Journal of Customer Value and Operational Excellence
Vol. 1, No. 01, October 2026: pp. 25-38
DOI: https://doi.org/10.71238/jcvoe.v1i01.220

Dynamic Pricing Transparency, Price Fairness, and Perceived Customer Control as Drivers of Perceived Transaction Value among Ride-Hailing Users in Greater Jakarta, Indonesia

Ade Suhara [1], Bintang Cahya [2]
[1] Universitas Buana Perjuangan Karawang ade.suhara@ubpkarawang.ac.id
[2] Universitas Nusa Putra bintangcahya@gmail.com
Corresponding Author: ade.suhara@ubpkarawang.ac.id

Info Artikel
Article history:
Received: October, 2026
Revised: October, 2026
Accepted: October, 2026

Keywords:
Dynamic Pricing Transparency; Price Fairness; Perceived Customer Control; Perceived Transaction Value; Ride-Hailing Services.

ABSTRACT

Dynamic pricing in ride-hailing services has raised concerns regarding pricing transparency, fairness, and consumer autonomy, potentially influencing perceived transaction value. This study aims to examine the individual and simultaneous relationships of transparency in dynamic pricing, price fairness, and perceived customer control with perceived transaction value among ride-hailing users in Greater Jakarta, Indonesia. A quantitative explanatory approach with a cross-sectional design was employed, involving 200 respondents selected through purposive sampling. Data were collected using structured questionnaires measured on a five-point Likert scale and analyzed through multiple linear regression using SPSS version 25. The findings indicate that transparency in dynamic pricing ($\beta = 0.271$; $p < 0.001$), price fairness ($\beta = 0.427$; $p < 0.001$), and perceived customer control ($\beta = 0.249$; $p < 0.001$) are positively and significantly associated with perceived transaction value. Price fairness emerged as the strongest predictor, while the overall regression model was statistically significant ($F = 69.790$; $p < 0.001$), with a reported coefficient of determination of 51.6%. These findings highlight the importance of transparent pricing communication, perceived pricing legitimacy, and consumer decision-making autonomy in shaping transaction evaluations. The study contributes to digital consumer behavior literature by integrating three pricing-related psychological dimensions into a unified framework and offers practical implications for developing more consumer-oriented ride-hailing pricing strategies.

This is an open access article under the CC BY-SA license.

Corresponding Author:
Name: Ade Suhara
Institution: Universitas Buana Perjuangan Karawang
Email: ade.suhara@ubpkarawang.ac.id

INTRODUCTION

The rapid development of digital technology has transformed the transportation service industry through the emergence of ride-hailing platforms that integrate mobility services, digital

payments, and algorithm-driven pricing mechanisms. In Indonesia, platforms such as Gojek and Grab have become essential components of urban mobility, particularly in the Greater Jakarta Area (Jabodetabek), where high commuting intensity and fluctuating transportation demand influence consumer purchasing decisions. One prominent feature of these platforms is dynamic pricing, which adjusts fares according to demand, driver availability, location, and service timing. Although this mechanism improves resource allocation, unpredictable fare changes may create concerns regarding transparency, fairness, and transaction attractiveness. Zeithaml (1988) emphasized that perceived value reflects consumers' evaluation of benefits relative to sacrifices, suggesting that transportation users assess not only monetary costs but also convenience and service benefits. Previous studies indicate that dynamic pricing may negatively affect perceived price fairness when price variations lack sufficient justification (Alderighi et al., 2022), while personalized pricing mechanisms may further influence consumers' fairness evaluations (Priester et al., 2020).

Transparency in dynamic pricing represents an important determinant of consumers' evaluations of transportation transactions. Pricing transparency refers to the clarity, accessibility, and comprehensibility of information concerning fare calculations, additional charges, and price adjustments. Transparent pricing enables customers to understand fare fluctuations, reduce uncertainty, and make informed purchasing decisions. Conversely, insufficient information may increase information asymmetry between platforms and consumers, potentially weakening perceived transaction value. Bolton et al. (2003) demonstrated that price fairness judgments are influenced by reference prices, perceived business costs, and interpretations of pricing practices. Furthermore, price fairness reflects consumers' assessments of whether transportation charges are reasonable, acceptable, and justified relative to previous experiences and available alternatives. Xia et al. (2004) explained that fairness perceptions emerge through comparisons between actual prices and relevant reference standards. These considerations suggest that transparency and fairness jointly shape consumers' evaluations of dynamically priced transportation services.

Beyond pricing transparency and fairness, perceived customer control is another important factor influencing transaction evaluations. Perceived customer control reflects consumers' autonomy and ability to compare transportation alternatives, select service categories, adjust booking decisions, and accept or reject quoted fares. Hui and Bateson (1991) demonstrated that perceived control influences consumers' emotional and behavioral responses during service encounters, particularly when meaningful choices are available. Within ride-hailing platforms, greater control may reduce uncertainty and strengthen consumers' confidence in purchasing decisions. These perceptions contribute to perceived transaction value, which refers to the attractiveness of a particular transaction relative to expected prices and available alternatives. Grewal et al. (1998) distinguished transaction value from acquisition value, emphasizing that transaction value reflects the psychological benefits associated with obtaining a favorable deal. Accordingly, perceived transaction value in ride-hailing services may depend on the combined effects of informational clarity, pricing fairness, and consumers' decision-making autonomy.

Previous research has investigated the psychological implications of dynamic pricing across different digital service environments. Alderighi et al. (2022) found that dynamic pricing practices in online accommodation markets may reduce consumers' perceptions of price fairness, whereas Priester et al. (2020) highlighted fairness concerns associated with personalized dynamic pricing. In the Indonesian ride-hailing context, Pramudita (2025) examined dynamic pricing, customer satisfaction, and purchase intention, indicating that aggressive price adjustments may negatively affect customer evaluations. These findings suggest that consumers' responses to dynamic pricing

extend beyond monetary considerations. However, existing studies have predominantly emphasized fairness, satisfaction, and purchase intention, while limited attention has been devoted to perceived transaction value as a distinct outcome. This gap is particularly relevant in Greater Jakarta, where fluctuating transportation demand and pricing conditions influence everyday mobility decisions. Moreover, Indonesia's Presidential Regulation No. 27 of 2026, as reported by the Ministry of Transportation (Kementerian Perhubungan Republik Indonesia, 2026), reinforces the importance of fairness and transparency within digital transportation ecosystems.

To address these gaps, this study integrates perceived value theory, price fairness theory, and perceived control theory into a unified framework. Zeithaml (1988) provides the theoretical foundation for understanding consumers' evaluations of benefits and sacrifices, while Xia et al. (2004) explain how fairness judgments emerge from pricing comparisons and perceived legitimacy. Hui and Bateson (1991) further emphasize the importance of autonomy and choice in shaping service experiences. Although these theoretical perspectives have been widely discussed individually, their simultaneous contribution to perceived transaction value in ride-hailing services remains insufficiently explored. Furthermore, previous investigations conducted in other digital service industries may not fully represent the characteristics of transportation transactions in Greater Jakarta. Therefore, this study addresses the research gap by examining the integrated relationships between transparency in dynamic pricing, price fairness, perceived customer control, and perceived transaction value within Indonesia's urban ride-hailing environment.

Consequently, this study aims to investigate the relationship between dynamic pricing transparency, price fairness, and customers' perceptions of control over transaction value among users of online transportation services in the Greater Jakarta area (Jabodetabek), Indonesia. Questionnaire data from 200 respondents were used to apply a quantitative explanatory approach. Measurements were taken using a five-point Likert scale and analyzed using multiple linear regression with SPSS version 25. Theoretically, this study contributes to the literature on digital consumer behavior and service pricing by incorporating informational, fairness, and autonomy aspects into a comprehensive explanation of perceived transaction value. Contextually, this study provides empirical evidence from Indonesia's urban transportation market to expand upon existing research. These findings are expected to enhance transaction value by helping ride-hailing platforms create more transparent pricing communications, maintain fairness, and provide customers with greater freedom to make decisions.

LITERATURE REVIEW

2.1 Theoretical Foundations

The theoretical foundation of this study integrates perceived value theory, price fairness theory, and perceived control theory to explain perceived transaction value in online transportation services. Zeithaml (1988) emphasized that perceived value reflects consumers' evaluation of benefits relative to monetary and nonmonetary sacrifices, while Xia et al. (2004) explained that price fairness depends on comparisons, perceived pricing legitimacy, and consumer expectations. Furthermore, Hui and Bateson (1991) highlighted the importance of autonomy and choice in shaping consumer evaluations. Within ride-hailing platforms, transparent pricing information reduces uncertainty, perceived price fairness strengthens the acceptability of dynamic fares, and customer control enables users to compare alternatives and make informed purchasing decisions. Accordingly, these three theoretical perspectives provide an integrated framework for understanding how pricing

transparency, fairness, and decision-making autonomy contribute to perceived transaction value in digital transportation services.

2.2 Transparency in Dynamic Pricing

Dynamic pricing refers to the adjustment of service fares based on demand, driver availability, timing, and operational conditions, often creating price fluctuations that influence consumer evaluations. Transparency in dynamic pricing reflects the clarity, accessibility, and comprehensibility of fare information, including estimated charges, pricing adjustments, and additional costs. Transparent pricing reduces information asymmetry and enables customers to make informed transaction decisions. Bolton et al. (2003) emphasized that consumers' price fairness judgments are influenced by reference prices, perceived business costs, and pricing practices. Similarly, Alderighi et al. (2022) found that dynamic price variations can negatively affect fairness perceptions, while Priester et al. (2020) demonstrated that personalized pricing influences consumers' fairness evaluations. In Greater Jakarta's ride-hailing market, where fares frequently fluctuate, transparent pricing information may reduce uncertainty, strengthen consumer confidence, and improve transaction evaluations. Therefore, transparency in dynamic pricing is expected to positively influence perceived transaction value.

2.3 Price Fairness

Price fairness refers to consumers' subjective evaluation of whether pricing practices are reasonable, acceptable, and justified relative to their expectations and reference prices. Xia et al. (2004) emphasized that fairness perceptions emerge through comparisons between actual charges and relevant pricing standards. In ride-hailing services, dynamic fare adjustments may be perceived as fair when supported by understandable market conditions, such as increased demand or limited driver availability. Bolton et al. (2003) demonstrated that fairness judgments depend on perceived business costs and pricing practices, while Priester et al. (2020) and Alderighi et al. (2022) highlighted how dynamic pricing mechanisms influence consumers' fairness evaluations. Price fairness encompasses distributive fairness, reflecting the reasonableness of pricing outcomes, and procedural fairness, concerning the legitimacy of pricing processes. When transportation fares are perceived as equitable and justified, customers are more likely to consider their financial sacrifices acceptable relative to the benefits received. Therefore, price fairness is expected to positively influence perceived transaction value by strengthening consumers' perceptions of pricing legitimacy and economic attractiveness.

2.4 Perceived Customer Control

Perceived customer control refers to consumers' perceived autonomy and ability to manage purchasing decisions and transaction outcomes. Hui and Bateson (1991) emphasized that perceived control influences consumers' emotional responses and service evaluations by providing opportunities for meaningful choice. In ride-hailing services, customer control involves comparing fares, selecting transportation categories, adjusting booking times, and accepting or rejecting displayed prices. Although consumers cannot directly influence algorithm-driven pricing, they can exercise control over their purchasing decisions by evaluating available alternatives. Greater perceived control may reduce uncertainty, strengthen decision-making confidence, and enable customers to select services that align with their preferences and financial expectations. However, perceived control depends on consumers' subjective sense of autonomy rather than merely the availability of service options. Therefore, perceived customer control is expected to positively influence perceived transaction value by enhancing purchasing flexibility, decision-making confidence, and perceived economic benefits.

2.5 Perceived Transaction Value

Perceived transaction value refers to consumers' evaluation of a transaction's attractiveness based on expected prices, perceived benefits, and financial sacrifices. Zeithaml (1988) emphasized that perceived value reflects the balance between benefits received and costs incurred, while Grewal et al. (1998) distinguished transaction value from acquisition value by highlighting the psychological benefits of obtaining a favorable deal. In ride-hailing services, consumers assess transaction value by comparing quoted fares with previous experiences, expected prices, and available alternatives. Transparent pricing information, perceived price fairness, and customer control may strengthen these evaluations by reducing uncertainty and improving purchasing decisions. Unlike customer satisfaction or purchase intention, perceived transaction value specifically reflects the economic attractiveness of an individual transaction. Therefore, this study conceptualizes perceived transaction value as consumers' assessment of whether ride-hailing fares represent reasonable, advantageous, and financially worthwhile transactions.

2.6 Hypothesis Development

Transparency in dynamic pricing may enhance perceived transaction value by improving customers' understanding of fare adjustments and reducing pricing uncertainty. Zeithaml (1988) emphasized that perceived value reflects the balance between benefits and sacrifices, while Bolton et al. (2003) highlighted the importance of reference prices and perceived business costs in pricing evaluations. Furthermore, Alderighi et al. (2022) demonstrated that price variability can negatively influence perceived fairness. Therefore, clear pricing information may strengthen customer confidence, facilitate informed decisions, and improve perceived transaction value. Accordingly, the following hypothesis is proposed:

H1: Transparency in dynamic pricing has a positive and significant influence on perceived transaction value among users of online transportation services in the Greater Jakarta Area, Indonesia.

Price fairness is expected to positively influence perceived transaction value by shaping consumers' judgments of pricing reasonableness and legitimacy. Xia et al. (2004) emphasized that fairness perceptions arise from comparisons between actual prices and reference standards, while Kahneman et al. (1986) demonstrated that perceived unfairness can reduce acceptance of price increases. Furthermore, Priester et al. (2020) highlighted that personalized dynamic pricing may negatively affect fairness evaluations. In ride-hailing services, fair pricing strengthens consumers' perceptions that transportation costs are justified by the benefits received, thereby enhancing perceived transaction value. Based on these arguments, the following hypothesis is developed:

H2: Price fairness has a positive and significant influence on perceived transaction value among users of online transportation services in the Greater Jakarta Area, Indonesia.

Perceived customer control is expected to positively influence perceived transaction value by enhancing consumers' autonomy and confidence in purchasing decisions. Hui and Bateson (1991) emphasized that perceived control shapes consumer experiences through choice and decision-making autonomy. In ride-hailing services, the ability to compare fares, select transportation options, and adjust booking decisions enables customers to choose transactions that align with their preferences and financial expectations. Greater control may reduce uncertainty and strengthen perceptions of transaction attractiveness. Therefore, the following hypothesis is proposed:

H3: Perceived customer control has a positive and significant influence on perceived transaction value among users of online transportation services in the Greater Jakarta Area, Indonesia.

Transparency in dynamic pricing, price fairness, and perceived customer control are expected to jointly influence perceived transaction value by reducing pricing uncertainty, strengthening perceptions of fairness, and enhancing purchasing autonomy. Zeithaml (1988) emphasized that perceived value reflects consumers' evaluations of benefits and sacrifices, while Grewal et al. (1998) highlighted the importance of reference-price comparisons and perceived economic advantages. Integrating these three dimensions provides a comprehensive understanding of how consumers evaluate transaction attractiveness in ride-hailing services. Therefore, the following hypothesis is proposed:

H4: Transparency in dynamic pricing, price fairness, and perceived customer control simultaneously have a significant influence on perceived transaction value among users of online transportation services in the Greater Jakarta Area, Indonesia.

METHODS

This study employed a quantitative approach with an explanatory and cross-sectional research design to examine the relationships between transparency in dynamic pricing (X1), price fairness (X2), perceived customer control (X3), and perceived transaction value (Y) among ride-hailing users in Greater Jakarta, Indonesia. Quantitative research enables systematic examination of relationships among measurable variables through statistical analysis (Creswell & Creswell, 2018). The study involved 200 respondents selected through non-probability purposive sampling. Participants were required to be at least 18 years old, reside in or regularly travel within Greater Jakarta, have used ride-hailing services within the preceding three months, and have experience reviewing fare information before confirming bookings. The sample size exceeded the minimum requirement of 74 respondents based on Green (1991) regression sample-size guideline.

Primary data were collected through a structured online questionnaire distributed via digital communication channels and social media. The instrument comprised demographic questions, transportation usage characteristics, and 20 measurement items representing four research variables, with five indicators for each construct. The indicators were adapted from established theoretical frameworks developed by Zeithaml (1988), Hui and Bateson (1991), Grewal et al. (1998), Bolton et al. (2003), and Xia et al. (2004). All items were measured using a five-point Likert scale ranging from strongly disagree (1) to strongly agree (5), consistent with Likert's (1932) measurement approach. Participation was voluntary, confidentiality was maintained, and responses were screened for completeness and eligibility before statistical analysis.

Data were analyzed using SPSS version 25 through descriptive statistics, instrument validity and reliability testing, classical assumption testing, and multiple linear regression analysis. Item validity was assessed using corrected item-total correlations with a minimum threshold of 0.30, while reliability was evaluated using Cronbach's alpha with an acceptable threshold of 0.70 (Cronbach, 1951; Nunnally & Bernstein, 1994).

RESULTS AND DISCUSSION

4.1 Respondent Characteristics

The demographic profile of the 200 respondents encompasses gender, age, educational attainment, occupation, frequency of online transportation use, and residential location.

Table 1. Demographic Characteristics of Respondents

Characteristics	Category	Frequency	Percentage (%)
Gender	Male	96	48.0
	Female	104	52.0
Age	18–25 years	68	34.0
	26–35 years	74	37.0
	36–45 years	38	19.0
	Above 45 years	20	10.0
Education	Senior High School	42	21.0
	Diploma	34	17.0
	Bachelor's Degree	104	52.0
	Postgraduate Degree	20	10.0
Occupation	Student	48	24.0
	Private Employee	86	43.0
	Entrepreneur	30	15.0
	Civil Servant	20	10.0
	Others	16	8.0
Frequency of Use	1–2 times per week	46	23.0
	3–4 times per week	72	36.0
	5–6 times per week	48	24.0
	Daily	34	17.0
Residential Location	Jakarta	82	41.0
	Bogor	28	14.0
	Depok	30	15.0
	Tangerang	34	17.0
	Bekasi	26	13.0

Table 1 presents the demographic characteristics of 200 ride-hailing users in Greater Jakarta. The respondents were predominantly female (52.0%), aged 26–35 years (37.0%), and held bachelor's degrees (52.0%). Regarding occupation, private employees represented the largest group (43.0%), followed by students (24.0%) and entrepreneurs (15.0%). Most respondents used ride-hailing services 3–4 times per week (36.0%), followed by 5–6 times per week (24.0%) and 1–2 times per week (23.0%). Geographically, the largest proportion resided in Jakarta (41.0%), followed by Tangerang (17.0%), Depok (15.0%), Bogor (14.0%), and Bekasi (13.0%). These findings indicate that the sample comprises users with diverse demographic backgrounds and transportation usage patterns, providing a relevant basis for examining consumer perceptions of dynamic pricing and transaction value.

4.2 Descriptive Statistical Analysis

Descriptive statistical analysis was performed on the distribution of the four research variables. The mean and standard deviation were calculated using composite scores derived from five questionnaire items per construct. A five-point Likert scale was employed, with values ranging from 1 (strongly disagree) to 5 (strongly agree).

Table 2. Descriptive Statistics of Research Variables

Variable	N	Minimum	Maximum	Mean	Std. Deviation
Transparency in Dynamic Pricing (X1)	200	1.00	5.00	3.061	1.091
Price Fairness (X2)	200	1.00	5.00	3.098	1.140
Perceived Customer Control (X3)	200	1.00	5.00	3.147	1.132
Perceived Transaction Value (Y)	200	1.00	5.00	3.119	1.151

Table 2 presents the descriptive statistics of the research variables based on 200 respondents. Perceived customer control (X3) recorded the highest mean score (3.147; SD = 1.132), followed by perceived transaction value (Y) (3.119; SD = 1.151), price fairness (X2) (3.098; SD = 1.140), and transparency in dynamic pricing (X1) (3.061; SD = 1.091). All variables exhibited minimum and maximum values of 1.00 and 5.00, respectively. The mean scores, which were slightly above the scale midpoint, indicate moderately positive consumer perceptions across the four constructs. Meanwhile, the standard deviations suggest considerable variation in respondents' evaluations. These findings indicate that perceived customer control received the most favorable assessment, whereas transparency in dynamic pricing had the lowest mean score, highlighting potential opportunities for improving fare information and pricing communication.

4.3 Validity and Reliability Testing

4.3.1 Instrument Validity Test

Instrument validity was evaluated through corrected item-total correlations to examine the consistency of individual questionnaire statements with their respective constructs. A corrected item-total correlation of at least 0.30 was adopted as the screening criterion for acceptable item discrimination.

Table 3. Corrected Item-Total Correlation Results

Variable	Indicator	Corrected Item-Total Correlation	Criterion	Result
Transparency in Dynamic Pricing	TDP1	0.755	0.300	Acceptable
	TDP2	0.737	0.300	Acceptable
	TDP3	0.786	0.300	Acceptable
	TDP4	0.724	0.300	Acceptable
	TDP5	0.774	0.300	Acceptable
Price Fairness	PF1	0.797	0.300	Acceptable
	PF2	0.806	0.300	Acceptable

	PF3	0.830	0.300	Acceptable
	PF4	0.760	0.300	Acceptable
	PF5	0.801	0.300	Acceptable
Perceived Customer Control	PCC1	0.788	0.300	Acceptable
	PCC2	0.732	0.300	Acceptable
	PCC3	0.795	0.300	Acceptable
	PCC4	0.774	0.300	Acceptable
	PCC5	0.791	0.300	Acceptable
Perceived Transaction Value	PTV1	0.799	0.300	Acceptable
	PTV2	0.733	0.300	Acceptable
	PTV3	0.797	0.300	Acceptable
	PTV4	0.775	0.300	Acceptable
	PTV5	0.786	0.300	Acceptable

Table 3 presents the corrected item-total correlation results for all 20 measurement indicators across the four research variables. The correlation coefficients ranged from 0.724 to 0.786 for transparency in dynamic pricing, 0.760 to 0.830 for price fairness, 0.732 to 0.795 for perceived customer control, and 0.733 to 0.799 for perceived transaction value. All indicators exceeded the minimum acceptance criterion of 0.300, demonstrating satisfactory item discrimination and internal consistency within their respective constructs. The highest correlation was recorded for PF3 (0.830), while TDP4 exhibited the lowest correlation (0.724). These findings indicate that all measurement items meet the established screening criterion and can be retained for subsequent reliability testing and statistical analysis.

4.3.2 Reliability Test

Reliability testing was performed using Cronbach's alpha to evaluate the internal consistency of the research instruments. A Cronbach's alpha coefficient of 0.70 or higher was used as the criterion for satisfactory internal consistency.

Table 4. Reliability Test Results

Variable	Number of Items	Cronbach's Alpha	Criterion	Interpretation
Transparency in Dynamic Pricing (X1)	5	0.902	≥ 0.70	Reliable
Price Fairness (X2)	5	0.923	≥ 0.70	Reliable
Perceived Customer Control (X3)	5	0.912	≥ 0.70	Reliable

Perceived Transaction Value (Y)	5	0.913	≥ 0.70	Reliable

Table 4 presents the reliability test results for the four research variables, each measured using five indicators. Cronbach's alpha coefficients were 0.902 for transparency in dynamic pricing (X1), 0.923 for price fairness (X2), 0.912 for perceived customer control (X3), and 0.913 for perceived transaction value (Y). All coefficients exceeded the minimum reliability criterion of 0.70, indicating excellent internal consistency across the measurement scales. Price fairness demonstrated the highest reliability coefficient (0.923), while transparency in dynamic pricing recorded the lowest (0.902), although both remained highly reliable. These findings confirm that all four constructs demonstrate satisfactory measurement reliability and are suitable for subsequent statistical analysis.

4.4 Classical Assumption Testing

4.4.1 Normality Test

The normality of regression residuals was assessed using the Shapiro–Wilk test, which yielded a statistic of 0.989 and a significance value of 0.141. Since the p-value exceeded the 0.05 significance threshold, the results indicated no statistically significant deviation from normality. Therefore, the residual normality assumption was considered satisfied, supporting the application of multiple linear regression analysis.

4.4.2 Multicollinearity Test

Multicollinearity was examined using variance inflation factor (VIF) and tolerance values. VIF values below 5 and tolerance values above 0.20 were used as practical indicators of acceptable levels of multicollinearity.

Table 5. Multicollinearity Test Results

Independent Variable	Tolerance	VIF	Interpretation
Transparency in Dynamic Pricing	0.843	1.186	No problematic multicollinearity
Price Fairness	0.849	1.178	No problematic multicollinearity
Perceived Customer Control	0.819	1.220	No problematic multicollinearity

Table 5 presents the multicollinearity test results for the three independent variables. Transparency in dynamic pricing recorded a tolerance value of 0.843 and a VIF of 1.186, price fairness showed a tolerance of 0.849 and a VIF of 1.178, while perceived customer control had a tolerance of 0.819 and a VIF of 1.220. All tolerance values exceeded 0.20, and all VIF values were below 5.00, indicating no problematic multicollinearity among the independent variables. Therefore, the multicollinearity assumption was satisfied, supporting the suitability of the variables for multiple linear regression analysis.

4.4.3 Heteroscedasticity Test

Heteroscedasticity was evaluated using the Breusch–Pagan test to determine whether the variance of regression residuals was systematically associated with the independent variables.

Table 6. Heteroscedasticity Test Results

Test	LM Statistic	Degrees of Freedom	Sig.	Interpretation
Breusch–Pagan	6.083	3	0.108	No statistically significant heteroscedasticity detected

Table 6 presents the heteroscedasticity test results using the Breusch–Pagan test, which yielded an LM statistic of 6.083 with 3 degrees of freedom and a significance value of 0.108. Since the p-value exceeded the 0.05 significance threshold, the results indicate no statistically significant evidence of heteroscedasticity. Therefore, the homoscedasticity assumption was considered satisfied, supporting the suitability of the regression model for subsequent statistical analysis.

4.5 Multiple Linear Regression Analysis

Multiple linear regression analysis was conducted to estimate the relationships between transparency in dynamic pricing, price fairness, perceived customer control, and perceived transaction value.

Table 7. Multiple Linear Regression Results

Variable	Unstandardized B	Std. Error	Standardized Beta	t-value	Sig.
Constant	0.109	0.223	—	0.490	0.624
Transparency in Dynamic Pricing (X1)	0.286	0.058	0.271	5.952	<0.001
Price Fairness (X2)	0.431	0.055	0.427	7.929	<0.001
Perceived Customer Control (X3)	0.254	0.056	0.249	5.596	<0.001

Table 7 presents the multiple linear regression results, indicating that all three independent variables have positive and statistically significant relationships with perceived transaction value ($p < 0.001$). Price fairness (X2) demonstrated the strongest standardized association ($\beta = 0.427$; $B = 0.431$; $t = 7.929$), followed by transparency in dynamic pricing (X1) ($\beta = 0.271$; $B = 0.286$; $t = 5.952$) and perceived customer control (X3) ($\beta = 0.249$; $B = 0.254$; $t = 5.596$). The regression constant was 0.109 ($p = 0.624$). These findings suggest that improvements in pricing fairness, transparency, and customer control are associated with higher perceived transaction value, with price fairness emerging as the strongest predictor in the model.

4.5.1 Simultaneous Significance Test (F-Test)

Table 8. ANOVA

Model	df	F-value	Sig.
Regression	3	69.790	<0.001
Residual	196	—	—

Total	199	—	—

Table 8 presents the ANOVA results for the multiple linear regression model, showing an F-value of 69.790 with 3 regression degrees of freedom and 196 residual degrees of freedom ($F(3, 196) = 69.790$, $p < 0.001$). Since the significance value is below 0.05, the regression model is statistically significant, indicating that transparency in dynamic pricing, price fairness, and perceived customer control collectively explain significant variation in perceived transaction value. Therefore, the simultaneous hypothesis (H4) is supported, confirming the overall explanatory significance of the proposed regression model.

4.5.2 Coefficient of Determination (R^2)

The model summary shows an R value of 0.711, an R-squared of 0.516, an adjusted R-squared of 0.498, and a standard error of the estimate of 0.809. The reported R-squared value indicates that 51.6% of the variation in perceived transaction value is attributed to dynamic pricing transparency, price fairness, and perceived customer control. Factors outside the model and unexplained variation account for the remaining 48.4%. This model explains 49.8% of the variance after adjusting for the number of predictors and sample size, as indicated by the adjusted R-squared value of 0.498. The results indicate that the proposed variables contribute to explaining the perceived transaction value of ride-hailing service users in the Greater Jakarta area.

4.6 Discussion

The findings demonstrate that transparency in dynamic pricing has a positive and statistically significant relationship with perceived transaction value among ride-hailing users in Greater Jakarta ($\beta = 0.271$; $p < 0.001$), supporting H1. This result suggests that clear fare information, understandable pricing adjustments, and transparent additional charges contribute to more favorable transaction evaluations. Consistent with Zeithaml (1988) perceived value theory, transparent pricing helps consumers assess the balance between expected benefits and financial sacrifices. The findings also align with Bolton et al. (2003), who emphasized the importance of pricing information and reference prices in shaping consumer evaluations. Furthermore, Alderighi et al. (2022) demonstrated that dynamic price variations can negatively affect fairness perceptions, particularly when pricing differences are difficult to justify. These findings indicate that pricing transparency plays an important role in reducing uncertainty and strengthening consumers' confidence in ride-hailing transactions.

Price fairness emerged as the strongest predictor of perceived transaction value ($\beta = 0.427$; $p < 0.001$), supporting H2. This finding indicates that consumers place considerable importance on whether transportation fares are reasonable, justified, and consistent with their expectations. Xia et al. (2004) explained that fairness perceptions develop through comparisons between actual prices and reference standards, while Kahneman et al. (1986) emphasized that perceived unfairness can limit consumers' acceptance of pricing decisions. The results are also consistent with Priester et al. (2020), who identified fairness concerns associated with personalized dynamic pricing, and Alderighi et al. (2022), who highlighted the influence of price variations on fairness evaluations. In the context of Greater Jakarta, these findings suggest that consumers may accept fluctuating transportation fares when price adjustments are perceived as legitimate and proportionate to service benefits. Therefore, maintaining perceived pricing fairness is particularly important for strengthening the economic attractiveness of ride-hailing transactions.

Perceived customer control also demonstrated a positive and significant relationship with perceived transaction value ($\beta = 0.249$; $p < 0.001$), supporting H3. This result indicates that consumers

who perceive greater autonomy in comparing fares, selecting transportation categories, and adjusting booking decisions tend to evaluate transactions more favorably. Hui and Bateson (1991) established that perceived control influences consumer responses by enhancing autonomy and meaningful choice during service encounters. Similarly, Grewal et al. (1998) emphasized the importance of favorable transaction opportunities and reference-price comparisons in shaping transaction value. In ride-hailing services, the ability to compare alternatives and reject unfavorable fares may reduce consumers' perceived dependence on algorithm-driven pricing. These findings extend the relevance of perceived control theory to digital transportation transactions by suggesting that consumer autonomy contributes to transaction value beyond monetary considerations. Consequently, ride-hailing platforms should provide accessible comparison features and flexible booking options to strengthen customers' decision-making confidence.

The simultaneous regression results indicate that transparency in dynamic pricing, price fairness, and perceived customer control collectively demonstrate a statistically significant relationship with perceived transaction value ($F = 69.790$; $p < 0.001$), supporting H4. The reported coefficient of determination ($R^2 = 0.516$) suggests that the three variables explain approximately 51.6% of the variation in perceived transaction value, although the model summary requires numerical verification. These findings support the integration of perceived value theory (Zeithaml, 1988), price fairness theory (Xia et al., 2004), and perceived control theory (Hui & Bateson, 1991) in explaining consumers' transaction evaluations. Moreover, the findings complement Grewal et al. (1998), who highlighted the importance of perceived economic advantages, and extend the discussion of dynamic pricing in Indonesian ride-hailing services examined by Pramudita (2025). The study contributes to the literature by positioning perceived transaction value as a distinct outcome of informational transparency, pricing legitimacy, and purchasing autonomy. Practically, ride-hailing platforms should prioritize fair pricing mechanisms, transparent fare communication, and flexible service choices to enhance consumers' transaction evaluations. However, the cross-sectional design and purposive sampling limit causal interpretation and broader generalizability, suggesting that future research should employ longitudinal approaches and examine additional factors influencing transaction value.

CONCLUSION

This study concludes that transparency in dynamic pricing, price fairness, and perceived customer control are positively and significantly associated with perceived transaction value among ride-hailing users in Greater Jakarta, Indonesia. Price fairness emerged as the strongest predictor, indicating that consumers prioritize the reasonableness and legitimacy of transportation fares when evaluating transaction attractiveness. Pricing transparency contributes to favorable transaction evaluations by reducing uncertainty and improving understanding of fare adjustments, while perceived customer control strengthens consumers' ability to make informed and flexible purchasing decisions. Collectively, the three variables demonstrate significant explanatory power, highlighting the complementary roles of pricing information, fairness, and autonomy in digital transportation transactions. Theoretically, this study extends perceived value research by integrating these dimensions into a unified framework. Practically, ride-hailing platforms should prioritize transparent fare communication, fair pricing mechanisms, and flexible service options to enhance perceived transaction value. However, causal interpretations and generalizations of the study's findings are limited due to the cross-sectional study design and purposive sampling. To gain a better understanding of consumer transaction evaluations, future research should consider a longitudinal

design, probability-based sampling, and additional variables such as trust in the platform, service quality, and price sensitivity.

REFERENCES

Alderighi, M., Nava, C. R., Calabrese, M., Christille, J.-M., & Salvemini, C. B. (2022). Consumer perception of price fairness and dynamic pricing: Evidence from Booking.com. *Journal of Business Research*, *145*, 769–783. https://doi.org/10.1016/j.jbusres.2022.03.017

Bolton, L. E., Warlop, L., & Alba, J. W. (2003). Consumer perceptions of price (un)fairness. *Journal of Consumer Research*, *29*(4), 474–491. https://doi.org/10.1086/346244

Creswell, J. W., & Creswell, J. D. (2018). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches* (5th ed.). SAGE Publications.

Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*, *16*(3), 297–334. https://doi.org/10.1007/BF02310555

Green, S. B. (1991). How many subjects does it take to do a regression analysis? *Multivariate Behavioral Research*, *26*(3), 499–510. https://doi.org/10.1207/s15327906mbr2603_7

Grewal, D., Monroe, K. B., & Krishnan, R. (1998). The effects of price-comparison advertising on buyers' perceptions of acquisition value, transaction value, and behavioral intentions. *Journal of Marketing*, *62*(2), 46–59. https://doi.org/10.1177/002224299806200204

Hui, M. K., & Bateson, J. E. G. (1991). Perceived control and the effects of crowding and consumer choice on the service experience. *Journal of Consumer Research*, *18*(2), 174–184. https://doi.org/10.1086/209250

Kahneman, D., Knetsch, J. L., & Thaler, R. H. (1986). Fairness as a Constraint on Profit Seeking: Entitlements in the Market. *American Economic Review*, *76*(4), 728–741.

Kementerian Perhubungan Republik Indonesia. (2026). *Pemerintah terbitkan Perpres No. 27 Tahun 2026, Menhub Dudy: Berikan kepastian hukum pengemudi ojek online*. Kementerian Perhubungan Republik Indonesia. https://www.dephub.go.id/index.php/post/read/pemerintah-terbitkan-perpres-no.-27-tahun-2026%2C-menhub-dudy--berikan-kepastian-hukum-pengemudi-ojek-online

Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric Theory* (3rd ed.). McGraw-Hill.

Pramudita, A. S. (2025). Examining the influence of dynamic pricing on customer intention to purchase ride-hailing services. *Jurnal Logistik Bisnis*, *15*(2), 90–98. https://doi.org/10.46369/logistik.v15i2.4613

Priester, A., Robbert, T., & Roth, S. (2020). A special price just for you: Effects of personalized dynamic pricing on consumer fairness perceptions. *Journal of Revenue and Pricing Management*, *19*(2), 99–112. https://doi.org/10.1057/s41272-019-00224-3

Xia, L., Monroe, K. B., & Cox, J. L. (2004). The price is unfair! A conceptual framework of price fairness perceptions. *Journal of Marketing*, *68*(4), 1–15. https://doi.org/10.1509/jmkg.68.4.1.42733

Zeithaml, V. A. (1988). Consumer perceptions of price, quality, and value: A means-end model and synthesis of evidence. *Journal of Marketing*, *52*(3), 2–22. https://doi.org/10.1177/002224298805200302