

Enhancing The Service Quality of A Japanese Restaurant by Importance-Satisfaction Analysis

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Abstract

In Thailand, the premium restaurants presently face the fierce competition to persuade the new customers and to maintain the existing clients due to an increase in the number of Japanese restaurants. Our study seeks to assess the importance and satisfaction of 17 service attributes from the customers in Japanese restaurant. A questionnaire developed was based on SERVQUAL and Importance-Satisfaction (IS) analysis while the face-to-face interviews were carried out. The result identified that three major attributes are given as: taste consistency, food safety, and customer attentiveness. In summary, the restaurant should establish the standardization of processes, inventory management, supplier management, food safety system, and human resource management.

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1. Introduction

THE number of restaurants in Thailand has been increasing in trend since the consumers such as urban people have changed their lifestyles, having no time to cook and savoring their times in the restaurants with the quality of food, convenience, nice atmosphere, and good service from restaurants. Moreover, a tourism in Thailand also contribute the economic opportunity to the restaurant industry. Apparently, in March 2017, the total number of registered restaurants in Thailand was 11,945, approximately 44% of restaurants were located in Bangkok with the revenue of 66% of total sales in whole country [1]. However, with high competition during the economic recession, 415 restaurants went out of business [2]. To improve the competitive advantage, we need the solutions to identify the factors such as service and quality.

SERVQUAL is a conceptual model to measure a service quality and presently consists of the tangibles, reliability, assurance, responsiveness, and empathy [3]. Suppose we have the redundant factors in ten dimensions. We can be eliminated them to five dimensions. Ref. [4–7] demonstrated the use of SERVQUAL in restaurants, public services and food service industry.

SERVQUAL has been implemented in various industries. Due to its success, SERVQUAL is further developed into specific industries such as DINESERV, LODGQUAL, LODGSERV, HIS-TOQUAL, and HOLSERV [8–12]. DINESERV is the measurement tool especially for restaurant with five dimensions as SERVQUAL, but there are 29 attributes [13]. Many researches relative to restaurants used either SERVQUAL or DINESERV. In our research, we select SERVQUAL to reduce the number of attributes in the questionnaire.

The Importance-Satisfaction (IS) analysis is an evaluation tool to rank the importance of attributes. It helps to analyze what strategy is to follow in the form of four quadrants including Concentrate Here, Keep up the Good Work, Low Priority, and Possible Overkill [14]. The IS analysis is also known as ImportancePer-

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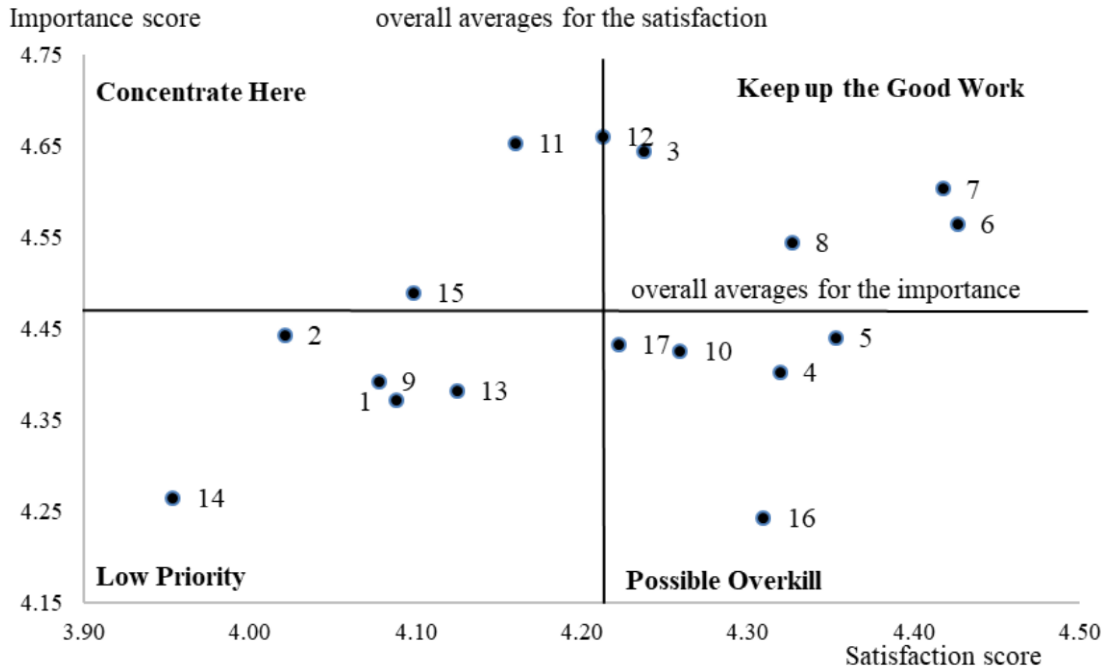


Fig. 1. Importance-Satisfaction (IS) model.

formance Analysis (IPA), introduced by Ref. [15]. The IS analysis and IPA have been widely used in various industries such as tourism management [14, 16], food industry [13], hospital [17], airline industry [18] and job satisfaction [19].

Our research focuses on the case study of Japanese restaurants located in a Department store in Northern Bangkok. They offer Japanese and fusion food in medium to high price. The customer segment is a family with children aged from 5 to 15 years old. Currently, there are two branches and one head office as a hub for storing raw materials, cooking sauce to control the taste of food in both restaurants. Some raw materials are sourced domestically while some are imported from France and Hungary. Three types of raw materials in terms of temperature include chilled, frozen, and ambient types. Our case study during July to December 2016 illustrated that there were 2,331 customers per month in the first branch and 2,815 customers per month in the second branch.

The aims of this research are to survey the customer satisfaction based on SERVQUAL, to determine the important attributes, and to evaluate the customer satisfaction by attributes according to the customer point of view. The research can help the manager to improve/control the service quality for enhancing the competitive advantage in the future.

2. Methodology

2.1. Survey Method

First, we create a questionnaire asking for the satisfaction and importance of five dimensions of SERVQUAL. We select 17 attributes in this study including restaurant atmosphere, design of menu, taste and food appearance, clean and tidy staff, taking right order, right bill calculation, serving right order, willingness to help, making suggestion and answering question, availability of waiter/waitress, taste consistency, food safety, staff are ready to help customer, staff have knowledge about menus, raw materials and cooking, staff pay attention to customers, suitable service time and staff understand the customer needs based on [10, 19, 20]. Then, the survey was conducted by face-to-face interview based on judgmental sampling. The customers in the restaurant were selected as the respondents. Then, in the pretest, the data from 30 respondents were collected to analyze the reliability of questionnaire using Cronbach’s alpha. In calculation, the minimum sampling size is 194.

There are three sections in the questionnaire. First, the respondents evaluate the customer satisfaction of restaurant service in 17 attributes. Second, the respondents determine the importance of restaurant service in 17 attributes. The five-point Likert scale rating is used in these parts. The scale ranges from 1 to 5, where 5 = very important/very satisfied; 4 = important/somewhat satisfied; 3 = moderately important/neutral; 2 = slightly important/somewhat dissatisfied; and 1 = not important/very dissatisfied. Finally, the

Table 1. Characteristics of Japanese Restaurant Sampling Customers.

respondents must fill the demographic information including gender, age, income, education, and suggestion.

2.2. Data Analysis

We perform the descriptive statistical analysis including the category of respondents in terms of gender, age, income, and education. For each attribute, with both importance and satisfaction scores, the averages, standard deviations (SDs), and coefficients of variation (CVs) are then computed. The interpretation of scores are classified into five categories as follows.

- 1) [1; 1:8) implies not important/dissatisfied;
- 2) [1:8; 2:6) implies slightly important/dissatisfied;
- 3) [2:6; 3:4) implies moderately important/neutral;
- 4) [3:4; 4:2) implies important/satisfied; and
- 5) [4:2; 5] implies very important/very satisfied.

Next, we perform the gap analysis by following equation.

$$\text{Gap value} = \text{Importance score} - \text{Satisfaction score} \quad (1)$$

Gap value is a tool to measure the difference between the importance score and the satisfaction score. A negative value implies that the importance score is larger than the satisfaction score. Hence, the management action is required. On the other hand, a positive value implies that no extra management is required [16].

Later, we perform a paired T-test to assess whether there is a differentiation of means between the importance score and the satisfaction score. The hypothesis is set as follows.

$$H_0 : \mu_1 = \mu_2$$

$$H_1 : \mu_1 \neq \mu_2$$

With the confidence interval (CI) of 95%, if p-value ≥ 0.05 , we will accept the null hypothesis (H_0). This implies no differentiation between the importance score and the satisfaction score. Otherwise, the null hypothesis will be rejected, implying a significant difference between the importance score and the satisfaction score. Then, we conduct an importance-satisfaction analysis based on the method in Ref. [17].

The importance-satisfaction analysis categorizes the scores into a matrix of importance score and satisfaction score using the averages of both scores as the separators. Hence, based on importance-satisfaction analysis, the matrix will be classified into four quadrants, given as: “Concentrate Here”, “Keep up the Good Work”, “Low Priority”, and “Possible Overkill”.

2.2.1. Quadrant of “Concentrate Here”

This quadrant is above average importance and below average satisfaction. The manager should act something relative to the attributes in this quadrant so as to enhance the customer perceptions.

2.2.2. Quadrant of “Keep up the Good Work”

This quadrant is above average importance and above average satisfaction. The manager should keep the current strategies.

2.2.3. Quadrant of “Low Priority”

This quadrant is below average importance and below average satisfaction. The manager should emphasize less the attributes in this quadrant which are low effective for the consumers.

2.2.4. Quadrant of “Possible Overkill”

This quadrant is below average importance and above average satisfaction, implying that the efforts toward these attributes can be reduced.

3. Results and Discussion

In data collection, we use the questionnaire for customer interviews in the restaurant in department store of Bangkok. We collected the data for pre-test about 30 questionnaires for the customers in restaurant. The Cronbach's alpha of importance and satisfaction score are 0.911 and 0.927, respectively. This implies that the questionnaire is reliable. Although 233 questionnaires were collected at the restaurant, there are 194 usable questionnaires. The unusable questionnaires are occurred from the incomplete answers and the unique answer.

Then, the profile data of respondents were analyzed to demonstrate the demographic of 194 customers, as shown in Table 1. There are 59.23% of female and 40.72% of male. The major age of customers is between 31 to 40 years old accounting of 38.15%. Mainly, the customers have income of 55,000 and above accounting of 48.97%. Finally, most customers got bachelor's degree or

Table 2. The Meaning of Attributes in The Questionnaire.

higher accounting of 91.24%. Table 2 described the meaning of customers. The overall averages of importance and satisfaction scores are 4.47 and 4.22, respectively. The most importance and satisfaction dimensions are reliability, where the least important and satisfied dimension is empathy and assurance, respectively.

3.1. Data Analysis

The average, standard deviation, and coefficient of variation of importance and satisfaction scores are computed as shown in Table 3. The most importance scores are Food safety (4.660), Taste consistency (4.653), and Taste and food appearance (4.644), where the least importance scores are Suitable service time (4.251) and having knowledge about menus, raw materials and cooking (4.27). This implies that all attributes are very important in the customer viewpoint. The most satisfaction scores are Right order (4.352), while the least satisfied scores are from Having customer opinions about the importance of service by asking knowledge about menus, raw materials and cooking (3.953), Design of menu (4.04), Restaurant atmosphere (4.09) and Making suggestion and answering question (4.09). This implies that least satisfied scores are still interpreted as satisfied. However, the restaurant can improve these attributes to increase the satisfaction of customers. In addition, we computed the coefficient variation (c.v.) which is the standard deviation divided by average so that we can compare the variance of the scores among these attributes. The results showed that for the importance scores, the most variation attributes are Having knowledge about menus, raw materials and cooking (0.167), Suitable service time (0.162), Making suggestion and answering question (0.159), respectively. It implies that customer experiences are varied by asking question and suggestion from staff. For the satisfaction scores, the most variation attributes are Paying attention to customers (0.204), Making suggestion and answering question (0.198), Serving right order (0.179), respectively. It implies that the customer experiences are varied by staff.

Table 3. The Data of Attributes with both Importance and Satisfaction Scores in terms of Averages, Standard Deviations, and Coefficient of Variation.

courages the manager to set up the standard of the service for taking right order, and Suitable service time are not significantly different. This implies no action need in these attributes.

Next, we calculate the gap values of the attributes to determine which attributes need the improvement. The high value implies the more different between importance and satisfaction scores. Table 4 showed the ranking of gap values in descending order. The highest scores are Taste consistency, Food safety, Design menu, Taste and food appearance, and Paying attention to customers, respectively. Consequently, the manager should focus on these attributes to reduce the gap. However, there is another issue to consider, not only the gap, but the intensity of importance score, i.e. we should focus on more important attributes. Then, we need to analyze the Importance-Satisfaction as mentioned later. Moreover, only one attribute, "Suitable service time", has negative gap value, which implies that the satisfaction score is higher than the importance score. Hence, there is no need to improve this attribute. The result of T-test of 14 attributes showed that the averages of importance and satisfaction scores are significantly different. On the other hand, for both importance and satisfaction scores, the averages of 3 attributes including Clean and tidy

3.2. The Importance-Satisfaction Analysis
The average values of satisfaction and importance are used to construct the importance-satisfaction matrix so that the importance-satisfaction analysis can be performed based on Ref. [17], as shown in Fig. 1. The importance-satisfaction analysis in term of four quadrants is as follows.

3.2.1. Quadrant of "Concentrate Here"
This quadrant identifies which attributes the restaurant performs worse than other restaurants, then the restaurant should focus on Taste consistency (attribute 11), Food safety (attribute 12), and Paying attention to customers (attribute 15), respectively. The action plan of the improvement is presented in Table 4.

3.2.2. Quadrant of "Keep up the Good Work"
This quadrant presents the attributes that the restaurant meets the customer expectations and they have a significant impact on

Table 4. The Gap Analysis and p-value of Paired-test of 17 Attributes.

the customer's overall level of satisfaction. Hence, the restaurant should maintain service quality in all attributes including Taste and food appearance (attribute 3), Right bill calculation (attribute 5), Availability of waiter/waitress (attribute 10), Suitable (attribute 6), Serving right order (attribute 7), and Willingness to help (attribute 8), respectively.

3.2.3. Quadrant of “Low Priority”

This quadrant identifies the attributes that the restaurant performs as well as the customer expectations. However, these attributes are less importance in term of customer opinions. This means that these attributes does not significantly affect overall satisfaction of the restaurant service. Hence, the restaurant can maintain the current levels of emphasis with limit the resources on these attributes including Restaurant atmosphere (attribute 1), Design of menu (attribute 2), Making suggestion and answering question (attribute 9), Readiness to help customer (attribute 13), Having knowledge about menus, raw materials and cooking (attribute 14).

3.2.4. Quadrant of “Possible Overkill”

The attributes in this quadrant identifies that the restaurant performs significantly better than customer expectation. However, these performances do not significantly affect the overall level of satisfaction. The restaurant should maintain or slightly decrease

emphasis on attributes since it is considered as unnecessary including Clean and tidy station (attribute 4), Taking right order (attribute 5), Availability of waiter/waitress (attribute 10), Suitable (attribute 6), Serving right order (attribute 7), and Willingness to help (attribute 8), respectively. Interestingly, comparing the analysis between gap analysis and importance-satisfaction analysis, we found that there is a conflict. The gap analysis showed that more attributes are needed to be focused regardless of the importance intensity. The IS analysis showed that there is no need to improve the design of menu since its importance score is less than the average. While, there is no need to improve the Taste and food appearance since its satisfaction score is more than the average. Hence, these two attributes are not in the “Concentrate Here” quadrant.

3.3. The Suggestion of Improvement

In this section, we present the suggestion of the action plan for the restaurant to implement in the specific attributes according to the IS model as shown in Table 5. The attributes unlisted in the table are no need to improve in restaurant due to the capabilities in service level and quality control.

4. Conclusion

Service quality, an important factor, helps restaurants keep up the highly competitive industry. We developed a questionnaire

Table 5. The Suggestion of Action Plan.

with 17 attributes in five dimensions based on SERVQUAL model to evaluate the importance and satisfaction scores from restaurant customers. Then, we analyzed the data using descriptive statistics, paired T-test, gap analysis, and Importance-Satisfaction (IS) model. With 16 attributes having the positive gap values, the results demonstrated that a restaurant needs to take actions to reduce the gaps. However, an IS model is more specific in the importance analysis of attributes so that the restaurant can prioritize the attributes which should be focused on improvement. The results showed that three attributes are needed to improve, including taste consistency, food safety, and paying attention to customers. Hence, we suggested an action plan to the restaurant

so that the satisfaction score of these attributes can be increased. In addition, the model showed that some attributes' service quality levels are overkill. In summary, we suggest the restaurant to standardize its processes and establish a food safety system, supplier management, human resource management programs, and optimal inventory policies. In the future, the in-depth interview for the customer in three attributes could be pursued to understand the customer needs and expectations. This research can be an example to other restaurants or service industries to analyze the customer expectation so that the service quality can be enhanced for the competitive advantage.

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