OVER-SERVICE AND THE KANO MODEL

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ABSTRACT

The Kano model has been widely used as a management tool and applied to various fields. This study examined customers' service perceptions of a fine dining chain restaurant and explored the possible extensions of the Kano model by using the over-service concept. Questionnaires containing 15 service behaviors were distributed for classifying service attributes based on the Kano model, followed by in-depth interviews to identify the related over-service perceptions. Over-service was identified by the participants in attractive, one-dimension, indifference, and reverse quality attributes. The findings indicated that the Kano model could not capture a complete picture of the service quality perception. The over-service concept aided in extending the model and provided a comprehensive view of the service quality construct.

Keywords: Over-service, Kano model, Quality attribute, Restaurant

1. INTRODUCTION

Kano, Seraku, Takahashi and Tsuji (1984) proposed a quality classification model as a managing tool to clarify the relationship between quality attributes and customer satisfaction: any given quality attribute has two aspects, namely an objective aspect, which involves the fulfillment of quality, and a subjective aspect, which involves the customers' perception of satisfaction. By using this model, quality attributes can be divided into five categories: attractive, one-dimensional, must-be, indifferent, and reverse attributes.

The attractive quality attribute is a positive attribute that does not induce dissatisfaction if the attribute is absent. The one-dimensional quality attribute is denoted by a positive linear graph in the Kano model; the higher the perception of a quality attribute, the greater is the satisfaction. The must-be quality attribute induces customer dissatisfaction if it is absent but does not contribute to customer satisfaction when present. The indifferent quality attribute is an attribute that does not cause customer satisfaction or dissatisfaction regardless of its presence or absence. The reverse quality attribute causes customer dissatisfaction with its presence. The perception of a quality attribute is determined by individual factors, such as personal experience, value or preference, and is not always perceived in the same manner by different consumers. Because customer perceptions of a specific quality attribute can vary, predicting satisfaction is additionally complicated.

Several researches have employed the Kano model to examine quality attributes in the hospitality industry. For instance, Yang, Jou and Cheng (2009) concluded that the hotel frontline staff's service attitude and the facilities' safety are rated as one-dimensional quality attributes. Moreover, Lieberman (2008) classified the quality attributes of a steakhouse restaurant with the Kano model and found that "served promptly" was a one-dimensional quality attribute. According to the Kano model, reverse quality attribute perception causes dissatisfaction. However, as the notion of a reverse quality attribute is "more is worse," Kano model-based research has rarely examined this quality attribute because it is seldom noticed in a practical condition.

For instance, Yang *et al.* (2009) applied the Kano model to compare the quality attributes of business hotels to that of resort hotels and indicated that reverse quality attributes play no part in customers' evaluations and thus they were not included in the research. The study indicated that identifying reverse quality attributes is not necessary. They should rather be completely discarded because such attributes cannot attract customers or further enhance customer satisfaction; hence, they have not been explored herein. By contrast, Dominici and Palumbo (2013) adopted the Kano model to identify the relevant drivers of satisfaction of three-star hotel guests in the main cities of Sicily, Italy.

They analyzed customer satisfaction requirements for Sicilian hotels and found only one condition considered reverse quality attribute by respondents: the presence of a nightclub lounge in the hotel. Hotel guests are absolutely adverse to the presence of such lounges because they believe that a nightclub would create noise and disturb sleep. There are more difficulties in measuring the service quality than measuring the product quality. Slater and Narver (1995) indicated that accurately providing the products and services that really matter to the customer's needs would be able to accelerate customer satisfaction. Indeed, what customers do not need or dislike reflects their inner perceptions of the products and services. Over-service is the service offered that has exceeded customer's expectations but has induced dissatisfaction. Sun and Chung (2011) have classified over-service into seven categories: excessive frequency, over-speediness, over-attentiveness, over-decorativeness, over-enthusiasm, over-caring, and excessive detail. For example, in several studies, prompt services were often resulted as a one-dimensional attribute, but service provided too fast would also cause feelings of dissatisfaction.

The hospitality industry highly values the importance of service quality. Attributes classified based on the Kano model are often considered a guideline for improving quality and achieving customer satisfaction. However, despite restaurants' efforts to provide service to fulfill customer expectations, they are generally unable to prevent over-service; this can result in negative quality perceptions. Thus, investigating the Kano model by using the over-service concept can aid in enhancing not only the understanding of customer needs but also the management of service quality.

2. APPLICATION OF THE KANO MODEL IN HOSPITALITY MANAGEMENT

In the past three decades, industries have implemented various quality management systems and standards, such as QCC, ISO 9000, and TQM. These quality management devices aim to fulfill customer requirements, exceed customer expectations, and achieve customer satisfaction. The pursuit of customer satisfaction and loyalty is the main concern of all companies (Gorst, Kanji and Wallage, 1998). The rule of customer satisfaction has been as follows: the greater the fulfillment of a desired quality, the higher is the perception of customer satisfaction. However, some quality attributes can fulfill customer expectation to a great extent without implying a higher level of customer satisfaction (Matzler and Hinterhuber, 1998).

Pawitra and Tan (2003) combined QFD, SERVQUAL, and the Kano model to analyze the effectiveness of tourism marketing in Singapore. Their quality attributes mainly focused on activities, namely easy-to-find world-class brand name products and services, plentiful nightlife, exciting events and festivals, convenient public transportation, high standard of cleanliness, and safe and interesting city tours. These activities had a nonsignificant relationship with service behaviors. However, by incorporating the Kano model, the researchers could identify attributes worth exploring, which could lead to higher satisfaction.

Tontini (2007) identified quality attributes in a pizza restaurant and focused on tangible items, which involved a few service attributes, such as live music, air conditioning, serving time, and sympathy. Lee and Chen (2006) employed the Kano model in a hot-spring hotel in Taiwan with focus on facility planning and equipment. Although the study had classified "a hot spring for both sexes" as a reverse quality, the description of the reverse quality was unclear. Yang *et al.* (2009) used integrated quality assessment for hotel service quality. The authors implemented the modified Kano model within high- and low-importance categories to classify the quality attributes and found that most of them were various types of services, such as Internet access, breakfast, and free domestic call service.

Ponnam, Sahoo and Balaji (2011) proposed a segmentation concept to apply the Kano model in the fast-food industry, whereby the author clustered four types of customers—for money, for novelty, taste seekers, and traditionalists—and classified six important variables—gourmet taste, size of serving per order, rotating menus, thematic interior, young crowd, and quick serving time—into different quality dimensions. This study showed that the preference of different clusters of customers varied with quality attributes.

For instance, the quality attribute "cleanness" was presented as a crucial variable for some customers; however, this was not consistent with different customer clusters. On comparing the study of Ponnam *et al.* (2011) with those of other studies (Pawitra and Tan, 2003; Tontini, 2007; Lee, and Chen, 2006; Yang *et al.*, 2009), it is noted specific discussions about classifying the quality attributes based on certain clusters.

Pai, Yeh and Tang (2018) examined how each service quality item possibly had a different effect on restaurant customer satisfaction. The Kano model was combined with IPA to investigate the critical service quality attributes. The results showed that restaurants should use high attractive quality attributes to strengthen the focus on improvement.

To maintain a good health status, customers may visit healthy fast-food chain restaurants, such as Subway, more often than before in China and Taiwan. Chen, Yeh, Pai and Chen (2018) used the Kano model to understand how customers perceive service attributes. The quality function deployment method was employed to describe the relationships between the critical service attributes and corresponding improvements as well as to identify the priority for these improvements. The authors found that providing limited-period, -season, and -region offers should be at the top of their improvement list, followed by staff suggestions for ingredients and temperature display to enhance the image of fresh ingredients.

Cheng, Chang, Tsai, Chen and Tseng (2019) developed the seven-dimension lifestyles of health and sustainability restaurant service quality scale. The scale included internal sense of happiness, transitiveness, environment, healthy catering, service commitment, green practicability, and thoughtfulness. By using the Kano model, the seven service attributes were categorized into attractive, one-dimensional, and must-be qualities.

Thus, after the use of the Kano model, few hospitality study results were associated with quality attributes directly related to service behaviors. Nevertheless, certain quality attributes, such as serving time, service attitude, and sympathy, were proposed frequently. In addition, reverse quality attributes were rarely presented in such studies, potentially because reverse quality attributes are difficult to identify. In most cases, the purposes of customers visiting a restaurant or hotel were distinct; thus, customer expectations can be difficult to conceptualize. Most studies have classified the Kano quality attributes by ranking customer perceptions through statistical conclusions. Therefore, although quality attribute analysis has demonstrated correlations with customer satisfaction, for understanding the quality perception further, interaction with customers through in-depth interviews is essential.

3. OVER-SERVICE BEHAVIORS AND ITS IMPACT

The food-service industry attempts to maintain customers by offering quality service to enhance post consumption cognition. Parasuraman, Zeithaml and Berry (1988) considered consumers to base their assessment of service quality on the gap measured between their expectations and their experiential perceptions, where the experiential perceptions exceeding the expectations can aid positive service quality perception. In the past, in the hospitality field, supreme service quality was considered to exceed customer expectations (Marković, Raspor and Šegarić., 2010; Zehrer, Crotts and Magnini., 2011; Wonglorsaichon and Wiriyakitjar, 2013). Dixon, Freeman and Toman (2010) proposed that the idea that companies must "delight" their customers has become so embedded that managers rarely examine it. Delighting customers may not build loyalty. The relationship between exceeding customer expectation and loyalty is not as strong as perceived. However, as the notion of reverse quality elements indicates, customer satisfaction does not always increase according to the fulfillment of a quality element, because a service that exceeds customer expectations can conversely leave customers with a negative perception of the service quality. In fact, many restaurants attempt to provide as much service as possible without considering whether over-provision may lead to negative customer reception.

Nowadays, providing a high service quality that satisfies costumers is the priority of the food-service industry. However, efforts to provide quality service may fail. Overly attentive service may make customers feel a lack of privacy. For instance, during a romantic dinner date, the server, while knowledgeable and friendly, may think it is his or her place to jump into a private conversation and even pull up a chair toward the end of meal, completely ruining the date for the customers. Apologies for service failures may also make previously indifferent customers feel embarrassed. Therefore, services exceeding customer expectations but resulting in a negative perception of service quality should be explored. Sun and Chung (2011) explored the concept of over-service in the food-service industry from the customers' perspective.

The authors posted a questionnaire on the discussion boards of the bulletin board system related to restaurant service and sent e-mails to those who posted articles about dining experiences, asking them fill out a web-based survey. In 266 valid questionnaires, 351 over-service behaviors were found.

This study categorized over-service into seven categories: excessive frequency, over-speediness, over-attentiveness, over-decorativeness, over-enthusiasm, over-caring, and excessive detail. "Excessive frequency" includes repeated offers of service, such as inquiries on meals or additional orders, promotion of meals, and explaining the courses too many times. Regardless of whether it was provided as a company requirement or was the involved employee's initiative, this type of service causes a negative customer perception, although the staff member may appear to be diligent. "Over-speediness" denotes that that the service offered by the employee arrives too fast. For instance, the serving staff may take orders too soon or be too fast in delivering orders. Customers can feel hurried if the staff member is too fast to collect used plates or asks the customers to fill in questionnaires immediately after they have been seated. These behaviors may lead the customers to thinking the staff is very proactive but also cause them to feel stressed during the meal.

A restaurant manager hopes the staff can keep an eye out for the customers at all times to see if customers need service. Staring by the serving staff can cause stress to the customers. Although this may be perceived as having someone to offer service constantly, it may make the customer feel like they are being watched. Paying too much attention to the customers can cause the feeling of "over-attentiveness."

The staff serving with a humble, overly polite, or unnatural demeanor and attitude can leave the customers with a negative perception of "over-decorativeness." Regardless of whether it pertains to assistance in ordering, presentation, or table clearing, this excessiveness is unwelcomed. Moreover, on learning that customers have had an unsatisfactory dining experience, service providers may rush to offer profuse improvements and apologies, which may not be readily accepted by certain customers, but instead leave them feeling embarrassed. This suggests that postservice failure compensation measures are critical and can cause a negative perception if performed in an overly sensitive manner.

"Over-enthusiasm" indicates too much extroversion in the presence of the customer. Restaurant managers, chiefs, or waiters typically offer such an over-enthusiastic reception. When the restaurant industry interviews for their staff, they hope to recruit someone outgoing and gregarious. However, over-enthusiasm does not necessarily strike a chord with customers.

"Over-caring" involves being too eager to understand the customer's experience. Customers receive enquiries from the service providers during the meals or service providers would come over to enquire about their dining experience after customers have already filled out the survey forms. Listening intently and understanding customer feedback are conducive to understanding customer preferences and improving the restaurant's disfavored service accordingly. However, only timely enquiry can provide clearer understanding; otherwise, the customers will feel pressure during the meal. Furthermore, not all customers are willing to provide dining opinions to the restaurant for the proprietor's reference. That is, out of politeness, what is not satisfactory is usually left unsaid. Prying and probing can lead to only backlash.

"Excessive detail" means giving too many details or unwanted information. Carefully presenting every single detail of the meal or giving too much information during ordering or between meals is considered unnecessary and can waste the customer's time. However, restaurant proprietors often deem it excellent service to spare no details in reeling off the menu content and restaurant information. However, giving excessive detail can make customers feel as if too much time is being spent on unnecessary courtesies.

Sun and Chung (2011) also reported that of the 266 respondents who had experienced over-service, 228 indicated they would not complain to the restaurant, whereas remaining 38 said they would. Of these 38 people, 20 were satisfied with the remedial measures, but 18 were not. Regarding negative word-of-mouth behavior, 171 respondents (64%) said they would convey their over-service experience to their friends and relatives, but 95 (36%) said they would not. Moreover, 97 respondents (36%) considered that over-service experiences would prevent them from dining in the same restaurant again.

The customer complaints regarding over-service accounted for only 14% of the total complaints. Despite feeling uncomfortable and embarrassed, most customers attribute over-service to the proactive efforts of the staff or to the regulations imposed on them by standard service procedures. However, the lack of complaints does not signify perfection, and the low complaint rates can result in business proprietors being oblivious to over-service.

Nevertheless, over-service that customers complain about the most is excessive frequency, whereas customers who experience over-enthusiasm and over-caring are least inclined to complain, possibly because they feel that a complaint about service providers being too friendly and enthusiastic can cause mutual embarrassment. Furthermore, those who experience over-caring would rather not receive any further caring enquiry because they believe that complaints will only invite more "caring attention." Thus, such customers would rather keep their complaints to themselves.

In the Kano model, a one-dimensional attribute is thought of as "more is better." In this case, it could be a way to understand if the model itself would be extended using the over-service concept. Parasuraman *et al.* (1988) consider that service quality is a result of the comparison between customer perception and expected service: If the perception is above the expectation, the service quality is perceived positively. However, over-service cannot be understood on this basis because over-service refers to customers having a negative perception of the service quality even after their expectations are surpassed.

Over-service is a subjective judgment and thus those experienced such incident do not necessarily hold a strong negative opinion of the restaurant. For instance, while dining in the restaurant, a customer may find it discomforting when the serving staff smiles and uses charming or friendly voices; however, even after experiencing such over-service, the customer would still choose to revisit the restaurant. Nevertheless, over-service incurs a huge waste of human resources, accounting for a major proportion of the restaurant costs. Thus, although some customers may return, over-service is an issue that should be dealt with directly.

4. METHODOLOGY

The main purpose of this study was to evaluate the idea of the Kano model's quality attributes through the concept of over-service. A two-step research methodology that contained both questionnaire surveys and in-depth interviews was employed. Participants were asked to complete the questionnaire and proceed with the interview to explore the specific service behavior from the questionnaire that led to an over-service experience.

Questions for measuring customer food-service quality perceptions were developed from the DINESERV scale (Stevens, Knutson & Patton., 1995). The tangible dimension was eliminated from the original 29 questions to focus on service behaviors. The validity of the remaining questions was evaluated using three faculty members from a college of hospitality management and revised into 15 food-service behavior questions.

Pairwise questions were used to classify the customers' perceptions of service behavior into Kano's attributes (Table I). For each question, functional and dysfunctional degrees were used to evaluate by five criteria: *I really like it*, *I like it*, *I feel neutral about it*, *I dislike it*, and *I really dislike it*. Participants were asked, "How do you feel if the service behavior exists?" and "How do you feel if the service behavior does not exist?"

Over-service often existed in high-class, service-intense restaurants. The W organization, a local chain restaurant, has won the best service quality award many times in Taiwan. The questionnaires were distributed to customers who had at least three dining experiences in the W restaurants over the past 6 months. Of the 12 participants, 6 were male and 6 were female. Most participants were aged 25 years or younger and had a bachelors-level education.

Table I. Example of pairwise questions

If the food is served promptly, how do you feel? (Functional form)	1. I really like it 2. I like it 3. I feel neutral about it 4. I dislike it 5. I really dislike it
If the food is not served promptly, how do you feel? (Dysfunctional form)	1. I really like it 2. I like it 3. I feel neutral about it 4. I dislike it 5. I really dislike it

After each participant answered the 15 questions in the questionnaire, an in-depth interview was conducted by administering the following questions:

1. Did you have any over-service experience in the restaurant according to the questions mentioned above? What was the situation?
2. Was there any other over-service experience with this restaurant?

5. FINDINGS

The quality attribute of each question had diverse recognitions among participants; this indicated that even with the same service behavior, the perceived service quality attributes were varied (Table II). The highest number of quality elements identified indifferent attributes; by contrast, few reverse quality attributes were found, consistent with most previous studies. Ten of the 12 participants identified "guiding customer to taste the meal" as an indifferent attribute, revealing it to be a service not required by most participants. Most of them also thought that "bowing to welcome or thank" did not affect their feeling about the service quality of the restaurant. Moreover, "providing an accurate guest check" and "serving food exactly as ordered" were classified as must-be quality attributes because these service behaviors regarded accuracy, which suggested that these services had to be functional; otherwise, they could cause dissatisfaction.

Table II. Classification of quality attributes

Question/Frequency	A	O	M	I	R
1. Serving food promptly	2	3	3	2	2
2. Collecting the dishes promptly	3	4	1	3	1
3. Correcting anything that is wrong instantly	4	5	1	2	0
4. Introducing the menu and specialties in detail	1	5	2	3	1
5. Filling water glasses frequently	1	2	4	5	0
6. Informing customers of promotional price for a special meals	2	2	4	4	0
7. Guiding customers to taste the meal	1	0	1	10	0
8. Providing an accurate guest check	0	0	11	1	0
9. Serving food exactly as ordered	0	1	10	1	0
10. Asking the customer how they feel about the meal before the next one is served	2	3	4	2	1
11. Intimate greetings to customers	3	2	2	3	2
12. Chatting with customers with passion	3	2	1	4	2
13. Bowing to welcome or thank	3	1	0	8	0
14. Speaking fluently	4	2	4	2	0
15. Clear service wording	1	4	1	5	1
Total	30	35	49	55	10

A = Attractive, O = One-dimensional, M = Must-be, I = Indifferent, R = Reverse

In the interview, we discovered over-service incidents in each question, except for "providing an accurate guest check" and "serving food exactly as you ordered." Table III summarizes the over-service incidents and frequencies at which the participants responded in the interview.

Table III. Content of over-service incident

Question	Summary of over-service in participants' interview	Over-service incident frequency
1. Serving food promptly	The dishes were delivered too fast and made me feel hurried.	5
2. Collecting the dishes promptly	The waitress collected the plates immediately after I finished them, causing pressure and embarrassment.	4
3. Correcting anything that is wrong instantly	Correcting mistakes with frequent apologies that were excessive.	3
4. Introducing the menu and specialties in detail	Introducing information that I was not interested in or already knew.	3
5. Filling water glasses frequently	Adding water frequently and disturbing the conversation at the table.	2
6. Informing customers of promotional price for a special meal	Introducing certain meals that did not interest me.	1
7. Guiding customers to taste the meal	Teaching me how to mix sauces when I preferred my own way.	1
10. Asking the customer how they feel about the meal before the next one is served	Asking whether I was satisfied with the meal three times.	5
11. Intimate greetings to customers	They smiled and spoke in a soft voice; I had goosebumps.	4
12. Chatting with customers with passion	Chatting with us and asking many questions that wasted time.	3
13. Bowing to welcome or thank	Whenever they left our table, they bowed at us.	2
14. Speaking fluently	They spoke so quickly that I could not understand at all.	2
15. Clear service wording	They spoke so loud that tables nearby were watching us.	3

Serving food promptly or collecting the dishes promptly is a service that a restaurant manager would strive to achieve. Notably, in the interviews, five over-service incidents were disclosed; some participants provided us with varied stories. For example, two participants gave incidents that involved in the experience of serving food promptly:

At first, the salad was delivered to the table right after we ordered our meal. Then, when we were almost finished the salad, the soup arrived. My friend and I were chatting at the time, so we just wanted to take our course leisurely, but it seemed [...] they were trying to hurry us. I felt uncomfortable but they were just doing their job so there seemed to be no reason for complaining.

I do understand that cleanliness is part of their job, but I ate much faster than my girlfriend. They should not collect my dishes so quickly because I felt embarrassed when my side of table was cleaned and my girlfriend even blamed me for my good appetite [...].

Some restaurants train their servers to ensure the customers are familiar with the restaurant products, such as menus, specialties, discounts, and the appropriateness of taking specific dishes. Although it is a considerable service to the restaurant customers, particularly for first-time guests, it could have an opposite effect on regular customers. Some of the participants in our interviews expressed their uncomfortable encounters. One participant said,

Once we were looking at the menu, the waitress started to introduce the meals. Actually, I am a frequent customer of this restaurant, and I was familiar with the menu. Anyway, the waitress introduced the menu in detail, and I almost lost my patience listening to her all over again. I knew that was part of their training, but they really should keep a list of the frequent customers like me!

Another participant expressed almost the same feeling about the restaurant service:

As I said, I am a frequent customer of this restaurant, the discount and specialties are usually the same. I do not think I have to be informed about them every time I come to this restaurant, but I do think it is necessary when there are new promotions or specialties.

Many people unfamiliar with some special cuisine would appreciate servers to offer the information. Nevertheless, a participant described the experience with the service of "guiding customers to taste the meal":

I am a frequent customer of the restaurant, but the well-trained waitress had to give the instructions again. She introduced the sauces and started to teach me how to taste the course, I have my preference and the way she taught me made me feel like a fool!

Nowadays, customers visit restaurant not only for the meals but also for meeting people or even for having some alone time. The subsequent two incidents demonstrated unpleasant courtesies that occur in the restaurant. In the first incident, the participant describes how the service of refilling water frequently was unwelcome:

I was having a meal with my client, so you can imagine that we were having a lot of conversation […]. Actually, I was very cautious. The waiter kept adding water to my glass and every time he came to our table, we ceased our conversation. I felt bothered; it was difficult for me to organize my thinking once the conversation had been interrupted."

In the second incident, the participant reflects on the question, "asking the customer how they feel about the meal before the next one is served":

I really wanted to say, 'Just leave me alone' when this happened to me. Asking and caring about the customer is a good thing. However, the frequency of the questions made me feel pressured and interrupted. It is like every time I finished my course, I would think, "Oh! God they are coming again," and I always smiled at them, but that did not mean I was happy with it."

Although customers expect good experiences during their meals, mistakes happen. Apologies or corrections may ease the mood, but too many apologies can make people feel uncomfortable. A participant described a discordant scene during the interview:

It was my brother's birthday, and he ordered a steak. Unfortunately, he is a connoisseur, and he complained to the waiter that the steak was overcooked. The waiter apologized immediately, and soon a waitress came to us and apologized again. They made a new set of steaks for us. At the end, when we were leaving, the manager apologized to us one more time. An apology is fine, but so many apologies made me feel like an awkward customer.
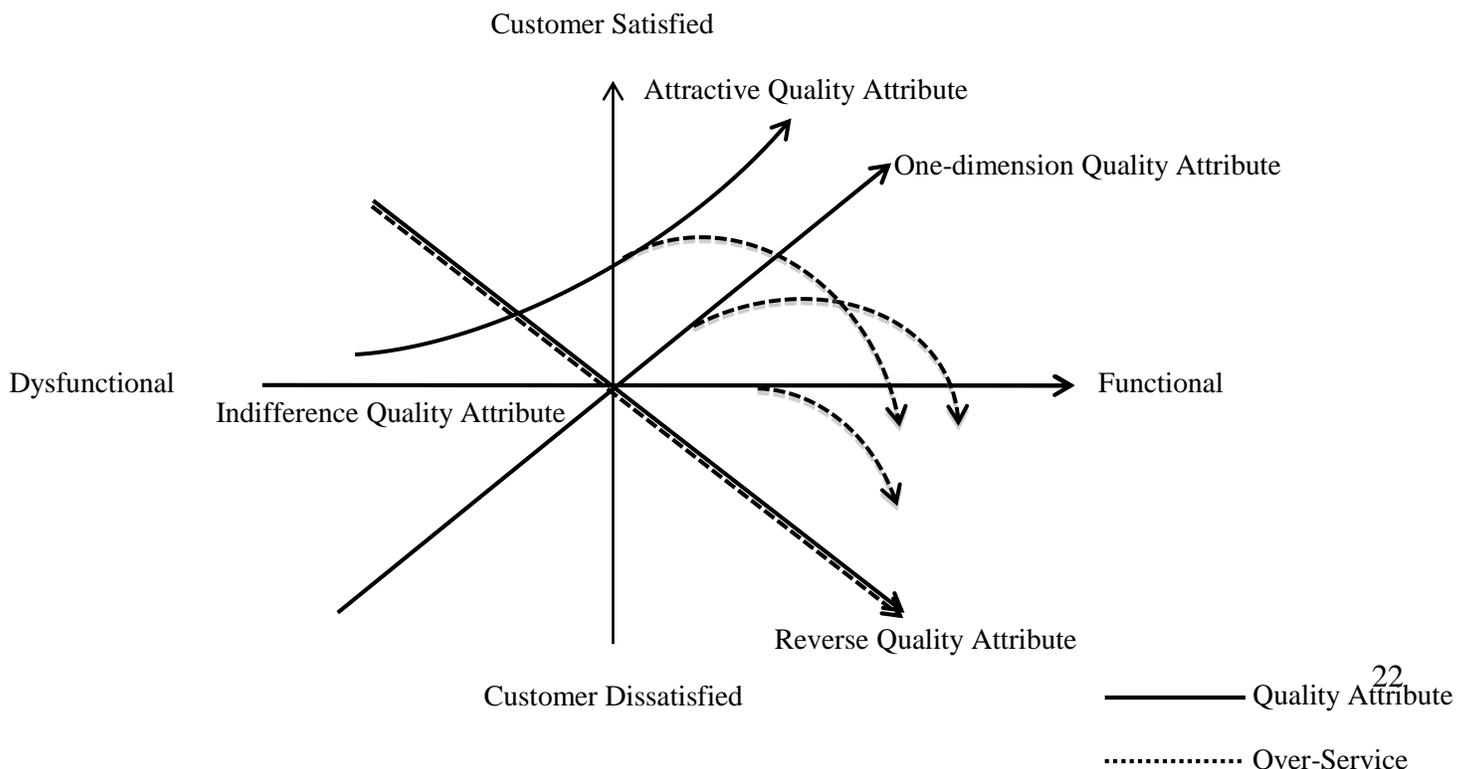
These incidents revealed that over-service behaviors occurred at some point during the services that were being delivered. Thus, positive perceptions of service quality attributes altered when over-service behaviors were uncontrolled. Combining the quantitative and qualitative results (Table IV), this study found that except for the must-be quality dimension, over-service incidents were recorded in the other four dimensions: 4 in attractive dimension, 14 in one-dimensional dimension (highest portion of incidents among the quality dimensions), and 10 in the indifferent dimension. In the must-be dimension, no over-service experience was noted; for the questions of "providing an accurate guest check" and "serving food exactly as you ordered it," all participants shared the same quality attribute perceptions. These service behaviors considered points of accuracy, hardly exceeded customer expectations.

The questions participants classified as reverse quality attributes were directly related to over-service experiences. According to the Kano's definition, the reverse attribute signifies a service behavior that causes dissatisfaction. For instance, four participants rated question "intimate greetings to customers" as a reverse quality attribute, implying that the service behavior was rated as *I dislike it* when it was functional and as *I like it* when it was dysfunctional. However, the participants admitted that negative feelings would not arise at the beginning when the service behaviors are adequate.

Table IV. Quality attributes and over-service incident

Question/Frequency	A/OI		O/OI		M/OI		I/OI		R/OI	
1. Serving food promptly	2	0	3	2	3	0	2	1	2	2
2. Collecting the dishes promptly	3	1	4	2	1	0	3	0	1	1
3. Correcting anything that is wrong instantly	4	1	5	2	1	0	2	0	0	0
4. Introducing the menu and specialties in detail	1	0	5	2	2	0	3	0	1	1
5. Filling water glasses frequently	1	0	2	1	4	0	5	1	0	0
6. Informing customers of promotional price for a special meal	2	0	2	0	4	0	4	1	0	0
7. Guiding customers to taste the meal	1	0	0	0	1	0	10	1	0	0
8. Providing an accurate guest check	0	0	0	0	11	0	1	0	0	0
9. Serving food exactly as ordered	0	0	1	0	10	0	1	0	0	0
10. Asking the customer how they feel about the meal before the next one is served	2	1	3	1	4	0	2	2	1	1
11. Intimate greetings to customers	3	1	2	1	2	0	3	0	2	2
12. Chatting with customers with passion	3	0	2	0	1	0	4	1	2	2
13. Bowing to welcome or thank	3	0	1	1	0	0	8	1	0	0
14. Speaking fluently	4	0	2	1	4	0	2	1	0	0
15. Clear service wording	1	0	4	1	1	0	5	1	1	1
Total	30	4	35	14	49	0	55	10	10	10

A = Attractive, O = One-dimension, M = Must-be, I = Indifference, R = Reverse, OI = Over-service Incident

Customer Satisfied

Attractive Quality Attribute

One-dimension Quality Attribute

Dysfunctional

Indifference Quality Attribute

Functional

Reverse Quality Attribute

Customer Dissatisfied

Quality Attribute

Over-Service

Figure 1. Extension of the Kano model using the over-service concept

6. DISCUSSION

Service quality attributes based on the Kano model were identified as the results of the quantitative research; by contrast, over-service behaviors were discovered in quality attributes when the qualitative method was applied. In the interviews, over-service perceptions were noted in the most questions from all the participants. Through questionnaire analyses, 35 one-dimensional attributes were gathered, whereas 14 over-service incidents were discovered in the interviews. Thus, the one-dimensional attribute identified using the quantitative method could not explain customer experiences to a specific service behavior that led to over-service perception. Gregory and Parsa (2013) suggested a modified Kano model with the dimension – absence and presence instead of functional and dysfunctional. Although the modification aids future understanding of customers in the hospitality and tourism field, the over-service concept addresses the imperceptible notions of the customers. For instance, in the Kano model, the attractive quality attribute has considerable a positive attribute despite function or dysfunction. However, in the questionnaire analyses, 30 attractive quality attributes were classified, in which 4 over-service incidents were discovered in the interviews. Moreover, 10 over-service incidents were revealed with 55 indifferent quality attributes. The customers' over-service experiences became an interesting factor to be considered in applying the Kano model.

This study discovered that participants had distinct perceptions of service attributes. By contrast, over-service behaviors were found in attractive, one-dimension, indifference and reverse quality attributes. Thus, mapping quality attributes by using the Kano model could not completely capture the nature of the service quality. The over-service concept can be used to restructure the model and provide a better understanding of service quality construct (Figure 1).

Dixon *et al.* (2010) proposed that compared with delighting customer, solving customers' problems and making them feel comfortable can increase customer loyalty. Regarding enterprise, using management tools to evaluate service quality can generate negative results of deliberately exceeding customer expectation. To prevent over-service, enterprises can examine these factors and acknowledge whether similar problems correspond. Over-service could become a chronic disease of an enterprise. According to the current study results, most customers do not complain when they experience over-service; as a result, discovering these behaviors that may cause dissatisfaction can be difficult.

To evaluate customer needs, direct feedback through interview could be applied to support the analysis of the Kano model. The Kano model's quality attributes can represent a helpful reference for management. Moreover, the current study indicated that customer service requires more flexible approaches. Reeves and Bednar (1995) indicated that quality cannot be defined simply by conforming to specification or exceeding customer expectation. Most restaurants are set with regulations to ensure that employees do not make mistakes. However, the criteria for meeting or exceeding customer expectations should be based on truly understanding whether the service is needed, rather than only on accomplishing the tasks. Standard operation procedures should be set to maintain quality. To customize, service education should include observing and listening to the customers, rather than only on delighting customers; that is, employees should be trained to consider understanding customer needs as the first priority. Studies on over-service have reported many incidents during the interaction between the customer and the first-line employee and suggested that through training and empowerment, employees can learn to follow regulations to prevent errors and also offering adaptive responses to instantly solve customer problems.

Because of the varied customer perceptions, Ponnam *et al.* (2011) used different segmentations to evaluate quality attributes to better describe customers' needs and preferences. This concept of diverse segmentations can be constructive when applied to the Kano model. The current study found that certain extensions can be reconsidered when using the Kano model or its modification in the future: First, the scale by which over-service is measured can strengthen the implementation of the Kano model or of service quality research because over-service remains a novel issue of academic research. Second, certain individuals are more sensitive to over-service; thus, exploring psychological factors underlying this sensitivity may be of importance. In summary, the Kano model has been applied and tested across various industries over time; however, its utility remains debatable.

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