



Determinants of Menu Pricing for Thai Food Restaurants in Bangkok

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Abstract

The objectives of this research article were to study the level of consumer opinions regarding food quality, service quality, restaurant atmosphere, and menu pricing of Thai restaurants in Bangkok, and the influencing factors affecting menu pricing of Thai restaurants in Bangkok. Questionnaires were used to collect data from 384 respondents who ate at 12 famous Thai restaurants advertised on the TrueID website. The results found that respondents had good opinions on food quality, service quality, and restaurant atmosphere, and provided opinions on menu pricing at an appropriate level. Food quality has the greatest influence on price ($t = 8.121$), followed by restaurant atmosphere ($t = 5.607$) and service quality (3.207) respectively. These three variables can explain the price by 42.1 percent, with a statistical significance at a .05 level.

Keywords: Food Quality, Service Quality, Restaurant Atmosphere, Menu Pricing, Thai Restaurants

Introduction

A restaurant business is of importance to Thai people living in a city because of a smaller family size, having no time for cooking every meal, and a convenience in ordering food online. In 2022, the number of food and beverage operators was recorded at 384,777, of which 22.25 percent registered in Bangkok and its vicinity. This business generated income of 260,171 million baht, of which 87.91 percent resulted from the restaurants in Bangkok and its vicinity. It was a 76.4 percent growth rate after the outbreak of the 2019 coronavirus can be controlled (Trade Policy and Strategy Office, 2022). Thai restaurant business, in addition, faces very high competition from overseas franchise restaurants and other distribution channels, such as Cloud Kitchen and Home Kitchen.

At present, food consumption behavior of Thai people in the city has changed a lot to eat out due to a smaller family size, and traffic congestion problems. Eating out is cheaper than cooking at home, better taste, and there are more promotions to choose from. Eating out is also considered an event to relieve stress from work stress, meet with friends and family. Many families spend time shopping for things for home uses and take the opportunity to eat outside together (Cha & Rha, 2021).



From the past study, there were main significant effects of food quality, service quality, and restaurant atmosphere on the menu pricing in the context of restaurants in the hotels abroad (Hanefors & Mossberg, 2021). Davenport, DelleMule and Lucker (2011) stated that it was important to consider that businesses should create specifically customized offers, good accurate service, and product quality. Han and Rye (2009) commented in their research that price is considered a factor that varies with the decoration and atmosphere of the restaurants. Customers will expect a good atmosphere from the restaurants that set high food prices. On the other hand, if the restaurant sets low prices, customers may think that the restaurant has low quality food and atmosphere. The researcher is therefore interested in studying whether those factors affect menu pricing of Thai restaurants in Bangkok.

Research Objectives

1. To study consumers' opinions toward food quality, service quality, restaurant atmosphere, and menu pricing of Thai food restaurants in Bangkok.
2. To study the influential factors affecting menu pricing of Thai food restaurants in Bangkok.

Literature Review

Ministry of Public Health (Bureau of Food and Water Sanitation, 2021) has divided Thai restaurants into 5 categories as below:

- 1) A hotel restaurant refers to a restaurant operated in a hotel.
- 2) A restaurant means a large eating place with 2 booths or more in the buildings, and its employees wear uniforms.
- 3) A food park means a large restaurant which mostly has outdoor dining place. with natural atmosphere. Its Employees wear uniforms.
- 4) A general restaurant means a small place with 1-2 booths inside the building. The food is mostly local food or specific food such as rice and curry, noodles, chicken rice, red pork rice, papaya salad, and a la carte food.
- 5) Beverage, dessert, and ice cream shop means a shop that sells only drinks, desserts, or ice cream.

The Ministry of Commerce (2009) classifies restaurants into 4 types according to their decorative design:

- 1) A luxury restaurant (Fine Dining) is a restaurant with a meticulously decorated, and beautiful design with expensive materials and equipment. The food is luxurious arranged and providing a 5-star service equivalence.



2) A Mid-range restaurant (Casual Dining) is a restaurant with an appropriate design. and decoration, emphasizing a casual and friendly atmosphere. The restaurant has moderate food prices, and friendly service staff.

3) A general restaurant (Fast Dining) is a restaurant with a simple design and decoration. The restaurant provides fast and convenient service with a limited menu but expects high visiting of customers.

4) A shop along the sidewalk (kiosk) is a shop with a simple design and decoration. Normally, the owner is the chef himself, and prepares easily and quickly dishes.

Ministry of Commerce by the Department of Business Development (2019) divides restaurants according to the service area as below:

1) A small restaurant is a restaurant with an area not exceeding 50 squares. meters. This type of restaurant may not have food served to the tables. The service is similar to that of other fast-food restaurants.

2) A medium restaurant is a restaurant with an area ranging from 50-200 square. meters. There may be a slight decoration to create an atmosphere that attracts customers' attention.

3) A large restaurant is a restaurant with an area of 200 square meters or more. This type of restaurant is expected to provide good service as customers willing to pay tips and VAT in addition to food costs.

Dube, Trudeau, and Belanger (1994) concluded in their research that service quality is related to price and customer satisfaction measuring in the areas including food taste, Varieties of food items, an attentiveness of service staff, Waiting time before seating, and restaurant atmosphere.

Kivela, Reece & Inbakaran (1999) explained in their research on measuring the dimensions of food quality, service quality, and restaurant atmosphere as follows:

Food quality can be measured by the palatability of food, a variety of food items, nutritional value of food, taste of food, freshness of ingredients, and food temperature.

Service quality can be measured by the service employees in terms of politeness, willingness to provide service, welcoming speech to customers, service efficiency, explaining food and beverage items correctly, solving customers' problems.

Restaurant atmosphere can be measured by noise level, cleanliness, customer privacy, temperature inside the restaurant, and surrounding view of the restaurant.

According to the research of Choi and Zhao (2010), different ages and demographics in the US prefer service speed, food and service quality, friendliness of



serving staff members, convenience and incentives while dining in restaurants that affect the price they willing to pay.

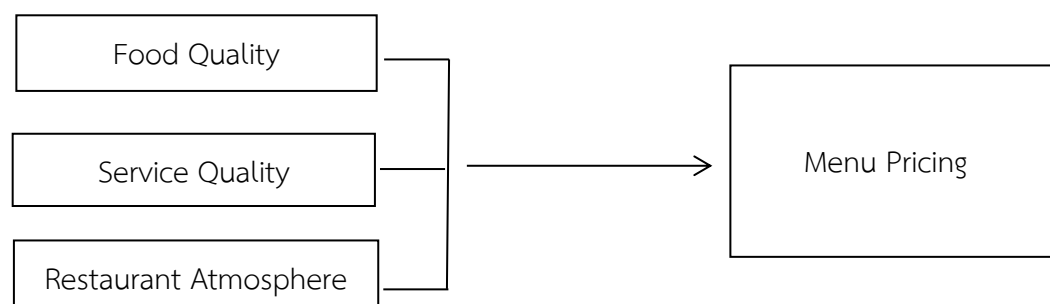
A recent study by Gan et al. (2017) illustrates that researchers have generally agreed on four factors affecting restaurant prices, namely food quality, service, atmosphere or ambience and menu choice. They analyzed Yelp review data of restaurants by using sentiment analysis to identify attributes affecting the overall star ratings. They found that food quality, service, context, and atmosphere had significant impacts on the overall price and dining experience.

Chen et al. (2020) collected the data from Gen Y respondents, surprisingly, the results showed that restaurant ambiance, brand image, having a new experience, the noise inside the restaurant, parking facilities and restaurant reviews were stated as neither important nor unimportant factor by more than one in third of the Gen Y participants. Unlike the previous study of Cullen (2005) and Liu and Tse (2018), these attribute dimensions are vital for restaurants since they are constantly competing to stand out in the restaurant industry.

Scope of the Study

- 1) The population under the study was Thai consumers eating at Thai restaurants. in Bangkok.
- 2) The study emphasized on the effects of food quality, service quality, and restaurant atmosphere on menu pricing for Thai restaurants in Bangkok.
- 3) The questionnaires were collected from the respondents during December 15, 2023 to January 15, 2024.

Conceptual Framework





Research Methodology

Population and Samples

The population is the consumers who eat in large Thai restaurants in Bangkok. Due to an unknown population size, Cochran's formula (Cochran, 2007) is used to find the sample size by setting the proportion of the studied population at 0.5 level and allowing an error to occur at 5 percent. Therefore, the number of samples obtained from the calculation was 384 people as below.

$$n = \frac{p(1-p)z^2}{e^2}$$

$$n = \frac{0.5(1-0.5)(1.96)^2}{(.05)^2} = 384 \text{ คน}$$

n = Number of samples

P = Proportion of the population is set at 0.5

e = The desired level of error is set at .05

Z = The Z-value, extracted from a Z-table.

Z = 1.96, when the confident level is 95%

Z = 2.58, when the confident level is 99%

The samples were collected from the respondents eating in the twelve Thai restaurants advertised on the TrueID website as a famous restaurant. They are located in the districts of Phasi Charoen (one restaurant), Phra Nakhon (three restaurants), Khlong Toei (one restaurant), Sathorn (one restaurant), Watthana (one restaurant), Khlong San (one restaurant), Phaya Thai (one restaurant), Bang Yi Khan (one restaurant), Lat Phrao (one restaurant), and Yan Nawa (one restaurant). Only 32 complete questionnaires were collected from each restaurant by random sampling method.

Measurement and Instrumentation

A close-ended questionnaire was used to collect data from the respondents. The questionnaire was divided into three parts as follow:

Part 1: Demographic characteristics of the sample include gender, age, education level, occupation, and monthly income.

Part 2: Questions about consumers' opinions toward Thai restaurants in terms of food quality (items 1-5), service quality (items 6-9), restaurant atmosphere (items 10-13), and menu pricing (items 14-16). All questions are a Likert scale, which determines scores



according to the degree of agreement in 5 levels, where 5 means the highest level, 4 means a high level, 3 means a moderate level, 2 means a low level and 1 means the least level.

Part 3: Other recommendations to provide a space for the respondents to write if they had any suggestions.

The researcher defined the meaning of the average score for food quality, service quality, restaurant atmosphere, and menu pricing into 5 levels with the following criteria (Best & Kahn, 2014).

Average Score Range	Food Quality/ Service Quality/	
	Restaurant Atmosphere	Price
4.51 – 5.00	Excellence	Very Suitable
3.51 – 4.50	Good	Suitable
2.51 – 3.50	Fair	Moderate
1.51 – 2.50	Improvement	Expensive
1.00 – 1.50	Poor	Very Expensive

Validity and Reliability

1) To test the validity, the questionnaire was inspected by the experts in the field regarding the accuracy and appropriateness of the content and was corrected according to the experts' suggestions.

2) To test the reliability, a pilot test was conducted with 30 consumers who ate at a Thai restaurant. The reliability was calculated at 0.895 by using Cronbach's alpha coefficient method.

Statistical Analysis

1) Descriptive Statistics was used including frequency, percentage, mean and standard deviations.

2) Regression analysis was used to find factors affecting menu pricing of Thai restaurants in Bangkok.

Results

1. Characteristics of Respondents

The results of the respondents showed that the majority were female (53.1%), aged between 41-50 years (34.9%), had a bachelor's degree (57.6%), were employees by private companies (48.2%).

2. Level of consumer opinions regarding food quality, service quality, restaurant atmosphere, and menu pricing at Thai restaurants in Bangkok



2.1 Level of Consumer Opinion on Food Quality

The results found that the respondents had good opinions on overall food quality ($\bar{x} = 3.97$, S.D. = .590). When considering each item, the items with average scores arranged from highest to lowest was “Variety of food items” ($\bar{x} = 4.11$, S.D. = .638), “Taste of food” ($\bar{x} = 4.04$, S.D. = .685), “Food presentation” ($\bar{x} = 3.96$, S.D. = .637), “Freshness of ingredients” ($\bar{x} = 3.91$, S.D. = .693), and “Food temperature” ($\bar{x} = 3.85$, S.D. = .725) as shown in Table 1.

Table 1: Level of consumer opinions on food quality of Thai restaurants in Bangkok

Items	Average Score	S.D.	Meaning
Variety of food items	4.11	.638	Good
Food presentation	3.96	.637	Good
Food temperature	3.85	.725	Good
Freshness of ingredients	3.91	.693	Good
Taste of food	4.04	.685	Good
Overall food quality	3.97	.590	Good

2.2 Level of Consumer Opinion on Service Quality

The results found that the respondents had good opinions on overall service quality ($\bar{x} = 3.85$, S.D. = .595). When considering each item, the items with average scores arranged from highest to lowest was “Accuracy of order receiving” ($\bar{x} = 3.91$, S.D. = .744), “Willingness to provide service of employees” ($\bar{x} = 3.85$, S.D. = .747), “Cleanliness of service employees’ uniform” ($\bar{x} = 3.82$, S.D. = .798), and “Explanation of food details” ($\bar{x} = 3.80$, S.D. = .746) as shown in Table 2.

Table 2: Level of consumer opinions on service quality of Thai restaurants in Bangkok

Items	Average Score	S.D.	Meaning
Cleanliness of service employees’ uniform	3.82	.798	Good



Willingness to provide service of employees	3.85	.747	Good
Explanation of food details	3.80	.746	Good
Accuracy of order receiving	3.91	.744	Good
Overall service quality	3.85	.595	Good

2.3 Level of Consumer Opinion on Restaurant Atmosphere

The results found that the respondents had good opinions on overall restaurant atmosphere ($\bar{x} = 3.77$, S.D. = .613). When considering each item, the items with average scores arranged from highest to lowest was “Lighting inside the restaurant” ($\bar{x} = 3.93$, S.D. = .685), “Cleanliness of the area and equipment” ($\bar{x} = 3.82$, S.D. = .693), “Temperature inside the restaurant” ($\bar{x} = 3.69$, S.D. = .850), and “Appropriateness of noise in the restaurant” ($\bar{x} = 3.65$, S.D. = .872) as shown in Table 3.

Table 3: Level of consumer opinions on restaurant atmosphere of Thai restaurants in Bangkok

Items	Average Score	S.D.	Meaning
Lighting inside the restaurant	3.93	.685	Good
Cleanliness of the area and equipment	3.82	.693	Good
Appropriateness of noise in the restaurant	3.65	.872	Good
Temperature inside the restaurant	3.69	.850	Good
Overall restaurant atmosphere	3.77	.613	Good

2.4 Level of Consumer Opinion on Menu Pricing

The results found that the respondents had good opinions on overall menu pricing ($\bar{x} = 3.78$, S.D. = .624). When considering each item, the items with average scores arranged from highest to lowest was “Appropriateness of food price and quantity” ($\bar{x} = 3.93$, S.D. = .691), “Value for money” ($\bar{x} = 3.84$, S.D. = .685), and “Similar price to other restaurants” ($\bar{x} = 3.56$, S.D. = .979) as shown in Table 4.



Table 4: Level of consumer opinions on restaurant atmosphere of Thai restaurants in Bangkok

Items	Average Score	S.D.	Meaning
Similar price to other restaurants	3.56	.979	Suitable
Appropriateness of food price and quantity	3.93	.691	Suitable
Value for money	3.84	.685	Suitable
Overall menu pricing	3.78	.624	Suitable

3. Determinants of menu pricing for Thai restaurants in Bangkok

The researcher used the multiple regression analysis method by entering all independent variables including food quality, service quality, and restaurant atmosphere, and the dependent variable was menu pricing. The test was performed at the statistical significance level of .05.

From Table 5, the VIF (Variance inflation factor) value is between 1.617-2.090, which indicates the independent variables have little relationship. The results found that food quality, service quality, and restaurant atmosphere affected menu pricing with statistical significance at a .05 level ($F = 41.488$, $Sig. = .000$). The effects of food quality, service quality and restaurant atmosphere were positively related to menu pricing. Those variables were able to explain 42.1% of the variation in the menu price as shown in table 5.

Table 5: Regression analysis of the influential factors on menu pricing of Thai restaurants in Bangkok.

Model	Unstandardized Coefficients		Standardized Coefficients	VIF	t	P-value
	B	S.E.	B			
Variable						
(Constant)	.936	.219			4.273	.000*
Food quality	.535	.066	.436	1.617	8.121	.000*
Service quality	.213	.064	.212	2.090	3.207	.000*
Restaurant atmosphere	.374	.059	.209	1.887	5.607	.000*
$R^2 = .421$, $SEE = .516$, $F = 59.951$, $Sig. of F = .000$						

* $p < .05$



Conclusions and Discussion

Food quality: The results showed that the variety of food items, the presentation of food items, and the freshness of ingredients had an influence on menu pricing, which is in line with a study of Saulo (2016). He explained that most restaurant customers are those in generation Y who eat at the restaurant because of social gatherings and wanting to take photos of the food and uploading them on their social media. Some researchers also explained in their research that food quality, which consisted of its temperature, its presentation and the accuracy of food ordering, determined menu price and the tips given to restaurant employees (Norris, Taylor, & Taylor, 2023).

Service quality: The results showed that service quality, especially in terms of willingness to provide service and being able to explain the details of food and drink, had effects on food prices. The manager had to consider providing equal services between males and females as the research found that males gave a lower score on service quality than females did. It must also consider the different expectations of an individual consumer's profession. Ryu and Han (2010) stated that service quality is an additional factor for further evaluation when customers perceived high prices after assessing food quality.

Restaurant atmosphere: The results showed that the restaurant atmosphere affected the price, especially the lighting and temperature inside the restaurant, and the cleanliness of the area and equipment. However, the sound in the restaurants did not have a significant effect on the price because each customer had common perception characteristics (Jordaan & Prinsloo, 2015). The restaurant atmosphere was an antecedent to customer satisfaction, leading to a willingness to pay high prices (Zhan et al., 2020).

Menu pricing: The results showed that food price was appropriate in general, but when comparing to the other restaurants, the price of Thai restaurants was somewhat higher. There were different opinions among age groups which was in line with the research of Raab, Mayer, Kim, and Shoemaker (2009) who collected data from customers who ate a buffet at a restaurant in Hong Kong and concluded that customers of different ages had different opinions on the price.

Recommendations

Recommendations for applying the research results

1) Thai restaurants should focus on developing a variety of food menus and use fresh ingredients. They should use the same types of ingredients as much as possible in order to avoid lots of waste. Thai restaurants should inform chefs to cook strictly with specified standard recipes so that customers perceive a consistency of food taste.



2) Thai restaurants should have a process of selecting service staff who are polite, smiling and show a willingness to serve when customers call for service. Service staff must be trained in explaining details of food items or answering customers' questions, especially questions related to food items., for instance, “what are the raw materials used?”, “what does the taste like?”, or “does it take a long time to cook?”. Thai restaurants should allow service staff to taste new food items in order that they can explain to customers correctly.

3) Thai restaurants should pay attention to lighting and temperature in the restaurant depending on their target customers. Restaurants with the customers in early working adults may require lighting that is not too bright but has a cool temperature, while restaurants with middle to late working age or the elderly customers may need brighter light and temperature that is not very cold. Large restaurants with lots of service space may divide the areas into zones to turn electricity on and off depending of customer demand.

4) Thai restaurants should create activities in the restaurants so that customers don't feel that food price is more expensive than other restaurants. The activities may include having music, using technology in the service providing process, and promotions with credit cards, giving discounts, and collecting points.

Recommendations of the Future Research

1) Three independent variables of this study can explain menu pricing by 42 percent. Therefore, future research should include more independent variables relating to the image of the restaurant and customer consumption behavior.

2) From many research studies, consumer satisfaction is a significant factor leading to customer loyalty. Future research should study the factors affecting consumer satisfaction in eating at Thai restaurants in order to implement challenging strategies and build a long-term relationship with their customers.

3) Future research should be conducted with foreign tourists regarding them opinion on the factors affecting their satisfaction in using the service in Thai restaurants. This is because our government has an effort to attract foreign tourists to return to Thailand. It is estimated that there will be 35 million foreign tourists visiting Thailand in 2024 (Ministry of Tourism and Sports, 2024). In general, foreign tourists traveling abroad Often find local food to eat (Cook, Hsu, & Taylor, 2018; Muskat, Hortnagel, Prayag, & Wagner, 2019).



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