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The Influence of Perceived Cost and Perceived Risk on Cart Abandonment Behavior Among Shopee Users: A Case Study of University Students in Jabodetabek

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Abstract

The rapid growth of e-commerce has increased the prevalence of shopping cart abandonment, making it an important issue in online consumer behavior research. This study aims to examine the effects of perceived cost and perceived risk on cart abandonment among Shopee users in the Greater Jakarta area. A quantitative uapproach was employed using a causal research design. Data were collected through an online questionnaire distributed to 100 university students selected using purposive sampling. The collected data were analyzed using Partial Least Squares Structural Eqation Modeling (PLS-SEM) with SmartPLS 4. The results indicate that perceived cost has a positive and significant effect on cart abandonment ($t = 3.629$; $p < 0.001$), suggesting that additional expenses such as shipping fees, service charges, and taxes increase consumers' tendency to abandon purchases. Perceived risk also has a positive and significant effect on cart abandonment ($t = 2.488$; $p = 0.013$), indicating that concerns regarding transaction security, product quality, and potential financial loss discourage consumers from completing purchases. Simultaneously, perceived cost and perceived risk explain 61.5% of the variance in cart abandonment behavior ($R^2 = 0.615$), demonstrating a moderate predictive capability of the proposed model. These findings confirm that both financial and risk-related considerations jointly influence consumers' purchase decisions and highlight the importance of improving pricing transparency, transaction security, and consumer trust to reduce shopping cart abandonment on e-commerce platforms.

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Keywords: Perceived Cost, Perceived Risk, Cart Abandonment, E-commerce, Shopee, PLS-SEM.

INTRODUCTION

The rapid growth of e-commerce has significantly transformed consumer shopping behavior in Indonesia. Along with the increasing penetration of internet access and digital technology, online shopping has become an integral part of consumers' daily activities. According to DataReportal/We Are Social (2026), 55.2% of Indonesian internet users aged 16 years and above purchased products or services online every week as of October 2025. The report also shows that 37.6% of users utilized Buy Now, Pay Later services, while 31.3% regularly purchased daily necessities through online marketplaces. These findings indicate a substantial shift from conventional shopping toward digital commerce, reflecting consumers' increasing reliance on e-commerce platforms.

Among the various e-commerce platforms operating in Indonesia, Shopee has emerged as the market leader. The 2025 survey conducted by APJII reported that Shopee was the most frequently accessed online marketplace, accounting for 53.22% of Indonesian internet users. This finding is further supported by Semrush data showing that Shopee Indonesia received approximately 152.6 million visits and 53.2 million unique visitors in February 2025 alone (Arif, 2025). Such figures demonstrate Shopee's extensive market reach and highlight its dominant position within Indonesia's rapidly expanding digital marketplace. The platform's popularity is largely attributed to its convenience, competitive pricing strategies, free shipping promotions, flash sales, digital payment options, and various promotional campaigns that encourage consumers to shop online rather than through conventional retail channels.

Despite the remarkable expansion of e-commerce and Shopee's market dominance, a persistent challenge remains in the form of online shopping cart abandonment. Cart abandonment refers to consumers' behavior of adding products to an online shopping cart without completing the checkout process. Globally, the Baymard Institute reported an average cart abandonment rate of 70.22%, based on analyses of more than forty academic and commercial studies (Institute, 2025). This statistic indicates that more than seven out of ten consumers who express purchase intention by adding products to their shopping carts ultimately leave without completing the transaction.

In Indonesia, shopping cart abandonment has similarly become a significant issue within the e-commerce industry. Hendrawaty et al. (2024) identified cart abandonment as an increasingly prominent phenomenon accompanying the rapid expansion of

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marketplace platforms in Indonesia. Their study revealed that dissatisfaction with transaction processes, perceived risk, and consumers' emotional readiness contribute to the decision to abandon shopping carts. Likewise, Gustaman and Dewi (2019) identified six principal factors underlying shopping cart abandonment among Indonesian consumers, namely emotional ambivalence, transaction inconvenience, hesitation at checkout, perceived risk, payment intention, and perceived cost (Febiana Yunti et al., 2025). These findings suggest that abandoning a shopping cart is not merely an impulsive action but rather the result of a complex decision-making process involving multiple psychological and transactional considerations.

Among the factors associated with cart abandonment, perceived cost has received considerable attention. Perceived cost refers to consumers' evaluation of the total financial sacrifice required to complete an online transaction, which often differs from the initial product price displayed on the platform (Wang, Ye, et al., 2022). Within Shopee, consumers are frequently exposed to dynamic pricing strategies, including flash sales, discount vouchers, and free shipping promotions, causing the final payment amount to differ from their initial expectations. Product prices, shipping fees, and additional transaction costs have been identified as major barriers to purchase completion, while price fluctuations often encourage consumers to postpone purchasing decisions (Wang, Cheah, Lim, et al., 2022). Gustaman and Dewi (2019) further confirmed that perceived cost constitutes an independent component contributing to shopping cart abandonment among Indonesian consumers.

Another important determinant is perceived risk. Originally introduced by Bauer (1960) and later adapted to the e-commerce context by Pavlou (2003), perceived risk represents consumers' subjective expectations regarding potential losses during online transactions. Unlike offline shopping, online consumers rely solely on product photographs, descriptions, customer reviews, and seller reputations when evaluating products. Consequently, the inability to physically inspect products before purchase becomes a major source of uncertainty (Wati & Rijali, 2024). A systematic review of 133 studies conducted by Phamthi et al. (2024) consistently demonstrated that perceived risk negatively influences consumers' purchase intention across various e-commerce platforms. Although the review primarily examined purchase intention, the underlying cognitive mechanism is equally relevant to shopping cart abandonment. Supporting this argument, Gustaman and Dewi (2019) found that concerns regarding payment security and product mismatch frequently discourage consumers from completing purchases after products have already been placed in their shopping carts. Furthermore, Roy and Shaikh

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(2024) demonstrated that perceived risk significantly mediates the relationship between online review confusion and shopping cart abandonment, emphasizing its direct influence on transaction completion.

The phenomenon of shopping cart abandonment is particularly relevant among university students. Although cart abandonment occurs across various demographic groups, university students possess unique characteristics that make them especially susceptible to both perceived cost and perceived risk. Most students rely on fixed financial resources such as parental allowances or scholarships, making every purchasing decision financially consequential. Purchasing an unsuitable product not only results in disappointment but also represents a meaningful financial loss that cannot always be compensated through subsequent purchases. At the same time, university students constitute one of Shopee's most active user segments. Alvara Research Center (2022) reported that 69.9% of Generation Z respondents identified Shopee as their preferred e-commerce platform, substantially exceeding Lazada (23.3%) and Tokopedia (14.5%). This finding is reinforced by the Indonesian E-commerce Consumer Behavior Report published by Kredivo and Katadata Insight Center (2023), which revealed that consumers aged 18–25 years contributed 28.1% of all national e-commerce transactions, making them the second-largest consumer segment in Indonesia.

Previous studies have produced inconsistent findings regarding the influence of perceived cost and perceived risk on shopping cart abandonment. Gustaman and Dewi (2019) concluded that both perceived cost and perceived risk significantly encourage shopping cart abandonment among Indonesian consumers. In contrast, Moro Sundjaja et al. (2024) reported that perceived cost did not significantly influence shopping cart abandonment among Indonesian e-commerce users. Similarly, Putri and Rusdianto (2024), who examined Shopee users in Surabaya, found no significant partial effects of either perceived cost or perceived risk, despite observing significant simultaneous effects. These inconsistent findings suggest that the influence of these variables may depend on platform characteristics, respondent profiles, and research contexts, thereby warranting further investigation.

Although previous studies have examined shopping cart abandonment, several research gaps remain. Existing studies have either focused on general consumers (Gustaman & Dewi, 2019), investigated purchase decisions rather than cart abandonment itself (Wati & Rijali, 2024), or examined university students within limited geographical settings (Putri & Rusdianto, 2024). Moreover, limited attention has been given to

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simultaneously examining perceived cost and perceived risk within a single conceptual framework among university students in Indonesia's largest metropolitan region.

Therefore, this study investigates the influence of perceived cost and perceived risk on shopping cart abandonment among Shopee users in the Greater Jakarta (Jabodetabek) area. Guided by the Stimulus–Organism–Response (SOR) theory, perceived cost is conceptualized as an external stimulus, perceived risk represents the internal psychological state, and shopping cart abandonment constitutes the behavioral response. By integrating these variables within a single framework, this study seeks to provide a more comprehensive understanding of consumers' decision-making processes during online shopping while extending previous findings within the context of Indonesian university students.

METHOD

This study employed a quantitative causal research design to examine the effects of perceived cost (X1) and perceived risk (X2) on cart abandonment (Y) among Shopee users who are university students in the Greater Jakarta area (Jabodetabek). Quantitative research emphasizes numerical measurement and statistical analysis of empirical data (Juliana et al., 2026). Data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) with SmartPLS 4, which is appropriate for examining relationships among latent constructs measured using reflective indicators and is suitable for non-normal data distributions and relatively small sample sizes (Moro Sundjaja et al., 2024; Hendrawaty et al., 2024).

The research object comprised two independent variables, namely perceived cost and perceived risk, and one dependent variable, namely cart abandonment. The study involved active D3, D4, and undergraduate (S1) students enrolled at universities in the Jabodetabek area who actively used Shopee and had experienced cart abandonment by adding products to their shopping carts without completing the checkout process.

A non-probability sampling technique with purposive sampling was employed to recruit respondents based on predetermined criteria (Septiani et al., 2020). Eligible participants were active university students aged 18–25 years who had actively used Shopee for at least the previous three months and had experienced at least one cart abandonment incident during that period. To ensure respondent eligibility, the questionnaire included mandatory screening questions implemented through the branching logic feature in Google Forms, allowing only respondents who met all inclusion criteria to complete the survey.

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Because the exact population size was unknown, the minimum sample size was determined using Cochran's formula (Sugiyono, 2019), resulting in a minimum requirement of 97 respondents. In addition, the sample size met the *ten times rule* recommended for PLS-SEM analysis (Hair et al., 2017). Accordingly, a total of 100 respondents were included in the study, satisfying both statistical sampling requirements and the minimum sample recommendation for structural equation modeling.

Primary data were collected through an online questionnaire distributed via Google Forms across various social media platforms. Responses were measured using a five-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree) (Sugiyono, 2017). The measurement instrument consisted of five indicators for each construct. Perceived cost was adapted from Sundjaja et al. (2024), Kukar-Kinney and Close (2010), and Gustaman and Dewi (2019); perceived risk was adapted from Bauer (1960), Pavlou (2003), and Vera Wati and Rijali (2024); while cart abandonment was measured using indicators adapted from Kukar-Kinney and Close (2010), Sundjaja et al. (2024), and Gustaman and Dewi (2019).

Data analysis was conducted using PLS-SEM with SmartPLS 4. According to Hair et al. (2017), PLS-SEM is a variance-based structural equation modeling approach that is suitable for prediction-oriented research involving latent variables and relatively small samples. Consistent with previous studies on e-commerce cart abandonment (Moro Sundjaja et al., 2024), the analysis consisted of two stages: evaluation of the measurement model (outer model) and evaluation of the structural model (inner model) (Supriadi & Artanti, 2025). The outer model assessment examined indicator reliability through outer loadings, construct reliability using Composite Reliability and Cronbach's alpha, convergent validity using Average Variance Extracted (AVE), and discriminant validity using the Fornell–Larcker criterion, cross-loadings, and the Heterotrait–Monotrait Ratio (HTMT) (Supriadi & Artanti, 2025). The inner model evaluation assessed the coefficient of determination (R^2) and tested the research hypotheses using the bootstrapping procedure. Hypotheses were accepted when the *t*-statistic exceeded 1.96 or the *p*-value was below 0.05 at the 5% significance level.

RESULT AND DISCUSSION

Overview of Respondents

Data collection was carried out through the distribution of online questionnaires using Google Form to active D3, D4, and S1 students in the Greater Jakarta area who use the Shopee application and have done cart abandonment in the last three months.

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To ensure the suitability of respondents to the research criteria, the questionnaire is equipped with screening questions using the branching logic feature, so that only respondents who meet all inclusion criteria can continue filling. The data collection took place over seven days, namely on June 11-18, 2026. A total of 100 respondents successfully completed the questionnaire and all data were declared valid so that they could be used in the analysis process. Prior to the distribution of the main questionnaire, a trial of the instrument to 30 respondents was carried out to ensure the validity and reliability of the research items. The characteristics of the respondents analyzed include gender, age, education level, college origin, domicile, online shopping spending on Shopee, and frequency of accessing Shopee applications.

The majority of respondents in this study were women, as many as 64 people (64%), while male respondents amounted to 36 people (36%). The composition shows that the participation of women is higher than men in research on cart abandonment behavior in Shopee users.

Most of the respondents were in the age range of 20-22 years, with 22-year-olds as the largest group (31%), followed by 21-year-olds (27%) and 20-year-olds (17%). Meanwhile, 23-year-old respondents amounted to 11%, 25-year-olds amounted to 8%, while respondents aged 18, 19, and 24 years had a relatively small proportion. This finding shows that the majority of respondents are students in the early adult phase who actively use e-commerce platforms.

Based on the level of education, the majority of respondents are undergraduate students (S1) as much as 60%, followed by Diploma 4 (D4) students at 34% and Diploma 3 (D3) at 6%. Thus, as many as 94% of respondents came from S1 and D4 education levels, so that the characteristics of the sample were dominated by higher education students.

Respondents came from various universities in the Greater Jakarta area, both public and private universities. Jakarta State Polytechnic became the institution with the highest number of respondents (14%), followed by Pelita Harapan University and Pakuan University which each contributed 11%, and Nusa Bangsa University at 10%. In addition, respondents also came from various other universities with varying proportions. The diversity of the origin of the College shows that the research sample is not centered on one particular institution so that it is able to represent students from various academic backgrounds.

Based on domicile, respondents were dominated by students living in Jakarta (31%) and Bogor (30%). Furthermore, respondents domiciled in Depok amounted to 17%,

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Tangerang by 14%, and Bekasi by 8%. The distribution shows that respondents have represented the entire Greater Jakarta area as a research location.

Based on online shopping spending on Shopee, most respondents spend Rp151, 000–Rp300, 000 per month (42%), followed by Rp301, 000–Rp500, 000 at 33%. Respondents who spent Rp50, 000–Rp150, 000 reached 13%, while respondents who spent more than Rp500, 000 per month amounted to 12%. Overall, the majority of respondents have spending between Rp151, 000 to Rp500, 000 per month.

The frequency of using the Shopee application showed that most respondents accessed the application 3-4 times per week and 5-6 times per week, which reached 32%, respectively. A total of 21% of respondents access Shopee every day, while another 15% open the application 1-2 times per week. The results show that the majority of respondents are quite active Shopee users, with 85% of respondents accessing the application at least three times a week.

Convergent Validity

Convergent validity refers to the extent to which a latent construct explains the variance of its indicators. In SmartPLS, it is assessed using outer loading values, which represent the correlation between each indicator and its corresponding construct, with values above 0.70 indicating satisfactory validity (Hair et al., 2017). In this study, all indicators across the three constructs exceeded the recommended threshold, confirming that the measurement model adequately represents the proposed Stimulus–Organism–Response (SOR) framework. For perceived cost (stimulus), the highest loading was observed on PB5, reflecting hidden costs, which supports Kukar-Kinney and Close (2010) that unexpected costs create stronger cognitive disruption during online shopping. For perceived risk (organism), PR4 showed the highest loading, consistent with Wang et al. (2023), who found that concerns regarding product mismatch are the most salient risk perceived by consumers. Meanwhile, cart abandonment (response) recorded the highest loading on CA3, related to the final payment stage, supporting Sundjaja et al. (2024), who identified payment confirmation as the most critical stage for purchase abandonment. These findings indicate that cart abandonment results from the accumulation of perceived cost and risk evaluations, reinforcing the conceptual validity of the SOR framework in explaining online shopping behavior (Roy & Shaikh, 2024).

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Table 1. Rated Outer Loading

Variable	Indicators	*Outer Loading*	Description
Cost Perception	PB1	0,750	Valid
	PB2	0,744	Valid
	PB3	0,719	Valid
	PB4	0,722	Valid
	PB5	0,839	Valid
	PB6	0,726	Valid
	PB7	0,800	Valid
	PB8	0,762	Valid
Risk Perception	PR1	0,759	Valid
	PR2	0,713	Valid
	PR3	0,708	Valid
	PR4	0,811	Valid
	PR5	0,729	Valid
	PR6	0,722	Valid
	PR7	0,762	Valid
	PR8	0,796	Valid
Cart Abandonment	CA1	0,750	Valid
	CA2	0,706	Valid
	CA3	0,813	Valid
	CA4	0,749	Valid
	CA5	0,723	Valid
	CA6	0,792	Valid
	CA7	0,807	Valid

Source: Processed Data (2026)

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Discriminan Validity

Discriminant validity assesses whether each construct is empirically distinct from other constructs in the model. It was evaluated using cross-loadings, the Fornell–Larcker criterion, and the Heterotrait–Monotrait Ratio (HTMT). Cross-loadings require each indicator to load more strongly on its own construct than on other constructs (Ghozali & Kusumadewi, 2023). The results confirmed that all PB, PR, and CA indicators achieved their highest loadings on their respective constructs. Furthermore, the square root of the AVE for each construct exceeded its inter-construct correlations, satisfying the Fornell–Larcker criterion. HTMT values were also below the recommended threshold of 0.85, with PB–CA at 0.810 and PR–CA at 0.763 (Hair et al., 2017). Collectively, these findings provide strong evidence that perceived cost, perceived risk, and cart abandonment are conceptually and empirically distinct constructs. The use of these three complementary criteria is consistent with the recommendation of Hair et al. (2017), who suggest combining multiple approaches because the Fornell–Larcker criterion alone may be less sensitive in detecting discriminant validity issues among highly correlated reflective constructs.

Table 2. Discriminan Validity (Cross Loading)

Indicators	Cost Perception	Risk Perception	*Cart Abandonment*
PB1	0,75	0,605	0,608
PB2	0,744	0,479	0,537
PB3	0,719	0,431	0,513
PB4	0,722	0,405	0,502
PB5	0,839	0,564	0,615
PB6	0,726	0,52	0,504
PB7	0,8	0,518	0,635
PB8	0,762	0,383	0,503
PR1	0,533	0,759	0,596

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Indicators	Cost Perception	Risk Perception	*Cart Abandonment*
PR2	0,336	0,713	0,437
PR3	0,456	0,708	0,452
PR4	0,511	0,811	0,546
PR5	0,505	0,729	0,453
PR6	0,396	0,722	0,497
PR7	0,49	0,762	0,53
PR8	0,628	0,796	0,585
CA1	0,554	0,636	0,75
CA2	0,468	0,431	0,706
CA3	0,702	0,572	0,813
CA4	0,589	0,516	0,749
CA5	0,506	0,483	0,723
CA6	0,467	0,471	0,792
CA7	0,58	0,536	0,807

Source: Processed Data (2026)

Composite Reliability

Composite reliability measures the internal consistency of indicators in representing a latent construct. A construct is considered reliable when Cronbach's Alpha and Composite Reliability (CR) exceed 0.70, while the Average Variance Extracted (AVE) is above 0.50, indicating that the construct explains more than half of the variance of its indicators (Hair et al., 2017). As shown in the results, all three constructs satisfied these criteria, demonstrating strong internal consistency and convergent reliability. The high reliability values indicate that perceived cost, perceived risk, and cart abandonment consistently capture their respective psychological constructs. Consistent with Kukar-

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Kinney and Close (2010), the indicators of perceived cost collectively represent consumers' overall evaluation of transaction costs, while the strong reliability of perceived risk supports the view that various consumer concerns reflect a common evaluation process within the SOR framework (Roy & Shaikh, 2024). In addition, AVE values above the recommended threshold confirm that each construct explains more variance in its indicators than measurement error, providing a reliable foundation for subsequent structural model analysis (Hair et al., 2017).

Table 3. Reliability and Validity of Constructs

Variable	*Cronbach's Alpha*	*Composite Reliability* (rho_c)	AVE	Description
Cart Abandonment	0,881	0,907	0,583	Reliabel
Cost Perception	0,894	0,915	0,576	Reliabel
Risk Perception	0,889	0,912	0,564	Reliabel

Source: Processed Data (2026)

R Square (R^2)

The coefficient of determination (R^2) indicates the proportion of variance in the dependent variable explained by the independent variables. According to Hair et al. (2017), R^2 values of 0.75, 0.50, and 0.25 represent substantial, moderate, and weak predictive power, respectively. As shown in the results, cart abandonment achieved an R^2 value of 0.615 (adjusted R^2 = 0.607), indicating moderate explanatory power. This suggests that perceived cost and perceived risk jointly explain 61.5% of the variance in cart abandonment, supporting the relevance of the Stimulus–Organism–Response (SOR) framework in explaining online purchase abandonment behavior. The remaining 38.5% of the variance may be attributed to other factors not included in the model, such as platform trust or prior shopping experience, highlighting the multidimensional nature of cart abandonment behavior (Kukar-Kinney & Close, 2010; Phamthi et al., 2024; Hair et al., 2017).

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Table 4. R-Square Value

Variable	R-Square	R-Square Adjusted
Cart Abandonment	0,615	0,607

Source: Processed Data (2026)

Path Coefficients

Path coefficients evaluate the strength, direction, and significance of relationships among constructs in the structural model. Their significance is assessed using the bootstrapping procedure, where *t*-statistics greater than 1.96 and *p*-values below 0.05 indicate significant relationships (Hair et al., 2017). The results showed that both hypothesized paths, perceived cost (PB → CA) and perceived risk (PR → CA), were positive and statistically significant. These findings indicate that higher perceived cost increases consumers' tendency to abandon their shopping carts, supporting the role of cost as a key stimulus in the SOR framework (Gustaman & Dewi, 2019). Likewise, the significant positive effect of perceived risk confirms that consumers' evaluation of transaction uncertainty contributes to cart abandonment, reinforcing its role as the organism component linking external stimuli to behavioral responses (Roy & Shaikh, 2024).

Table 5. Path Coefficients Value

Correlation	Original Sample (O)	Sample Mean (M)	STDEV	T Statistics (|O/STDEV|)	P Values
PB -> CA	0,494	0,500	0,136	3,629	0,000
PR -> CA	0,368	0,358	0,148	2,488	0,013

Source: Processed Data (2026)

Simultaneous Hypothesis Testing (F-Test)

The simultaneous hypothesis test (H3) was conducted to examine whether perceived cost and perceived risk jointly influence cart abandonment. The F-statistic was calculated using the following formulas:

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$$Fhit = R^2(n-k-1) / (1-R^2)k$$
$$Ftable = F\alpha(k, n-k-1)$$

k = number of independent variables
R2 = coefficient of determination
n = the number of samples.

Based on the structural model, the coefficient of determination was $R^2 = 0.615$, with k = 2 independent variables and a sample size of n = 100 at a significance level of $\alpha = 0.05$. The calculation is presented as follows:

$$Fhit = R^2(n-k-1) / (1-R^2)k$$
$$= 0{,}615\ (100 - 2 - 1) / (1 - 0{,}615) \times 2$$
$$= 0{,}615 \times 97 / 0{,}385 \times 2$$
$$= 59{,}655 / 0{,}770 = 77{,}47$$
$$Ftable = F\alpha(k, n-k-1)$$
$$= F0{,}05\ (2, 100-2-1)$$
$$= F0{,}05\ (2, 97)$$
$$= 3{,}09$$

Since Fhit = 77.47 is greater than Ftable = 3.09, the null hypothesis (H_0) is rejected, indicating that perceived cost and perceived risk simultaneously have a significant effect on cart abandonment among Shopee users in the Greater Jakarta area. Therefore, H3 is supported. These findings suggest that perceived cost and perceived risk jointly shape consumers' cart abandonment behavior, supporting the SOR framework in which external cost stimuli and internal risk evaluations interact to influence behavioral responses (Vera Wati & Rijali, 2024).

DISCUSSION

The Effect of Perceived Cost on Cart Abandonment

The results indicate that perceived cost has a positive and significant effect on cart abandonment, with a *t*-statistic of 3.629 and a *p*-value of 0.000. The path coefficient of 0.494 indicates that as consumers perceive higher additional costs during the transaction process, their tendency to abandon the shopping cart also increases. In other words, the higher the perceived cost, the greater the likelihood of canceling the purchase.

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These findings are consistent with (Gustaman & Dewi, 2019), who identified perceived cost as one of the six primary factors driving shopping cart abandonment among Indonesian e-commerce consumers. Consumers who perceive the total transaction cost as exceeding their initial expectations are more likely to postpone or cancel purchases, highlighting the important role of financial burden perceptions in shaping online shopping behavior.

The findings are further supported by (Close & Kinney, 2009), who reported that consumers often use shopping carts to compare prices and wait for more attractive promotions. When displayed prices or additional costs fail to meet expectations, consumers tend to leave their carts without completing the purchase, suggesting that cost considerations function as cognitive barriers in online purchase decisions.

Similarly, (Moro Sundjaja et al., 2024) found that hidden costs, including shipping fees, service charges, and taxes revealed during the final checkout stage, consistently encourage Indonesian consumers to abandon transactions. This gap between the initial displayed price and the final payable amount ultimately triggers cart abandonment.

The Effect of Perceived Risk on Cart Abandonment

The results show that perceived risk has a positive and significant effect on cart abandonment, with a *t*-statistic of 2.488 and a *p*-value of 0.013. The path coefficient of 0.368 indicates that higher perceived transaction risk increases consumers' tendency to leave their shopping carts without completing the purchase. This suggests that uncertainty and concerns regarding online transactions become substantial barriers to purchase completion.

These findings are consistent with the systematic review conducted by (Phamthi et al., 2024), which analyzed 133 studies and concluded that perceived risk consistently reduces purchase intention in e-commerce. Financial, privacy, and product quality risks create uncertainty that discourages consumers from completing ongoing transactions.

The findings are further reinforced by (Roy & Shaikh, 2024), who demonstrated that ambiguity confusion and similarity confusion in online product reviews positively influence shopping cart abandonment through perceived risk. Difficulty in distinguishing or evaluating products increases perceived risk, which ultimately encourages abandonment behavior.

Likewise, (Gustaman & Dewi, 2019) found that perceived risk is one of the key determinants of shopping cart abandonment among Indonesian consumers. Concerns regarding transaction security, product quality, and personal data protection significantly

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influence consumers' decisions to discontinue online purchases. Therefore, managing consumers' risk perceptions remains a strategic priority for e-commerce platforms seeking to reduce cart abandonment.

The Simultaneous Effect of Perceived Cost and Perceived Risk on Cart Abandonment

The third hypothesis (H3) examined whether perceived cost and perceived risk simultaneously influence cart abandonment among Shopee users in the Greater Jakarta area. Based on the PLS-SEM analysis, the model produced an R^2 value of 0.615 with two independent variables ($k = 2$) and 100 respondents ($n = 100$). The calculated F-value was 77.47, exceeding the critical F-value of 3.09 at $\alpha = 5\%$ with degrees of freedom (2, 97). Therefore, H_0 was rejected and H3 was accepted.

These results indicate that perceived cost and perceived risk jointly have a positive and significant effect on cart abandonment. The R^2 value of 0.615 shows that both variables explain 61.5% of the variance in cart abandonment, while the remaining 38.5% is explained by factors outside the proposed model. According to (Hair et al., 2017), this represents a moderate level of predictive power, indicating that the model provides adequate explanatory capability.

These findings support and extend the work of (Gustaman & Dewi, 2019), who identified perceived cost and perceived risk as two of the six main determinants of shopping cart abandonment among Indonesian e-commerce consumers. Using Principal Component Analysis (PCA) with 200 respondents in Java, their study demonstrated that both constructs jointly shape abandonment behavior. The present study validates these findings using PLS-SEM, providing more structured estimates of path coefficients and significance among Shopee users.

The results are also supported by the systematic review of (Wang, Ye, et al., 2022), which synthesized 52 studies on online shopping cart abandonment published between 2003 and 2022. Using the Stimulus-Organism-Response (SOR) framework, the review identified perceived cost and risk-related factors, such as information overload and hesitation at checkout, as consistent drivers of cart abandonment. It also highlighted the lack of evidence from developing countries, making this study a valuable contribution within the Indonesian e-commerce context.

Furthermore, (Moro Sundjaja et al., 2024), who investigated shopping cart abandonment among Indonesian e-commerce consumers using SmartPLS 4.0.8.5 with 200 respondents, found that cost-related factors and transaction complexity were the

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strongest predictors of cart abandonment. Grounded in Buyer Behavior Theory and the Theory of Reasoned Action (TRA), their findings align with the present study by demonstrating that perceived cost and perceived risk operate together rather than independently in encouraging cart abandonment.

Overall, the simultaneous findings indicate that when consumers experience both high perceived costs and high transaction risks, their tendency to abandon shopping carts becomes substantially stronger than when only one factor is present. This reflects the dynamics of online consumer decision-making, where financial considerations and risk perceptions reinforce one another in shaping avoidance behavior. These findings offer practical implications for Shopee and other e-commerce platforms, emphasizing the importance of improving price transparency, strengthening transaction security, and enhancing consumer trust to effectively reduce cart abandonment.

CONCLUSION

Based on the findings of this study involving Shopee users in the Greater Jakarta area, perceived cost and perceived risk were found to significantly influence cart abandonment behavior. Perceived cost has a positive and significant effect on cart abandonment, indicating that additional expenses such as shipping fees, service charges, and taxes revealed during the final checkout stage increase consumers' likelihood of canceling purchases. This finding suggests that a lack of cost transparency is one of the main reasons consumers abandon their shopping carts, consistent with (Gustaman & Dewi, 2019) and (Close & Kinney, 2009). Perceived risk also has a positive and significant effect on cart abandonment, as concerns regarding data security, product quality, and potential financial loss increase consumers' reluctance to complete online purchases, supporting the findings of (Phamthi et al., 2024) and (Roy & Shaikh, 2024). Furthermore, perceived cost and perceived risk simultaneously have a positive and significant effect on cart abandonment, jointly explaining 61.5% of the variance in consumers' behavior. This demonstrates that cost- and risk-related concerns reinforce one another in influencing purchase cancellation decisions, in line with (Wang, Ye, et al., 2022). Nevertheless, this study is limited to Shopee users who are university students in the Greater Jakarta area. Therefore, the findings may not be fully generalizable to users of other e-commerce platforms, different age groups, particularly working adults, or other regions of Indonesia with different online shopping behaviors and digital accessibility.

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REFERENCES

Arif, F. (2025). 35 Data Statistik *E-commerce* Indonesia yang Penting. https://r.search.yahoo.com/_ylt=AwrOuKv.azxqWwIAO05XNyoA;_ylu=Y29sbwNncTEEcG9zAzEEdnRpZAMEc2VjA3Ny/RV=2/RE=1783554302/RO=10/RU=https%3a%2f%2fsemnesia.com%2fblog%2fdata-statistik-ecommerce-indonesia%2f/RK=2/RS=2ML52weAYsvnbrdNeyhKOWEJPn4-

Bauer, R. A. (1960). Consumer Behavior as Risk Taking. American Marketing Association.

Bunga Pertiwi, A., Ali, H., & Sumantyo, F. D. S. (2022). Pengaruh Persepsi Harga dan Kualitas Pelayanan terhadap Loyalitas Pelanggan Melalui Kepuasan Pelanggan pada *E-Commerce* Shopee. *Jurnal Ilmu Multidisplin*, *1*(2), 537–553. https://doi.org/10.38035/jim.v1i2

Chin, W. W. (1998). The Partial Least Squares Approach to Structural Equation Modeling (pp. 295–336). Lawrence Erlbaum Associates. http://www.researchgate.net/publication/232569511

Cho, C. H., Kang, J., & Cheon, H. J. (2006). *Online* Shopping Hesitation. *CyberPsychology & Behavior*, *9*(3), 261–274.

Close, A. G., & Kinney, M. K. (2009). Beyond Buying: Motivations Behind Consumers' *Online* Shopping Cart Use. *Journal of Business Research*, *63*(9–10), 986–992. https://doi.org/10.1016/j.jbusres.2009.01.022

Febiana Yunti, A., Mentayani, I., & Sarbini, G. N. (2025). Resort Pantai Rindu Alam Di Kabupaten Tanah Bumbu Dengan Pendekatan Arsitektur Hijau. *Jurnal Tugas Akhir Mahasiswa Lanting*, *14*.

Ghozali, I., & Kusumadewi, K. A. (2023). Smasrt PLS Next Generation Statistic 4.0. Universitas Diponegoro : Yoga Pratama.

Gustaman, M. F. M., & Dewi, C. K. (2019). Analisis Faktor-Faktor Yang Mendorong Shopping *Cart Abandonment*. *E-Proceeding of Management*, *6*(2), 3895–3905.

Hair, J. F.., Hult, G. T. M.., Ringle, C. M., & Sarstedt, Marko. (2017). *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)* (2nd ed.). Sage Publications.

Hendrawaty, M., Syamsuar, D., Amalia, V., Hidayat, D., Ramadhani, D. N., Andrew, F. W., & Ramadhanty, K. A. (2024). Analisa Faktor - Faktor Shopping *Cart Abandonment* pada Aplikasi *E-Commerce*. *Jurnal Ilmiah Binary STMIK Bina Nusantara Jaya Lubuklinggau*, *6*(2), 63–76. https://doi.org/10.52303/jb.v6i2.142

Institute, B. (2025). 50 *Cart Abandonment* Rate Statistics 2026. Baymard Institute.

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.

Jacoby, J., & Kaplan, L. B. (1972). The Components of Perceived Risk (pp. 382–393). Association for Consumer Research.

Juliana, J., Ondeng, S., & Rahman, U. (2026). Konsep Dasar Penelitian Kuantitatif. *Jurnal Pendidikan Tambusai*, *10*(1), 140–146. https://doi.org/10.31004/jptam.v10i1.35817

Laudon, K. C., & Traver, C. G. (2023). *E-Commerce* 2023: Business, Technology, Society (17th ed.). Pearson.

Mehrabian, A., & Russel, J. A. (1974). An Approach to Environmental Psychology. The MIT Press.

Moro Sundjaja, A., Velasco Tatuil, A., Scholus, D. V., & Restiani, Y. D. (2024). The Determinant Factors of Shopping *Cart Abandonment* Among *E-commerce* Customers in Indonesia. *CommIT Journal*, *18*(1), 29–38. https://doi.org/10.21512/commit.v18i1.9308

Pavlou, P. A. (2003). Consumer Acceptance of Electronic Commerce: Integrating Trust and Risk with the Technology Acceptance Model. *International Journal of Electronic Commerce*, *7*(3), 101–134. https://doi.org/10.1080/10864415.2003.11044275

Phamthi, V. A., Nagy, Á., & Ngo, T. M. (2024). The Influence of Perceived Risk on Purchase Intention in *E-commerce*—Systematic Review and Research Agenda. *International Journal of Consumer Studies*, *48*(4). https://doi.org/10.1111/ijcs.13067

Putri, S. A. Z., & Rusdianto, Y. (2024). Analysis of Factors that Influence Consumer Behavior towards Shopping *Cart Abandonment* in *Online* Shopping at Shopee. *East Asian Journal of Multidisciplinary Research*, *3*(2), 629–644. https://doi.org/10.55927/eajmr.v3i2.8292

Ridha, N. (2017). Proses Penelitian, Masalah, Variabel Dan Paradigma Penelitian. *Jurnal Hikmah*, *14*(1), 62–70.

Roy, R., & Shaikh, A. (2024). The Impact of *Online* Consumer Review Confusion on *Online* Shopping *Cart Abandonment*: A Mediating Role of Perceived Risk and Moderating Role of Mindfulness. *Journal of Retailing and Consumer Services*, *81*, 103941.

Septiani, Y., Arribe, E., & Diansyah, R. (2020). Analisis Kualitas Layanan Sistem Informasi Akademik Universitas Abdurrab Terhadap Kepuasan Pengguna Menggunakanmetode Sevqual (Studi Kasus: Mahasiswa Universitas Abdurrab

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Pekanbaru). *Jurnal Teknologi Dan Open Source*, *3*(1), 131–143. https://doi.org/10.36378/jtos.v3i1.560

Subhaktiyasa, P. G. (2024). Menentukan Populasi dan Sampel: Pendekatan Metodologi Penelitian Kuantitatif dan Kualitatif. *Jurnal Ilmiah Profesi Pendidikan*, *9*(4), 2721–2731. https://doi.org/10.29303/jipp.v9i4.2657

Sugiyono, S. (2009). Metode Penelitian Kuantitatif Kualitatif dan R & D (8th ed.). Alfabeta.

Sugiyono, S. (2017). Metode Penelitian Kuantitatif, Kualitatif, dan R&D. Alfabeta.

Sulung, U., & Muspawi, M. (2024). Memahami Sumber Data Penelitian: Primer, Sekunder, Dan Tersier. *Jurnal Edu Research Indonesian Institute For Corporate Learning And Studies (IICLS)*, *5*(3), 1387–1392. https://doi.org/10.33087/jiubj.v24i2.5266

Supriadi, I., & Artanti, Y. (2025). Konsep dan Aplikasi dengan SmartPLS 3.2.*8* - *Jejak Pustaka*. Jejak Pustaka.

Wang, S., Cheah, J. H., Lim, X. J., Leong, Y. C., & Choo, W. C. (2022). Thanks COVID-19, I'll Reconsider My Purchase: Can Fear Appeal Reduce *Online* Shopping *Cart Abandonment*? *Journal of Retailing and Consumer Services*, *64*.

Wang, S., Cheah, J. H., & Lim, Xi. J. (2022). *Online* Shopping *Cart Abandonment*: A Review and Research Agenda. *International Journal of Consumer Studies*, *47*(2), 211–225.

Wang, S., Ye, Y., Ning, B., Cheah, J. H., & Lim, X. J. (2022). Why Do Some Consumers Still Prefer In-Store Shopping? An Exploration of *Online* Shopping *Cart Abandonment* Behavior. *Frontiers in Psychology*, *12*. https://doi.org/10.3389/fpsyg.2021.829696

Wati, V., & Rijali, N. F. (2024). Pengaruh Persepsi Risiko Terhadap Keputusan Pembelian Pada *E-Commerce* Shopee Oleh Mahasiswa Sekolah Tinggi Ilmu Administrasi Tabalong. *JAPB (Jurnal Administrasi Publik Dan Bisnis)*, *7*(2), 1969–1982. https://doi.org/10.35722/japb.v7i2.1132

Yogasuria, C. O., & Bus, O. U. M. (2021). Influence Of Advertising, Price, And Quality Of Service On Purchase Decisions On The Shopee Application (Studies At State University Of Jakarta Students). In *Dinasti International Journal of Economics, Finance & Accounting (DIJEFA)* (Number 2). https://doi.org/10.2139/ssrn.3768330

Zamfirache, A., Neacșu, N. A., Madar, A., Balasescu, S., Balasescu, M., & Purcaru, L. M. (2025). Behavioural Differences and Purchasing Experiences Through *Online* Commerce or Offline Within Mall-Based Retail Structures. *Electronic Commerce Research*, *25*(5), 4159–4191. https://doi.org/10.1007/s10660-024-09879-6

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