

## Research Article

# Evaluation and Design of Service Quality Improvement at Shopee Food Surabaya

Dewie Saktia Ardiantono\*, Mushonnifun Faiz Sugihartanto, and Faradilla Swesty Tri Rediana

Department of Business Management, Faculty of Creative Design and Digital Business, Institut Teknologi Sepuluh Nopember, Indonesia

**ORCID**

Dewie Saktia Ardiantono: <https://orcid.org/0000-0002-2603-7050>

**Abstract.**

The market presence of Shopee Food in Indonesia is rather recent as compared to its rival companies. Shopee Food is now implementing an expansion strategy in several regions of Indonesia with the aim of augmenting its consumer base. Service quality holds significant importance in influencing consumer decision-making processes pertaining to online food purchases. The primary objective of this study is to ascertain the fundamental indicators of service quality for Shopee Food and provide appropriate methods to enhance the overall quality of service provided. The present study utilizes the approaches of Importance Performance Analysis (IPA) and House of Quality (HOQ). Consequently, there is a need for improvement in three essential parameters. In addition, the House of Quality employs a set of three measures to generate recommendations for enhancing service quality. As such, organizations have the capacity to make four endeavors in order to enhance the quality of essential services. The primary objective of improving service quality is to address issues and optimize the efficiency of application responses.

**Keywords:** house of quality, importance performance analysis, online food delivery, service quality

## 1. Introduction

The high and rapid internet penetration in Indonesia has influenced people's behaviour in a variety of fields, including the field of commerce, where buying and selling activities that were previously conducted offline and were relatively limited in terms of distance and time can now be conducted online without significant distance and time constraints. Currently, online food delivery services are favoured by the people of Indonesia as a form of online purchasing and marketing. This industry is devoted to supplying food delivery services to customers [1]. Using online food delivery services provides consumers with a few benefits, including the ability to save time and effort when purchasing food, the numerous promotions offered by applications, and the convenience of payments [2].

Corresponding Author: Dewie Saktia Ardiantono; email: [dewie@mb.its.ac.id](mailto:dewie@mb.its.ac.id)

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In 2020, Indonesia has become the Southeast Asian nation with the largest online food delivery market. Momentum Works' research for 2021 indicates that Indonesia will have the highest Gross Merchandise Value (GMV) in Southeast Asia in 2020, amounting to USD 3.7 billion or equivalent to IDR 52 trillion [3]. Indonesia is the country in Southeast Asia with the largest online food delivery service market due primarily to its vast population. Moreover, it is affected by the number of smartphone users in Indonesia, which is 345.3 million or 125.6% of the total population. This number is greater because some residents use multiple cell phones for internet-related activities [4].

In 2020, the online food delivery industry in Indonesia has grown significantly. Particularly since the release of government policies to combat the Covid 19 pandemic. One of these policies is the mobility restriction that went into effect on March 10, 2020. The existence of social separation regulations necessitates the use of online food delivery services to fulfil daily dietary requirements. Even the business of online food delivery services grew by 183 percent this year [5].

In Indonesia, the market for online food delivery services is dominated by two companies: Grab through the Grabfood service and Gojek through the Gofood service. According to data from Momentum Works, Grab excels by controlling 53% of the total market share, while Gojek controls the remaining 47% [3]. However, this does not preclude the possibility for new players to benefit from the online food delivery service industry in Indonesia. On the contrary, as market volume rises, opportunities become increasingly available. PT. Shopee Indonesia is one of the companies that has seized the enormous opportunity in the online meal delivery service industry in Indonesia. Shopee expanded its operation in April 2020 with the launch of Shopee Food. Shopee is the first e-commerce platform in Indonesia to deliver cuisine. Shopee Food is not yet available in all Indonesian regions. Because Shopee Food's presence in Indonesia is still relatively new in comparison to its rivals, there are still some complaints from its customers. This is evident from several negative reviews posted on Playstore by Shopee Food users. Therefore, Shopee Food must evaluate and enhance its service quality to compete with its rivals.

When consumers decide to buy food online, service quality has a significant impact on their choices [6]. This is so because it has been demonstrated that customer happiness and loyalty are positively correlated with the service quality of online meal delivery services [1]. In order to increase service quality, business managers must always pay close attention to what their consumers have to say [7]. Therefore, it's critical to evaluate

service quality with the goal of preserving consumer confidence in order to ensure the longevity of the application and raise client pleasure. Thus, it is anticipated that this research will offer PT. Shopee Indonesia the finest suggestions for enhancing the caliber of Shopee Food services, and that as user happiness with the application rises, PT. Shopee Indonesia will benefit from convenience and customer loyalty.

## 2. Literature Review

### 2.1. Service Quality

According to Asubonteng, et al., (1996) service quality can be defined as the variance between the initial expectations of customers prior to a service encounter and their subsequent views of the service rendered [8]. According to Parasuraman, et.al., (1985) service quality is determined by two primary factors: the service that consumers anticipate (anticipated service) and the service that customers perceive (perceived service) [9].

### 2.2. Service Quality of Online Food Delivery

The quality of service in the food and beverage industry can be evaluated based on the expected service prior to dining and the perceived service following the meal [1]. One of the factors that influences consumer choices when ordering food online is the quality of service [6]. The primary service offered in this industry is the provision of food delivery services to customers through couriers.

### 2.3. Model of OFD-SERV

The initial introduction of the Online Food Delivery Service Quality Scale (OFD-SERV) was conducted by Cheng et al. [1]. OFD-SERV is a methodology used to assess the quality of service in online meal delivery, consisting of six dimensions. These dimensions consist of:

- Reliability

The ability to deliver the promised service accurately and faithfully during online meal delivery.

- Maintenance of meal quality & hygiene (MMQH)

The ability to maintain the quality and cleanliness of food effectively throughout online food delivery services.

- Assurance

The ability to gain customer trust during online meal delivery services.

- Security

Ability to protect customer data during online food delivery services.

- System Operation

Ability to provide customers with good quality and system functionality during online food delivery orders.

- Traceability

Ability to know the delivery progress and location during the online food delivery service.

## 2.4. Importance Performance Analysis (IPA)

The IPA (Importance-Performance Analysis) technique serves as a theoretical framework for evaluating the correlation between consumer perceptions and priorities in the enhancement of product or service quality [10]. This method enables an assessment of customer satisfaction with the company's performance and the extent to which the organization comprehends client wishes.

## 2.5. House of Quality (HOQ)

The House of Quality technique is employed by organisations as a means of comprehending customer wants and expectations, and subsequently transforming them into service design in a systematic manner [11]. The establishment of a house of quality serves the purpose of aligning client wishes with the services offered by the firm, hence resulting in enhanced customer happiness and increased profitability.

## 3. Methodology Research

This academic study focuses on investigating the service attributes and quality evaluation of Shopee Food, an online food delivery platform. The research comprises

four distinct stages: identification, data collection, data processing and analysis, and conclusion and suggestion. Each stage is elaborated upon in the subsequent sections.

### **3.1. Identification Stage: Service Attribute Identification**

At the identification stage, the study adopts the OFD-SERV model developed by Cheng et al. [1] to identify the service attributes relevant to the evaluation of online food delivery. The OFD-SERV model encompasses 28 indicators across six dimensions, namely Reliability, Maintenance of Meal Quality and Hygiene (MMQH), Assurance, Security, System Operation, and Traceability.

### **3.2. Data Collection Stage**

In this study, data collection is conducted through an online survey using Google Forms. The questionnaires are shared via the author's social media accounts and other platforms hosting the questionnaire. The survey targets Shopee Food users and aims to gather their feedback on the service quality aspects.

### **3.3. Determination of the Number of Samples**

The study utilizes non-probability purposive sampling to determine the number of samples. Purposive sampling is chosen to ensure that the selected sample represents the specified population. The criteria for selecting respondents include the following characteristics: (1) residing in the Surabaya area, as the research focuses solely on Shopee Food services in Surabaya, (2) aged between 18 and 35 years, considering the dominance of millennial and gen Z users within the Shopee Food user base, and (3) having used Shopee Food services for a minimum of three months, as this duration allows users to gain a sufficient understanding of the service's quality.

### **3.4. Data Processing and Analysis Stage**

The data processing and analysis stage involves several techniques, including statistical tests, Importance Performance Analysis (IPA), and the Preparation of the House of Quality (HOQ). These methods are employed to analyze the collected data, identify

key service attributes, evaluate their performance, and establish a comprehensive understanding of the quality of Shopee Food services.

### **3.5. Conclusion and Suggestion Stage**

In the final stage of the research, conclusions are drawn from the findings, addressing the formulated research objectives. The study also offers suggestions for enhancing the performance of Shopee Food services based on the identified service attributes. Additionally, recommendations are provided for future research directions to further explore and improve the understanding of service quality in online food delivery platforms.

## **4. Results and Discussion**

### **4.1. Identification**

After validating service quality indicators with Shopee Food customers, 25 indicators matching Shopee Food's current conditions were derived from six dimensions. Validated indicator of service quality is presented in Table 1.

### **4.2. Data Collection**

A total of 117 respondents completed the online questionnaire, constituting the sample size for this study. The sample size was determined based on considerations such as the research scope, available resources, and statistical power requirements. While the sample size may be relatively small, it is important to note that this study focuses on specific characteristics and attributes, enabling a detailed analysis within the identified scope.

### **4.3. Importance Performance Analysis (IPA)**

The IPA analysis aims to determine the conformity levels by comparing the average customer interest level with the average customer satisfaction level for each indicator.

Based on the results of the IPA conformity level calculation, it is evident that all service indicators in Shopee Food exhibit conformity levels below 100%. This indicates a lack of

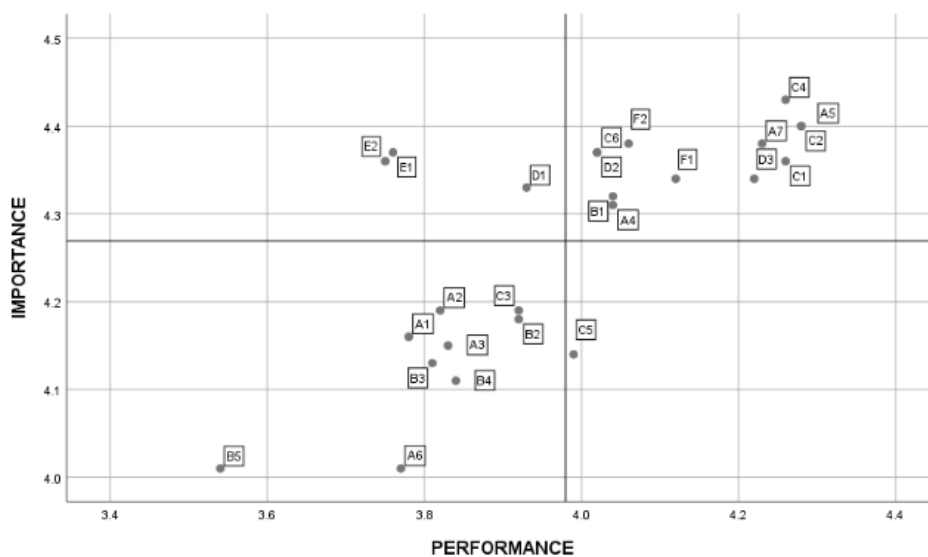
TABLE 1: Service Quality Indicators.

No	Dimension	Indicator	Code
1.	Reliability	The sender can easily fix mistakes	A1
2.		The delivery apron is tidy and clean.	A2
3.		The packaging is orderly and tidy.	A3
4.		Sender's actions and words	A4
5.		Invoice or details are correct.	A5
6.		Shippers can assist customers in resolving issues.	A6
7.		When delivering the food, the sender is courteous and friendly.	A7
8.	Maintenance of Meal Quality and Hygiene (MMQH)	Taste of cuisine after delivery.	B1
9.		The scent of cookery following delivery.	B2
10.		Food temperature after delivery.	B3
11.		Maintain food display.	B4
12.		Service process satisfies hygiene requirements (e.g. courier wears gloves to deliver food, etc.)	B5
13.		Assurance	The correspondent fulfils his delivery obligation after receiving the order.
14.	The cuisine is delivered in accordance with the order.		C2
15.	The cuisine was delivered by the courier promptly.		C3
16.	The cuisine and quantity are satisfactory.		C4
17.	The dispatcher has extensive education and experience.		C5
18.	The cost of shipping is reasonable.		C6
19.	Security	The ordering system (application) safeguards the customer's personal data	D1
20.		The ordering system (application) safeguards the credit card or electronic payment information of the customer.	D2
21.		The ordering system (application) maintains consumer order records.	D3
22.	System Operation	The ordering system (app) is intuitive and easy to use	E1
23.		The ordering system (application) makes it simple for customers to locate the food they require.	E2
24.	Traceability	The system platform allows customers to track the delivery status.	F1
25.		The sender is aware of the precise location where the food will be conveyed	F2

alignment between these indicators and customer expectations, highlighting Shopee Food's inadequate performance in meeting customer needs.

To determine the placement of indicators in quadrants 1, 2, 3, or 4, the IPA quadrant is constructed using a vertical line representing performance obtained from satisfaction levels measured through the questionnaire, and a horizontal line representing importance levels derived from the questionnaire responses. Figure 1 illustrates the IPA quadrant for the Shopee Food service.

Analysis of the IPA quadrant reveals the presence of three critical indicators that require improvement. These include the ordering system (application) that should be simple and user-friendly, an ordering system (application) capable of providing accurate and timely delivery information, and the availability of a variety of payment options to cater to diverse customer preferences. These areas necessitate attention and enhancement to enhance the overall service quality and customer satisfaction provided by Shopee Food.



**Figure 1:** Importance Performance Analysis Quadrant.

#### 4.4. House of Quality

The House of Quality involves several essential steps that must be undertaken to effectively improve service quality. These steps are as follows:

##### 1. Determining Customer Requirements

The three critical indicators identified through the Importance Performance Analysis calculation are transformed into customer requirements, representing the expressed needs and desires of customers. The customer requirements are as follows:



- The ordering system is characterised by its user-friendly interface and efficient functionality.
- The ordering system facilitates the efficient retrieval of desired food items by customers.
- The ordering method is designed to safeguard the personal information of clients.

#### 2. Establishing the Technical Response

During this stage, an identification process takes place to determine the actions that the company can undertake to enhance the quality of the identified critical services.

#### 3. Developing the Relationship Matrix

At this stage, an evaluation is conducted to assess the potential relationships between customer requirements and the identified technical responses.

#### 4. Constructing the Correlation Matrix

During this stage, an evaluation of the correlation between each technical response and customer requirements is conducted.

#### 5. Defining the Direction of Improvement

This stage entails determining the specific areas for improvement in relation to the identified technical responses.

#### 6. Creating the Planning Matrix

The planning matrix is a management method employed to prioritize consumer needs and desires while considering the company's capabilities. This matrix involves seven key stages: 1) customer importance, 2) customer satisfaction performance, 3) competitive satisfaction performance, 4) goals, 5) improvement ratio, 6) sales point, and 7) raw weight, along with 8) normalized raw weight.

By following these steps, companies can generate several recommendations for service improvements. These recommendations include: 1) resolving software bugs and optimizing application responsiveness, 2) conducting thorough checks on the accuracy of product photos submitted by merchants, 3) enforcing the use of outlet banners and product photos that accurately represent the merchandise for all merchants, and 4) implementing a telephone number disguising feature.

Implementing these suggested improvements can significantly enhance service quality, enabling companies to better meet customer expectations and preferences.

## 5. Conclusion

Based on the conducted research, several key findings can be summarized as follows:

1. Validation results for Shopee Food customers indicate that 25 indicators from the six dimensions of the Online Food Delivery Service Quality Scale (OFD-SERV) align with the current conditions of Shopee Food.

2. The Importance Performance Analysis measurement revealed the presence of three critical attributes in the Shopee Food service. These attributes are located in quadrant I, indicating their high importance to consumers, but low performance by Shopee Food. Consequently, these indicators require improvements to enhance service quality. The three identified indicators are as follows: E1 (ordering system (application) that is simple and smooth to operate), E2 (ordering system (application) that facilitates customers in finding desired food items), and D1 (ordering system (application) that safeguards customer personal information).

3. The House of Quality (HOQ) analysis resulted in the identification of four technical responses aimed at improving Shopee Food services. The rating of these technical responses is determined through relative score calculations. The four responses are as follows: TR1 (addressing software bugs and optimizing application responsiveness), TR4 (implementing a phone number disguise feature), TR2 (conducting checks on the accuracy of product photos submitted by merchants), and TR3 (enforcing the use of outlet banners and product photos that accurately represent the products sold by merchants).

By addressing these findings and implementing the recommended improvements, Shopee Food can enhance its service quality, aligning it more closely with customer expectations and preferences.

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