว่างคนนั่งและคนยืน และการออกแบบที่นั่งที่สร้างสภาพแวดล้อมที่เหมาะต่อการสนทนา เช่นที่นั่งบริเวณที่

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แสงน้อย ที่นั่งที่สามารถเคลื่อนย้ายได้ ไม่มีพนักพิง ใช้วัสดุที่นั่งแบบแข็ง และมีขนาดเล็ก ผลจากการศึกษามีประโยชน์ต่อเจ้าของกิจการและนักออกแบบที่ต้องการส่งเสริมให้เกิดการปฏิสัมพันธ์ของลูกค้าภายในพื้นที่ส่วนกลางของโฮสเทล อันเป็นหนึ่งในปัจจัยที่เพิ่มคุณภาพของประสบการณ์ นำไปสู่ความพึงพอใจในการเข้าพักของลูกค้า ซึ่งนำไปสู่ความสำเร็จและทำให้โฮสเทลสามารถแข่งขันด้วยคุณภาพโดยไม่ต้องลดราคา

Abstract

To date, the hostel market in Chiang Mai has been highly competitive, but mostly the price-competing strategy has caused hostel prices to lower and the business to decline. Meanwhile, the hostel market in Kyoto bases its selling points on the quality (Nogami, 2019). The researcher thus wanted to know a quality-enhancing approach of Kyoto's hostels through this research, which was aimed at studying the physical characteristics that promote customers' interaction in the communal area of hostels in Kyoto. The data was collected by means of a physical survey and behavioral observations of customers in five prominent hostels in Kyoto, Japan, that had been named as the best hostels by the HOSCARs awards (Hostelworld, 2019). A comparative analysis was conducted to identify the physical factors related to customers' interaction during their stay.

The study results reveal the following three aspects of physical factors related to guests' interaction: 1) Factors enhancing usage - having a higher proportion of shared bathrooms over private bathrooms; being small-sized hostels with a maximum of 75 beds; having a communal area of approximately 1.16 square meters per one guest; offering activities allowing non-staying guests to conveniently and continually use the communal space through the main entrance towards other areas; and the communal space can be seen and accessed with ease. 2) Factors enhancing overall social activities - The interior floor is not covered with wood; there is a function that promotes interaction between the guest and the staff including reception staff, café and bar staff; and provision of adequate seats for the guests. 3) Factors enhancing social activities at the seating area - guest-attracting designs such as the use of warm-tone colored seats, wooden tables and chairs; seats that contribute to conversation, such as easy access from the main circulation area, orientation towards the area where people pass, having an appropriate height that allows conversation between sitting and standing guests; designing seats that are suitable for conversations, such as low-level lighting, movable seats with no backrest, built with a hard material, and is small-sized. The results of this study would be useful for hostel owners and designers who aim to increase the level of customers' interactions in hostels' communal spaces, which would increase the quality of hostel guests' experiences leading to increased satisfaction and high competitiveness without price reduction.

คำสำคัญ: โฮสเทล พื้นที่ส่วนกลาง การปฏิสัมพันธ์ ภูมิทัศน์บริการ เกียวโต
Keywords: Hostel, Communal space, Interaction, Servicescapes, Kyoto

Introduction

Tourism is one of the world's largest economic sectors. Within the global tourism market, youth travel is one of the fastest growing (UNWTO World Tourism Organization, 2018), thanks to more convenient and cheaper travel opportunities (WYSE Travel Confederation, 2016). The development of the youth travel market has brought about the expansion of budget accommodation, especially hostels - a type of budget lodging where guests can rent a basic bed in a dormitory type environment with shared facilities (Russo and Richards, 2016).

Backpackers, or young travelers on a low budget, frequently stay in hostels and enjoy not only cheaper prices, but also a social experience that is different from others accommodation services. Since the pioneering hostels of the 1960s, the hostel market has not only expanded but has also become more diverse, and has developed into a more sophisticated market due to the upgrading of backpackers into flashpackers. (Hostelworld, 2019). The flashpackers, backpackers with a slightly higher budget, are young travelers with hi-tech gadgets and higher budgets, who are willing to spend more and demand higher quality of facilities and experiences, but still willing to be involved in the backpacking culture, by sharing and engaging in social interactions (Jarvis and Peel, 2010). This upgrading led to the expansion of upper scale hostels, such as boutique hostels or poshtels, by providing unique facilities and services, nicer designs and greater experiences. The flashpackers embrace new technology and use it for communication and information purposes whilst traveling. They share experiences in the online network regarding their travels, review and rate their accommodation stay on online booking websites (Paris, 2012), such as Hostelworld.com, the biggest hostel booking website in the world.

Chiang Mai is one of the top destinations in Thailand due to its rich cultural identity, heritage architecture, and natural beauty (Economic Intelligence Center, 2016). Currently, there are more than 200 hostels in Chiang Mai competing for the young traveler's market. The flashpackers have largely arrived on the scene in Chiang Mai, but there is a very slow hostel development to meet this upscale market. Most of the Chiang Mai hostels are traditional hostels which offer basic needs suitable for backpackers, but hardly meet the needs of flashpackers. According to the Chiang Mai hostel review scores on the Hostelworld website, most of the review scores are at between 2.6 and 7.0 out of 10, which is relatively low with flashpackers' reflecting their disappointing experiences. Without the advantage to compete, hostels lower their staying price to attempt to attract customers according to an overall cost leadership business strategy (Hostelworld, 2019). With the average hostel price in Chiang Mai at around THB 200-300 per person per night, this puts the hostel market in an unprofitable situation, offering low quality facilities at a low price, thus making it difficult for the hostel market in Chiang Mai to improve in quality and profit, and grow sustainably.

Kyoto, as one of Japan's top tourist destinations, comprises of beautiful natural heritage sites, arts, cultural, and appealing traditions, similar reasons as to why travelers are motivated to visit Chiang Mai. Similarly, hostels in Kyoto and Chiang Mai, are mostly operated in shophouses or commercial buildings attached directly to the street, and are located in the city center. However, Kyoto hostels flourish in comparison, by offering high quality accommodation at a similar or higher price, when compared to regular hotels in the same area. In any satisfaction surveys, Kyoto hostels received a high level of customer satisfaction from flashpackers, as reported by Hostelworld, which recorded scores of 7+ out of 10. Five hostels in Kyoto, including one small hostel (1-75 beds), one medium hostel (76-150 beds), and three large hostels (151-300 beds), have been named as the best hostels in Asia and worldwide for HOSCARS awards, by Hostelworld. The average prices of hostels in Kyoto range from between JPY 2,500 and 3,000 {THB750 - 900} (Hostelworld, 2019), which are equal to or higher than regular hotels with private rooms in the same location. Furthermore, one of the five hostels listed on the HOSCARs awards set the price per person per night as high as JPY 12,000 (THB 3,600), during their high season (The Millennials, 2019). This situation in Kyoto shows that upscale hostels can obtain a high price by offering a better quality of design and experience, as the Planning and General Affairs of Backpackers Japan company stated in personal review during the researcher's data-collecting period in Kyoto (Nogami, 2019). Therefore, the hostel business in Kyoto is able to grow sustainably.

In order to succeed in the hospitality business, a hostel needs to focus on customer satisfaction, derived from delivering products and service experiences that exceed customer expectations at reasonable prices (Martin, 1996). For hostels, social interaction can elevate the service experience, especially for flashpackers (Huang and Hsu, 2009b). A higher level of social interaction could be manipulated by an appropriate arrangement of communal spaces (Arnould and Price, 1993). The hostel's "servicescapes" include physical environments and social environments. In social interaction aspects, the social factors are less significant to the physical environment, due to a customers' temporary stay in the space. On the other hand, the physical factors affects the social factors, such as the density and the presence of others (Tombs and McColl-Kennedy, 2003). Guests tend to stay longer in a comfortable space, and compatible style. As indicated in Figure 1 below.

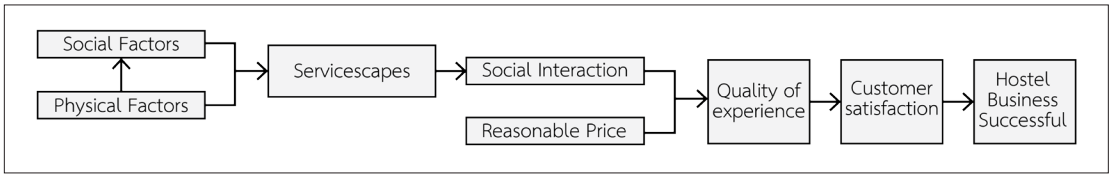


Figure 1 Hostel key to success.

Source: Martin, 1996; Huang and Hsu, 2009b; Bitner, 1992; Rashid-Radha, 2015; Tombs and McColl-Kennedy, 2003; Arnould and Price, 1993.

Therefore, this research's objective is to investigate the physical environmental factors that facilitate social interaction within the communal spaces of the five Kyoto hostels which received the highest level of customer satisfaction scores. The results of this research could be useful for hostel entrepreneurs and designers, to enable them to adjust the physical environments of their hostels, thereby increasing social interaction opportunities that can help increase the quality of experiences and satisfaction for hostel customers in Chiang Mai, and thereby lead to a more profitable and successful business outcome, and a greater ability to compete sustainably.

Literature Review

In this research, the author looks at literature that explains the relationship between servicescapes and customer interaction. Hostel servicescapes can be defined as the environment within a hostel, both the physical and social environment. Social interaction is influenced by environmental conditions (Holahan and Rudolf, 1982). Therefore, using manipulative environmental stimuli can encourage social interaction.

1. Servicescapes

1.1 Physical factors

Mehrabian and Russell (1974) suggested that individuals react to places by displaying two behavior forms, namely, approach and avoidance. Environmental stimuli can evoke behavioral responses that may encourage individuals to socially interact with others in the environment. Bitner (1992), introduced the term "servicescapes" adapted from Mehrabian and Russell's (1974) theory, to describe the physical environments that influence consumer responded behavior and social interactions within service settings.

Wakefield and Blodgett (1996) adapted Bitner's (1992) term, by focusing on the built environment. They examined five servicescape categories, which are the facility aesthetics, layout accessibility, seating comfort, electronic equipment and cleanliness that relate to the perceived quality of a service setting, such as the desire to stay and have re-patronage intentions. This research focused on three of the five factors to categorize the relevance of factors, which included facility aesthetics, layout accessibility, and seating comfort. Because they were viewed as the significant factors of a hostel's communal space in a study by Rashid-Radha (2015).

Bowie and Buttle (2011), suggested that in some hospitality services, the design of the physical environment can actually encourage or discourage social interaction and the degree of customer experience, by considering the use of space, décor and lighting, background music, and seating arrangement.

Zhang, Helander and Drury (1996) noted that the physical environment influences comfort or discomfort states between a person and the environment. Comfort contributes to

whether people stay, and is thus relevant to several factors associated with environment, posture, aesthetics, and space factors.

1.2 Social factors

Social factors, such as crowding, the presence of others (Tombs and McColl-Kennedy, 2003), and conversation with staff (Musa and Thirumoorthi, 2011), can help improve social experiences, by providing an ambiance that could be facilitated by function, such as a café, bar, or restaurant.

Some studies stated that there are different characteristics between non-western and western travelers. However, Prideaux and Shiga (2007) argued there is no significant difference in social interactions of a hostel stay, because a hostel is already a place where people want to share similar values (O'Regan, 2010), based on the affordable room rate and the opportunity to connect with others (Pearce and Turner, 1990). Thus, the nationality, age, gender, and personality were not considered as social factors for this study.

1.3 Servicescape aspects of this study

The servicescape aspects from Wakefield and Blodgett (1996), Bowie and Buttle (2011); Zhang et al., (1996), Tombs and McColl-Kennedy (2003), and Musa and Thirumoorthi (2011), are combined and categorized relating to their similarity into nine groups as shown in Table 1.

Each category was identified as per relative attributes. The attributes of a Hostel facility character category, include accommodation type, business operation type, hostel size, bed type ratio, and total communal spaces. The attributes of communal space character categories include, indoor area ratio, area per accommodated guest ratio, non-guest accessibility, and attached functions. The attributes of room layout categories, include floor location, room accessibility, entrance options, and room connection. The attributes of the seating layout categories, include distance from any entrances, table set boundaries, and seating circulation. The attributes of room aesthetic categories, include color tone and materials of the walls, floor, and ceiling; lighting types; lighting color tone; and lighting fixture types. The attributes of seating aesthetic categories, include table color combination, table color, table material, tabletop shape, chair color combination, chair color, chair material, and chair seating shape. The attributes of room environment categories, include space for staff participation, temperature conditions, background music, natural air ventilation, natural light accessibility, outdoor views, total set numbers, total seat numbers, number of guests per one seating area, number of seats per set, and types of table sets. The attributes of seating environment categories, include illumination level (LUX), natural light direction, natural light distance, and facing views. The attributes of seating posture categories, include table and chair's height, movability, chair's size, backrests, softness; seating patterns, and number of seats per set.

Table 1 Summary of Servicescape aspects.

Relative physical factor aspects					Servicescapes categories used in this study	
Wakefield & Blodgett (1996)	Zhang et al. (1996)	Tombs & McColl-Kennedy (2003)	Musa & Thirumoorthi (2011)	Bowie & Buttle (2011)		
-	Space	Crowding	-	-	1.	Hostel facility characters
-	-	-	-	Use of space	2.	Communal space characters
Layout accessibility	-	-	-	-	3.	Room layout
	-	-	-	-	4.	Seating layout
Facility aesthetic	Aesthetic (appearance)	-	-	Decor and lighting	5.	Room aesthetic
	-	-	-	-	6.	Seating aesthetic
Seating comfort	Environment (temperature,lighting, noise,music) Aesthetic (view)	-	Additional space for staff participation	Background music	7.	Room environment
	-	-	-	Seating arrangement	8.	Seating environment
	Posture (chair, equipment, table)	-	-	-	9.	Seating posture

2. Customer interaction

A customer's overall experience involves various interactions, such as those with the service staff, the physical surroundings, and other customers (Lovelock, 1994). Fellow customers were significantly influenced the most by customer-to-customer interactions, because meeting new people is the most important and most basic expected motivation for staying in a hostel. The behavioral responses relating to customer interaction within communal spaces are studied in two categories, namely space usage and customer activities.

2.1 The space usage

Related to an attention spans study, engagement significantly drops after 2 minutes (Fishman, 2016). Thus, those customer responses within environments are described as the space usages. Donovan and Rossiter (1982) studied Mehrabian and Russell's (1974) model in retail settings, and categorized customer responses to an environment as approach or avoidance behaviors into four aspects; a desire to stay or not in the environment; a desire to interact or leave the environment; a desire to communicate or not with others in the environment; and the degree of enhancement or hindrance of performance and satisfaction with task performances. Additionally, Holahan (1971) studied seating patterns and behavioral relationships. In an experimental setting, the participants' behavior was recorded under three dimensions, namely: body-disposition (seated or non-seated), seating location, and activity.

2.2 The customer activities

Holahan (1971) divided participant activities into two groups, social and non-social activities. Social activities were classified by verbal activities, such as conversation, and non-verbal activities such as playing games. Non-social activities were identified as non-participation with others, such as reading or writing. Houston, Williams, Bloomer, and Mann (1989), also classified activities relating to customer interactions into two groups, namely, social and non-social activities. All verbal

activities, such as hostel-imposed activities (checking-in, ordering food or drinks), communicating with people in the same group (intragroup), and having conversations with new people (intergroup), were social activities. All non-verbal activity was classed as non-social activity. Additionally, Huang and Hu (2009b) categorized customer interactions into three levels, as superficial interactions, spontaneous interactions, and personal interactions. Superficial interaction is very limited interactions, or with no interaction with fellow guests. Spontaneous interaction is free-flow interactions with new people, but had not developed into long-term friendships after leaving the hostel. Personal interaction is where a friendship arises that extends beyond the boundary of the hostels, such as going sightseeing together, or creating connections further on social networks.

2.3 Behavioral response aspects of this study

The researcher analyzed behavioral response aspects related to customer interaction theories from Donovan and Rossiter (1982), Fishman (2016), Holahan (1971), Houston et al. (1989), and Huang and Hu (2009b). An activity sequence that started from the appeal of approaching the communal space, followed by the desire to stay, the desire to sit, and the desire to participate in non-social or social activities depending on verbal or non-verbal activities. The non-verbal, hostel-imposed, and intragroup activities were identified as superficial interactions. The intergroup activities were classified as spontaneous interactions, and could develop beyond the hostel boundary to forming personal interactions. Finally, all those activities from all decisions contribute to a degree of satisfaction of the communal space usage.

3. Servicescape and customer interaction relationship

The researcher has summarized the relationship between behavioral responses and occurring locations in Figure 2.

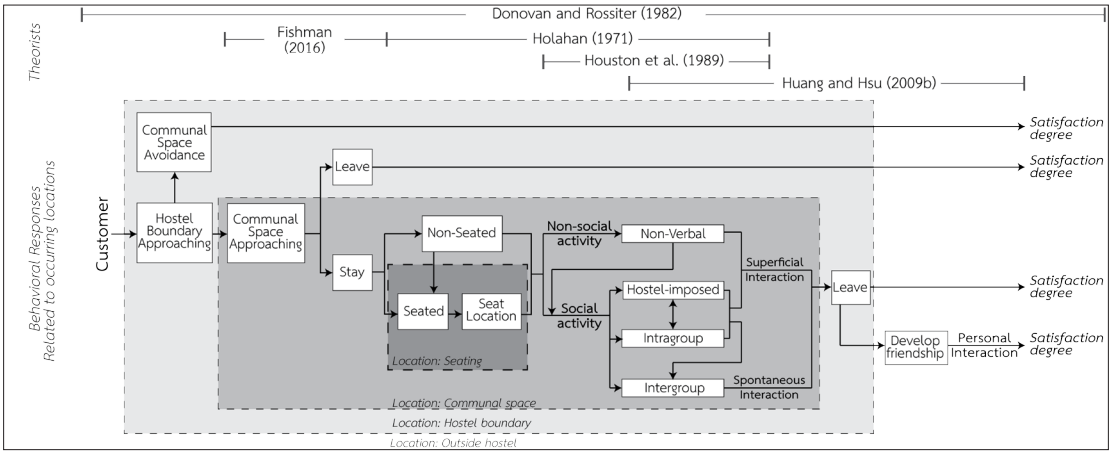


Figure 2 The communal spaces' customer interaction and occurring locations.

Source: (Donovan and Rossiter, 1982; Fishman, 2016; Holahan, 1971; Houston et al., 1989; Huang and Hsu, 2009b;).

Methodology

1. Research design

The researcher took a two-step data collection process by combining a physical factor site survey, and a customer behavioral response observation for data analysis. All hostels that were presented in HOSCARS awards announcements between 2014 and 2019 were selected to be used in this study. This study focused mainly on the flashpackers' satisfaction, so other aspects such as location, type of building, size, style, or cultural aspects of the architecture were not the main criteria used for this study. All hostels were given a hostel ID, from Hostel A to E. This study was conducted in only one space that was considered the main communal space of each hostel, chosen from the conditions of service provided, and the area of greatest customer usage. All customers spending time in the focused setting area were selected. The research was conducted over 3 days for each hostel for data collection. One day was needed for undertaking room area measurements. Two days were undertaken for the observation process between the hours of 17.30 and 21.00 (one weekday and one weekend required). This timeframe was chosen as it is the period that hostel guests finish daytime activities, so all the guests approaching the communal spaces tended to relax, and willing to meet others (Rashid-Radha, 2015)

According to the ability to observe, the researcher defined three behavioral responses within the hostel area to the study, including the approaching decision, the overall social activity, and the social activity at the seats.

2. Data collection

2.1 Physical factor site survey

Each setting's physical elements were collected by photograph, layout plan drawings, furniture measurement, and illumination measurement as shown in Figure 4. All seats located within the setting were collected pertaining to the physical characteristics for the seating aspects for this study.

2.2 Customers' behavioral responses observation

The number of guests approaching communal spaces, the number of staying guests (spent time within the setting longer than 2 minutes), undertaking non-social and social activities from the two observation days were collected, and combined and are presented in Table 2. All seats were observed and scored every 10 minutes under an activity-type aspect. Unoccupied seats received zero points, occupied seats that clearly determined that the customer who sat on the seat would engage in non-verbal activities received one point in the non-social box. For customers who sat on the seat and was verbally active, the seat would receive one point in the social box.

2.3 Data analysis

The researcher collected physical factors that attribute to the characters and the relative customer behavioral responses compared with other hostels, in three categories. (See Figure 3)

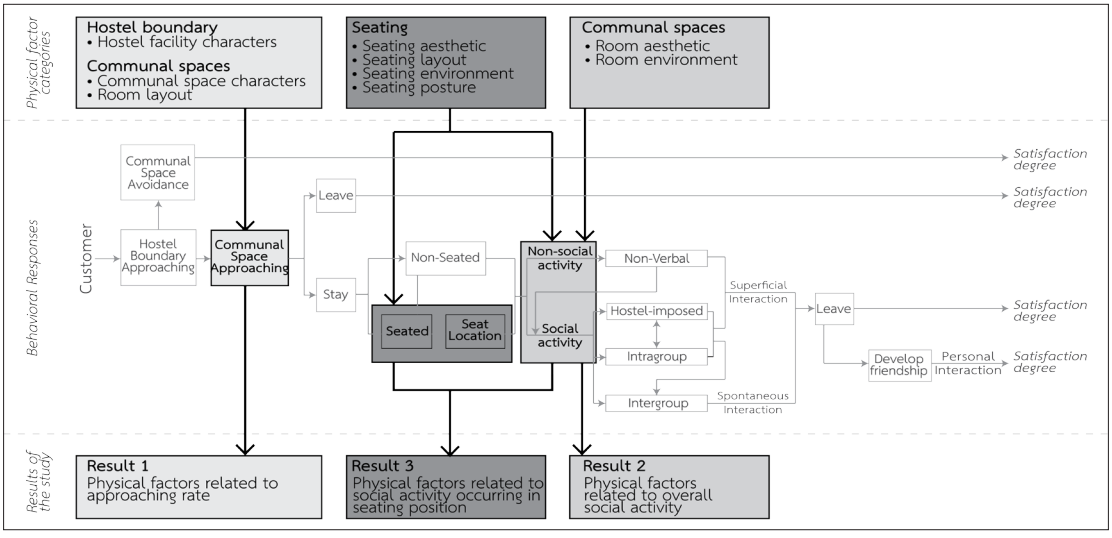


Figure 3 Data analysis framework.

2.3.1 Physical factors related to approaching rate

The approaching rate counted the total number of approaching guests for the total number of accommodated guests. The setting that received the highest approaching rate was selected for analysis.

2.3.2 Physical factors related to overall social activity

The social activity rate counted the total number of staying guests undertaking social activity from the total number of staying guests. The setting that received the highest social activity rate was selected for analysis of its physical factor attributes compared to other settings.

2.3.3 Physical factors related to social activity occurring in seating positions

All seat scores from five settings were sorted separately into non-social and social groups. The top ten seats from the social group were chosen for studying their unique characteristics compared to the top ten seats from the non-social group.

The physical factors related to the approaching rate is most important because, as the first state, these factors contribute customer approach to the same area. After that, the physical factors related to overall social activity and social activities occurring in seating positions encourage interaction in both the overall room and seating area. All the attributes found in this study are effective practices to research. However, the distinctive attributes were related to customer interactions more than the other areas of research. Thus, this research presented these distinctive attributes.

Results of the Study

1. Studied settings

The communal spaces' floor plan, isometrics, and photos were shown on Figure 4. More physical factor attributes were presented on Table 3-8 for an analysis.

Figure 4 Hostels' communal space plan, isometric, and view photos.

2. Behavioral responses

2.1 Communal space approaching, length of staying, and social activity rates.

The number of guests counted from all observation days were presented in Table 2. The customers' approaching rate, length of staying rate, and the social activity rate of each hostel are reported.

Table 2 Communal space approaching, staying, and social activity rate.

Hostel	Approaching Rate			Staying Rate		Social activity Rate	
	Accommatedd guests (pax)	Approaching guests (pax)	Approach rate (%)	Staying Guests (pax)	Staying Rate (%)	Activity (pax)	Activity Rate (%)
A	338	119	35.21	102	85.71%	64	62.75%
B	329	115	34.95	108	93.91%	89	82.41%
C	134	228	170.15	200	87.72%	187	93.50%
D	210	144	68.57	136	94.44%	98	72.06%
E	177	79	44.63	74	93.67%	60	81.08%
Total	1,188	685	57.66	620	90.51%	498	80.32%

The results of the communal-space-approaching percentages as shown in Table 2 revealed that Hostel C has the highest approaching rate, and the highest social activity rate. The number of approaching guests of Hostel C is higher than number of staying guests, which were not occurring in other studied hostels, because of the primary access and communal space functions provided by the hostels. However, when comparing the approaching rate of Hostel D and Hostel B, the social activity rate of Hostel D was lower than Hostel B because Hostel D provided co-working spaces, in which guests worked with their laptops instead of interacting with other guests.

2.2 Physical factors related to social activity occurring in the seating positions

The top ten non-social and top ten social seats scores after ranking were selected. The non-social seats are highlighted in Figures 4 as red color; those seats are the most occupied without any social activity action. In Hostel A, there are four seats, these included a two-seat sofa facing the room, one seat in the main circulation area facing the wall, and one seat from a four-seat table in the off-circulation side, facing a wall. In Hostel B, there is one seat on a two-seat table facing the room. In Hostel C, there is no seat in regard to non-social aspects. In Hostel D, there are four seats which included two seats in the private booth, and two seats at the edge of a twelve-seat table. All seats are located in the sub-circulation area of the space. In Hostel E, there is only one seat at a four-seat table in the corner of the room, facing the room and in the off-circulation area. It was noticed that all non-social seats from Hostel B, D, and E, were located nearby the window.

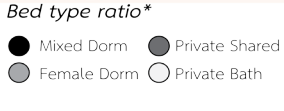
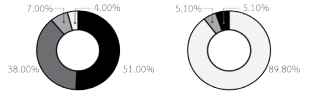
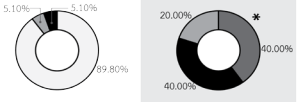
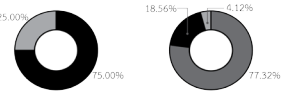
The social seats are highlighted in Figures 4 as green colors, those seats are the most occupied with social activity action, which contained one seat from Hostel A, and nine seats from Hostel C. There is no nominated social seat from Hostels B, D, and E. In HHdgostel A, the seat is located at a five-seat on the floor table, sub-circulation area, setting is on the floor, facing the room, near the window and with a terrace view. In Hostel C, there are nine seats which included two sofa seats, two seats at the bar, two seats at an eight-seat bar table, two seats at a seven-seat circle table, and one seat at the twelve-seat table in front of the reception counter. All seats are located in the main circulation area, and facing other people in the room. More attributed details of seats are shown in Table 7-8.

3. Physical factor analysis

3.1 Physical factors related to approaching rate

The researcher compared the physical factors related to approaching rate attributes of Hostel C to the other hostels displayed in Table 3-4.

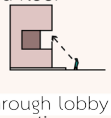
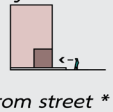
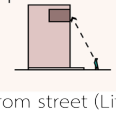
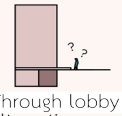
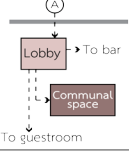
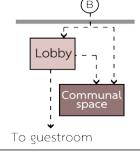
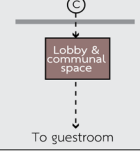
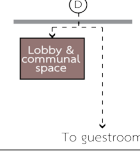
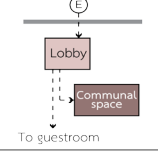
Table 3 Physical factors related to approaching rate analysis.

Physical factor Categories	Hostel A	Hostel B	Hostel C	Hostel D	Hostel E
Hostel facility characters					
• Accommodation type	Hostel	Hostel	Hostel	Capsule hotel	Hostel
• Business operation type	Chain	Chain	Chain	Chain	Chain
• ***Hostel size****	Large (200 beds)	Large (196 beds)	***Small* (70 beds)***	Large (152 beds)	Medium(97beds)
• *Bed type ratio**						
• Total communal spaces	5	3	2	1	2

** distinctive factor attributes*

The results show in Table 3 that the distinctive attributes in hostel facility character aspects were in regard to small properties (1 –75 beds), and providing all beds in a shared-bathroom and equally in regard to bed types. Even Hostel D and E provide bed types with shared bathrooms, the beds in Hostel D are not private types, and the beds in Hostel E have fewer dormitory types.

Table 4 Physical factors related to approaching rate analysis.

Physical factor Categories	Hostel A	Hostel B	Hostel C	Hostel D	Hostel E
Communal space characters					
• Indoor area ratio	60.00 %	70.80 %	100.00 %	100.00 %	94.40 %
• *Area /accommodated guests**	0.72 Sq.m	0.58 Sq.m	***1.16 Sq.m****	1.62 Sq.m	1.89 Sq.m
• ***Non-guest accessibility **	Not welcome	Welcome Access time (13.00-24.00)	***Welcome** Access time (8.00-24.00)***	Welcome Payment required (JPY600/1 hr)	Welcome Access time (18.00-22.00)
• *Attached functions**	Garden, kitchen, laundry, toilet, bathroom	Bar, cafe, garden, kitchen	***Bar, cafe, toilet, reception****	Bar, coworking, meeting room, kitchen, toilet, reception	Bar, garden, toilet, kitchen
Room layout					
• ***Floor location****	2nd floor 	B1 floor 	***1st floor**** 	Top floor 	B2 floor 
• ***Room accessibility****	Through lobby	From street(stair)	***From street **	From street (Lift)	Through lobby
• ***Entrance option****	Alternative access	Alternative access	***Primary access****	Alternative access	Alternative access
• Room connection	Single 	Multiple 	Multiple 	Single 	Single 

** distinctive factor attributes*

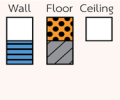
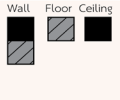
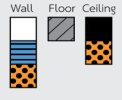
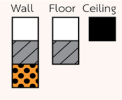
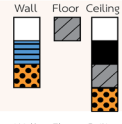
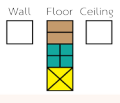
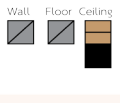
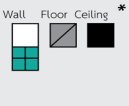
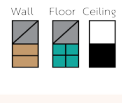
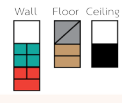
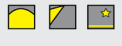
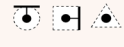
The results show in Table 4 that the distinctive communal space facility attributes were in regard to an area per one accommodated guest at 1.16 square meters (in the middle between other hostel providing space), and accessibility for non-guests to enter the space. Even though there is a similarity to Hostel B, D, and E, Hostel C remains opens for non-guests for a longer period of time. The providing functions combined with the reception area, along with bar and café, were significantly distinct from the other hostels.

The distinctive room layout includes a 1st-floor location, access directly from the street, having one primary building entrance, and connecting to other functions as a transitional space. Hostel B and D can be accessed directly from the street, their entrance are alternative access points. Hostel guests can have access directly to their room through lobby as in Hostel B, or by using the elevator as in Hostel D. Therefore, guests were not compelled to enter the building communal spaces through this entrance, contrary to what was happening in Hostel C.

3.2 Physical factors related to overall social activity

The researcher compared the physical factors related to overall social activity attributes of Hostel C to the other hostels displayed in Table 5-6.

Table 5 Physical factors related to overall social activity analysis.

Physical factor Categories	Hostel A	Hostel B	Hostel C	Hostel D	Hostel E
Room aesthetic					
• Color tone Neutral: white, black, grey Color: warm, cold					
• *Material** Painted, Concrete, Tiles, Structure Tatami, Wood, Brick					
• Lighting type Overall ambient, Task spotlight, Accent					
• Lighting color tone Warm, Cold					
• Lighting fixture installation Ceiling type, Wall type, Portable					

** distinctive factor attributes*

The results show in Table 5 that the distinctive room aesthetic factors of Hostel C were not using wood material as the boundary of the space. Other aesthetic aspects were not significantly different.

The distinctive room environment factors from Table 6 were where the providing of additional functions for a customer to participate in with staff, such as a bar (night), café (day), and reception (all day and night), and providing enough seating for customers (one seat for 1.40 accommodated persons), so customers are more likely to get available seats after entering.

Table 6 Physical factors related to overall social activity analysis.

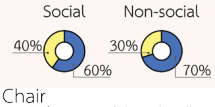
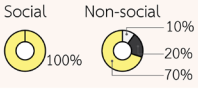
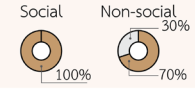
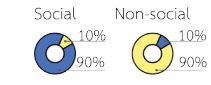
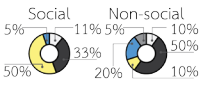
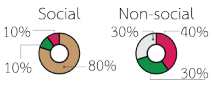
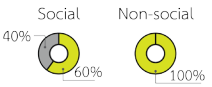
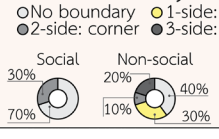
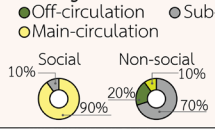
Physical factor Categories	Hostel A	Hostel B	Hostel C	Hostel D	Hostel E
Room environment					
• ***Space for staff participation****	N/A	Bar, cafe	***Bar,cafe,reception****	Bar, reception	Bar
• Temperature condition	Air-con on	Air-con on	Air-con on	Air-con on	Air-con on
• Background music	No music	Music on	Music on	Music on	Music on
• Natural air ventilation	No ventilation	No ventilation	No ventilation	No ventilation	No ventilation
• Natural light accessibility					
• Outdoor view					
• Total set number	12 sets	12 sets	8 sets	13 sets	10 sets
• Total seat number	54 seats	58 seats	50 seats	95 seats	45 seats
• Number of seats per set	3 seats – 2 sets 4 seats – 5 sets 5 seats – 4 set 6 seats – 1 set	2 seats – 3 sets 4 seats – 7 sets 8 seats – 3 set	***4 seats – 3 set*** ***5 seats – 1 set*** ***6 seats – 1 set*** ***7 seats – 1 set*** ***8 seats – 1 set*** ***12 seats – 1 set***	4 seats – 4 sets 6 seats – 1 set 7 seats – 1 set 8 seats – 3 set 9 seats – 2 sets 12 seats – 2 sets	2 seats – 3 sets 4 seats – 3 set 6 seats – 2 set 7 seats – 1 set 8 seats – 1 set
• *Number of guests per seat**					
• Type of table set	Table,sofa,floor	Table, sofa	Table, sofa, bar	Table, sofa	Table, sofa

** distinctive factor attributes*

3.3 Physical factors related to social activity occurring in seating positions

The researcher compared seating attributes from the social groups to seats from the non-social group, as displayed in Table 7-8.

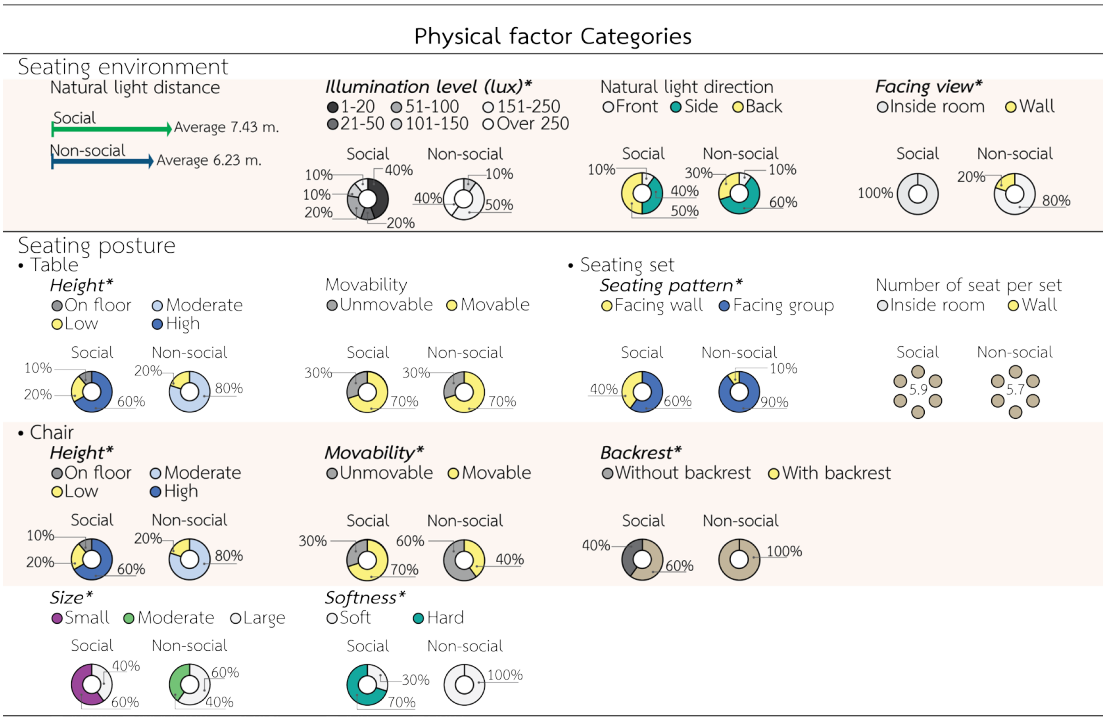
Table 7 Physical factors related to social activity occurring in the seating positions.

Physical factor Categories				
Seating aesthetic				
• Table	Color combination ○1color ●More than 1 	***Color tone**** 	***Material**** 	***Top shape**** 
• Chair	***Color combination**** 	***Color tone**** 	***Material**** 	***Top shape**** 
Seating layout	Distance from entrance 	***Table set boundary**** 	***Seating circulation**** 	

* distinctive factor attributes

The distinctive seating aesthetic factors included warm color tables and chairs, wooden tables and chairs, a round tabletop and chair-top, and more than one color combination of chairs. The distinctive seating layout factors of social seats, including providing seats without a boundary, and setting up seats in the main circulation area.

Table 8 Physical factors related to social activity occurring in the seating positions.



* distinctive factor attributes

The distinctive seating environment factors of social seats were in the using of low illumination levels, and providing seats facing into the room space. The distinctive seating postures of social seats were with tall tables of approximately 100–110 centimeters, tall chairs of around 70–82 centimeters, movable chairs, chairs without a backrest, hard material chairs, and narrow-width chairs of around 30–50 centimeters.

Conclusion

1. Finding discussion

1.1 Physical factors related to approaching rate

The guests who stayed in shared-bathroom bed types are more likely to spend time in the communal spaces due to the limited facilities. A small setting has less space, so all customers

tend to enter the same area. Customers quickly recognize each other, and interactions would occur more comfortably. Size of communal space per one hostel guests of around 1.16 sqm provides a suitable space that is not too small as high density area, or too large an area, as people may feel nervous entering a big open space. When hostels provide additional functionality services that allow both hostel guests and non-guests to freely enter the space, there is a chance that a high number of people will approach the space. The nearby street location, clearly seen from the street, and has a direct access; influence pedestrians who pass by to be interested in entering. The characteristics of the transitional space and only one primary building entrance would bring guests to the same area.

1.2 Physical factors related to overall social activity

Providing available space to sit after approaching so that guests tend to stay longer. The additional functions such as bar and café provided a chance for staff to talk with customers, and introduce guests to each other.

1.3 Physical factors related to social activity occurring in the seating positions

The use of warm colors, wooden material furniture, and low illumination, lead to relaxed preferences and allow guests to sit. Customers who sit in the main circulation area both without a boundary, and in the corner that is not facing a wall, and no backrest chairs, are easily approached. They can also participate and interact with the people who may be walking around the circulation area. Round tables and chairs are easy to access in any direction. Tall tables and chairs are at similar levels of standing people, so when other customers walk past a seated customer, they have a chance to engage in a conversation at an appropriate height. Movable chairs give a chance to move location so as to speak with chosen people. Small sized and hard materials make guests more likely not to keep to themselves due to the uncomfortable seating conditions.

2. Theoretical discussion

This study found that Hostel C is the hostel with the highest approaching rate, and it received the highest social activity rate. The results were supported by Tombs and McColl-Kennedy's (2000) statement, that the high number of customers within the service setting influences customer interactions.

Customer decisions within the communal space relate to Mehrabian and Russell (1974) research, stating that the customer bases their behavioral responses in approaching or avoidance according to the setting's environment. Servicescapes included social factors and physical factors. However, this study found that with regard to the interaction aspects, social factors do not significantly affect interaction. The hostel's customers' behavioral responses were affected mostly from the physical environment in three sequences, which are approaching, staying, and starting a conversation, as according to Donovan and Rossiter's (1982) description of retail store settings.

However, the difference noted was that hostel customers tended to talk with other customers if they could participate directly with staff, which does not happen directly in retail stores. According to Donavan and Rossiter (1982), the researcher found that except for the primary approaching decision that considered the first state of behavioral responses, the aspects of interaction with the environment and interaction with others were not in sequence. Some people entered to interact with other persons in the same settings according to the function provided, such as checking-in/out with no or less previous physical environment interaction. Additionally, the interaction with the service crew could facilitate customer-customer interactions. The evidence shows that Hostel A's communal space has no service function for staff participation; thus, Hostel A's social activity rate is the lowest in social activity rank. These findings support Musa and Thirumoorthi's (2011) study, that the interaction with staff leads to opportunities for customers to start a conversation with each other.

The distinctive attributes were found in all the physical factor dimensions as proposed by Wakefield and Blodgett (1996), including facility aesthetics (room aesthetics and seating aesthetics), layout accessibility (room layout and seating layout), and seating comfort (room environment, seating environment, and seating posture aspects). However, there are highly significant in room layout and seating comfort, but less relevant in room aesthetics, and room environments.

The distinctive attributes were found in the use of space, function, and the seating arrangement, as stated by Bowie and Buttle (2011). However, for lighting with background music, the researcher found that they are not identified as distinctive aspects. Even not using wood in room boundaries was found distinctive, but wooden seating is needed to provide that communal space feeling. Furthermore, other décor factors were not distinctive factors because décor factored into the five hostel's settings was unique in style, and the researcher could not identify any factor similarities. Each person's responses to aesthetic factors differ in different ways. Therefore, it was hard to classify the factors of décor as being related to customer interactions clearly.

The studied physical factors in this research - adapted from Zhang et al.'s (1996), explored seating posture, and was additionally supported by Wakefield and Blodgett (1996), and Bowie & Buttle (2011) research. It was found that most of the seating posture attributes significantly influenced social interaction accordingly.

3. Design Suggestion

Most of the hostels in Chiang Mai are inside the cultural old city area. The old city area contains a variety of land scape areas; the large land easily hosts any type of lodging. However, shophouse-style buildings could open a hostel only because the hostel building is not restricted in providing private bathrooms and natural light. The five Kyoto hostels that were selected for this research are clearly seen as commercial buildings, attached directly to the street, and similar to

the many hostel buildings in Chiang Mai. Thus, it is reasonable to use the physical factor categories of this research, such as hostel facility characters, communal space characters, and room layout for Chiang Mai hostel owners to use in their design. Other categories such as room aesthetics, room environments, and seating attributes can be adapted to design similar values of flashpackers' needs.

However, there are several factors that need reconsidering. According to land density and land cost factors between Chiang Mai and Kyoto, Kyoto land is higher in density and more expensive. The size of Kyoto's buildings were generally smaller than those in Chiang Mai. The result of this study presented the appropriate communal space size per one accommodated customer, this aspect could be re-considered, and address larger spaces than those factors in the results of this research.

4. Limitations

This research studied only five hostels in Kyoto. However, there are many hostels in Kyoto that have additionally received excellent review scores. This study focused only on one communal space of each hostel, but other areas such as dormitory rooms are seen as also essential to be researched in any future studies. Thus, more relative factors can be found if the study of more hostels and communal spaces were undertaken. The observation timeframe was conducted over only two days in the evening between 17.30 to 21.00. If the study time was extended, there would be differences or other interesting aspects to be considered. This study was conducted using an observation method. However, there are more customer aspects, such as the levels of satisfaction degree and personal interaction that were not undertaken, but only observed and recorded. Thus, an interview or survey method could be additionally conducted in any future research undertaken.

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