



Case Report Applying Importance–Satisfaction Model to Evaluate Customer Satisfaction: An Empirical Study of Foodpanda

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Abstract: Because of improving mobile platforms and faster 4G speed, the annual growth of mobile devices has exceeded 50%, and many catering enterprises have integrated services to make ordering and delivery more convenient for smartphone users. Thus, user satisfaction with new online food-delivery platforms and services needs to be explored and evaluated. Using an Importance–Satisfaction Model (I–S Model), this study applied 12 service elements obtained from previous studies and an in-depth discussion of experts and scholars to evaluate user satisfaction towards Foodpanda, the first online food delivery service provider in Taiwan. Questionnaires were distributed from June to July 2020 and 256 samples were collected. This study found that eight items fell within the "Excellent Area", one within the "Improvement Area" and three within the "Careless Area".

Keywords: customer satisfaction; Foodpanda delivery platform; Importance–Satisfaction Model (I–S Model); order delivery platform

1. Introduction

In a dynamic and heavily competitive environment, a business needs to adapt quickly to ensure long-term profitability and sustainability [1]. Mobile devices, which are widely used in the corporate world, can continuously improve service so that corporate profits can grow and the business can remain sustainable [2]. As network technology advances, so does the use of mobile devices like tablets and smartphones. With faster processing speeds, users can use these devices to find information anytime and anywhere. To catch the enormous potential offered by e-commerce, businesses have started to build their own apps so that customers can obtain contact and product information or leave comments [3].

The stay-at-home economy because of the COVID-19 pandemic has driven many more shoppers online, and delivery services soon became a daily necessity. For the catering industry, providing an online food delivery service not only saved costs associated with a store and on-site service, but it increased sales during the pandemic [4]. Therefore, food delivery platforms serve both catering businesses and consumers in this on-demand economy [5].

In 2020, the global value of food delivery industry rose to USD 9.3 billion. According to Taiwan's Statistics Department of the Ministry of Economic Affairs, revenue from the catering industry reached USD 15.1 billion, with the food delivery industry accounting for 5% (USD 0.9 billion), which continues to grow by 5–10% each year [6]. Foodpanda, one of the pioneers in the industry, was the first multinational online food-delivery service in Taiwan. Since entering the market in 2012, the number of daily orders grew rapidly. Market Intelligence & Consulting Institute (MIC) conducted a survey of people who used a food-delivery service during the pandemic in the first half of 2020, and found that shows that the top five most frequently used platforms were Foodpanda (79.6%), Uber Eats (60.8%), Foodomo (8.3%), a self-operated restaurant platform (7.6%) and JIEKOU food delivery (5.3%). With a 1000-fold increase, Foodpanda remains the leading player in Taiwan's food-delivery market [5].



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Copyright: © 2021 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (https:// creativecommons.org/licenses/by/ 4.0/). As the Internet became a tool for daily food consumption, online ordering greatly enhanced consumers' ability to search and compare prices through the service provider's website or application (app) [7,8]. In the online food-ordering business, restaurant and service-provider quality both influenced the purchase decisions of customers.

In the service literature, empathy is regarded as one of the five dimensions measuring service quality [9,10], which refers to a customer's evaluation of reliability, responsiveness, assurance, and service quality [11]. However, when it comes to a business's competitive advantage, customer satisfaction, the difference between the customer's expectation and experience, needs to be examined because satisfied customers are loyal and an increase the frequency of repurchases helps create new customers by word of mouth marketing [12]. We used the Importance–Satisfaction (I–S) Model [13] to identify the dimensions that Foodpanda's customers are most satisfied with. We also differentiated those items from the ones that need to be improved by applying an Importance–Performance Analysis (IPA) [14], which evaluated customer satisfaction with a product or service and can be used as a basis for service quality improvement [15]. However, this model has not been applied to digital environments (food-delivery platforms). For this reason, the I-S Model was used this case study. The purpose of this research is to use the model to analyze customer satisfaction from the perspectives of service elements to find areas that need improvement [12,16] and compare the difference in demographic factors, thus confirming differences due to factors such as gender; marital status; age; occupation and education degree.

2. Materials and Methods

2.1. Food Delivery Platforms—Foodpanda

Foodpanda introduced its mobile app to businesses so that customers could order and enjoy their meals; hence this study was conducted to examine its success. Generally, there are three key success factors: employee loyalty, job satisfaction and customer satisfaction [17]. As real-time location information and mobile payment systems advanced, a variety of on-demand meal delivery platforms came into existence. The meal delivery apps of Taiwan's most commonly used delivery platforms, Foodpanda and Uber Eats, have similar functions, but different marketing. Foodpanda has different promotions each month, provides cashback on orders and extended its business hours (9 a.m. to 12 a.m.). In addition, it continues to expand its corporate network to attract more consumers and partners. Uber Eats also cooperates with many vendors and claims that its delivery speed is rapid and its quality is good. It is also proud of its platform for its stability and few problems.

Taiwanese vendors and restaurants are not tech-savvy, and payments are either in cash or by credit card, which made Foodpanda struggle for quite a while. However, repeated communication and explanation made a lot of vendors realize that online customers can also increase sales and generate new customers. Foodpanda has successfully signed contracts with more than 7000 vendors or restaurants. According to a January 2019 announcement, the number of daily orders has increased 1000 times since the beginning, making Foodpanda first in the delivery platform industry and giving it a 55% market share [5].

2.2. Service Quality and Customer Satisfaction

Customer satisfaction is the evaluation of a customer's experience and reaction after using a product or service [18]. It affects the willingness to repurchase or switch to another brand [19]. This overall experience [20] which represents the psychological and emotional state of the customer is key for a business not only for making profits but also for maintaining competitiveness [21–23]. If the expectation before the experience exceeds the result, it will produce dissatisfaction. Businesses, therefore, pursue quality in products and services in order to satisfy their customers [24]. Excellent service quality and high customer satisfaction is important and a challenge for the service industry [25]. Studies on service quality have extensively examined service quality measurement to help superiors effectively manage service quality delivery [26,27]. In the absence of objective measures, businesses must rely on consumers' perceptions of service quality to identify their strengths/weaknesses, and design appropriate improvement strategies. This makes the development of psychometrically sound and managerially useful instruments to measure service quality imperative [28]. Therefore, customer satisfaction must be translated into a number of measurable models to evaluate customer satisfaction level and organization operating efficiency.

Finally, this study can be used to evaluate the factors affecting customer satisfaction and loyalty. The online food delivery service developer needs to provide believable, detailed, and structured information in an appropriate format so that customers have less hesitation in using it [29]. Social media have also gradually become one of the main marketing tools not only for product quality but also for service quality in the Business to Customer (B2C) e-commerce market. Customers experience each element of the service from ordering to the delivery staff standing on the doorsteps long before they consume the product. A consumer's emotional reaction to the intangible service quality affects satisfaction and motivation for a repurchase [30].

2.3. Importance–Satisfaction Model (I–S Model)

The I–S Model [13,24] in Figure 1 is adapted from the Importance–Performance Analysis (IPA) proposed by Martilla and James [14], which selects two indicators—importance (*x*-axis) and performance (*y*-axis)—to form four quadrants: "Excellent", "Improvement", "Surplus", and "Careless". The revised model replaced "performance" with "satisfaction" to help users identify essential service-related criteria to pinpoint the needs to be satisfied [24]. Service attributes in "Excellent" were those that customers considered important when performance was satisfactory. Service attributes in "Improvement" were considered important, but performance was not satisfactory and needed to be improved. Service attributes in "Surplus" indicated that customers had less concern for these attributes, but were the performance or services provided exceeded their expectations. Lastly, service attributes in "Careless" showed that the service provider did not need to pay much attention on these attributes since customers were less concerned with them.





Importance and satisfaction variables on service elements are two indicators applied to evaluate the corresponding service quality performance. Therefore, scholars have developed the Importance-Performance Analysis (IPA) [14] and Importance-Satisfaction Model [13] to improve disadvantage of service quality. A set of service attributes pertaining to a particular service/good are evaluated on the basis of how important each is to the customer, and how the service/good is perceived to be performing relative to each attribute. This evaluation is typically accomplished by surveying a sample of customers.

Each service element was put into this model and then improvement strategies were brought up according to the areas of each item [2,13,16].

- (1) Excellent: all service elements have higher importance and higher satisfaction levels.
- (2) Improvement: service elements have higher importance but lower satisfaction.
- (3) Surplus: service elements are less important but more satisfactory.
- (4) Careless: service elements are less important but satisfactory.

Respondents were requested to score each service elements for importance and satisfaction. The results were then plotted in the model to determine the best strategies for improvement. The I–S Model is a quality improvement tool that is widely used in satisfaction surveys in different industries and organizations such as hotels [31], the Rotary Club [16], pharmaceutical logistics [15] and long-term care [32]. This tool is simple and straightforward, which is very helpful for management decision-making [13,28] to improve high importance/low satisfaction service elements [2,15]. However, this model has not been applied to digital environments (food-delivery platforms). For this research gap, the I–S Model was used this study.

3. Methodology

3.1. Questionnaire Design

To assess customer satisfaction and perceptions of importance in any industry, the requirements of the customer must first be determined. Different industries have different business cultures and different customer requirements [13]. These customer requirements are called service elements. These service elements are the most important factors of customer perception or organizational Key Success Factors (KSFs) [13,15,27]. This study explored 12 service elements obtained from previous studies [2,33] and in-depth discussion of experts and customer s to evaluate the user satisfaction towards Foodpanda. The 12 elements were the number of vendors (1), food style (2), attitude of the delivery staff (3), delivery speed (4), appearance of the delivery staff (5), food freshness (6), food price (7), user-friendliness of the app (8), delivery price (9), vendor awareness (10), celebrity endorsement (11) and sales promotions (12). We divided the questionnaire into two parts—importance and satisfaction—and adopted a five-point Likert scale to measure the attitudes and opinions of the respondents.

3.2. Sample and Data Collection

To approach those who had used Foodpanda, we collected data from Instagram, Facebook and Line, which are the most popular social media in Taiwan. These satisfied the purpose and special needs of the study and had a high response rate. The questionnaires were distributed from March to May 2020, and a total of 256 returned questionnaires were valid. Because the targets of this case study were Foodpanda system users, those who had not used this system were excluded. The data were collected randomly from Instagram, Facebook and Line because the response rate through these online surveys is 100%.

4. Data Analysis and Results

Table 1 shows the demographic characteristics of the sample. Nearly two-thirds of the 256 respondents were female (72.66%), 69.53% were single, 39.84% were aged 21–30, 48.83% were students, and 70.35% had a college or university degree. The respondents used Foodpanda 3–6 times a month (51.95%). This study did not deliberately control the proportion of the demographic variables such as gender, marital status, or age. Therefore, the subjects of this study were mostly female and unmarried. From in-depth interviews, we learned that Taiwanese seniors seldom use the platform were not familiar with mobile devices, and were not likely to use online food delivery, so the survey subjects were all younger.

Items	Demographic Factors	No	Percent
Gender	Male	70	27.34%
	Female	186	72.66%
Marital status	Married	78	30.47%
	Single	178	69.53%
Age	Below 20	91	35.55%
	21–30	102	39.84%
	31–40	43	16.80%
	41–50	11	4.30%
	Above 51	9	3.52%
Occupation	Student	125	48.83%
	Government employees	17	6.64%
	Service industry	62	24.22%
	High-tech industry	15	5.86%
	Agriculture industry	18	7.03%
	Financial industry	7	2.73%
	Others	12	4.69%
Education level	Below high school	57	22.27%
	College/University	187	73.05%
	Graduate school	12	4.69%
Average usage rate/month	Fewer than 2 times	59	23.5%
	3–6 times	133	51.95%
	7–9 times	39	15.23%
	More than 10 times	25	9.77%

 Table 1. Descriptive statistics of respondents.

4.1. I–S Model Imported

Before importing the I–S Model, we had to pool sub-groups having a sample size of less than 30 to facilitate the falling point analysis. Thus, we transformed Table 1 into Table 2.

Table 2. Merged descriptive statistics of sample population.

Items	Demographic Factors	No
Gender	Male	70
	Female	186
Marital status	Married	78
	Single	178
Age	Below 20	91
	21–30	102
	Over 31	63
Occupation	Student	125
	Service industry	62
	Others	69
Education level	High school and lower	57
	College/University and above	199

4.1.1. Gender in I-S Model Analysis

Lee et al. [34] proposed a customer satisfaction analysis of a Japanese Restaurant, and analyzed the statistical differences based on demographic variables, such as gender, age, marital status, education degree, occupation, monthly income, and dining out. Among them, age, education degree, occupation, and monthly income have significant differences in customer satisfaction. In addition, the research pointed out that the influence of service quality and customer satisfaction in the food service industry in the demographic variable data include gender, age, marital status, education degree, occupation, average monthly income, place of residence, and other variables. Among them, age, marital status, education degree, and average monthly income have significant differences in service quality and customer satisfaction [35]. Lin et al. [36] evaluated customer satisfaction on McDonald's online meal ordering, including gender, marital status, age, occupation, education degree, place of residence, monthly income, system using experience, frequency of using and other variables to analyze the difference. The study found gender, age, occupation, and educational degree also have significant differences in customer satisfaction. Previous studies [34–36] are based on statistical analysis methods. Most of them make narrative hypotheses in advance and then verify their differences. This study adopts the I-S Model and uses five common demographic variables: gender, marital status, age, occupation, and education degree. In addition, the aim was to explore the location of its service elements and provide relevant suggestions for improvement.

As shown in Table 3, Figures 2 and 3. the study found that four items—food price, user-friendliness of the app, delivery price and popularity—had differences in the falling point according to gender. Female customers were more concerned about food price and user-friendliness than male customers were. Instead, male customers cared more about delivery price. While popularity of the company was less important to both.

τ.		Male			Female	
Items -	I S		I–S Model	Ι	S	I–S Model
1	4.81	4.17	Excellent	4.67	4.20	Excellent
2	4.65	3.98	Excellent	4.69	4.17	Excellent
3	4.37	4.02	Excellent	4.55	4.25	Excellent
4	4.52	3.76	Improvement	4.43	4.05	Improvement
5	3.09	2.98	Careless	2.88	3.37	Careless
6	4.76	3.98	Excellent	4.62	4.24	Excellent
7	4.50	3.81	Excellent	4.45	3.97	Improvement
8	4.59	4.04	Excellent	4.63	3.97	Improvement
9	4.52	3.69	Improvement	4.50	4.14	Excellent
10	3.81	3.78	Careless	3.64	3.93	Surplus
11	2.94	3.33	Careless	3.05	3.42	Careless
12	4.44	3.98	Excellent	4.63	4.25	Excellent
$\overline{\mathbf{x}}$	4.25	3.79		4.23	4.00	

Table 3. I–S Model according to gender.



Figure 2. I–S Model for male respondents.



Figure 3. I–S Model for female respondents.

4.1.2. Marital Status in the I–S Model

Table 4 and Figures 4 and 5 show the marital status analysis. Two items—food price and user-friendliness of the app—showed large differences in the falling point analysis. Married customers were less price sensitive than single ones were. However, the latter were more satisfied with the app.

		Single			Married	
Items -	Ι	S	I–S Model	Ι	S	I–S Model
1	4.74	4.14	Excellent	4.57	4.48	Excellent
2	4.71	4.07	Excellent	4.48	4.30	Excellent
3	4.49	4.14	Excellent	4.48	4.35	Excellent
4	4.45	3.92	Excellent	4.52	4.13	Excellent
5	2.92	3.30	Careless	3.17	2.87	Careless
6	4.71	4.14	Excellent	4.39	4.17	Excellent
7	4.47	3.89	Improvement	4.48	4.04	Excellent
8	4.68	3.99	Excellent	4.26	4.00	Improvement
9	4.52	3.94	Excellent	4.43	4.22	Excellent
10	3.74	3.88	Surplus	3.43	3.87	Surplus
11	2.87	3.44	Careless	3.83	3.13	Careless
12	4.62	4.08	Excellent	4.22	4.57	Excellent
$\overline{\mathbf{x}}$	4.24	3.91		4.19	4.01	





Figure 4. I–S Model for married respondents.



Figure 5. I-S Model for single respondents.

4.1.3. Age in I–S Model Analysis

Table 5 and Figures 6–8 show that four items had differences in the falling point analysis and plot. Customers who were over 21 were more sensitive to food price, and were not satisfied with the functionality of the app. As for the popularity of vendors and sales promotion, customers showed either satisfied or not very concerned.

τ.		Below 20			21-3	D	Over 31		
Items I	S	I–S Model	Ι	S	I–S Model	Ι	S	I–S Model	
1	4.72	4.30	Excellent	4.74	4.06	Excellent	4.59	4.53	Excellent
2	4.60	4.16	Excellent	4.78	4.03	Excellent	4.35	4.29	Excellent
3	4.38	4.16	Excellent	4.57	4.12	Excellent	4.35	4.47	Excellent
4	4.44	3.94	Excellent	4.48	3.93	Excellent	4.41	4.06	Excellent
5	2.94	3.10	Careless	2.83	3.33	Careless	3.65	3.18	Careless
6	4.64	4.14	Excellent	4.75	4.13	Excellent	4.29	4.24	Excellent
7	4.26	3.94	Excellent	4.60	3.90	Improvement	4.41	3.94	Improvement
8	4.58	4.18	Excellent	4.73	3.88	Improvement	4.12	4.06	Surplus
9	4.42	3.92	Excellent	4.58	4.00	Excellent	4.35	4.06	Excellent
10	3.84	3.76	Surplus	3.62	3.96	Surplus	3.71	3.82	Careless
11	2.92	3.38	Careless	2.85	3.40	Careless	4.12	3.35	Careless
12	4.54	3.98	Excellent	4.66	4.20	Excellent	4.12	4.41	Surplus
x	4.19	3.91		4.27	3.91		4.21	4.03	

Table 5. I–S Model of the age of respondents.



Figure 6. I–S Model of respondents below age 20.



Figure 7. I–S Model of respondents aged 21–30.



Figure 8. I–S Model of respondents above age 31.

Table 6 and Figures 9–11 show occupation factor in the I–S Model. There were five items with differences in the falling point analysis. Students and service-industry workers were less satisfied with the delivery speed. However, respondents who worked in other industries were more concerned with delivery price and the friendliness of the app.

τ.	Student		nt		Service In	dustry	Other Industry		
Items I		S	I–S Model	Ι	S	I–S Model	Ι	S	I–S Model
1	4.73	4.18	Excellent	4.67	4.22	Excellent	4.78	4.11	Excellent
2	4.67	4.03	Excellent	4.69	4.27	Excellent	4.67	4.06	Excellent
3	4.41	4.15	Excellent	4.58	4.22	Excellent	4.67	4.17	Excellent
4	4.38	3.89	Improvement	4.58	4.04	Improvement	4.61	4.00	Excellent
5	2.70	3.15	Careless	3.60	3.56	Careless	2.67	2.89	Careless
6	4.70	4.13	Excellent	4.67	4.36	Excellent	4.50	3.72	Improvement
7	4.38	3.88	Improvement	4.64	4.18	Excellent	4.50	3.44	Improvement
8	4.66	4.09	Excellent	4.69	4.02	Careless	4.22	3.44	Improvement
9	4.47	3.94	Excellent	4.64	4.11	Excellent	4.33	3.89	Improvement
10	3.74	3.89	Careless	3.98	4.02	Careless	2.78	3.44	Careless
11	2.85	3.35	Careless	3.40	3.53	Careless	2.89	3.22	Careless
12	4.58	4.06	Excellent	4.64	4.27	Excellent	4.28	4.33	Excellent
$\overline{\mathbf{X}}$	4.19	3.90		4.40	4.07		4.07	3.73	

Table 6. I–S Model of occupation.



Figure 9. I–S Model of student respondents.



Figure 10. I-S Model of service-industry respondents.





4.1.5. Education Level in I-S Model Analysis

Table 7 and Figures 12 and 13 show the education analysis. Respondents who were below high school level cared more about delivery speed, food price, the app's user-friendliness and delivery price than did those who had college or university degree.

Items	Bel	ow High Sc	hool	College/University			
items	I	S	I–S Model	Ι	S	I–S Model	
1	4.70	4.40	Excellent	4.72	4.15	Excellent	
2	4.40	4.10	Excellent	4.71	4.10	Excellent	
3	4.35	4.50	Excellent	4.51	4.13	Excellent	
4	4.40	4.05	Improvement	4.47	3.93	Excellent	
5	3.40	3.75	Careless	2.89	3.16	Careless	
6	4.40	4.20	Excellent	4.71	4.14	Excellent	
7	4.40	4.05	Improvement	4.48	3.90	Excellent	
8	4.45	4.00	Improvement	4.64	3.99	Excellent	
9	4.40	4.05	Improvement	4.52	3.97	Excellent	
10	3.80	3.90	Careless	3.68	3.88	Careless	
11	3.50	3.70	Careless	2.94	3.35	Careless	
12	4.35	4.25	Excellent	4.60	4.14	Excellent	
x	4.21	4.08		4.24	3.90		

 Table 7. I–S Model of education degree.



Figure 12. I–S Model of respondents below high school.



Figure 13. I–S Model of college- or university-level respondents.

4.2. Total I-S Model Analysis

Table 8 and Figure 14 show the results of the pooled sample. Analyzing the sample as a whole, we found that customers who used the food-delivery service cared less about the appearance of the staff, popularity of the vendors, and celebrity endorsements, which all fall under the careless area in the I–S Model. They were satisfied with all other service elements except food price, which was the only element that fell into the improvement area.

Table	8.	Total	I–S	Model.
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Items	Ι	S	I–S Model
1 Number of vendors	4.72	4.19	Excellent
2 Food style	4.67	4.10	Excellent
3 Service attitude of the delivery staff	4.49	4.17	Excellent
4 Delivery speed	4.46	3.95	Excellent
5 Appearance of the delivery staff	2.96	3.24	Careless
6 Freshness of food	4.67	4.15	Excellent
7 Food price	4.47	3.92	Improvement
8 User-friendliness of the app	4.62	3.99	Excellent
9 Delivery price	4.51	3.98	Excellent
10 Popularity of the vendor	3.70	3.88	Careless
11 Celebrity endorsement	3.01	3.39	Careless
12 Sales promotions	4.56	4.15	Excellent
x	4.24	3.93	



Figure 14. Total I–S Model.

4.3. Discussion

This study imported the questionnaire results into the I–S Model taking demographic variables into account. From the gender analysis, it was found that women paid more attention to food price and the convenience of using of the app than men did. Men cared

more about the delivery price, while neither cared about Foodpanda's popularity. From the marital status analysis, unmarried customers paid more attention to food price, while the married paid more attention to convenience. The married had no time to study the app so they paid more attention to the convenience of its use.

From the age analysis, people aged 21–30 cared more about price. Young people under the age of 20 were more able to operate mobile software and were more satisfied with the operation of the app. People aged 21–30 cared about the ease of operation of the app and were even satisfied with the promotional activities of Foodpanda, while those over 31 years did not care much about them.

From the occupation analysis, students and service-industry workers had limited leisure time, so they were very concerned about delivery speed and very satisfied with the food quality. This study found students have fewer sources of money, so they bought cheaper things. In contrast, service industry workers have more income, so they were more receptive to higher prices. Both students and the service industry were very satisfied with the app and promotional activities.

From the educational background analysis, those with less than a high school education said that the delivery speed, food price, app convenience and delivery price did not meet their expectations and hoped that Foodpanda had room for improvement. On the other hand, college students were very satisfied with these four demands, so it was found that the experiences of high school and college students were vastly different. From the total I–S Model analysis, people were most dissatisfied with food prices, while there are more high-priced food that low-priced food. Therefore, prices were still unacceptable to students and young people, while most people were quite satisfied with the other aspects.

The study proposed that customers of an online delivery service be fully informed about the restaurant, menu, location, food price, and delivery price before making a purchase, especially the food price [29]. Vasić et al. [37] proposed that security, information availability, shipping, quality, pricing and delivery time influence customers' satisfaction. The most critical factor for fulfilling the customer expectations timely and reliable delivery, which encourages repurchases [37]. Through the market survey of Foodpanda, consumers were highly satisfied with delivery speed, food freshness, convenience in the use of the app, delivery price and promotional activities. These high-satisfaction service elements are the same as those for previous research results [8,17,37].

Because of improved mobile platforms and accelerating 4G speed, digital services are ubiquitous. Businesses combined with an e-commerce element have started to build their own apps to catch the enormous sales potentials. Among these, catering businesses have been aggressive over the past decade catching up to accelerating mobile consumption. As a result, delivery services have sprung up. Foodpanda, the first international food delivery service provider in Taiwan, has been the most frequently used, especially among young consumers who are the most active on the Internet. They not only rely more on delivery platform services but also tend to share their experiences on social networks. Therefore, understanding customer perceptions and attitudes toward the brand through community listening [38] is an important part of brand image management. Customers with higher satisfaction will develop loyalty, which lead to repurchases. Brand owners can measure marketing effectiveness through various social indicators and evaluate the best strategies for their brands in a very short time.

During the COVID-19 pandemic, Taiwan's government legislation stipulated that restaurants are prohibited for dining in, and related teaching, entertainment, and catering services are all forbidden from organizing group activities. In addition, masks had to be worn when going out to avoid the spread of the virus, which will have an impact on the catering industry, tourism, film entertainment, and other industries. This greatly affected its output value and reduced its competitiveness. Since entering the food-delivery market, all providers have struggled to provide quality service; however, that comprises of several elements that may play off one another such as food price and other service attributes. This study found that popularity of the vendors and celebrity endorsements carried less weight among the quality service attributes, whereas these elements usually contribute a lot to delivery costs. Cutting related expenses through selecting less well-known but good-quality vendors and minimizing celebrity advertising may help lower food price to serve price-sensitive customers. In addition, other related service-quality elements significantly improved customer satisfaction, which could be further enhanced if the customers were not expecting them [15]. Service providers can gain customer loyalty by identifying customer requirements and offering products and services that address their needs, thus creating strong ties between the consumers and the service providers, which then builds competitive advantages to attract more new customers [39].

5. Conclusions and Suggestions

5.1. Conclusions

During the COVID-19 pandemic online, food delivery services rose in prominence. [29]. Using the Importance–Satisfaction (I–S) Model, this study applied 12 service elements obtained from previous studies and an in-depth discussion of experts and scholars to evaluate user satisfaction with the Foodpanda delivery service. Overall, users were highly satisfied with the delivery speed, food freshness, user friendliness of the app, delivery price and sales promotions but cared less about the appearance of the staff, the popularity of the vendors and celerity endorsement. However, the empirical results showed that the users in different demographic sub-groups had heterogeneous attitudes toward services provided either by the vendors or by Foodpanda itself. The literature identified food price as an important factor for customer satisfaction [37,40]; however, it stood out from the rest factors as the only one that fell into the improvement area, meaning service providers needed to pay attention to it. The empirical study gave a clearer picture of these particular customers: single females aged 21–30 with education below high school were the most sensitive to food price. Finally, restaurants needed to carefully consider the service providers to maintain a good company image and food service delivery platform.

5.2. Suggestions

The first suggestion is to expand the age group of consumers. The study found that the main age group of Foodpanda consumers was 20–30, so delivery platform could carry out promotional activities aimed at the middle-aged and elderly. Second, if the food price is too high, low-priced restaurants could be added to broaden the consumer base.

5.3. Study Limitations and Future Avenues for Research

This study focused on customers who used the Foodpanda delivery platform, so customer satisfaction without Foodpanda could not be evaluated. Moreover, this research used online interfaces (Instagram, Facebook and Line) to investigate customer satisfaction, if a customer did not use these online platforms, their degree of satisfaction could not be evaluated. Future research should investigate the satisfaction of Uber Eats consumers through the I–S Model, compare the satisfaction of the two delivery platforms, and propose improvement strategies. In addition, the subjects in this study were biased towards women and young people. Future studies should increase the number of elderly or men to propose business strategies to meet the needs of all customers.

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