

# How Product and E-Service Quality Affect Consumer Loyalty in Online Food Delivery?

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## Abstract

This research aims to analyze the impact of perceived price, product quality, and e-service quality on consumer satisfaction in building consumer loyalty among users of online food delivery services. This study employs a quantitative approach using an online survey questionnaire based on a 6-point Likert scale for data collection, which will be distributed through social media. The sampling method used is non-probability purposive sampling, which will then be analyzed using the Structural Equation Modeling (SEM) method with the assistance of SmartPLS software. The survey targets of this research are students aged 18-25 who reside in Jakarta and have used online food delivery applications at least three times in the last six months. This study is expected to provide in-depth insights into the factors influencing consumer satisfaction in online food delivery services. It will also explore the differences in perception among different student groups, as well as the practical implications of the findings for online food delivery service providers. The results of this analysis are expected to yield recommendations that can assist management of food delivery services in enhancing user satisfaction and loyalty, as well as providing valuable insights for the development of more effective marketing strategies. By focusing on the student population, this research highlights the significance of this market segment within the online food delivery industry in Jakarta.

**Keyword:** Product Quality; E-Service Quality; Consumer Loyalty; Online Food Delivery; Jakarta

## 1. Introduction

Online Food Delivery (OFD) has become an essential part of modern lifestyle, including among students. With the advancement of technology and the increasing use of smartphones, OFD services make it easy for consumers to order food from various restaurants quickly and conveniently. The industry has shown rapid growth globally, with the market value reaching USD 210 billion in 2023 and is expected to rise to USD 426 billion by 2030 (Precedence Research, 2024). In Indonesia, OFD is used by various segments of society, including students who order food online 1-3 times a week, reflecting the high dependency on this service (Yashilva, 2024).

The success of OFD platforms in Indonesia, such as GoFood, ShopeeFood, and GrabFood, is supported by various factors, including perceived price, e-service quality, product quality, and customer satisfaction. Studies show that perceived price in line with service and product quality can enhance customer loyalty (Zhong & Moon, 2020). Additionally, dimensions of e-service quality, such as ease of access, speed, and transaction security, have a significant impact on consumer satisfaction, which ultimately strengthens user loyalty to OFD platforms

(Suhartanto et al., 2019). Based on the background of the problem explained above, seven research questions can be formulated as follows: 1) Does perceived price have an impact on consumer loyalty in using online food delivery services? 2) Does perceived price have an impact on consumer satisfaction in using online food delivery services? 3) Does product quality have an impact on consumer satisfaction in using online food delivery services? 4) Does product quality have an impact on consumer loyalty in using online food delivery services? 5) Does e-service quality have an impact on consumer satisfaction in using online food delivery services? 6) Does e-service quality have an impact on consumer loyalty in using online food delivery services?

## **2. Literature Review**

### **2.1 Consumer Satisfaction**

Consumer satisfaction is defined as the alignment between customers expectations of services and products with the experience they receive, which is evaluated emotionally and deeply (Sumi & Kabir, 2021). Customer satisfaction occurs when the performance of a product or service meets or exceeds expectations, while dissatisfaction arises when those expectations are not met (Vuong et al., 2024). In online food delivery (OFD) services, e-service quality and food quality are key factors that influence customer satisfaction levels (Suhartanto et al., 2020). E-service quality includes the ease of using the platform, information security, and service accuracy, while food quality encompasses the taste, freshness, and appearance of the food received.

Other factors, such as perceived price, promotions and discounts, and convenience motivation, also play an important role in shaping consumer satisfaction (Tan & Eng Kim, 2021). Fair pricing enhances the perceived value of the service in the eyes of customers, while appropriate promotions can attract consumer interest and strengthen brand loyalty. The ease of ordering and tracking orders online also contributes positively to customer satisfaction. Overall, the value perceived by customers, according to the Customer Value Theory, serves as a critical foundation in determining their satisfaction level, where greater benefits compared to sacrifices lead to increased customer satisfaction (Papagiannidis, 2022).

### **2.2 Perceived Price**

The price of a product reflects the amount of expenditure required in a purchase transaction, which can be differentiated into objective price and perceived price. Objective price refers to the actual monetary cost, while perceived price reflects the subjective perception of customers regarding the price, influenced by their assessment of product performance and quality (Loureiro et al., 2020). In equity theory, consumers evaluate perceived price based on personal experiences or the experiences of others, with the expectation of a reasonable price range. If the price is considered unfair, the willingness to purchase decreases, as customers associate the product's value with the sacrifices made (Son & Jin, 2019).

In online food delivery services, perceived price can be evaluated through several indicators, such as delivery fees, service taxes, and the affordability of the overall cost (Prasetyo et al., 2021). Additionally, the price of the food and price fairness are also important, as customers compare the value of the food received with the price paid, including whether the online service price is equivalent to a direct purchase (Wang et al., 2020). Customer Value Theory emphasizes the close relationship between perceived price and perceived value, where a price considered fair enhances customers' appreciation for the product or service (Papagiannidis, 2022). Thus, a positive price perception not only increases customer satisfaction but also strengthens their loyalty to the service.

### **2.3 Product Quality**

Product quality is defined as the extent to which a product meets or exceeds consumer expectations for its use (Tymoshchuk et al., 2024). Consumers typically assess the overall excellence and quality of a product to maximize its benefits and minimize its costs (Guan et al., 2022). In online food delivery services, food quality is a key factor influencing the consumer experience, including taste, freshness, and food presentation (Annaraud & Berezina, 2020). Good food quality can provide a satisfying purchase experience, attract new customers, and maintain the loyalty of existing customers, thereby directly impacting their satisfaction and behavioral intentions (Zhong & Moon, 2020).

Food quality indicators in online food delivery include taste, freshness, presentation, menu variety, food temperature, and nutritional value (Lu et al., 2020). Taste is the primary indicator that reflects the level of enjoyment customers derive from the food, while freshness and presentation enhance the visual appeal and overall product quality. Proper food temperature upon delivery increases satisfaction as it allows the food to be enjoyed at its best. According to Customer Value Theory, product quality is a crucial element in differentiating products in a competitive market, strengthening the product's image, and creating better relationships with consumers (Papagiannidis, 2022).

### **2.4 E-Service Quality**

E-service quality refers to the quality of electronic services that facilitate the shopping, purchasing, and delivery process of products through online platforms. In online food delivery services, e-service quality includes elements such as ease of access, speed, information security, and the quality of the website's interface, all of which influence customer satisfaction and loyalty (Suhartanto et al., 2019). Electronic service quality is evaluated based on efficiency, system availability, order fulfillment, as well as security and privacy, all of which impact the perception of value and customer satisfaction (Xin et al., 2023). These elements not only affect user satisfaction but also build trust in digital services, particularly in the context of online food delivery (Eaint, 2024).

E-service quality in online food delivery encompasses several key aspects that enhance the user experience. The ease of the app ensures that customers can navigate the platform effortlessly, while the reliability of the app guarantees smooth service and accurate order delivery. Data and transaction security are critical aspects to protect customers' privacy and payment information from unauthorized access. Additionally, the informative aspect helps customers obtain accurate product details, including estimated delivery times, thereby creating an efficient and enjoyable online shopping experience (Suhartanto et al., 2019).

### **2.5 Customer Loyalty**

Consumer loyalty in marketing is defined as a strong commitment to repurchase or continue using a product or service in the future (Joewono & Matthew, 2021). Customer loyalty is divided into three main components: the intention to repurchase, the likelihood of recommending the product or service to others, and overall customer satisfaction. Additionally, consumer loyalty includes repeated purchasing behavior, emotional connection, and customer preferences that reflect their allegiance to a specific brand (Raimkulov et al., 2021). Customer experience is not only related to functional aspects but also to sensory, emotional, cognitive, behavioral, and relational dimensions, all of which contribute to customer loyalty (Zhong & Moon, 2020).

In the context of online food delivery apps, customer loyalty is measured through several key indicators. These indicators include the tendency of customers to leave positive reviews, their preference for using the app over other platforms, and their level of enjoyment when using the app (Pal et al., 2021). Additionally, customer loyalty is also reflected in the intention to

recommend the app to others, choosing the app as the primary option, and the intention for continued use in the future. According to Customer Value Theory, building loyalty requires a focus on long-term customer satisfaction by providing valuable and consistent experiences, thus creating a customer base that is resilient to competition and supports business sustainability (Papagiannidis, 2022).

### **2.5.1 The Influence of Perceived Price on Consumer Loyalty**

Research shows that perceived price has a significant impact on consumer loyalty (Adrian & Keni, 2023; Ahmed et al., 2023; Khasanah et al., 2023; Mai et al., 2019; Zhong & Moon, 2020). In the context of food ordering, customers who feel that the price paid is in line with the quality of the food, service, and overall experience tend to be more loyal. Perceived price plays a crucial role in building a positive perception, leading customers to continue choosing the same service or restaurant in the future (Zhong & Moon, 2020). When the benefits gained are perceived to outweigh the sacrifices made, customers are more likely to repurchase (Khasanah et al., 2023).

**Hypothesis 1.** (H1) Perceived Price Influences Consumer Loyalty

### **2.5.2 The Influence of Perceived Price on Consumer Satisfaction**

Perceived price has a significant impact on consumer satisfaction, as demonstrated by various studies (Adi, 2022; Lin et al., 2022; Tan & Eng Kim, 2021; Tuncer et al., 2021; Uzir et al., 2021). In the context of online food delivery services, customers who feel that the price they pay is in line with the quality of food and service they receive tend to be more satisfied (Tan & Eng Kim, 2021). The perception of fair pricing, including delivery fees and taxes, plays a major role in shaping customer satisfaction. Additionally, customers who feel that the price is aligned with the value they receive show stronger loyalty to the service (Tuncer et al., 2021).

**Hypothesis 2.** (H2) Perceived Price Influences Consumer Satisfaction

### **2.5.3 The Influence of Product Quality on Consumer Satisfaction**

Product quality has a significant impact on consumer satisfaction, particularly in online food delivery services (Annaraud & Berezina, 2020; Rahim & Yunus, 2021; Shamsuddin et al., 2023; Supriyanto et al., 2021; Tuncer et al., 2021). Aspects such as presentation, variety, taste, and freshness of food are key factors influencing the customer experience. When food quality meets or even exceeds expectations, customers are likely to feel more satisfied, which ultimately boosts loyalty to the service or restaurant (Annaraud & Berezina, 2020). Research also emphasizes that elements such as taste, presentation, freshness, and nutritional value significantly shape customers' quality perception, which in turn strengthens the service's competitiveness in the market (Tuncer et al., 2021).

**Hypothesis 3.** (H3) Product Quality Influences Consumer Satisfaction

### **2.5.4 The Influence of Product Quality on Consumer Loyalty**

A number of studies have revealed that product quality has a significant impact on consumer loyalty, especially in online food delivery services (Abigail et al., 2024; Grace et al., 2021; Pal et al., 2021; Renaldi et al., 2024; Suhartanto et al., 2020). Food quality aspects such as taste, variety, presentation, and nutritional value greatly influence customer loyalty, where customers who perceive the food as high quality are more likely to remain loyal to the service. Satisfaction with food quality also mediates the relationship between perceived value and loyalty, indicating that positive experiences with product quality encourage repurchase and recommendations (Suhartanto et al., 2020). In the competitive online food delivery service market, maintaining product quality is a key element in enhancing consumer loyalty (Pal et al., 2021).

#### **Hypothesis 4. (H4) Product Quality Influences Consumer Loyalty**

##### **2.5.5 The Influence of E-Service Quality on Consumer Satisfaction**

According to several studies, e-service quality has a significant impact on consumer satisfaction, particularly in online food ordering services at small and medium-sized restaurants (Eaint, 2024; Haneemsipatma & Jufrizen, 2024; Lu et al., 2020; Yusra & Agus, 2020; Zhong & Moon, 2020). High-quality e-services, such as ease of access, reliability, and system security, enhance the value perceived by customers, which in turn boosts their satisfaction (Lu et al., 2020). Factors such as accurate and timely order fulfillment, as well as system availability, play a crucial role in improving user satisfaction levels (Eaint, 2024). Additionally, prompt responses to complaints are also an important element in strengthening customer satisfaction in this service.

#### **Hypothesis 5. (H5) E-Service Quality Influences Consumer Satisfaction**

##### **2.5.6 The Influence of E-Service Quality on Consumer Loyalty**

Electronic service quality (e-service quality) has a significant impact on consumer loyalty in the context of online food delivery services, as demonstrated in various studies (Agarwal & Gowda, 2020; Eaint, 2024; Pal et al., 2021; Suhartanto et al., 2020; Supriyanto et al., 2021). E-service quality plays a crucial role in building consumer loyalty through the satisfaction and trust it fosters. Factors such as order fulfillment, system availability, responsiveness, and the quality of customer interactions are key elements in strengthening trust, which ultimately enhances customer loyalty. These studies emphasize that improving e-service quality can drive satisfaction and trust, which in turn contributes to customer loyalty toward online food ordering platforms (Eaint, 2024).

#### **Hypothesis 6. (H6) E-Service Quality Influences Consumer Satisfaction**

##### **2.5.7 The Influence of Consumer Satisfaction on Consumer Loyalty**

Studies show that consumer satisfaction has a significant influence on consumer loyalty in the context of fast food and online delivery services (Koay et al., 2022; Sinha et al., 2024; Subiantoro, 2020, Yusra & Agus, 2020; Zhong & Moon, 2020). In China, customer satisfaction at fast food restaurants is influenced by interactions with staff, food quality, and environmental comfort (Zhong & Moon, 2020). When customers are satisfied, they are more likely to be loyal by continuing to visit and recommend the restaurant. A study in Malaysia also revealed that satisfaction acts as a mediator between service quality and loyalty in online food delivery services, indicating that customer satisfaction strengthens long-term relationships with the service (Yusra & Agus, 2020).

#### **Hypothesis 7. (H7) Consumer Satisfaction Influences Consumer Loyalty**

### **3. Material and Method**

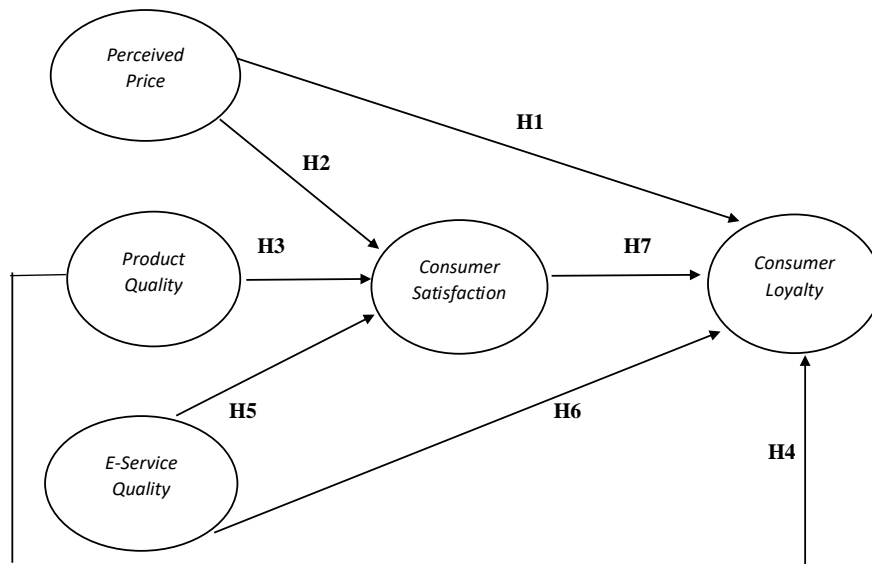
The aim of this study is to examine the impact of perceived price, product quality, and e-service quality on consumer satisfaction in building consumer loyalty among online food delivery users. This section explains the procedures for data collection and utilization to test the proposed hypotheses. An online survey questionnaire was systematically designed to collect data from online food delivery users in Jakarta through Google Forms. The survey includes questions related to perceived price, product quality, e-service quality, consumer satisfaction, and consumer loyalty among online food delivery users in Jakarta. Survey participants were asked to rate their responses using a Likert scale ranging from 1 (strongly disagree) to 6 (strongly agree). The Likert scale is used to assess individual and group views, opinions, and perceptions regarding social phenomena (Sugiyono, 2021). The quantitative data obtained from the survey were analyzed using SPSS and SmartPLS statistical software.

### 3.1 Design Study

This study is designed with a quantitative approach. The objective of this approach is to measure the relationships between variables using numerical data. The choice of a quantitative approach allows for statistical testing that provides objective results and can identify the relationships between the variables being studied. This approach is suitable for studies on consumer satisfaction and loyalty because it enables the mapping of more measurable perception patterns.

### 3.2 Data Analysis

Data processing in this study uses the Structural Equation Modeling Partial Least Squares (SEM-PLS) method with the SmartPLS software to analyze the collected data, including testing the structural model (inner model) and measurement model (outer model). Based on the research analysis and the formulation of each variable's theory, the research framework can be formulated as follows:



**Figure 1.** Research Model

## 4. Result

### 4.1 Characteristics of Respondents

Based on the data obtained, there were 254 respondents with various characteristics, including gender, age, education level, domicile, residence, allowance, platform used, and the duration of platform usage. The details are as follows:

**Table 1.** Characteristics of Respondents

Characteristics of Respondents		Frequency	Percentage
Gender	Male	104	41%
	Female	150	59%
	<b>Total</b>	<b>254</b>	<b>100%</b>
Age	18-19	48	19%
	20-21	94	37%
	22-23	79	31%
	24-25	33	13%

	<b>Total</b>	<b>254</b>	<b>100%</b>
<b>Education</b>	Diploma (D1-D4)	51	20%
	Bachelor's Degree (S1)	168	66%
	Master's Degree (S2)	30	12%
	Others	56	2%
	<b>Total</b>	<b>254</b>	<b>100%</b>
<b>Domicile</b>	West Jakarta	53	21%
	Central Jakarta	41	16%
	South Jakarta	64	25%
	East Jakarta	66	26%
	North Jakarta	30	12%
	<b>Total</b>	<b>254</b>	<b>100%</b>
<b>Respondents Residence</b>	Apartmen	48	19%
	Student Dormitory	28	11%
	Boarding House	89	35%
	Parents House	89	35%
	<b>Total</b>	<b>254</b>	<b>100%</b>
<b>Allowance</b>	<IDR 1.000.000	28	11%
	IDR 1.000.000- IDR 2.000.000	92	36%
	IDR 2.000.001- IDR 3.000.000	76	30%
	IDR 3.000.001- IDR 4.000.000	38	15%
	>IDR 5.000.000	20	8%
	<b>Total</b>	<b>254</b>	<b>100%</b>
<b>Platform</b>	GoFood	104	41%
	GrabFood	79	31%
	ShopeeFood	71	28%
	<b>Total</b>	<b>254</b>	<b>100%</b>
<b>Duration of Using the OFD Platform</b>	<1 Year	23	9%
	1-3 Year	152	60%
	4-6 Year	59	23%
	>6 Year	20	8%
	<b>Total</b>	<b>254</b>	<b>100%</b>

Based on Table 1, it is known that women use online food delivery more than men with 150 respondents (59%) and 104 respondents (41%) respectively. Based on age group, online food delivery users are dominated by respondents aged 20-21 years with a total of 94 respondents (37%). If we look at the educational level of the respondents, it is known that respondents with Bachelor's degrees (S1) dominate with a total of 168 respondents (66%) of the total respondents. Based on the table above, it is also known that respondents who live in East Jakarta and South Jakarta dominate the use of online food delivery with 66 respondents (26%) and 64 respondents (25%) respectively. Based on where the respondents live, online food delivery users are dominated by respondents who live in boarding houses and parents' homes with the same number of respondents, namely 89 respondents (35%). Respondents who

have pocket money ranging from IDR 1,000,000 to IDR 2,000,000 dominate the use of online food delivery with a total of 92 respondents (36%). Based on research, it is known that the online food delivery platform that is most popular is GoFood with a total of 104 respondents (41%). Respondents who use online food delivery platforms with a period of 1-3 years dominate with a total of 152 respondents (60%).

#### 4.2 Convergent Validity Test

Based on the convergent validity test results obtained using SmartPLS 4, it can be seen that the factor loadings on each construct are as follows:

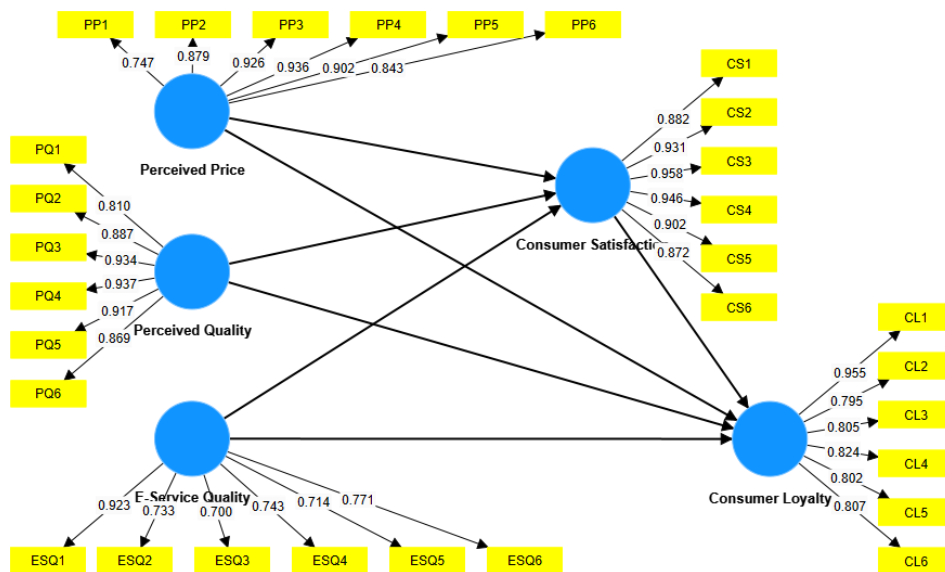


Figure 2. Convergent Validity Test Results

Based on the results of the convergent validity test, it is known that the constructs of perceived price, product quality, consumer satisfaction and customer loyalty fully meet the convergent validity criteria. Thus, all constructs in the research model are declared convergently valid.

#### 4.3 Average Variance Extracted (AVE) Test

Table 2. AVE Test Results

Konstruk	Average Variance Extracted (AVE)
<i>Consumer loyalty</i>	0.694
<i>Consumer satisfaction</i>	0.839
<i>E-service quality</i>	0.589
<i>Perceived price</i>	0.764
<i>Product quality</i>	0.798

Based on the results of the Average Variance Extracted (AVE) analysis, all constructs in this research model meet the convergent validity criteria with an AVE value  $\geq 0.5$ . Thus, it can be concluded that all constructs in this study have adequate convergent validity, so they can be used to proceed to the structural model (inner model) evaluation stage to test the relationships between latent constructs.

#### 4.4 Validity and Reliability Test

The discriminant validity test was carried out using the cross-loading test. If the result of the factor loading is below 0.4 then it is considered weak, whereas if the factor loading value is above 0.6 then it is considered strong. Next, a reliability test was carried out using Cronbach's Alpha and Composite Reliability. If the alpha value is more than 0.7, the research instrument is considered to have good reliability.

Table 3. Validity and Reliability Test Results

Variable	Indicator	Factor loading	Cronbach's alpha
<i>Product quality</i>	PQ1	0.81	0.949
	PQ2	0.887	
	PQ3	0.934	
	PQ4	0.937	
	PQ5	0.917	
	PQ6	0.869	
<i>Perceived price</i>	PP1	0.747	0.937
	PP2	0.879	
	PP3	0.926	
	PP4	0.936	
	PP5	0.902	
	PP6	0.843	
<i>E-service quality</i>	ESQ1	0.923	0.858
	ESQ2	0.733	
	ESQ3	0.7	
	ESQ4	0.743	
	ESQ5	0.714	
	ESQ6	0.771	
<i>Consumer satisfaction</i>	CS1	0.882	0.962
	CS2	0.931	
	CS3	0.958	
	CS4	0.946	
	CS5	0.902	
	CS6	0.872	
<i>Consumer loyalty</i>	CL1	0.955	0.911
	CL2	0.795	
	CL3	0.805	
	CL4	0.824	
	CL5	0.802	
	CL6	0.807	

Based on the test results, it is known that the cross-loading value for all indicators is above 0.7 and is higher than the correlation for other variables. Based on the results of Cronbach's Alpha calculations, it is known that all constructs in the research model show values above

0.7. This shows that all constructs, namely Product quality, Perceived price, E-service quality, Customer satisfaction, and Customer loyalty, have good internal consistency and reliability. Thus, the indicators in each construct are declared reliable and can be used for further analysis.

#### 4.5 Hypothesis Test

Table 4. Hypothesis Test Results

Hypothesys	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	t-statistics	P-values
H1. <i>Perceived price</i> → <i>Consumer loyalty</i>	0.222	0.22	0.039	5.716	0.000
H2. <i>Perceived price</i> → <i>Consumer satisfaction</i>	0.414	0.413	0.035	11.97	0.000
H3. <i>Product quality</i> → <i>Consumer satisfaction</i>	0.462	0.461	0.036	12.96	0.000
H4. <i>Product quality</i> → <i>Consumer loyalty</i>	0.207	0.206	0.042	4.986	0.000
H5. <i>E-service quality</i> → <i>Consumer satisfaction</i>	0.314	0.317	0.039	8.137	0.000
H6. <i>E-service quality</i> → <i>Consumer loyalty</i>	0.184	0.183	0.04	4.567	0.000
H7. <i>Consumer satisfaction</i> → <i>Consumer loyalty</i>	0.526	0.528	0.052	10.19	0.000

Based on the hypothesis test results table above, the results of the hypothesis testing analysis can be explained as follows:

1. Perceived price has a direct effect on consumer loyalty because it has a P-Values value of 0.000 (<0.05) and a t-statistics value of 5,716 (>1.96). Thus, H1 is accepted.
2. Perceived price has a direct effect on consumer satisfaction because it has a P-Values value of 0.000 (<0.05) and a t-statistics value of 11,970 (>1.96). Thus, H2 is accepted.
3. Product quality has a direct effect on consumer satisfaction because it has a P-Values value of 0.000 (<0.05) and a t-statistics value of 12,960 (>1.96). Thus, H3 is accepted.
4. Product quality has a direct effect on consumer loyalty because it has a P-Values value of 0.000 (<0.05) and a t-statistics value of 4,986 (>1.96). Thus, H4 is accepted.
5. E-service quality has a direct effect on consumer satisfaction because it has a P-Values value of 0.000 (<0.05) and a t-statistics value of 8,137 (>1.96). Thus, H5 is accepted.
6. E-service quality has a direct effect on consumer loyalty because it has a P-Values value of 0.000 (<0.05) and a t-statistics value of 4,567 (>1.96). Thus, H6 is accepted.
7. Consumer satisfaction has a direct effect on consumer loyalty because it has a P-Values value of 0.000 (<0.05) and a t-statistics value of 10,190 (>1.96). Thus, H7 is accepted.

With these results, all research hypotheses are accepted because they meet the criteria for statistical significance (P-Values < 0.05 and t-statistics > 1.96).

## **5. Discussion**

### **5.1 The Influence of Perceived Price on Consumer Loyalty among Online Food Delivery Users**

Based on the results of the hypothesis test, it can be concluded that perceived price has a significant effect on customer loyalty in online food delivery services. These findings reflect that consumers' perceptions of prices that are fair and commensurate with the benefits obtained, such as the quality of the food and service received, play an important role in increasing their loyalty. When the benefits obtained are felt to be greater than the sacrifices, customers are more likely to make repeat purchases (Khasanah et al., 2023). Perceived price plays an important role in building positive perceptions, so that customers continue to choose that service or restaurant in the future (Zhong & Moon, 2020).

These findings support previous research, as stated by (Adrian & Keni, 2023), (Ahmed et al., 2023), and (Khasanah et al., 2023), which states that perceived price has a significant influence on consumer loyalty. These results strengthen theoretical evidence that customers who feel their sacrifices, in terms of price, are paid off by the benefits they receive, will be more loyal to the service.

### **5.2 The Influence of Perceived Price on Consumer Satisfaction among Online Food Delivery Users**

Based on the results of the hypothesis test, it can be concluded that perceived price has a significant effect on consumer satisfaction in online food delivery services. These findings reflect that consumers' perceptions of prices commensurate with the quality and benefits received, such as food, service, as well as additional costs such as delivery and taxes, contribute greatly to shaping customer satisfaction. Customers who feel the price matches the value received show stronger loyalty to the service (Tuncer et al., 2021). In the context of online food delivery services, customers who feel that the price they pay is commensurate with the quality of the food and service received will tend to feel more satisfied (Tan & Eng Kim, 2021).

These findings support the results of previous research, as stated by (Adi, 2022), (Lin et al., 2022), and (Tan & Eng Kim, 2021), who state that perceived price plays an important role in forming consumer satisfaction. In a study by (Tan & Eng Kim, 2021) the perception of fair prices among customers of online food delivery services in the Klang Valley, Malaysia, directly influenced customer satisfaction. Additionally, (Tuncer et al., 2021) found that price perceptions that are in line with the value received not only increase satisfaction but also encourage customer loyalty to the service. Therefore, this research further strengthens the theory that the perception of fair prices and providing high value are key factors in retaining customers.

### **5.3 The Influence of Product Quality on Consumer Satisfaction among Online Food Delivery Users**

Based on the results of the hypothesis test, it can be concluded that product quality has a significant effect on consumer satisfaction with online food delivery services. These findings indicate that product quality, such as taste, variety, freshness, and food presentation, is a key element that influences customer satisfaction. Elements such as taste, presentation, freshness, and nutritional value significantly shape customers' quality perceptions, which further

strengthens the competitiveness of services in the market (Tuncer et al., 2021). When food quality meets or even exceeds expectations, customers tend to feel more satisfied, which ultimately increases loyalty to the service or restaurant (Annaraud & Berezina, 2020). In this context, improving product quality is an important strategy for online food delivery service platforms to maintain and increase customer satisfaction.

This finding is in line with previous research, as stated by (Annaraud & Berezina, 2020), (Rahim & Yunus, 2021), and (Shamsuddin et al., 2023), which states that product quality has a significant influence on customer satisfaction. In the research of (Tuncer et al., 2021), aspects such as food taste, freshness, and nutritional value are proven to be key factors that shape customers' quality perceptions, which directly impact their satisfaction.

#### **5.4 The Influence of Product Quality on Consumer Loyalty among Online Food Delivery Users**

Based on the results of the hypothesis test, it can be concluded that product quality has a significant effect on consumer loyalty in online food delivery services. These results indicate that product quality, such as taste, variety, presentation, and nutritional value, is an important factor in building customer loyalty. When customers rate food as high quality, they are more likely to make repeat purchases and remain loyal to the service they use. In addition, satisfaction with food quality also mediates the relationship between perceived value and loyalty, indicating that positive experiences with product quality encourage repeat purchases and recommendations (Suhartanto et al., 2020). In the competition for online food delivery services, maintaining product quality is a key element to increase consumer loyalty (Pal et al., 2021).

This finding is consistent with previous research, as stated by (Suhartanto et al., 2020), (Abigail et al., 2024), and (Grace et al., 2021), which shows that product quality has a direct influence on customer loyalty. In the research of (Pal et al., 2021), it is stated that consistent food quality can encourage customers to not only continue using the service, but also recommend it to others.

#### **5.5 The Influence of E-Service Quality on Consumer Satisfaction among Online Food Delivery Users**

Based on the results of the hypothesis test, it can be concluded that e-service quality has a significant effect on consumer satisfaction with online food delivery services. These findings indicate that e-service quality, such as ease of access, reliability, security, and system response capability, plays an important role in building customer satisfaction. Quality e-service, such as ease of access, reliability, and system security, increases the value perceived by customers, which in turn increases their satisfaction (Lu et al., 2020). Factors such as accurate and timely order fulfillment, as well as system availability, play an important role in increasing user satisfaction levels (Eaint, 2024).

This finding is consistent with previous research, as stated by (Eaint, 2024), (Lu et al., 2020), and (Haneemsipatma & Jufrizen, 2024), who state that good e-service quality contributes directly to the level of customer satisfaction. In research by (Zhong & Moon, 2020), elements such as system reliability and security are considered capable of increasing customer perceived value, which ultimately increases their satisfaction. In addition, (Yusra & Agus,

2020) emphasized that e-service quality, including speed and accuracy of service, is a key factor in forming positive customer perceptions of online food delivery services.

### **5.6 The Influence of E-Service Quality on Consumer Loyalty among Online Food Delivery Users**

Based on the results of the hypothesis test, it can be concluded that e-service quality has a significant effect on consumer loyalty in online food delivery services. These results indicate that e-service quality, including reliability, responsiveness, system availability, and the ability to accurately meet customer needs, has an important role in building customer loyalty. E-service quality plays an important role in building consumer loyalty through the satisfaction and trust it creates (Supriyanto et al., 2021). Improving the quality of e-service quality can encourage satisfaction and trust, which in turn contributes to customer loyalty to online food ordering platforms (Eaint, 2024).

This finding is in line with previous research, as stated by (Agarwal & Gowda, 2020), (Eaint, 2024), and (Pal et al., 2021), which states that improving e-service quality has a direct impact on customer loyalty, especially through the mediation of satisfaction and trust. (Suhartanto et al., 2020) also emphasize that factors such as responsiveness and good contact contribute to building customer trust in services. Apart from that, research by (Supriyanto et al., 2021) confirmed that superior e-service quality not only increases customer satisfaction but also strengthens their loyalty to online food ordering platforms. Thus, managing e-service quality is a priority for service providers to retain customers in a competitive market.

### **5.7 The Influence of Customer Satisfaction on Consumer Loyalty among Online Food Delivery Users**

Based on the results of the hypothesis test, it can be seen that customer satisfaction has a significant effect on consumer loyalty in online food delivery services. These results show that customer satisfaction plays an important role in driving their loyalty to the platform used. Customer satisfaction at fast food restaurants is influenced by interactions with staff, food quality, and environmental comfort (Zhong & Moon, 2020). Satisfaction acts as a mediator between service quality and loyalty in online food delivery services, which shows that customer satisfaction strengthens long-term relationships with the service (Yusra & Agus, 2020).

This finding is consistent with previous research, as expressed by (Koay et al., 2022), (Sinha et al., 2024), and (Subiantoro, 2020), which shows that customer satisfaction plays a significant role in strengthening customer loyalty. In research by (Zhong & Moon, 2020), customer satisfaction at fast food restaurants in China is influenced by service quality, interaction with staff, and environmental comfort, which encourages customers to remain loyal. (Yusra & Agus, 2020) research also confirms that in the context of food delivery services in Malaysia, satisfaction acts as a mediator between service quality and customer loyalty. These results further strengthen the theory that customer satisfaction is an essential component in building and maintaining customer loyalty, especially in the competitive online service market.

## 6. Conclusion, Implication, and Recommendation

This research concludes that perceived price, product quality, and e-service quality have a significant influence on consumer satisfaction and consumer loyalty in online food delivery services. The perception of fair prices, good product quality, and reliable electronic services can increase satisfaction and encourage customer loyalty. Apart from that, consumer satisfaction is also proven to be an important factor in building customer loyalty. The results of this research emphasize the importance of maintaining price perceptions, improving product quality, and ensuring service reliability to strengthen relationships with customers. The practical implication is the need for strategies such as loyalty programs and personalization of services to increase competitiveness in the market. Future research is recommended to add variables such as personalization of services or the influence of social media, as well as using qualitative approaches and longitudinal designs for deeper understanding and broader coverage.

## 7. References

- Abigail, J., Sari, V. P., & Saputra, D. (2024). The Influence of Product Quality and Online Shopping Experience (OSE) on Consumer Loyalty Through Customer Satisfaction on Local Skincare Products. *Procedia Computer Science*, 234(2023), 537–544. <https://doi.org/10.1016/j.procs.2024.03.037>
- Adi, A. (2022). Does the Perceived Quality of Applications Affect Customer's Trust and Satisfaction in Online Food Delivery Services. *Jurnal Ekonomi Dan Bisnis (EK&BI)*, 5(1), 122–135. <https://doi.org/10.37600/ekbi.v5i1.486>
- Adrian, I., & Keni. (2023). Pengaruh food quality dan perceived price fairness terhadap customer loyalty dengan customer satisfaction sebagai variabel mediator. In *Jurnal Manajemen Bisnis dan Kewirausahaan* (Vol. 7, Issue 2, pp. 329–342). <https://doi.org/10.24912/jmbk.v7i2.23355>
- Agarwal, I., & Gowda, K. R. (2020). The effect of airline service quality on customer satisfaction and loyalty in India. *Materials Today: Proceedings*, 37(Part 2), 1341–1348. <https://doi.org/10.1016/j.matpr.2020.06.557>
- Ahmed, S., Al Asheq, A., Ahmed, E., Chowdhury, U. Y., Sufi, T., & Mostofa, M. G. (2023). The intricate relationships of consumers' loyalty and their perceptions of service quality, price and satisfaction in restaurant service. *TQM Journal*, 35(2), 519–539. <https://doi.org/10.1108/TQM-06-2021-0158>
- Annaraud, K., & Berezina, K. (2020). Predicting satisfaction and intentions to use online food delivery: What really makes a difference? *Journal of Foodservice Business Research*, 23(4), 305–323. <https://doi.org/10.1080/15378020.2020.1768039>
- Eaint, M. (2024). An Assessment of E-Service Quality for Online Food Delivery Services in Yangon, Myanmar Ma Eaint \*. *Suranaree J. Soc. Sci*, 18(1), 1–18.
- Grace, E., Girsang, R. M., Simatupang, S., Candra, V., & Sidabutar, N. (2021). Product Quality and Customer Satisfaction and. *International Journal of Social Science (IJSS)*, 1(2), 69–78.
- Guan, G., Liu, D., & Zhai, J. (2022). Factors Influencing Consumer Satisfaction of Fresh Produce E-Commerce in the Background of COVID-19—A Hybrid Approach Based on

- Haneemsipatma, A., & Jufrizen, J. (2024). Pengaruh Kualitas Sistem Dan Kualitas Layanan terhadap Kepuasan Pelanggan Dan Niat Beli Ulang Dengan Citra Merek Sebagai Variabel Mediasi. *Jurnal Ilmu Manajemen*, 13(2), 199–214. <https://doi.org/10.32502/jimn.v13i2.7194>
- Joewono, T. B., & Matthew, A. (2021). Loyalty of Paratransit Users in the Era of Competition with Ride Sourcing. *Journal Sustainability*, 13(12719), 1–20.
- Khasanah, N., Basalamah, M., & Rahmawati. (2023). Pengaruh E-Service Quality, Brand Trust, dan Perceived Value terhadap Loyalitas Pelanggan ShopeeFood (Studi Kasus pada Mahasiswa di Kota Malang). *E - Jurnal Riset Manajemen*, 13(01), 1576–1585.
- Koay, K. Y., Cheah, C. W., & Chang, Y. X. (2022). A model of online food delivery service quality, customer satisfaction and customer loyalty: a combination of PLS-SEM and NCA approaches. *British Food Journal*, 124(12), 4516–4532. <https://doi.org/10.1108/BFJ-10-2021-1169>
- Lin, T. T., Yeh, Y. Q., & Hsu, S. Y. (2022). Analysis of the Effects of Perceived Value, Price Sensitivity, Word-of-Mouth, and Customer Satisfaction on Repurchase Intentions of Safety Shoes under the Consideration of Sustainability. *Journal S*, 14(24). <https://doi.org/10.3390/su142416546>
- Loureiro, F., Garcia-Marques, T., & Wegener, D. T. (2020). Norms for 150 consumer products: Perceived complexity, quality objectivity, material/experiential nature, perceived price, familiarity and attitude. *PLoS ONE*, 15(9 September), 1–16. <https://doi.org/10.1371/journal.pone.0238848>
- Lu, C. Y., Suhartanto, D., Gunawan, A. I., & Chen, B. T. (2020). Customer Satisfaction toward Online Purchasing Services: Evidence from Small & Medium Restaurants. *International Journal of Applied Business Research*, 2(01), 1–14. <https://doi.org/10.35313/ijabr.v2i01.89>
- Pal, D., Funilkul, S., Eamsinvattana, W., & Siyal, S. (2021). Using online food delivery applications during the COVID-19 lockdown period : What drives University Students ' satisfaction and loyalty? *Journal of Foodservice Business Research*, 1–45. <https://doi.org/10.1080/15378020.2021.1964419>
- Papagiannidis, S. (2022). *TheoryHub Book*. S PAPGIANNIDIS.
- Prasetyo, Y. T., Tanto, H., Mariyanto, M., Hanjaya, C., Young, M. N., Persada, S. F., Miraja, B. A., & Redi, A. A. N. P. (2021). Factors affecting customer satisfaction and loyalty in online food delivery service during the COVID-19 pandemic: Its relation with open innovation. *Journal of Open Innovation: Technology, Market, and Complexity*, 7(1), 1–17. <https://doi.org/10.3390/joitmc7010076>
- Rahim, N., & Yunus, N. F. A. M. (2021). Consumers satisfaction towards e-Hailing food delivery services during Movement Control Order period: A case study in Selangor. *Journal of Science and Mathematics Letters*, 9(Special), 1–9. <https://doi.org/10.37134/jsml.vol9.sp.1.2021>
- Raimkulov, M., Juraturgunov, H., & Ahn, Y. (2021). Destination Attractiveness and Memorable Travel Experiences in Silk Road Tourism in Uzbekistan. *Journal*

*Sustainability*, 13(2252), 1–14.

- Shamsuddin, N. S., Zakaria, N. S., & Tuan Ismail, T. A. (2023). Food Quality and Online Food Delivery Services During Covid-19 Pandemic: Are Customers Satisfied? *International Journal of Academic Research in Business and Social Sciences*, 13(5), 433–445. <https://doi.org/10.6007/ijarbss/v13-i5/17045>
- Sinha, A., Srivastava, P., Asthana, K., K. A., & Nag, A. (2024). Customer Satisfaction and Loyalty for Online Food Services Provider in India: An Empirical Study. *Vision: The Journal of Business Perspective*, 28(3), 327–343.
- Son, J., & Jin, B. E. (2019). When do high prices lead to purchase intention? Testing two layers of moderation effects. *Asia Pacific Journal of Marketing and Logistics*, 31(5), 1516–1531. <https://doi.org/10.1108/APJML-07-2018-0271>
- Subiantoro, B. S. S. (2020). Pengaruh Kualitas Pelayanan Terhadap Loyalitas Konsumen Dengan Kepuasan Konsumen Sebagai Variabel Pemoderasi (Studi Kasus Pada Konsumen Gojek Di Kota Banjarmasin). *At-Tadbir : Jurnal Ilmiah Manajemen*, 4(1), 27–39. <https://doi.org/10.31602/atd.v4i1.2435>
- Sugiyono. (2021). *Metode Penelitian Kuantitatif, Kualitatif, dan R&D*. Bandung. Alfabet.
- Suhartanto, D., Helmi Ali, M., Tan, K. H., Sjahroeddin, F., & Kusdiby, L. (2019). Loyalty toward online food delivery service: the role of e-service quality and food quality. *Journal of Foodservice Business Research*, 22(1), 81–97. <https://doi.org/10.1080/15378020.2018.1546076>
- Suhartanto, D., Leo, G., Setiawati, L., & Purwaningsih, S. S. (2020). Modelling customer loyalty using partial least square: An empirical evidence from online food industry. *IOP Conference Series: Materials Science and Engineering*, 830(3). <https://doi.org/10.1088/1757-899X/830/3/032089>
- Sumi, R. S., & Kabir, G. (2021). Satisfaction of e-learners with electronic learning service quality using the servqual model. *Journal of Open Innovation: Technology, Market, and Complexity*, 7(4), 227. <https://doi.org/10.3390/joitmc7040227>
- Supriyanto, A., Wiyono, B. B., & Burhanuddin, B. (2021). Effects of service quality and customer satisfaction on loyalty of bank customers. *Cogent Business and Management*, 8(1). <https://doi.org/10.1080/23311975.2021.1937847>
- Tan, H., & Eng Kim, V. W. (2021). Examining the Factors that Influence Consumer Satisfaction with Online Food Delivery in Klang Valley, Malaysia. *The Journal of Management Theory and Practice (JMTP)*, 2, 88–95. <https://doi.org/10.37231/jmtp.2021.2.2.115>
- Tuncer, I., Unusan, C., & Cobanoglu, C. (2021). Service Quality, Perceived Value and Customer Satisfaction on Behavioral Intention in Restaurants: An Integrated Structural Model. *Journal of Quality Assurance in Hospitality and Tourism*, 22(4), 447–475. <https://doi.org/10.1080/1528008X.2020.1802390>
- Tymoshchuk, O., Lou, X., & Chi, T. (2024). Exploring Determinants of Second-Hand Apparel Purchase Intention and Word of Mouth: A Stimulus–Organism–Response Approach. *Journal Sustainability*, 16(11). <https://doi.org/10.3390/su16114445>
- Vuong, B. N., Tushar, H., Voak, A., Huan, D. D., & Dung, N. T. (2024). How Customer Experience Promotes Customer Loyalty through Passenger Satisfaction: Does Brand

Reputation Matter? *Transportation Research Procedia*, 80, 45–52.  
<https://doi.org/10.1016/j.trpro.2024.09.007>

- Wang, J., Pham, T. L., & Dang, V. T. (2020). Environmental consciousness and organic food purchase intention: A moderated mediation model of perceived food quality and price sensitivity. *International Journal of Environmental Research and Public Health*, 17(3), 1–18. <https://doi.org/10.3390/ijerph17030850>
- Xin, Y., Irfan, M., Ahmad, B., Ali, M., & Xia, L. (2023). Identifying How E-Service Quality Affects Perceived Usefulness of Online Reviews in Post-COVID-19 Context: A Sustainable Food Consumption Behavior Paradigm. *Journal Sustainability*, 15(1513), 1–16.
- Yashilva, W. (2024). Seberapa Sering Mahasiswa di Indonesia Order Makanan Online. *GoodStats*.
- Yusra, & Agus, A. (2020). The influence of online food delivery service quality on customer satisfaction and customer loyalty: The role of personal innovativeness. *Journal of Environmental Treatment Techniques*, 8(1), 6–12.
- Zhong, Y., & Moon, H. (2020). Mediasi Keputusan Pembelian pada Pengaruh Faktor Situasional dWhat Drives Customer Satisfaction, Loyalty, and Happiness in Fast-Food Restaurants in China? Perceived Price, Service Quality, Food Quality, Physical Environment Quality, and the Moderating Rol. *Jurnal Aplikasi Manajemen*, 8(2), 480–492.