

The Role of Price Perception and Perceived Risk in Shaping Online Food and Beverage Purchase Decisions

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ARTICLE INFO

Article history:

Received Jul 30, 2025
Revised Aug 10, 2025
Accepted Aug 21, 2025

Keywords:

Price Perception
Perceived Risk
Online Purchase Decision

ABSTRACT

This study investigates the impact of price perception and perceived risk on consumers' online purchasing decisions for food and beverage. The population in this study consists of consumers who purchase food and beverages online through platforms such as GoFood, GrabFood, and ShopeeFood. The sample consists of 120 respondents chosen through purposive sampling, and the analysis was carried out using multiple linear regression in SPSS. The research shows that purchasing decisions are influenced by both price perception and perceived risk, both partial and simultaneous. This research provides insights for food and beverage sellers using GoFood, GrabFood, and ShopeeFood platforms, suggesting that implementing appropriate pricing strategies and minimizing perceived risks can potentially influence purchasing decisions.

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1. INTRODUCTION

The advancement of technology has driven a major transformation in consumer behavior, particularly in the food and beverage service sector. One of the most prominent phenomena is the emerging consumption trend through online food ordering services such as GoFood, GrabFood, and ShopeeFood. These services offer convenience, speed, and practical access for consumers, not only in urban areas but also in semi-urban regions. Although these services have experienced rapid growth, consumers' decisions to purchase food and beverages online are not solely determined by service availability, but are also influenced by various other factors, such as price perception, perceived risk, user reviews, and personal considerations.

Price perception is one of the important factors influencing consumer purchasing decisions. Price perception refers to how consumers evaluate the price of a product based on their knowledge, experience, and the information they receive (Kotler & Keller, 2016). According to Kotler & Armstrong (2018), the dimensions of price perception include affordability, price compatibility with product quality, price competitiveness, and price as an indicator of product value. This indicates that price perception goes beyond the nominal amount and encompasses the consumer's personal judgment of the value they receive in comparison to the costs paid. Several previous studies have stated that price perception has a significant influence on purchasing decisions (Hareka & Harwani, 2025; Ismara & Jaya, 2024; Rijal & Made Sukresna, 2024).

Bauer (1960) defined perceived risk as the risk perceived by consumers due to a lack of understanding of product information. According to Ko et al., (2004), perceived risk refers to consumers' perception of the potential for uncertain outcomes that may conflict with their

expectations when making a decision to purchase a product or service. However, according to Laroche et al., (2005) perceived risk is a negative opinion related to the possibility of uncertain and variable outcomes from a purchased product. Perceived risk in online shopping is the expected loss subjectively assessed by buyers when considering making an online purchase (Forsythe & Shi, 2003). Classical consumer behavior theory explains that consumers usually weigh the expected benefits against the perceived risks when making purchasing decisions (Taylor, 1974).

There are several perspectives on the dimensions of risk in online product purchases. According to Bhatti et al., (2020) indicator of risk include financial risk, product risk, and privacy risk. According to Choe et al., (2021) indicator of perceived risk are financial risk, time risk, privacy risk, performance risk and psychological risks et al. Meanwhile, according to Ariffin et al., (2018) indicator of perceived risk include financial risk, product risk, security risk, time risk, social risk, and psychological risk. Research on perceived risk has been conducted in various fields, such as banking (Skvarciany & Jurevičienė, 2017), e-commerce (Phamthi et al., 2024), online food delivery services (Pillai et al., 2022). Previous studies have confirmed that perceived risk can influence consumers purchase intentions (Leung & Cai, 2021; Phamthi et al., 2024). Meanwhile, studies by Handoyo (2024) dan Ariffin et al., (2018) state that there is an influence of perceived risk on online purchasing decisions.

Purchasing decision refers to the willingness or unwillingness of consumers to buy goods and services (Kotler & Keller, 2016). The purchasing decision process involves several stages, starting with need recognition, information search, evaluation of alternatives, purchase decision, and post-purchase behavior (Kotler & Armstrong, 2018). There are two factors that influence consumer purchasing decisions: internal factors, which include lifestyle, perception, personality, beliefs, attitudes, knowledge, roles, and status; and external factors, which include culture, social class, and reference groups (Hanaysha, 2022). Previous studies have stated that price perception and perceived risk jointly influence purchasing decisions (Adewijaya & Sitinjak, 2023; Rully Adhiyani et al., 2025).

Based on the above explanation, it is evident that price perception and perceived risk are two important variables that can influence consumers purchase decision. Although various studies have examined the influence of each variable separately, there is still room to explore their simultaneous effect in the context of online food ordering services. Therefore, this research is important to provide a deeper understanding of the factors that drive or hinder consumer purchasing decisions in today's digital era.

2. RESEARCH METHOD

This study uses a descriptive quantitative approach by conducting a survey-based research. The population in this study consists of consumers who have used online food ordering services such as GoFood, GrabFood, and ShopeeFood in the Jakarta area. The sample will be selected using purposive sampling, targeting respondents who meet specific criteria such as having ordered food online at least twice in the past three months and at least 17 years old. The sample size consists of 120 respondents. Primary data was collected through the distribution of an online questionnaire using Google Forms, employing a Likert scale range from 1 (strongly disagree) to 5 (strongly agree).

This study applied multiple linear regression analysis using SPSS. The analysis involved standard assumption tests such as normality, multicollinearity, heteroscedasticity, followed by linearity, and hypothesis evaluation through F-tests and t-tests.

3. RESULTS AND DISCUSSIONS

Respondent Description

Table 1. Respondent Description

	Total	Percentage
Gender		
Male	54	45%
Female	66	55%
Age		
17 – 20	37	30.8%
20 - 29	72	60%
30 - 39	11	9.2%
≥ 40	0	0
Occupation		
Students	60	50%
PNS (Civil Servant)	0	0
Private Employee	44	36.7%
Entrepreneur / Self-employed	16	13.3%
Housewife	0	0
Purchase Frequency per Week		
Once	40	33.3%
2 - 3 times	60	50%
4 - 5 times	12	10%
> 5 times	8	6.7%
Application/Platform Used		
GoFood	36	30%
GrabFood	21	17.5%
ShopeeFood	63	52.5%
Main Reason		
Practical	40	33.3%
A lot of promotion / discount	76	63.3%
No time to buy in person	4	3.3%

The table above shows that 55% of the respondents are female. The majority of respondents are aged between 20–29 years and 50% of respondents are students. Most respondents order food online 2–3 times per week, with a percentage of 50%. Among the three listed applications, ShopeeFood is the most frequently used, with a percentage of 52.5%. The main reason respondents purchase food online is due to the availability of many promotions, with a percentage of 63.3%.

Assumption Tests

In order for the multiple regression model to be considered appropriate for use, all classical assumptions must be met. Therefore, testing these classical assumptions is a crucial step before conducting regression analysis. This testing includes the normality test, multicollinearity test, and heteroscedasticity test.

Normality Test

Table 2. Normality Test

		Unstandardized Residual
N		120
Normal Parameters ^{a,b}	Mean	.0000000
	Std. Deviation	2.19903227
Most Extreme Differences	Absolute	.076
	Positive	.076
	Negative	-.058
Test Statistic		.076
Asymp. Sig. (2-tailed)		.082 ^c

On Table 2, the significance value obtained is 0.082, which is above than 0.05. Based on the findings, the data can be regarded as normally distributed.

Multicollinearity Test

Table 3. Multicollinearity Test

Model	Collinearity Statistics	
	Tolerance	VIF
1 Price Perception	.808	1.238
perceived Risk	.808	1.238

The model passes the multicollinearity test if the tolerance is more than 0.10 or the VIF is less than 10. As the test results meet these requirements for each variable, it can be concluded that the model is free from multicollinearity.

Heteroscedasticity Test

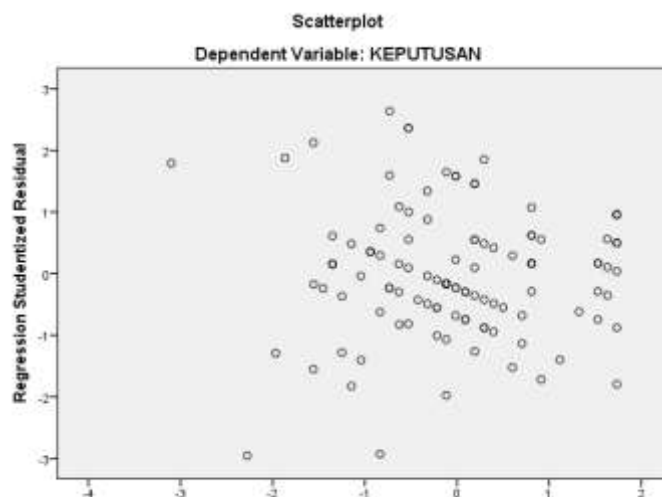


Figure 1. Heteroscedasticity Test

Based on the image above, the scatter of points shows a randomly distributed pattern and does not form any specific pattern around the value of 0 on the Y-axis. Thus, it can be assumed that the data meets the heteroscedasticity assumption.

Linearity Test

Table 4. Linearity Test

	Sum of Squares	df	Mean Square	F	Sig.
Decision * Price Perception	236.657	10	23.666	4.563	.000
Decision * perceived Risk	299.595	18	16.644	3.347	.000

Both price perception and perceived risk show a significance value of 0.000 in the linearity test. As these values are less than 0.05, it can be concluded that the two variables have a linear relationship.

Multiple Linear Regression Equation

Table 5. Multiple Linear Regression Equation

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	10.152	1.543		6.577	.000
	Price Perception	.426	.095	.392	4.501	.000
	Perceived Risk	.142	.055	.226	2.591	.011

a. Dependent Variable: Decision

Based on the table above, the resulting multiple linear regression model is:

$$\text{Purchase Decision} = 10.152 + 0.426 \text{ Price Perception} + 0.142 \text{ Perceived Risk}$$

The constant value is 10.152, indicating that when both price perception and perceived risk are zero, the purchase decision is predicted to be 10.152. The coefficient for price perception is 0.426, meaning that a one-unit increase in price perception will raise the purchase decision by 0.426, assuming perceived risk stays the same. Meanwhile, the coefficient for perceived risk is 0.142, suggesting that a one-unit increase in perceived risk will increase the purchase decision by 0.142, provided price perception remains unchanged.

Based on these results, it can be concluded that the price perception variable has a greater influence on purchase decisions compared to perceived risk.

F-Test

Table 6. F Test

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	226.472	2	113.236	23.023	.000 ^b
	Residual	575.453	117	4.918		
	Total	801.925	119			

a. Dependent Variable: Decision

b. Predictors: (Constant), Perceived Risk, Price Perception

As shown in the table above, the significance value is 0.000, which is less than 0.05. This means that price perception and perceived risk have a significant simultaneous influence on purchase decisions.

t-Test**Table 7.** t Test

Model		Unstandardized Coefficients		Standardized	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	10.152	1.543		6.577	.000
	Price Perception	.426	.095	.392	4.501	.000
	Perceived Risk	.142	.055	.226	2.591	.011

a. Dependent Variable: Decision

On table 7, the significance value of price perception is 0.000 and that of perceived risk is 0.011, both are less than 0.05. This means that price perception has been proven to have a partial effect on purchase decisions. Similarly, perceived risk also has a partial effect on purchase decisions.

Coefficient of Determination (R²)**Table 8.** R² Test

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.531 ^a	.282	.270	2.218

a. Predictors: (Constant), Perceived Risk, Price Perception

On table 8, the Adjusted R² value is 0.270, which indicates that variables price perception and perceived risk are able to explain 27% of the variation in purchase decision, while the remaining 73% is explained by other variables not included in this study.

Discussion

This study's findings reveal that price perception has a significant positive influence on purchase decisions. This finding confirms that a positive price perception encourages consumers to make online food and beverage purchase decision. A positive price perception means that consumers feel the offered price is in line with the quality, benefits, and value of the product received. In other words, prices that are affordable and match the purchasing power of the target market will influence online food and beverage purchase decision. Additionally, prices that are equivalent to the quality of the product will strengthen consumers' confidence in making purchases, especially if those prices are competitive compared to similar products in the market. This study also emphasizes that price is often associated with product value or image; high prices are commonly linked with premium products, while low prices are often associated with lower product quality. Therefore, price perception becomes one of the key aspects that shape consumers' evaluation and decision when purchasing food and beverages online. These findings are consistent with the research conducted by Hareka & Harwani (2025) and Ismara & Jaya (2024) which also found that price perception has a significant effect on online food and beverage purchase decisions.

The findings of this study indicate that perceived risk, including financial, product, security, time, social, and psychological factors, has a positive effect on purchasing decisions. This means that the higher the perceived risk felt by consumers, the greater its impact in encouraging them to carefully consider their decision before making a purchase, especially when buying food and beverages via online. These findings affirm that perceived risk is not merely a barrier to purchasing, but also a critical consideration for consumers. When consumers are aware of potential risks, they tend to be more cautious and selective in choosing products, sellers, or shopping platforms. This aligns with Taylor (1974) theory of consumer behavior, which states that consumers always weigh the expected benefits and possible risks before making a purchase decision. Therefore, perceived risk can influence the mindset and confidence of consumers before making the final decision to purchase food and beverages online. These findings are consistent with the studies by Handoyo (2024) and Ariffin et al., (2018) which state that there is an influence of perceived risk on online purchase decisions.

This study reveals that price perception and perceived risk together have a significant and positive impact on consumer purchase decisions. This finding means that when consumers have a positive perception of price and risk, their decision to purchase food and beverages via online increases. In other words, both variables together play an important role in encouraging consumers to make a purchase decision. This finding shows that when consumers consider both price perception and perceived risk simultaneously, they tend to have greater confidence in making a purchase, as they perceive the price to be in line with the quality and the risks involved to be manageable. The combination of these two factors forms the rational basis for consumer decision-making. This is consistent with previous studies which state that price perception and perceived risk jointly influence purchasing decisions (Adewijaya & Sitinjak, 2023; Rully Adhiyani et al., 2025).

4. CONCLUSION

Based on the study's findings, it can be concluded that both price perception and perceived risk positively and significantly influence purchase decisions, whether examined individually or together. A positive price perception suggests that consumers view the product's price as reasonable in relation to the quality, benefits, and value received, thus encouraging them to make a purchase decision. At the same time, perceived risk which includes financial, product, security, time, social, and psychological risk act as essential aspect that leads consumers to make more thoughtful and selective buying decisions. These findings reinforce that both variables together influence the increase in purchase decisions, in line with previous studies. Therefore, companies or marketers need to implement appropriate pricing strategies that are affordable, competitive, and aligned with product quality. In addition, companies must also be able to minimize perceived risk through secure transaction guarantees, clear product information, reliable delivery services, personal data protection, and improved service quality. In doing so, consumer purchase decisions can occur as expected.

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