

## FRIENDLY RESTAURANT SERVICE QUALITY AND SERVICE INNOVATION RESEARCH

Yun-Yun, Su <sup>1</sup> , Tung-Liang Chen <sup>2</sup> , Yu-Hung, Chang<sup>3</sup>

<sup>1</sup> Chung Hua University, Ph.D. Program of Technology Management, Taiwan  
[mini0713kimo@gmail.com](mailto:mini0713kimo@gmail.com)

<sup>2</sup> Chung Hua University, Department of Technology Management, Taiwan  
[tlchen@chu.edu.tw](mailto:tlchen@chu.edu.tw)

<sup>3</sup>National Nanke International Experimental High School, Taiwan  
[teohstudio@gmail.com](mailto:teohstudio@gmail.com)

---

### Abstract

The traditional restaurant offers gourmet cuisine as the main service, rarely planning a dining environment for special needs. Faced with an aging society and rising awareness of equal rights, friendly dining environment and service are getting more and more attention. Also, the wisdom of using human services, science and technology, build various accessibility-related facilities, creating a friendly city.

This study, we will investigate friendly restaurant in overall quality of service and satisfaction, two-dimensional quality attributes , quality improvement performance analysis. In order to develop friendly restaurant service quality and service innovation indicators. We will use friendly restaurants in Taipei area as examples. To discuss the key factors and reason of service quality and service innovation in restaurants.

This study adopted questionnaire to the five facets of service quality SERVQUAL scale is designed based on of survey, the questions of design as "tangible property", "reliability", "responsiveness", "assurance" and "care for of "and added" potential service projects ", the customer attribute analysis after surveys were collected, Kano two-dimensional quality attribute analysis, quality improvement performance analysis, analysis of the degree of importance and satisfaction.

This study features with a friendly restaurant objectively measure the service patterns for a friendly restaurant, the service defines the service quality for customers receiving restaurant service, to the restaurant provided with accessible environmental factors, staff attitude, provide products and services to meet the needs of innovative potential service, made the overall subjective direct cognitive evaluation, and to propose improvement measures and recommendations, and researched to service features and competitive advantages, as the next transition and planning to set up a friendly restaurant reference.

**Keywords:** Friendly restaurant, Service quality, Service innovation

---

### Introduction

The traditional restaurant offers gourmet cuisine as the main service, rarely planning a dining environment for special needs. Faced with an aging society and rising awareness of equal rights, friendly dining environment and service are getting more and more attention. Also, the wisdom of using human services, science and technology, build various accessibility-related facilities, creating a friendly city.

Department of Social Welfare, Taipei City Government has build a friendly restaurant that provides certification mark, commissioned by the nonprofit organization to assist its evaluation from all the community groups. This study hopes by the user feedback, to make evaluation mechanisms and evaluation indicators better by improving; in recent years a number of restaurants, in order to attract more customers, and provide better service quality, have joined the ranks of a friendly restaurant, but still there are many less than ideal standard restaurant, but did not have a mechanism to the evaluation.

Therefore, this study will use friendly restaurants in Taipei area as examples. To know customers about satisfaction and importance. The research set purposes such as the following:

- (1) A friendly Restaurants the overall service quality importance and satisfaction analysis.
- (2) Explore friendly Restaurant dimensional quality attributes in Taipei area.
- (3) Improve restaurant quality performance analysis in Taipei area.
- (4) To develop indicators of friendly restaurant service quality and service innovation.

This study is to explore the key factor in service quality and service innovation in friendly restaurant, in order to research its service features and competitive advantages. As the index transition or plan to set up for the restaurant in the future.

## **1. Literature Review**

### **2.1 Friendly Restaurant**

According to the government definition of friendly restaurant, it must meet four requirements which as followings:

- (1) Flat door : This is the first require must have flat and slope entrance. It could let every customers able to get in and out. If it is not flat may caused wheelchair users and strollers not be able to get in and out.
- (2) A smooth walkway : A walkway space must be spacious and to keep smooth. So different customers are able to walk, especially disabilities could walk unimpeded.
- (3) Stable tables and chairs : Chairs shall be adopt moveable and backrest. And easy access for wheelchair users, safety needs for children pregnant women and elders. Furthermore, tables shall have enough space for narrow room that could be convenient for the wheelchair users to have meal.
- (4) Service equality : Service attitude of staff must be friendly and willing to help when the customer needs to give timely and appropriate assistance. Friendly service can be described as software, and to make up any shortfall in hardware, make the process more friendly.

Form the first three elements, the key factors in friendly restaurant is to have an accessible facility environment. Provide disabilities, the elderly, pregnant women and children a friendly access and space,

Liu(2004) realized that bathroom, door, room, elevators, lighting, aisle, home system, etc., are much important for home accessibility from a case study of home space.

Chen & Hsu(2014) found that many people feel unable to access for the entrance and bathroom space in research result. Main reason about it are not enough space, the walkway is too small or the floor is not flat; Facilities with a different part of the interior vary.

Hu(2015) found that the height of the table, free wi-fi, discount for wheelchair user, the width of elevator etc.,are the much important for elements for the wheelchair user.

According to the literature, it can be learned that accessibility have certain importance and help for the elderly and disabilities. So that they could live independently which increase their personal dignity, and able to participate in more social events.

## **2.2 Service quality**

Crosby (1979) thinks that service quality is what customer expect to have and actual perceive the service, the results are between. Cronin and Taylor (1992) defined the quality of service as an individual at the time of receiving goods or service directly to its subjective performance evaluation.

Parasuraman 、Zeithaml and Berry(1985)thinks that service quality is the actual experience and expectations of the service after receiving services to consumers, the perception gap produced after comparing the two. It made the service quality dimensions of 10, but in 1988 it reduced to 5 modifications, which are tangible, reliability, responsiveness, assurance and empathy.

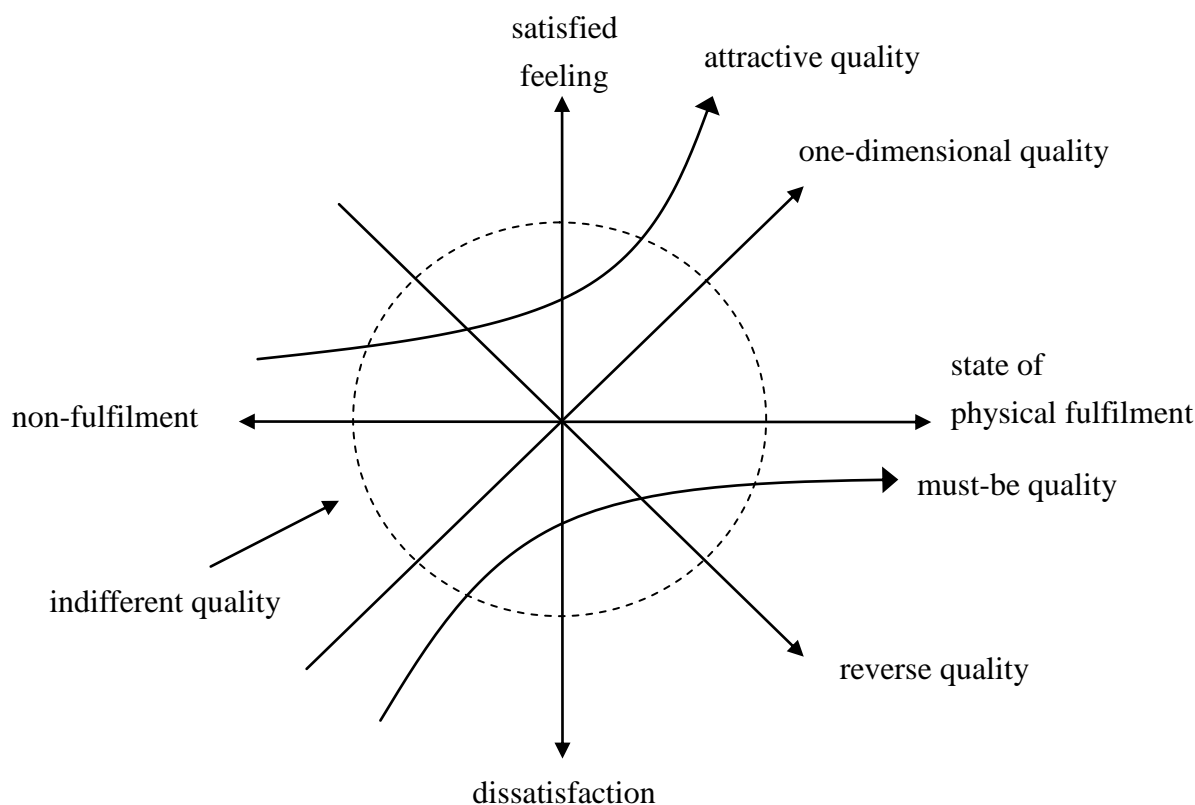
## **2.3 Service innovation**

Service innovation is the result of improved services and organizations in response to the diverse needs of different customers, thereby increasing the value of the business's products or services (Vang & Zellner, 2005). In addition to the new services and the successful development of new products in service innovation, also including the ability to revise and improve the existing system of all innovation activities of products, services and delivery (Drejer, 2004). Most companies often emphasizes the top priority product and service innovation, which followed by technical innovation then process innovation (Mitchell and Coles 2003). Mitchell and Coles pointed out that on another level of innovation, most companies' top priority product and service innovation, secondly the technical innovation, and last is process innovation.

Drejer (2004) 's essay pointed out that service innovation in addition to have successful development of new service and new product, should also include the ability to amend and improve the existing system of all innovation activities, service and delivery. Vang & Zellner (2005) believe that service innovation is the result of improved services and organizations in response to the diverse needs of different customers. Thereby increasing the value of the business' products or services.

#### 2.4 Kano's two-dimensional quality

Kano(1984) and other scholars proposed the concept of a two-dimensional or two-dimensional quality mode model in order to have the status of quality factors and user satisfaction divided into: Attractive quality element, one-dimensional quality element (2), must-be quality element (3), indifferent quality element (4) and reverse quality element (5). Kano two-dimensional quality model concept can be schematic in Figure 2-1 to indicate the direction of various quality factors and satisfaction:



**Figure 2-1. Source: Kano, N., N. Seraku, F. Takahashi & S.**

**Tsuji(1984).“Attractive quality and must-be quality.”*Journal of Japanese Society for Quality Control, Vol.14, p.39-48.***

Kano two-dimensional quality model is based on questionnaire survey to understand customer or consumer respectively elements of a quality sufficient or insufficient experience in both cases, then in accordance with the customer or consumer quality factors for each filled up the project organized into Kano two-dimensional quality elements classified.

### 3. Methodology

This chapter is divided into four phases, the first major themes and structure description; the second phase of the scope of validation studies and the object. Third stage is to design questionnaire. Last stage is data analysis methods.

#### 3.1 Study structure

In this study, we use the SERVQUAL scale of quality of service facet to design the questionnaire. And added some potential services. Also, used KANO two-dimensional quality mode, quality improvement of performance analysis and structure of IPA construction analysis of this study, which presented in Figure 3-1 as below:

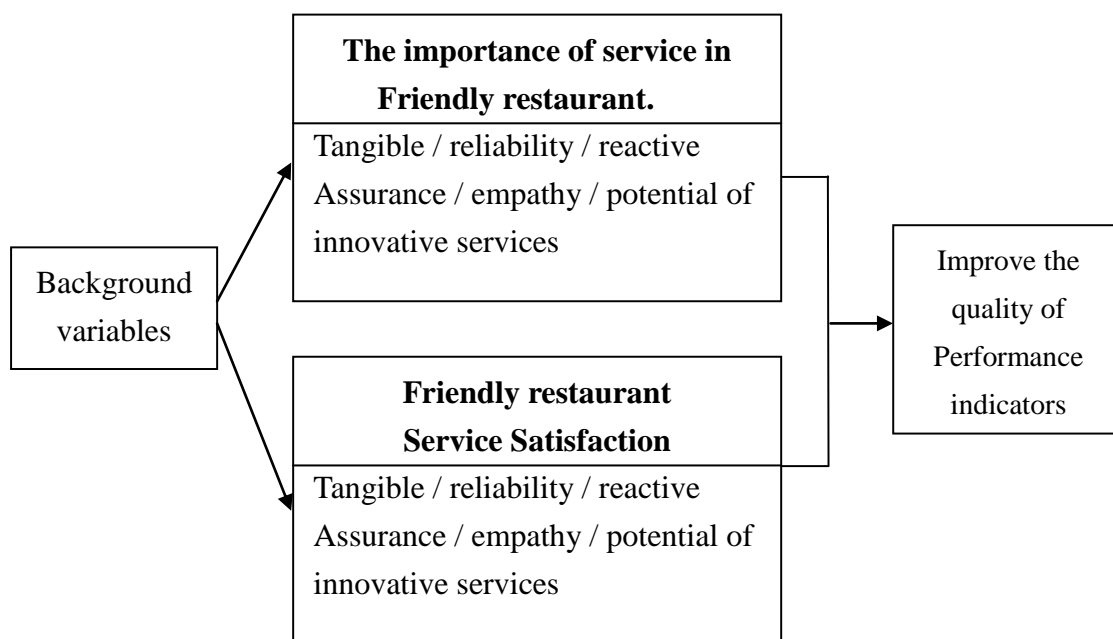


Figure 3-1 Study Structure

#### 3.2 Scope of the study and people

The scope of the study is limited to the Taipei area, a friendly restaurant in the Taipei area over customer questionnaires were issued, distributed 120 questionnaires expected.

#### 3.3 The design of Questionnaire

This study is for getting understand about customers' experience and feelings by the service in friendly restaurant in Taipei. Used SERQUAL scale as designed on the basis, and five dimensions of service quality questions as a questionnaire which will end up having 30 questions of this research and development. By KANO two-dimensional quality mode and improve performance indicators, the definition proposed improvement projects. Questionnaire design is divided into two parts:

(1) First part is personal basic information. And it will divided into 8 properties.

(2) The second part is the service for the customer facets investigation.

Reliability questionnaire to assess the use of Cronbach's  $\alpha$ . In this study, the questionnaire is divided into six facets "tangible", "reliability", "reactive" assurance, "care of", "potential service project" Preliminary results of the reliability analysis were higher than 0.8.

### 3.4 Data analysis method

(1) Method of the descriptive statistics

Use Excel software to do the statistics, averages, percentage terms, in order to know the proportion of data and to understand the basic properties and characteristics of customers.

(2) Classification of KANO two-dimensional quality

Each topic item chosen by a group of forward and reverse form of the composition, depending on the extent of the feelings of consumers are taken into account scores respectively, like = 5, of course =4, doesnt matter= 3, acceptable=2, dont like =1. To compare scores were summed then the highest percentage of property as part of the results of quality factors.

(3) Quality improvement index

Matzler and Hinterhuber (1988) has further definition of indicators of quality improvement, and called it as satisfaction factor, the formula respectively are Satisfaction Increment Index, SII, and Dissatisfaction Decrement Index, DDI, its formula is as below (1) and (2).

$$SII=(A+O)/(A+O+I+M)------(1)$$

$$DDI=(O+M)/(A+O+I+M)------(2)$$

A=Attractive quality element ; O=one-dimensional quality element ; I=indifferent quality element ; M=must-be quality element. Both quality improvement index values are ranged between 0 and 1. When the index value to enhance satisfaction closer to 1, indicates a higher quality of service factors affecting items of customer satisfaction; on the contrary are not satisfied when lower index value close to 1, it indicates that the service quality factors for the degree of customer dissatisfaction greater impact. So-friendly restaurant for this two indicators to judge should reduce dissatisfaction index or promotional Satisfaction Index.

(4) Analysis of the importance of the IPA

The scholar, Martilla and James(1977) developed Important performance analysis, IPA as the importance – performance level analysis. The main target is to determine the effectiveness of the implementation of a performance attribute performance assessment techniques, the average of the overall assessment of the use of property is important as the critical value and performance of the drawing two-dimensional matrix, and by the various questions of importance and performance assessment of

property in this placement of two-dimensional matrix to determine the priority policy enforcement, but also to reflect the appropriate questions of whether the service has reached all the best performance.

#### 4. Results

Expected results of this study, "tangible" facet "restaurant entrance flat or barrier-free ramp", "reactive" facet "waitress willing and have the patience to help customers" and "reliability" facets "the restaurant serves different needs of those meals" will be the customer that the importance of the top three.

In Kano two-dimensional quality mode analysis, the respondents expect the customer will be presented in the questions of a one-dimensional quality factors (O), is expected to respondents will enjoy friendly service provided by the restaurant, no provision of the service will make that respondents do not feel like it.

Expected at the "potential service items" facet "friendly restaurant located in different specifications parking, to meet different vehicle parked" Questions of this service will be added to improve customer satisfaction, followed by "friendly restaurant with feeder services to customers benefit ride and dine. "and questions of" friendly restaurant offers a friendly environment and comfortable nursing rooms "questions of expected respondents to potential innovative services have high expectations. Part in the elimination of dissatisfied index, expected "assurance" facet of the "restaurant waiter when warm and friendly courteous customer service", "care of" facet of the "restaurant service in the interests of customers as a priority consideration" and ""waitress reactive" facet reasonable for customer service requirements, can provide rapid good service. "the service will be customer care, show lower dissatisfaction respondents believe these three services is important.

The features with a friendly restaurant, objective measure patterns and friendly restaurant service, the services defined for this study as customer service quality at acceptable restaurant service, to the restaurant provided with accessible environmental factors, staff attitude, to provide products and services to meet the needs of innovative potential service, made the overall subjective direct cognitive evaluation, and to propose specific improvement measures and proposals with a view to the development of friendly and helpful restaurant.

This study presents the evaluation of the planning-friendly restaurant a reference index based on the survey results, hoping to further subdivide a friendly restaurant type, in order to facilitate those who need to find a suitable space for dining and social activities, but also for the restaurant industry to expand the consumer market.



## 5. References

- Chen, Chen-Yu & Hsu, Hsuan-Chen (2014). An Investigative Study of Interior Space of Dwelling Unit on Barrier-Free Improvement of Wheelchair User, *ARCHITECTURE* , 90 (2014 / 12 / 01), P67 – 90.
- Hu, Pi-Chen(2015). *Constructing Evaluation Indicators for Accessible Restaurants*, Department of Tourism, Ming Chuan University master paper.
- Liu, Chi-Sheng (2014), *A Study on Requirements for Friendly Barrier-Free Environment and Its Construction in Residential Space*, Tunghai University, Master Paper.
- Cronin, J.J. & Taylor, S.A.(1992). Measuring service quality: A reexamination and extension. *Journal of Marketing*, 56(3), 55-68.
- Crosby, P.B.(1979). *Quality is free: The art of making quality certain*. NY:McGraw-Hill.
- Drejer, I.(2004). Identifying innovation in surveys of services: a Schumpeterian perspective, *Research Policy*, 33(3), 551-562.
- Kano, N., N. Seraku, F. Takahashi & S. Tsuji(1984).“Attractive quality and must-be quality.”*Journal of Japanese Society for Quality Control*, Vol.14, p.39-48.
- Martilla, J.A. & James, J.C.(1977). Importance-Performance Analysis. *Journal of Marketing* Vol.41, No.1. 77-79.
- Matzler, K. & Hinterhuber, H.H.(1998).“How to make product development projects more successful by integrating Kano’s model of customer satisfaction into quality function deployment”.*Technovation*, Vol. 18, No.1, pp.25-38.
- Mitchell, D. & Coles, C. (2003). The ultimate competitive advantage of continuing business model innovation. *Journal of Business Strategy*, 24(5), 15-21.
- Parasuraman, A., Zeithaml, V.A. & Berry. L.L.(1985). A conceptual model of service quality and its implications for future research. *Journal of Marketing*, 49(3), 41-50.
- Vang, J. & Zellner, C.(2005). *Introduction: innovation in services, Industry and Innovation*, 12(2), 147-152.
- Taipei Taipei City Government Bureau of Social Affairs and friendly good restaurant mark. <http://www.ourcitylove.org/>