

Customer satisfaction with tangible and intangible services of ryokans and hotels in the Japanese lodging industry

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Abstract

In satisfaction surveys in the Japanese lodging industry commonly evaluate items such as guest rooms, facilities and equipment, meals, and staff service. However, the Japanese lodging industry also includes ryokan, unique to Japanese traditional custom, each of which targets a different guest who have characteristic preferences and purposes for their stay. Guests value different amenities in hotels and ryokans, it has been difficult to distinguish between ryokans and hotels in the assessment of guest satisfaction. In this study, ryokan and hotel facilities were selected with established reputations and analyzed customers' high and low word-of-mouth analysis. Specifically, Kagaya, Hachimanya, and Suimeikan were selected for the top three most popular ryokans and The Ritz-Carlton Hotel, Hilton, and ANA InterContinental Hotel for the top three hotels and conducted content analysis and co-occurrence network analysis on the total of 600 reviews, 100 for each facility, compared the characteristics and factors of guest satisfaction and dissatisfaction, and clarified the differences between each category. The results, organized by tangible and intangible services, revealed that guests of ryokans were satisfied with amenities such as a wide variety of breakfast and dinner options, hot spring or large baths, and guests of hotel were satisfied with club lounges and afternoon tea, while dissatisfaction was found with deteriorated rooms and facilities, insufficient cleaning, and inadequate staffing. This study suggested ryokan and hotels to take care of the basics of the lodging business, such as cleanliness and thorough cleaning, even if the rooms and facilities are old, staff competence without making mistakes, and providing guests opportunities to enjoy cocktails and afternoon tea in public spaces such as own lounge or club in hotels or hot spring baths in Japanese ryokan.

Keywords

ryokans, hotels, word-of-mouth analysis, tangible and intangible services, customer satisfaction and dissatisfaction

1. Introduction

Many hotels and ryokans (Japanese traditional inns) in the lodging industry conduct their own customer satisfaction surveys. Some hotels and ryokans also strive to be ranked in research firm, online travel agency, and media surveys. Customer satisfaction surveys assess the facilities, guest rooms, meals, employee service, and hospitality. The Japanese lodging industry also includes ryokan, a lodging industry unique to Japan, each of which targets a different guest who have unique preferences and purposes for their stay. Guests value different amenities in hotels and ryokans. In addition, many satisfaction surveys and previous studies have conducted evaluations using terms such as facilities, guest rooms, meals, employee service, and hospitality, or brief sentences such as "Was the reservation smooth?" leaving the degree of satisfaction unknown. This study divides the Japanese lodging industry into ryokans and hotels, focusing on the word-of-mouth of guests in each category, analyzing and comparing the characteristics and factors of guest satisfaction, and clarifying the differences between each category. Understanding the preferences of each type of guest in each type of accommodation will allow focusing on factors that are effective in for improving satisfaction and optimizing the investment of scarce management resources. To elucidate these issues, this study reviews previous studies on customer satisfaction in the lodging industry, derive frequent words used

by guests in ryokan and hotel reviews, and read related reviews using these frequent words as clues to organize, compare, and analyze satisfaction and dissatisfaction factors for ryokans and hotels.

2. Literature review

Previous studies have classified characteristics of the service industry, including the lodging industry. Gronroos [1984] classified services into technical quality and functional quality. Technical quality is the result of the production process and is a feature that can be objectively evaluated, such as a room or bed in an accommodation facility or a meal in a restaurant. In contrast, functional quality refers to the production process itself, subjectively evaluated by guests, for example, the ease of use of a lodging reservation site or the appearance and behavior of tour guides. This classification divides service characteristics into two categories: objectively evaluated tangible technical qualities and subjectively evaluated intangible functional qualities. In SERVQUAL [Parasuraman, Zeithaml and Berry, 1988], the following indicators of service quality are also used: reliability (certainty of promised service), responsiveness (proactivity and promptness in assisting customers), assurance (expertise and reliability of employees), empathy (concern and care for individual customers), and tangibles: (physical services such as equipment and facilities). Four of these items are related to intangibles. Mels, Boshoff and Nel [1997] found that the five SERVQUAL items can be summarized in two dimensions: intangibles and tangibles. Incidentally, the SERVQUAL has been modified to suit various industries in the service industry, and

LODGSERV, which evaluates services in lodging facilities, was developed by Knutson, Stevens, Wullaert, Patton, and Yokoyama [1990].

Mels, Gundersen, Heide, and Olsson's [1996] study on hotel customer satisfaction demonstrated that two-dimensional factors, tangible aspects such as accommodation facilities and rooms and intangible aspects related to staff, have more explanatory power of customer satisfaction than departments. Büschken, Otter, and Allenby [2013] found that the friendliness of the booking agent, the greeting of the hotel staff upon arrival, the friendliness and competence of the front desk staff, the hotel's telephone service, the greeting of the room attendant, the efficiency of the check-out process, the cleanliness of the rooms and the bathroom, the feeling of security were important factors for customer satisfaction. An analysis of problem experiences with lodging facilities during the stay revealed that intangible services highly related to the intention of recommending the hotel to others were sense of security, friendliness of front desk staff, and greeting of room attendants, while friendliness of reservation agents was low. In Japan, Matsuo, Okuse, and Carolus [2001] found that satisfaction related to tangible aspects such as facilities strongly influences overall satisfaction. The Japanese lodging industry has always had a high level of intangible aspects, mainly human services, with slight variation, especially in onsen ryokans. In addition to guestrooms, the study also found that the Japanese value tangible services such as public baths and meals in hot spring accommodations. Inaba, Shen, and Ito [2003] surveyed the services that Taiwanese tourists visiting Japan consider important and found that (1) tangible services are more important than intangible services and (2) both tangible and intangible services, such as provision of outdoor hot springs and quality of meals are important.

To summarize, previous studies have analyzed customer satisfaction in the lodging industry based on the provision of tangible services, such as facilities and equipment, rooms, food, bath, landscape, and furnishings, and intangible services, such as reservation agents, front desk, staff and other employees, and check-in/out and telephone assistance. Additionally, ryokan is a long-established lodging industry unique to Japan. What guests seek from ryokans and the satisfaction factors should differ from those of hotels. Nevertheless, the studies use the

same survey indicators to analyze ryokans and hotels. Furthermore, customer satisfaction in the lodging industry is limited to evaluating items such as guest rooms, public baths/onsen, meals, and customer service, and it is not clear what and how guests are satisfied with each item. This study selects ryokans and hotels that their guests highly rate, derive words frequently used by guests through word-of-mouth, and analyzes the context of the words with co-occurrence network analysis to elucidate the level of satisfaction and dissatisfaction factors for each tangible and intangible service.

3. Word of mouth analysis of customer reviews by tangible and intangible services of ryokans and hotels

This study analyses ryokans and hotels' satisfaction and dissatisfaction factors based on guest reviews of tangible and intangible services. The Ritz-Carlton Hotel (Tokyo), Hilton (Tokyo), and ANA InterContinental Hotel (Tokyo) were the top three hotels in *Jalan's Aspirational Hotel Ranking*,⁽¹⁾ and Kagaya, Hachimanya, and Suimeikan are the top three ryokans in *Travel News Shinsha's 100 Hotels and Ryokans Selected by Professionals (Omotenashi Category)*.⁽²⁾ A total of 600 reviews were analyzed, as shown in Table 1, posted from May 2012 to October 2022. The 100 most recent reviews were extracted from TripAdvisor⁽³⁾ at each ryokan and hotel in question, dating back to the time of this survey (Nov. 2022).

It is time-consuming to carefully read individual reviews; therefore, word-of-mouth reviews were decomposed word by word with KH Coder,⁽⁴⁾ organized the meaningful and frequently occurring words by tangible and intangible services, and conducted content analysis on the reviews containing those keywords. Content analysis is a qualitative method for objectively and systematically analyzing specific attributes and making inferences about what a text says based on the number of occurrences of words in sentences and free descriptions in questionnaires (Funashima, 2007). In addition, a co-occurrence network analysis was conducted to verify the results in depth. The results of this analysis are organized and discussed in terms of satisfaction–dissatisfaction and tangible–intangible services for each ryokan and hotel.

Table 1: Number of reviews of ryokans and hotels

Type	Name	Number of Reviews	Satisfaction Average	Standard Deviation
Hotel	The Ritz-Carlton	100	3.83	1.471
	Hilton	100	4.12	1.208
	ANA InterContinenta	100	3.89	1.286
Subtotal (Hotel)		300	3.95	1.322
Ryokan	Kagaya	100	3.70	1.330
	Hachimanya	100	4.31	0.982
	Suimeikan	100	3.69	1.331
Subtotal (Ryokan)		300	3.90	1.214

3.1 Word of mouth analysis of ryokans

3.1.1 Content analysis of ryokan reviews

Table 2 shows the results of classifying frequently occurring words in ryokan reviews by tangible and intangible services.

The most frequently used word for ryokan tangible services was room (324). Highly rated reviews read, “Nothing to say about the room or facilities” (Hachimanya, Feb. 2021); and “The room was very spacious, well cleaned and very clean. And the view of the Sea of Japan from the window was nice” (Kagaya, Dec. 2021), indicating that guests were satisfied with the size and cleanliness of the ryokan rooms and the view from the window. In contrast, the lower-rated reviews read, “The rooms looked like old Showa-era big-box inns as they were, and everywhere was dingy and dirty; I didn’t even want to sit on the sofa” (Suimeikan, Dec. 2019); and “You can smoke everywhere in the ryokan, and it stinks. Rooms don’t seem to be set up for non-smokers either.” (Hachimanya, Mar. 2019). In addition, reviews about the hot spring (219) and bath (185) included the following: “We enjoyed the hot spring baths with an open-air bath, an observation bath, a large bath in *Shimodome-no-yu*, and a hinoki bath in our room” (Suimeikan, Dec. 2020); and “One of the open-air baths has a large and deep bathtub and you can feel the abundance of hot water” (Suimeikan, October 2018), describing an extraordinary relaxing experience, with multiple large baths, luxurious bathing facilities, high-quality hot springs. However, negative comments included “The baths are of good spring quality, but the facility is old-fashioned” (Suimeikan, Sep. 2018); and “The bath is the only good thing about this inn. However, the once-a-week cleaning is unsanitary” (Suimeikan, Jul. 2018).

The most common intangible service commented on at ryokans is lodging (156), with the highest-rated reviews stating, “Welcome, guidance, room, bath, meals, hospitality, everything was satisfactory, especially the attentiveness of the waitresses in the lodging!” (Hachimanya, Feb. 2017). In contrast, a lower-rated review stated: “I stayed here with high expectations because it is always ranked high in ryokan rankings, but the young proprietress standing at the entrance was not friendly to

anyone except regular guests and did not greet me in the lodging when I walked by her side. The room attendant was new and interrupted us several times when we were about to eat due to long conversations during the serving process” (Kagaya, Jan. 2020). Other customer service issues include room information at the front desk, the first contact at a ryokan, remaining until after the stay. In addition, several frequently occurring words related to food were found, such as meal (155), food (90), and breakfast (76). A food review shows that “the amount of food is more than I can eat, the dishes are beautiful, the colors are beautiful, and the meat, fish, and vegetables are tasty. The children’s food is just as good as the adults’. The waitress helped with the children’s meals and was very attentive. We had our meals in our room this time, but next time we would like to try meals outside of the room” (Kagaya, May 2018). However, there were complaints about the speed and timing of food delivery, such as, “The food came out very fast, and when I asked them to slow down a little, they said some people are fast, the beef that looked delicious was cooked too quickly and burned while I was eating the others, and the red soup was lukewarm when it came out” (Suimeikan, Oct. 2020).

3.1.2 Co-occurrence network analysis of ryokan reviews

Figure 1 showed the results of the co-occurrence network analysis for ryokan reviews. Five groups of words were derived from the co-occurrence network analysis. Group of words 1 consisted of ‘room,’ ‘delicious,’ ‘breakfast,’ and ‘dinner.’ The examples of reviews included the following comments: “This time we had a meal in the room. The amount of food was more than I could eat, the dishes, the colors were beautiful, the meat, fish, and vegetables were delicious.” (Kagaya, May 2018), which recalls that the meals eaten in the room were delicious. Group of words 2 was ‘hot spring,’ ‘lodging,’ ‘meal,’ ‘good,’ ‘inn,’ and ‘many.’ The reviewer said, “The rooms and facilities are unsurpassed, and the meals are sumptuous mountain and sea delicacies. We had a luxurious time. Onsen inns are fun and healing, but the best part is the extraordinary experience” (Hachimanya, Feb. 2021). Group of words 3 was ‘ryokan,’ ‘inside building,’ and ‘spacious.’ As in “the green in front of me, the wide atrium that runs through the center of the inn from the first to the eighth floor, and the bath that seems to be three times larger than a normal inn with an indoor bath, outdoor bath, and sauna” (Hachimanya, Aug. 2016), the guest was impressed with their admiration for the ryokan’s spacious interior. Group of words 4 was ‘bath,’ ‘use,’ and ‘response.’ From the word of mouth, “The spacious interior of the ryokan, we had to turn right around to see which way to go to the baths, but a staff member was there right away and guided us to the baths.” (Kagaya, Jun. 2018), indicating that the staff service when using the baths was good. Group of words 5 was ‘disappointing,’ ‘before,’ and ‘this time.’ An example of a word-of-mouth comment was, “The previous time was in the new building, but this time it was in the old building. The towels in the room were dirty and the image of a high-class inn was faded, which is dis-

Table 2: Frequent words for each ryokan tangible and intangible service

Tangible	Number	Intangible	Number
room	324	lodging	156
hot spring	219	meal	155
bath	185	food	90
ryokan	183	breakfast	76
inn	92	staff	74
bathhouse	66	support	68
open air bath	53	service	59
front	48	hostess	55
		stay	52
		guide	49

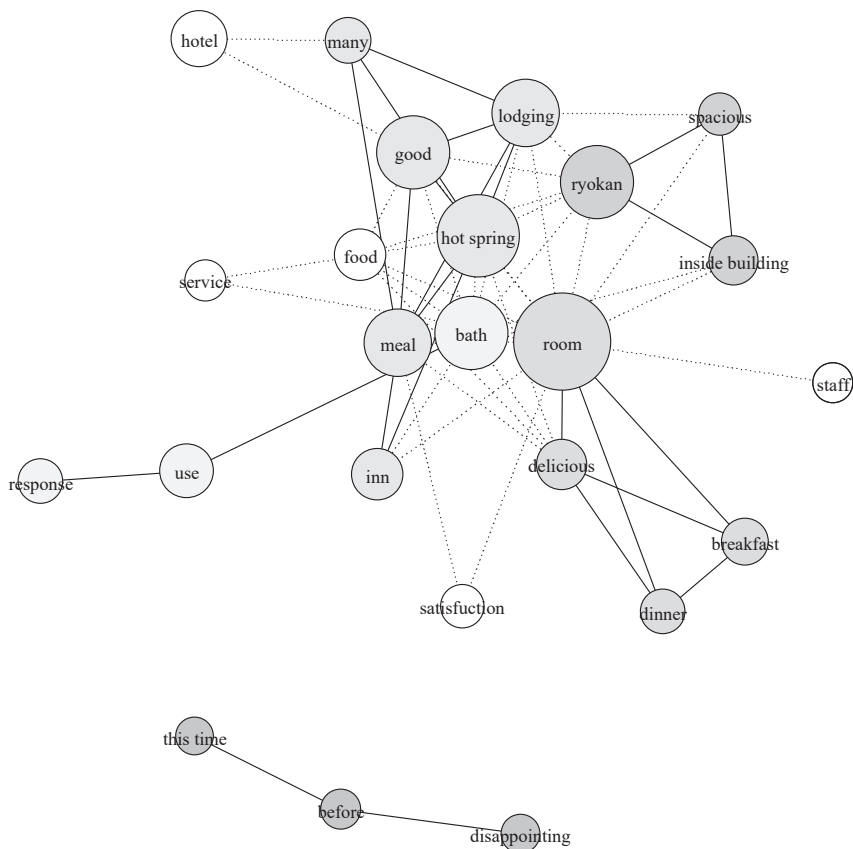


Figure 1: Co-occurrence network analysis of ryokan reviews

appointing” (Suimeikan, May 2018).

3.2 Word of mouth analysis of hotels

3.2.1 Content analysis of hotel reviews

Table 3 shows the results of categorizing the frequent words in hotel reviews by tangible and intangible services. Like ryokans, the high and low reviews of hotels that contain frequent words are carefully examined.

The most frequent words that stood out in the evaluations of hotel tangible services were hotel (519) and room (237). Highly

Table 3: Frequent words for each tangible and intangible service of the hotel

Tangible	Number	Intangible	Number
hotel	519	lodging	206
lounge	260	service	159
room	237	staff	153
club	178	breakfast	129
pool	66	afternoon tea	128
restaurant	60	reservation	102
floor	53	check in	95
bath	52	stay	93
		support	87
		check out	73
		meal	63

rated reviews read, “This was my first time staying here. It was a beautiful hotel, and the staff was very helpful” (Intercontinental Hotel, Mar. 2022); and “I appreciated having two washrooms in the bathroom for my children” (Ritz-Carlton Hotel, Apr. 2019), indicating a positive evaluation for cleanliness and convenience. In contrast, lower-rated reviews include, “The rooms are rather spacious, which is fine for a family, but the bathrooms are unusually small” (Intercontinental Hotel, Nov. 2020). The guests’ impressions vary by hotel and room. The next most frequent words are lounge (260) and club (178). “The Club Millennia Suite on the 53rd floor club floor is a room with two windows overlooking the Sky Tree and Tokyo Tower. Perhaps because of this location, it is my favorite at the Ritz in Japan” (Ritz-Carlton Hotel, Jan. 2020). Other reviews were positive about the luxury of the high-quality Club Lounge. However, there were multiple instances of food in the Club Lounge taking 30 minutes to an hour to be served (served earlier to those who entered at the same time), the number and contents of the menu differed from the descriptions, different dishes were delivered from those ordered, dishes that should have been ordered did not arrive, and items on the set menu were out of stock and could not be ordered” (Ritz-Carlton Hotel, Jul. 2020).

Frequent words related to intangible services in hotels include lodging (206), service (159), and staff (153), which are related to check-in (95) and check-out (73). For example, “When I checked out, the first staff member who took care of me gave

me an aroma candle as a congratulatory gift, which made me very happy.” (Ritz Carlton Hotel, Mar. 2022). In contrast, “I was not quite satisfied with the service I received from the DM, but when I checked out in the morning, there was no apology, as if nothing had happened, which is a failure in the service industry” (Hilton, Jun. 2022). In terms of staff service, the first check-in and last check-out can make or break the entire stay experience, as seen in the highly rated reviews of breakfast (129) and afternoon tea (128): “The set menu breakfast was the best here. The three-tiered ball-shaped appetizer plate is unique in appearance, and I have never seen anything like it at any other hotel. For the main course, I ordered an omelet with kujo leeks and waffles, both of which were carefully prepared by the hotel chef” (Ritz-Carlton Hotel, Dec. 2021); and “The food and drinks at the Club Lounge are excellent, especially the afternoon tea that changes seasonally and looks beautiful and tastes great” (Ritz-Carlton Hotel, Dec. 2021). Afternoon tea is an intangible service unique to hotels and unavailable at ryokan; it is typically highly evaluated. However, a poor review of breakfast and afternoon tea reads, “When I asked the staff if breakfast was included, they replied, ‘You are a member, so breakfast is included.’ The next morning, when I gave my room number to the reception staff at the venue, they replied, ‘You are a Blue member, so breakfast is not included.’ I told him about the incident and that I had confirmed it the night before, but he just said, ‘I also confirmed that you are a Blue member’” (Hilton, Dec. 2019). Additionally, “We got back on track and

went to afternoon tea. No one showed us to our table or came to take our order, and when they finally came, our order did not arrive for 30 minutes. They said it was late, but it had already been served to the table of a later guest” (Ritz-Carlton Hotel, Jun. 2019). Some guests were dissatisfied with the communication and serving process.

3.2.2 Co-occurrence network analysis of hotel reviews

Figure 2 showed the results of the co-occurrence network analysis for hotel reviews. Three groups of words were observed from the co-occurrence network analysis. Group of words 1 was ‘hotel,’ ‘guest room,’ ‘lodging,’ ‘service,’ ‘use,’ ‘staff,’ and ‘good.’ The reviewer wrote, “The lounge staff and restaurant staff were excellent, especially the turndown room order, which showed more care than any hotel I have stayed at in the past. Also, the fitness related staff were so pleasant that we used them day after day.” (Ritz Carlton Hotel, Jul. 2020). Group of words 2 was the ‘lounge,’ ‘club,’ ‘afternoon,’ and ‘tea.’ According to a reviewer, “Up on the 45th floor, there is a high-ceilinged lobby lounge with water flowing and a live piano performance during the day, where relatively elderly people were listening to the music while having afternoon tea. (Ritz-Carlton Hotel, Jan. 2020), it can be imaged that the guests enjoyed afternoon tea at the club lounge. Group of words 3 was ‘check-in,’ ‘check-out,’ and ‘stay.’ As stated, “From check-in to check-out, our stay was one of hospitality.” (Hilton, Jul. 2021), speculating that they enjoyed their stay at the hotel from beginning to end.

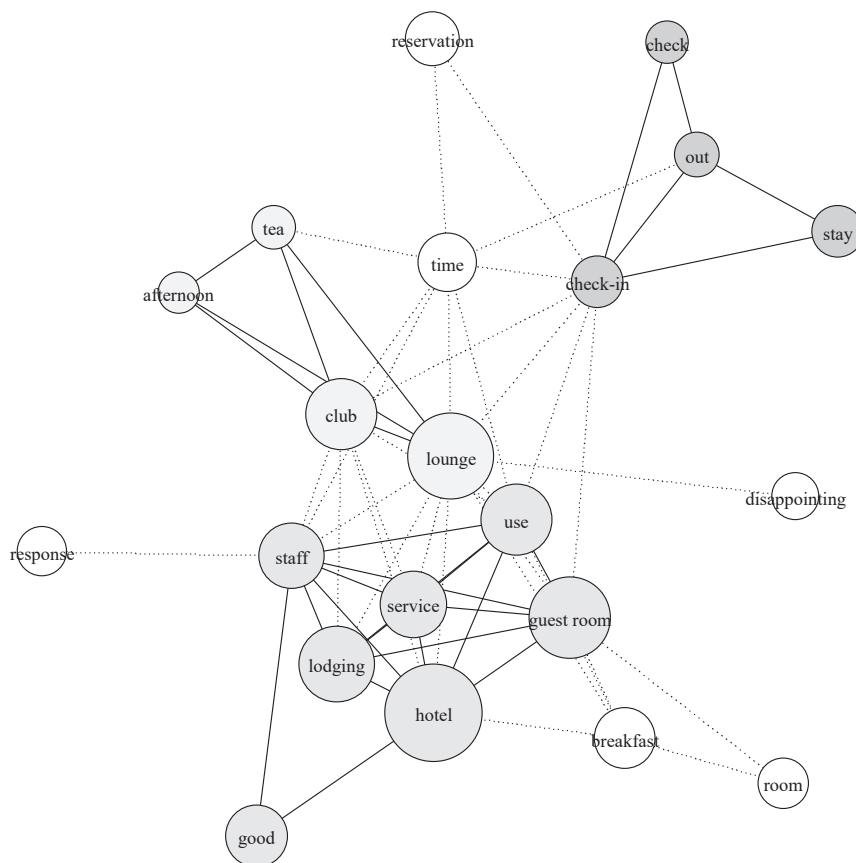


Figure 2: Co-occurrence network analysis of hotel reviews

4. Discussion of the results of word-of-mouth analysis of ryokans and hotels

Based on the content analysis of these word-of-mouth surveys, the factors causing satisfaction and dissatisfaction with tangible and intangible services in ryokans and hotels are shown in Table 4.

Regarding tangible services provided by the ryokan, guests were satisfied with the clean and spacious guest rooms, the well-equipped buildings, and the fact that they could relax in several large bathtubs, including indoor and outdoor baths. Regarding intangible ryokan services, reviewers were impressed by the abundant and delicious breakfast and dinner and the front desk's pleasant and courteous guidance to their rooms. The reviews indicate that guests are satisfied with hotel tangible facilities other than accommodations, such as the high-quality club lounge, bathrooms, and swimming pool. Regarding hotel intangible services, the reviewers were satisfied with the unique afternoon tea, cocktails, breakfast and cuisine, hospitable staff, and courteous and prompt service at check-in and check-out. Based on these results, new items should be added to the ryokan's own satisfaction survey items: large baths or hot spring, and hotel's own survey items: club lounges and afternoon tea.

While guests were satisfied with these unique features of each ryokan and hotel, dissatisfaction was commonly related to rooms and staff. Guests are dissatisfied with old, filthy, and smoky rooms in ryokans, while they are due to difficulties in room construction and cleanliness, including fixtures and furnishings. Regarding staff response, ryokan guests complain of inadequate or unskilled workers and poor response, while hotel guests complain of operational errors and businesslike responses, staff unfamiliarity with their work, lack of explanation, and poor responses. Furthermore, "The non-smoking room smelled like an old warehouse. There was no comment such as 'I will

be sure to inform all concerned,' after a superficial apology, the accounting procedure was carried out clerically, which even seemed cold" (Intercontinental Hotel, Jan. 2021). The dissatisfaction with the uncleanliness of the rooms and facilities, including the equipment, and employee operational ineptitude and clericalism may accumulate and result in complaints. In the co-occurrence network analysis, the word "disappointing" was related to "before" and "this time" in the ryokan shown in Figure 1, and with "lounge" in the hotel shown in Figure 2. In the ryokan, the guest stated, "When I stayed with my family in March 2018 with my mother who is in a wheelchair, I was healed by the wonderful care, hot spring facilities, and calm atmosphere of the room attendants. My parents were so happy then that we stayed again in August 2018, but this time we were disappointed with the staff." (Hachimanya, Aug. 2018), there are issues with the standardized quality of service provided by the staffs. The guest of the hotel states, "At the club lounge, multiple times the food took 30 minutes to an hour to be served, the number of dishes and their contents were different from the menu, different dishes were delivered from what I ordered for, the dishes I should have ordered did not arrive, and the items on the set menu were out of stock and I could not order them. The room and view were nice, but the stay was very disappointing." (Ritz Carlton Hotel, Jul.2020), operational issues occurred in the lounge. Based on these results, it is important to be aware of the basics of the lodging business, such as cleanliness and thorough cleaning, even if the rooms and facilities are old, staff competence without making mistakes, and providing guests opportunities to enjoy cocktails and afternoon tea in public spaces such as their own lounge or club in hotels or outdoor hot spring baths in Japanese ryokan. In addition, hotels enhance the quality and quantity of breakfast and evening meals to improve satisfaction.

Table 5 summarized the results of the co-occurrence network

Table 4: Factors of satisfaction and dissatisfaction with tangible and intangible services in ryokans and hotels

	Satisfaction	Dissatisfaction
Hotel	[Tangible] <ul style="list-style-type: none"> Relax and unwind in our exclusive Club Lounge (floor). Unique afternoon tea service. Enhancement of hotel services other than accommodation. 	[Tangible] <ul style="list-style-type: none"> Difficulties with the cleanliness and structure of the room, including fixtures and fittings.
	[Intangible] <ul style="list-style-type: none"> Hospitality of employees. Hospitality of the employees. Prompt response at check-out and seeing you off at the end of your stay. 	[Intangible] <ul style="list-style-type: none"> Operational errors or clerical work by employees.
Ryokan	[Tangible] <ul style="list-style-type: none"> Variety of delicious meals both in the morning and in the evening. Food, hot spring, guest rooms, and facilities. Luxurious relaxation in multiple bathtubs, including a large indoor bath and an open-air bath. 	[Tangible] <ul style="list-style-type: none"> Old, filthy, cigarette-smelling rooms and facilities.
	[Intangible] <ul style="list-style-type: none"> Front desk staff's guidance to the room was pleasant and courteous. 	[Intangible] <ul style="list-style-type: none"> Inadequate or unskilled employees, lack of explanation, poor response.

Table 5: Factors of group words by tangible and intangible services in ryokan and hotel

	Factors	Tangible services	Intangible services
Ryokan	(1) Delicious meals served in rooms	room	delicious, breakfast, dinner
	(2) Accommodation experience including hot springs and foods	hot springs, lodging	accommodation, food, good, many
	(3) Spacious interior of ryokan	ryokan, inside, spacious	
	(4) Response when using baths	bath	response, use
	(5) Good before, but disappointing this time		disappointing, before, this time
Hotel	(1) Room and staff services used during lodging	hotel, room	lodging, service, use, staff, good
	(2) Afternoon tea at club lounge	lounge, club	afternoon, tea
	(3) Hotel stay from beginning to end		check-in, check-out, stay

analysis by tangible and intangible services. Most satisfaction factors consist of both tangible and intangible services. For example, the ryokan's 1) "Delicious meals served in rooms" is difficult to find in existing customer satisfaction surveys. Improvements should be holistically optimized for ryokans and hotels, not just in part. In addition to conventional customer satisfaction surveys, word-of-mouth analysis should be used in conjunction with surveys like this study.

5. Conclusion

Customer satisfaction surveys conducted at many ryokans and hotels use uniform items related to facilities, guest rooms, meals, and staff service, despite the differences between these types of accommodation. It was difficult to understand under what circumstances guests felt satisfied or dissatisfied with each item in existing surveys and statistical analyses. This study conducted a content analysis and co-occurrence network analysis of ryokan and hotel guest reviews that received high ratings. Ryokans were rated highly for offering abundant breakfasts and dinners, indoor and outdoor hot spring baths, guest rooms and facilities, and front desk staff, while high-quality club lounges, afternoon tea, and staff service characterized the hotels. However, hotel and ryokan guests were dissatisfied with the age-related deterioration of guest rooms and facilities, inadequate cleaning, and inadequate staff. These results suggest that, in addition to paying attention to the basics of the lodging industry, such as thorough cleaning of guest rooms and buildings and organizational improvement to prevent staff errors, lodging companies appeal to guests by taking advantage of their unique strengths according to business type. While the target of this study was selected from highly rated ryokan and hotel facilities, other business types in the lodging industry include business hotels, resort hotels, hostels, condominiums, and private accommodations. Future research should include these diverse types and increase the number of target lodging facilities and samples, such as low ratings, to validate the study results.

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Notes

- ⁽¹⁾ Recruit "Jalan" (<https://www.jalan.net/news/article/631178/>) 6th June 2022 access.
- ⁽²⁾ The Ryoko Shimbun (https://www.ryoko-net.co.jp/?page_id=101311) 6th June 2022 access.
- ⁽³⁾ TripAdvisor (<https://www.tripadvisor.jp/>) 21st November 2022 access.
- ⁽⁴⁾ For more information about KH Coder, visit the site (<https://khcoder.net/en/>) 18th October 2023 access.

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