

Service Quality Measurement and Improvement for Restaurant X Using Dineserv

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Abstract. This research is conducted to propose alternatives of solutions to service quality problem faced by a restaurant. Restaurant X is one of many restaurants located on Ciumbuleuit street, Bandung. This restaurant considers the importance of service quality in satisfying their customer. The current condition shows that there are several problems related to service quality. Based on initial interview, most of the customers show their dissatisfaction. They complain about facility, waiting time, waiter/waitress responsiveness, and so on. This condition must be corrected to improve the performance of restaurant X. Dineserv is a service quality measurement tool that is used to help this improvement. In addition to this tool, IPA (Importance and Performance Analysis) method and KANO model are used to make priority. According to the measurement process and analysis, cleanliness and tidiness of both restaurant and waiter/waitress, the ambience of restaurant, and competence/skills of the employee become the most important aspects to improve. Several solutions offered to these aspects are separating smoking and no smoking area, renovating restroom area, determining specific rule about how the employee should dress and greet customer.

Introduction

Food and beverage business grows rapidly in Indonesia, especially in Bandung. Many restaurants appear since this business becomes more interesting and promising. Ciumbuleuit is an area in North Bandung where many restaurants and cafes are located. Several universities are located near Ciumbuleuit. This condition makes restaurant and café on Ciumbuleuit one of the nearest culinary destination for students. Thus, university student becomes potential customer for restaurant and cafe on Ciumbuleuit. Generally, every business including restaurant/cafe tries to attract as many as possible customers it can. For instance, a restaurant may offer a good and unique food, interesting discount price, cozy restaurant atmosphere to its customer. All of these aspects are combined to please the customer.

This fact tells us that at the present time, a restaurant business does not only relate to food. In fact, food itself becomes a component in a bigger concept called service. Service is an intangible product. Just like the tangible product, customer also demands a good quality of service. According to Kotler [1], quality is defined as a set of features or characteristics of service or tangible product that represents its ability to fulfill both explicit and implicit customer need. Restaurant X is one of many restaurants on Ciumbuleuit which also considers good service quality as an important key of its success. This restaurant can be classified into fast casual restaurant that focuses on students as their customer target. Even it has realized a good quality aspect to pursue as its key of success, there are still many complaints from customer that indicate poor service quality performance of the restaurant. There are complaints about long waiting time, slow employees' respond, dirty dining table, and so on. This condition makes several customers don't want to promote the restaurant to their relatives. They even won't go back to the restaurant. If we ignore this condition, we will not be able to keep the business run well.

Based on this problem, this research is conducted to help the restaurant measure their current service performance and offer more effective quality improvement according to their service

weakness. It is considered that there are many attributes/features that customers think about service so that we have to get as many as possible attributes if it is not all in order to fulfill as many as possible of customer need. Dineserv is a measurement model of restaurant service quality. Stevens et al. [2] developed this tool based on SERVQUAL model. Their research included about 600 respondents from fine dining, casual-dining, and quick service restaurant. Dineserv model introduces 29 service quality attributes to measure which are divided into 5 quality dimensions i.e. tangibles, reliability, responsiveness, assurance, and empathy. It is considered that 29 Dineserv quality aspects are quite comprehensive, but we still have to identify possible unique attributes that customers have. These attributes will be added to quality aspect measurement list.

In this research we also use additional tool and concept which are Importance Performance Analysis (IPA) and KANO. Martilla and James [3] tried to map a set of attributes based on their performance and importance to determine the priority for each attribute. In this research, the performance will be defined as the perception of every service quality attribute. Improvements made to every quality aspects are always associated to the increase of customer satisfaction. This satisfaction will be the antecedent of customer loyalty [1]. The loyalty will become the primary goal in every effort given for the improvement. According to KANO concept (Kano, 1984 in Zhao and Dholakia [4]), the increase on service performance does not necessarily cause a proportional increase on satisfaction. This means that there is also non-linear relationship between performance and satisfaction. Several classifications on performance-satisfaction relationship are attractive, one-dimensional, and basic need relationship. These relationship categories will help improve IPA in prioritizing the service quality improvement activities in restaurant X.

Methodology

Service quality attribute identification and verification. This first step is done to identify relevant attributes for measuring service quality in Restaurant X. Identification is done by interviewing customer and reviewing Dineserv model. Service quality attributes in Dineserv will be used as basic attributes for measurement process. Interviews with 15 restaurant customers are conducted by asking customer's memorable experiences about their visits to restaurants. We interpret every customer statement and extract attributes from that statement. According to interpretation process, we get two additional attributes related to service quality in a restaurant. The first attribute is about the availability of clean and complete hand wash utensil. The second one is about high variety of menu in the restaurant. These two attributes will be added to Dineserv model in order to comprehensively measure service quality aspect in Restaurant X. Verification is the next step conducted to make sure that all attributes including the existing Dineserv attributes can be measured by customers. This step is done by interviewing customers and giving them a look at thirty one attributes identified. This process includes 15 customers of restaurant X. All respondents will give their opinions about whether the attributes are possible to be measured or observed in restaurant X. According to the result of this survey, it turns out that there are two attributes that will have problem in the measurement process because they are not noticeable for customer. The solution is to remove or adjust these two attributes. At the end, there are 30 attributes considered in the measurement process. Two of them are additional attributes that results from interviewing process, while the other 28 are from Dineserv model [2] with adjustment on one attribute. These 30 attributes are shown in Table 1.

Table 1. Measurement attribute

No	Attribute	Dimension
Restaurant.....		
1	has visually attractive parking areas and building exteriors	Tangible
2	has a visually attractive dining area	
3	has staff members who are clean, neat, and appropriately dressed	
4	has a décor in keeping with its image and price range	
5	has a menu that is easily readable	
6	has a visually attractive menu that reflects the restaurant's image	
7	has a dining areas that is comfortable and easy to move around in	
8	has a rest room that thoroughly clean	
9	has a dining areas that are thoroughly clean	
10	has comfortable seats in the dining room	
11	has a clean and complete hand wash utensil	
12	has a high variety of menu	
13	serves you in the time promised	Reliability
14	quickly corrects anything that is wrong	
15	is dependable and consistent	
16	provides an accurate guest check	
17	serves your food exactly as you ordered it	
18	during busy times has employees shift to help each other maintain speed and quality of service	Responsiveness
19	provides prompt and quick service	
20	gives extra effort to handle your special request	
21	has employees who can answer your questions completely	Assurance
22	makes you feel comfortable and confident in your dealings with them	
23	has personnel who are both able and willing to give you information about menu items, their ingredients, and methods of preparation	
24	makes you feel personally safe	
25	has personnel who seem well trained, competent, and experienced	
26	has employees who are sensitive to your individual needs and wants	Empathy
27	makes you feel special	
28	anticipates your individual needs and wants	
29	has employees who are sympathetic and reassuring if something is wrong	
30	seems to have the customers' best interest at heart	

Questionnaire development. Thirty attributes identified will be compiled to get a questionnaire. Other contents of the questionnaire are respondent profile questions and KANO concept's questions. Through this questionnaire we want to know the profile of customers that is expected to be useful for service quality improvement. In this questionnaire we also measure service quality perception and expectation on Likert interval scale. This scale begins with "1" which means strongly disagree to certain statement until value of 5 which means strongly agree to the statement. We also measure the importance of each attribute based on customer's point of view. This is about how high every attribute is considered important to create a good service in a restaurant. The last part of questionnaire is dedicated to KANO question. There will be two conditions of questions for KANO part which are functional and dysfunctional condition. Every respondent will be exposed to these two parts of questionnaire and asked to determine how they feel about a certain condition written on the questionnaire. The option of feelings will be "Delighted", "Expect it and like it", "No Feeling", "Live with it", and "Do not like it". Combination of answers from these two parts of

KANO questionnaire will give information about KANO attribute classification (i.e. Attractive, One-dimensional, Basic need, Indifference, and Reverse).

Data collection. After a questionnaire development process, a number of respondents which are customers of restaurant X will be asked to fill the questionnaire. There are total of 30 attributes to fill in each part of questionnaire. To support the data calculation using statistical method, there should be a minimum number of samples which have to be collected. According to Hair et al. [6], the number of sample should be at least 30 times 5 units of samples. Value of 30 refers to number of attributes involved in this research, while value of 5 is the minimum multiplier for number of sample. Convenience sampling procedure will be conducted to get all these samples. To guarantee that we get valid information, the respondent of this data collection process will be limited to the ones who have been visiting Restaurant X for three times.

Reliability and validity assessment. Reliability and validity of attribute as the measurement tools will be tested. Coefficient of Cronbach Alpha will be used as reliability indicator. This coefficient should be equals to or more than 0.7 [7] to become a reliable measurement tool. The reliability will be assessed for each service dimension. Perception and Expectation Gap will be used as the input data in reliability and validity testing. Reliability testing's result shows that all attributes are reliable in measuring each related service dimension. After fulfilling the reliability aspect, measurement model validity will be assessed. Validity of each dimension will be tested by using Confirmatory Factor Analysis. Loading factor for each attribute will be the indicator of measurement model validity. This loading factor should be 0.5 or more to be a valid attribute. The result shows that attribute 12 and 16 are not valid attributes to measure Tangible and Reliability dimension so that these two attributes will not be used to make conclusions about the service quality in Restaurant X.

Service performance and priority calculation. The 28 attributes and their perception-expectation gap will be used to interpret the service quality level of Restaurant X. According to gap calculation, it turns out that all service quality aspects of Restaurant X are still below customer's expectation. This shows us that every aspect of service should be improved. To effectively improve this service condition, we have to make a list of improvement priority. This list will contain the order of attributes from the highest priority to the lowest priority of improvement. IPA and KANO will be used together to produce this priority list. We will map the attribute Gap value to importance level. The 28 attributes will be clustered to four different quadrants. Each quadrant has each priority level. The one with the highest priority level will be the quadrant with low perception-expectation gap value but high importance attribute. KANO will be used to determine advance improvement priority in every IPA quadrant. The "Basic need" attribute will be the highest priority attribute to improve. The "Basic need" is a category that must be fulfilled. Unfulfilled "Basic need" attribute will cause dissatisfaction but will not produce satisfaction if it has been fulfilled. Next priority will be "One dimension". Improvement in this category will result in proportionally satisfaction increase. "Attractive" category will result in great satisfaction if it is fulfilled but there will be no dissatisfaction in the absence of this feature. The last two priority categories will be indifference and reverse. "Indifference" category is a classification of attribute which has no effect on satisfaction. "Reverse" attribute brings dissatisfaction in the presence of this attribute but there will be satisfaction in the opposite condition.

Result and Discussion

As mentioned before, the service quality performance of every attribute considered is still below the expectation. We need to improve all quality aspects by firstly determining the improvement priority. According to IPA concept, we map all the 28 attributes on this map below.

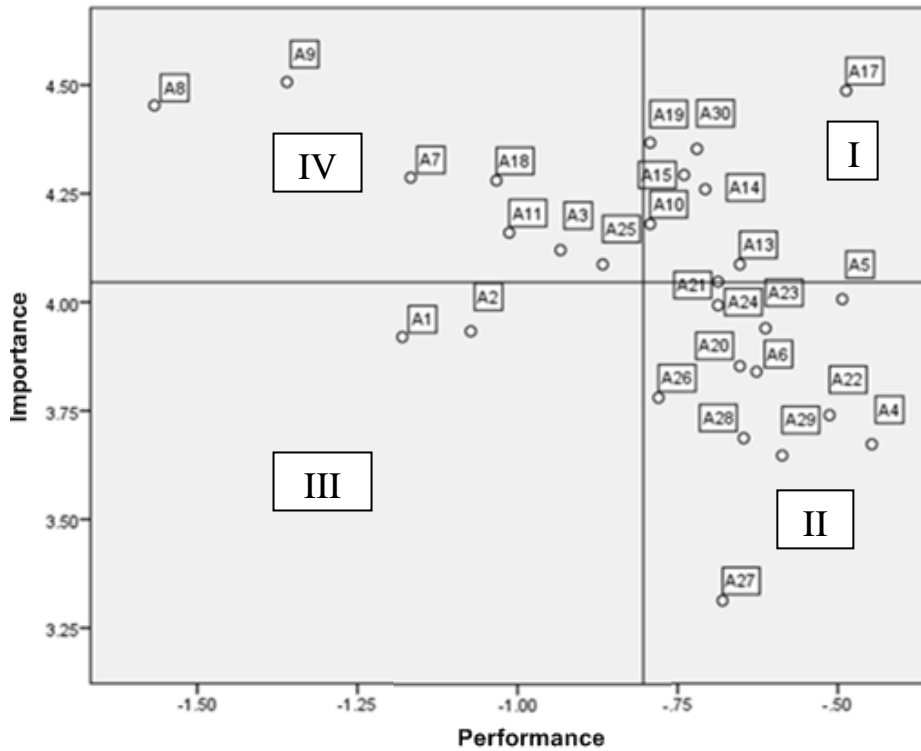


Fig. 1. Importance-Performance mapping

Fig.1 shows us that there are 4 importance-performance quadrants. The average of importance and performance score are used to divide the map into those 4 quadrants. The fourth quadrant will be the focus of improvement action. All attributes in this area are considered to be the most important aspects that still have poor performances. There are 7 attributes in area IV which are attribute 3, 7, 8, 9, 11, 18, and 25 based on attribute order in Table 1. Information from KANO method is added to make a more detail priority. According to KANO, these 7 attributes are classified into “Basic need”, “Basic need”, “One dimensional”, “One dimensional”, “Basic need”, “Indifference”, and “Indifference” category, respectively. According to performance value and this KANO classification, the priority order will be 7, 11, 3, 8, and 9. Attribute 18 and 25 are set aside because these two attributes are classified into “Indifference” category that doesn’t make any effect on customer satisfaction. Based on observation, customer suggestion, and discussion with the owner of the restaurant, we suggest some improvements on those 5 service quality attributes.

The first attribute is attribute 7. It is about comfort and easiness to move around in dining area. After identifying the root cause of this problem, it is known that this poor performance is caused by bad light level in the restaurant, smoke from cigarette, too many chairs in certain table, and sometimes there are animals (e.g. cat, flies) which come into restaurant. To solve this problem, we suggest that the restaurant gets a brighter lamp which is the yellow fluorescent lamp 85 Watt to give brighter and warmer ambience to customers. It is also suggested that the restaurant separates smoking and no smoking area to keep the air clean for everyone who doesn’t smoke. Number of chairs in several table should be reduced to 2 units. We also suggest that the restaurant has to remind every employee to prevent animal from coming into the restaurant or immediately get the animal out of the restaurant if it has come into the restaurant. The restaurant should also provide a candle light on every table to prevent flies.

Another poor attribute is attribute 11 which is about cleanliness and completeness of hand wash utility. After observing the restaurant, it is known that there are already two washbasins. These basins are dirty and look untidy. It is suggested that the restaurant changes these washbasins into the new ones and provides complete hand-wash utensil such as liquid soap dispenser and hand flannel/tissue. Next attribute is attribute 3 which is about employee appearance. We suggested that the restaurant determines a rule about good standard look for employees that they have to use shirt and trouser and also use apron when they serve customers. Attribute 8 is about toilet condition. We suggest renovating the toilet and keeping the new toilet clean by setting cleaning schedule. There will be an employee who is responsible for every cleaning schedule. The restaurant should also provide soap and tissue in the toilet. The last attribute is about dining area cleanliness. For this problem, it is suggested that the restaurant changes all rusty forks/spoons with new ones, assigns several employees that will specially deal with cleaning activities. They have to make sure that dining area and facility is clean before and after customers use it.

Summary

According to this research, it is obvious that tangible aspect is the primary concern of improvement for Restaurant X. This improvement action doesn't stop on the 5 attributes reviewed, but will continue to other attributes which have significant effect on customer satisfaction because we know that service quality aspects measured in Restaurant X are all still below customer's expectation. This service quality evaluation has to be conducted regularly to support business sustainability. This regular evaluation will inform the restaurant if there is a certain shift on customer need. The KANO classification for every attribute is variable. In the next future, "One dimensional" attribute may be classified into "Basic need" so that it is a must to be fulfilled. Another reasoning is that with this regular evaluation, the restaurant will have an opportunity to identify new customer's preferences or needs for a good restaurant so that the restaurant can adapt to changes in culinary business.

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