

The key to adoption: analyzing the critical role of infrastructure and risk perception in rent-to-own schemes for two wheeled electric Vehicle in Indonesia

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Abstract

This research presents a quantitative empirical analysis of factors influencing online motorcycle taxi drivers intention to adopt a rent-to-own electric motorcycle scheme in Indonesia. This study using cross-sectional survey of 100 respondents and multiple linear regression analysis, this study identifies key determination of adoption intention. According to a multiple linear regression analysis of ten independent variables, only two significant variables the availability of charging infrastructure and the damage fine system were found to be influential. Demographic background and rental costs were additional factors that were not significant. These results indicate that the program's success depends on the provision of adequate infrastructure and the implementation of a fair and transparent fine system. Increasing perceived long-term value and reducing perceived risk are two factors critical to the program's success. These recommendations are expected to increase interest in rent-to-own electric two-wheeled vehicles in Indonesia.

Keywords: Electric Vehicle; Rent to Own; Linear Regression; Penalty System

1. Introduction

The transportation sector contributes 27% of total greenhouse gas (GHG) emissions, and is a major source of air pollution in urban areas, particularly Greater Jakarta (Jabodetabek)[1]. The large GHG contribution is related to the dominance of more than 125 million (82.3% of the total number of motorized vehicles) motorcycles [2], which are also the primary source of income for millions of online drivers. The Indonesian Transportation Application Association (2023) revealed that 4 million Indonesians work as online motorcycle taxi drivers (OJOL), so electrification of two-wheeled vehicles will have the potential to reduce GHG levels.

PT.XYZ is one of the online motorcycle taxi giants in Indonesia. PT.XYZ has a zero emission commitment. However, the transition of its fleet faces major obstacles. Of the total of approximately 2 million active drivers, only 40,000 (2%) use electric motorcycles, while more than 1.9 million still rely on internal combustion engine motorcycles (ICE) which continue to contribute to emissions [3]. The main obstacle is the initial price of electric motorcycles which is still 25-40% more expensive [4]. Converting ICE motorcycles to EVs will contribute to CO₂e reduction, this is related to IESR data (2023) regarding each gasoline driver traveling an average of 80-100 km/day, producing emissions of around 0.8-1 ton CO₂e/year [4]. The main obstacle to the transition is the initial price of electric motorcycles, which is still 35-45% more expensive than conventional 150cc motorcycles, with an average price of IDR 28 million versus IDR 20 million [4].

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One of PT.XYZ's efforts to accelerate EV adoption is the Rent-to-Own (RTO) scheme. RTO, or rent-to-own, is a solution to the limited capital available to OJOL drivers in purchasing electric motorcycles. The RTO model increases the likelihood of drivers switching through daily installments aligned with the driver-partner's daily income. This RTO scheme indirectly contributes to reducing emissions in the transportation sector. However, the implementation of RTO for electric motorcycles among drivers is still very limited and suboptimal. This is supported by a trial by an EV startup that targeted 1,000 RTO participants, but the actual RTO program only had 127 participants [5]. The low number of participants interested in participating in the RTO program is due to the final cost, which is 15-20% higher than an outright purchase, stringent warranty requirements, and concerns about battery technology. Therefore, this study critically analyzes an effective and acceptable RTO strategy as a catalyst for electric motorcycle adoption among PT.XYZ drivers. This study also examines the design of a business model that can overcome the interest barrier and contribute to reducing transportation sector emissions by up to 1.6 million tons of CO₂e/year if 20% of PT.XYZ drivers switch to electric motorbikes (author's estimate based on average emission data).

2. Overview References

2.1. Financial Barriers to Two Wheels Electric Vehicle Adoption

Based on previous studies, barriers to electric vehicle (two-wheeled EV) adoption in developing countries are heavily influenced by income levels. This statement aligns with Indonesia's situation as a developing country with a majority of its population having a lower-middle income. Studies by IESR (2023) and [6] found that the 25-40% price premium for electric vehicles compared to conventional vehicles constitutes a significant structural barrier for online drivers. Another study by [7] confirmed that despite lower operational costs, high upfront costs remain a critical entry barrier for gig workers with limited access to formal credit. These findings form the basis for justifying the need for alternative financing models.

RTOs are an inclusive financial tool that has been tested in various situations. Gómez & Ríos (2021) provide a theoretical explanation of the potential of RTOs to provide access to asset ownership to credit-constrained groups. [8] suggest specific benefits for the green transportation industry. In Kenya, an RTO scheme for e-bikes lowers entry barriers to increase adoption. However, an empirical study in Indonesia by [5] shows that the pilot program faced numerous implementation challenges. Among these were low participation (12.7%) and an increase in the total cost of ownership (TCO) of between 15 and 25 percent due to an uncompetitive fee structure. [9] conducted a feasibility analysis that emphasized the importance of creating an installment structure that aligns with drivers' cash flow.

2.2. Innovative Financing Model: Rent-to-Own (RTO) Scheme

RTOs are an inclusive financial tool that has been tested in various situations. Gómez & Ríos (2021) provide a theoretical explanation of the potential of RTOs to provide access to asset ownership to credit-constrained groups. [8] suggest specific benefits for the green transportation industry. In Kenya, an RTO scheme for e-bikes lowers entry barriers to increase adoption. However, an empirical study in Indonesia by [5] shows that the pilot program faced numerous implementation challenges. Among these were low participation (12.7%) and an increase in the total cost of ownership (TCO) of between 15 and 25 percent due to an uncompetitive fee structure. [9] conducted a feasibility analysis that emphasized the importance of creating an installment structure that aligns with drivers' cash flow.

2.3. The Role of Corporations and Platforms in the Green Transition

In a company's sustainability strategy, its value chain ecosystem is increasingly interconnected. PT. XYZ [10] set a strategic goal to accelerate the transformation of its partner fleet to achieve its net-zero emissions target. This method is based on stakeholder theory [11]. Lee and Zainal [12] expand on this idea by emphasizing the function of digital platforms as orchestrators that can bring together infrastructure, financing, and incentives within a unified ecosystem, increasing the effectiveness of interventions compared to isolated plans.

2.4. Research Gaps and Study Position

Based on the literature review, this study aims to integrate and fill three key gaps that remain fragmented in the literature. First, it addresses the empirical gap by deeply investigating the root causes of low participation in Rent-to-Own (RTO) programs from the perspective of drivers as end-users, going beyond general identification to a deeper understanding of their preferences and pain points [5]. Second, it addresses the design gap by developing and conceptually testing an integrated RTO model that strategically combines flexible financing with platform-based incentives (priority queue, bonus trips), thereby transforming RTO from a mere debt product into a productivity-enhancing package that enhances the value proposition [12]. Third, it closes the context gap by positioning this

integrated model as a direct strategic instrument to achieve PT.XYZ's corporate sustainability targets, while simultaneously quantifying its quantitative contribution to the emission reduction pathway towards net-zero emissions by 2040 [10].

With thus, this study not only examines the technical-financial aspects of RTOs, but also offers a coherent analytical framework that connects micro-user insights, platform design innovations, and macro-strategic corporate objectives. This holistic approach is expected to yield more applicable and impactful recommendations for accelerating the energy transition in Indonesia's platform-based transportation sector.

3. Material and methods

3.1. Research Methods

- Research Setting**
 This research is conducted within the context of Company XYZ, a major ride-hailing platform in Indonesia that offers a rent-to-own (RTO) electric two motorcycle program. The company serves as the empirical setting to examine drivers adoption intention toward the RTO scheme. This study was conducted from November to December 2025.
- Research Design**
 This research employs a quantitative empirical research design using a cross-sectional survey approach. It aims to examine the factors influencing online motorcycle taxi drivers intention to adopt a rent-to-own electric two wheeled vehicle scheme.
- Research Model**
 This research adopt a hypothesis-driven approach by examining the causal relationships between independent variables (BLE-ROD) and the dependent variable (RTI: Rent-to-Own Intention) using multiple linear regression. This research model combines previous research [13]; [14]; [15]; [16]; [17]; [18]; [19]; [20]; [21]; [22]. Previous research focused on factors influencing consumers to rent electric vehicles, while research by [23] and [24] focused on factors influencing the rent-to-buy strategy of electric two-wheeled vehicles. Based on previous research, this research model will examine factors influencing the rent-to-buy strategy of electric vehicles in Indonesia. The research model is as shown in Figure 1.

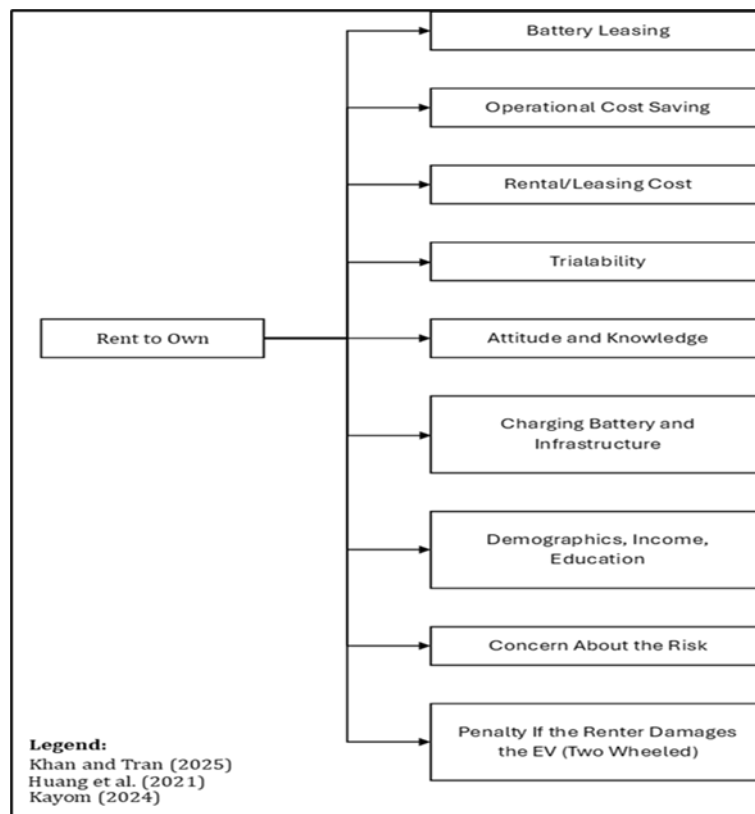


Figure 1 Research Model

- Research Variables

The variables in this study are the results of a literature review of previous research. A summary of the variables used in this study is shown in Table 1.

Table 1 Summary Variables Study

Factor Groups	Code	Factors Variables /	Operational Definition	Research Question	Reference
Model & Business Preferences	RTI	Rent to Own Intention	Consumer preferences differ between rental/leasing and outright purchase models; leasing and operating costs are factors.	I am interested in joining a rent-to-own program for an electric motorcycle	[25]
	BLE	Battery-leasing	Battery leasing is seen as a substitute for EV purchases; influencing model choice decisions.	Battery leasing makes rent-to-own programs more attractive to me	[25]
Costs & Economics	OCS	Operational cost savings	EV (vs ICE) operating cost savings influence EV model choice.	Lower operational costs of electric motorcycles encourage me to join rent-to-own programs	[25]
	LRC	Leasing / Rental cost	The amount of rental/leasing costs influences customer preferences for rent-to-own EVs.	The monthly rental cost is affordable for me	[25]
Perception & Experience	TRL	Trialability	Leasing an EV can increase confidence and the likelihood of purchasing an EV in the future because it reduces the risk of buying outright.	Being able to try EV first make me more interest to rent to own program	[24]
	ATK	Attitude & Knowledge	Positive attitudes towards EVs and knowledge about EVs increase adoption for both leasing and purchasing.	i have positive attitude toward and good knowledge of EV	[23]
Technical & Infrastructure	CBI	Charging & Battery Infrastructure	Availability of charging infrastructure and battery range are barriers to EV adoption.	Availability of charging battery infrastructure affect my interest in Rent to own program	[23]
Individual Characteristics	DNE	Demographics, Income, Education	Consumer demographic and socio-economic factors influence the choice between renting, leasing, or purchasing an EV.	Demographics, income and education level allow me to understand and afford to rent to own program	[23]
Damage Penalty	PRD	Penalty if renter damages EV	Penalties/fees if the renter damages the motorbike/EV can increase the perceived risk of renting, thereby reducing rent-to-buy interest and encouraging outright purchases in the future.	Damage penalty policies make me trust rent to own program	[23]

Factor Groups	Code	Factors Variables /	Operational Definition	Research Question	Reference
Risk Perception / Penalty	ROD	Concerns about the risk of damage	Concerns about the risk and liability of damage costs can influence the decision to rent vs. buy.	i worry about being responsible for damage cost if i joint rent to own program	[23]

- Population, Samples, and Research Instruments

The population in this study was all two-wheeled vehicle drivers registered on the online transportation platform (PT.XYZ) in Indonesia. The sampling technique used purposive sampling, with the following respondent criteria:

Driver active online platform for at least 1 year

- Using vehicle private two -wheeled vehicle
- Domiciled in the Bekasi and East Jakarta areas
- Willing become respondents

Based on the calculations made use Slovin's formula with level tolerance 10% error and assumptions that There are 10,000 PT.XYZ two- wheeled drivers in Bekasi City and East Jakarta, obtained size minimum sample of 100 respondents. Number This considered adequate For represent population research and in accordance with characteristic exploratory study. Data collection instruments in research This is Questionnaire. As for the scale assessment used is scale Likert 1 (very much disagree) agree) and scale Likert 5 (strongly agree).

- Data processing

Data processing in research This use technique linear regression. Reasons for using analysis linear regression in research This is linear regression is capable explain influence variables independent with variables dependent, and capable explain direction and magnitude influence variables so that technique analysis This in harmony with objective study.

4. Results and discussion

4.1. Instrument Testing: Reliability Analysis

Based on results SPSS 31 software calculation, value cronbatch alpha on testing reliability of 0.712, The calculation result from reliability testing > 0.7, this calculation show that the questionnaire data is reliable for testing. The output of reliability analysis is as shown in Table 2.

Table 2 Reliability Analysis

Reliability Statistics	
Cronbach's Alpha	N of Items
0.712	10

4.2. Instrument Testing: Validity Analysis

Validity testing aims to determine whether each question item is valid in measuring the research construct. The results of the SPSS 31 software calculations show corrected item-total correlation value > 0.179, An item is declared valid if the corrected item-total correlation (r-count) is greater than the r-table value. With a sample size of 100 respondents and a significance level of 5% ($\alpha = 0.05$), the r-table value is 0.179. This show that the collected questionnaire data is valid for used. Output validity analysis as in Table 3.

Table 3 Validity Analysis

	Corrected Item-Total Correlation Calculation result	Standard	Result
RTI	0.183	0.179	Valid
BLE	0.186	0.179	Valid
OCS	0.232	0.179	Valid
LRC	0.220	0.179	Valid
TRL	0.187	0.179	Valid
ATK	0.183	0.179	Valid
CBI	0.237	0.179	Valid
DNE	0.185	0.179	Valid
PRD	0.223	0.179	Valid
ROD	0.495	0.179	Valid

4.3. Descriptive Statistics Respondent

Descriptive analysis was conducted to provide an overview of the characteristics of respondents' answers to each research variable. Table 4 presents the minimum, maximum, mean, and standard deviation values for each variable. The mean value indicates the average tendency of respondents' answers, while the standard deviation shows the variation in responses.

Table 4 Descriptive Statistics of Respondent Scoring

Code	Variable	N	Minimum	Maximum	Mean	Std. Deviation
BLE	Battery Leasing	120	1	5	3.4167	0.85586
OCS	Operational Cost Saving	120	1	5	3.5167	0.70987
LRC	Leasing / Rental Cost	120	1	5	3.2667	0.98504
TRL	Trialability	120	2	5	3.6	0.66611
ATK	Attitude and Knowledge	120	2	5	3.8833	0.66337
CBI	Charging and Battery Infrastructure	120	3	5	3.9417	0.63901
DNE	Demographics, Income, and Education	120	1	5	3.1333	0.8395
ROD	Penalty If Renter Damages EV	120	1	5	3.1083	0.77564
PRD	Concern About Risk of Damage	120	3	5	3.7917	0.62033
Rent_to_Own	Rent to Own	120	3	5	4.3167	0.64799

4.4. Linear Regression Results

4.4.1. Data Normality Test

The normality test aims to determine whether the residuals in the regression model are normally distributed. The Kolmogorov-Smirnov was used with a significance level of 5% ($\alpha = 0.05$). The hypothesis for the normality test is:

- H_0 : Residuals are normally distributed
- H_1 : Residuals are not normally distributed

The results of the data normality test are as in Table 5.

Table 5 Results of Normality Test

Kolmogorov-Smirnov Test		
		Unstandardized Residual
N		120
Normal Parameters a,b	Mean	0.0000000
	Std. Deviation	0.53527389
Test Statistic		0.047
Asymp. Sig. (2-tailed)c		0.200 ^d

Based on Table 5, Kolmogorov-Smirnov significant value showed by Asymp.Sig value. The Kolmogorov-Smirnov significance value is >.005. This indicates that the residuals are normally distributed (H1 is rejected). The result is normal, so further analysis can proceed.

4.4.2. Data Multicollinearity Test

The multicollinearity test aims to determine whether there is a high correlation between independent variables in the regression model. A good regression model should have no multicollinearity, indicated by Tolerance values > 0.1 and Variance Inflation Factor (VIF) values < 10. Based on The results of the Multicollinearity test in Table 6., the Tolerance value > 0.1 and the VIF value <10. The results of the Tolerance and VIF calculations show that free data requirements from multicollinearity fulfilled. Table 6 show the calculation result

Table 6 Results of Multicollinearity Test

Coefficients ^a								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	BLE	0.166	0.062	0.219	2.666	0.009	0.921	1.085
	OCS	0.074	0.075	0.081	0.982	0.328	0.919	1.088
	LRC	0.11	0.053	0.168	2.061	0.042	0.939	1.065
	TRL	0.103	0.078	0.106	1.314	0.192	0.958	1.043
	ATK	0.2	0.078	0.204	2.562	0.012	0.975	1.025
	CBI	0.379	0.083	0.373	4.561	<0.001	0.926	1.08
	DNE	0.047	0.064	0.06	0.727	0.469	0.901	1.11
	ROD	0.149	0.068	0.179	2.179	0.031	0.924	1.082
	PRD	0.172	0.084	0.165	2.048	0.043	0.959	1.043
	BLE	0.166	0.062	0.219	2.666	0.009	0.921	1.085

a. Dependent Variable: RTI

The results in Table 6 show that all independent variables have Tolerance values > 0.1 (ranging from 0.901 to 0.975) and VIF values < 10 (ranging from 1.025 to 1.088). Thus, it can be concluded that there is no multicollinearity among the independent variables in the regression model.

4.4.3. Heteroscedasticity Test

The heteroscedasticity test aims to determine whether there is an inequality of residual variances in the regression model. A good regression model is homoscedastic, meaning the residual variance is constant. The Glejser test was used by regressing the absolute residuals on the independent variables. Heteroscedasticity is absent if the significance value

of each independent variable is > 0.05. Heteroscedasticity Test Results seen in the sig value of Table 7. The test results show that all variables have sig value > 0.05, so that heteroscedasticity test requirements fulfilled.

Table 7 Results of the Heteroscedasticity test

Coefficients ^a								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	BLE	0.166	0.062	0.219	2.666	0.009	0.921	1.085
	OCS	0.074	0.075	0.081	0.982	0.328	0.919	1.088
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	BLE	0.166	0.062	0.219	2.666	0.009	0.921	1.085

a. Dependent Variable: Unstandardized Residual

4.5. Based on calculation result from Table 7 show the residual variance is constant (homoscedatic)

4.5.1. Autocorrelation Test

The purpose of the autocorrelation test is to ascertain whether residuals in period t and residuals in period t-1 are correlated. One of the traditional presumptions in multiple regression analysis is that there is no autocorrelation. The DW value, as determined by the Durbin-Watson test, is 2.166. Critical values are roughly dL = 1.54 and dU ≈ 1.87, based on a sample size of 120 respondents and 9 independent variables at a 5% significance level. It may be inferred that there is no autocorrelation in the regression model because the DW value (2.166) falls between dU and (4 - dU). The autocorrelation assumption is thus satisfied.

Table 8 Autocorrelation Test Results

Model Summary ^b					
Model	R	R Square	Adjusted R Square	Standard Error of the Estimate	Durbin-Watson
1	0.564 ^a	0.318	0.262	0.55674	2.166
a. Predictors: (Constant), BLE, OCS, LRC, TRL, ATK, CBI, DNE, PRD, INT					
b. Dependent Variable: ROD					

4.5.2. Linear Regression Test

Multiple linear regression analysis was conducted to determine the influence of the nine independent variables (BLE, OCS, LRC, TRL, ATK, CBI, DNE, PRD, INT) on the dependent variable, Interest in Rent to Own (ROD).

F-Test

The F-test determines whether all independent variables simultaneously have a significant influence on the dependent variable. The hypotheses are:

- H_0 : BLE, OCS, LRC, TRL, ATK, CBI, DNE, PRD, INT simultaneously have no significant effect on RTI
- H_1 : BLE, OCS, LRC, TRL, ATK, CBI, DNE, PRD, INT simultaneously have a significant effect on RTI

Table 9 F-Test calculation result

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	15.871	9	1.763	5.689	<0.001 ^b
	Residual	34.096	110	0.310		
	Total	49.967	119			
a. Dependent Variable: Rent_to_Own						
b. Predictors: (Constant), PRD, ATK, CBI, TRL, ROD, LRC, OCS, BLE, DNE						

Based on Table 9, the calculated F-value is 5.689 with a significance value of <.001 (< 0.05). This indicates that H_0 is rejected and H_1 is accepted. Thus, it can be concluded that the variables BLE, OCS, LRC, TRL, ATK, CBI, DNE, PRD, and INT simultaneously have a significant effect on Interest in Rent to own

4.5.3. Coefficient of Determination (R^2)

The coefficient of determination (R^2) measures how well the independent variables explain the variation in the dependent variable. Table 10 showed calculation result of coefficient determination.

Table 10 Coefficient of Determination

Model	R	R Square	Adjusted R square	Std. Error of the Estimate
1	0.564	0.318	0.262	0.55674

Based on Table 10, the R Square value is 0.318, which means that 31.8% of the variation in Interest in Rent to own program can be explained by the nine independent variables in the model. The remaining 69.2 % is explained by other variables not examined in this study.

4.5.4. T-test & Hypotesis Testing

The t-test determines which independent variables partially have a significant influence on the dependent variable. The criteria for acceptance or rejection of the hypothesis are based on a significance value < 0.05. Based on Coefficients table, analysis multiple linear regression done For know influence variables BLE-PRD against variables dependent ROD. Equation linear regression as in eq 1.

Equation 1.

$$RTI = -0.768 + 0,166BLE + 0,074OCS + 0,110LRC + 0.103TRL + 0,200ATK + 0,379CBI + 0.047DNE + 0,149ROD - 0,172PRD \dots EQ1$$

Analysis results regression furthermore t-test was conducted for see significant variable influence partial. Variable is stated as significant if t value < 0.05. Table 11. is T test results.

Table 11 T-Test Results

Variables		Sig.	Conclusion
BLE	Battery Leasing	0.009	Significant*
OCS	Operational Cost Saving	0.328	Not Significant
LRC	Leasing/Rental Cost	0.042	Significant*

TRL	Trialability	0.192	Not Significant
ATK	Attitude and Knowledge	0.012	Significant*
CBI	Charging and Battery Infrastructure	<0.001	Significant*
DNE	Demographics, Income, and Education	0.469	Not Significant
PRD	Penalty If Renter Damage EV	0.031	Significant*
ROD	Concern Risk Damage	0.043	Significant*

*Sig < 0.05

The interpretation of the t-test results in Table 10 is as follows:

- H1: Battery Leasing (BLE) → Interest In Rent To Own Program (RTI)

· Significance value = 0.009 < 0.05. H1 is accepted. Battery Leasing have a significant effect on interest in Rent To Own Program (RTI)

- 2. H2: Operational Cost Saving (OCS) → RTI

· Significance value = 0.328 > 0.05. H2 is rejected. Operational Cost Saving does not have a significant effect on interest in joining Rent To Own Program (RTI)

- 3. H3: Leasing/Rental Cost (LRC) → RTI

· Significance value = 0.042 > 0.05. H3 is accepted. Leasing/Rental Cost have a significant effect on interest in joining Rent To Own Program (RTI)

- 4. H4: Trialability (TRL) → RTI

· Significance value = 0.192 > 0.05. H4 is rejected. Trialability does not have a significant effect on interest in joining Rent To Own Program (RTI)

- 5. H5: Attitude and Knowledge (ATK) → RTI

· Significance value = 0.012 < 0.05. H5 is accepted.. Attitude and Knowledge have a significant effect on interest in joining Rent To Own Program (RTI)

- 6. H6: Charging and Battery Infrastructure (CBI) → RTI

· Significance value = 0.001 < 0.05, with a positive coefficient (B = 0.3791). H6 is accepted. Charging and Battery Infrastructure has a positive and significant effect on interest in joining Rent To Own Program (RTI). The better the charging and battery infrastructure, the higher the interest in joining RTI.

- 7. H7: Demographics, Income, and Education (DNE) → RTI

· Significance value = 0.469 > 0.05. H7 is rejected. Demographics, Income, and Education do not have a significant effect on interest in joining Rent To Own Program (RTI)

- 8. H8: Penalty If Renter Damages EV (PRD) → RTI

· Significance value = 0.031 < 0.05, with a positive coefficient (B = 0.172). H8 is accepted. Penalty If Renter Damages EV has a positive and significant effect on interest in joining Rent To Own Program (RTI). Clear penalty regulations increase user interest.

- 9. H9: Concern About Risk of Damage (ROD) → RTI

• Significance value = 0.043 > 0.05. H9 is accepted.. Concern About Risk of Damage have a significant effect on interest in joining Rent To Own Program (RTI).

5. Discussion

This study found that only two factors significantly influence interest in joining rent-to-own programs for electric motorcycles: Charging Infrastructure and Penalty for Late Payment.

5.1. Battery Leasing (H1 Accepted)

The Rent-to-Own choice is significantly impacted by battery leasing. By isolating the battery from the car price, this plan lowers the initial cost of buying electric automobiles. Additionally, it reduces worries about battery deterioration. Consequently, this approach makes consumers more inclined to embrace the Rent-to-Own program.

5.2. Leasing/Rental Cost (H3 Accepted)

Rent-to-Own decisions are heavily influenced by leasing or renting costs. Customers are more likely to select the plan when rental prices are competitive and reasonably priced. One of the biggest factors influencing adoption decisions is still money.

5.3. Attitude and Knowledge (H5 Accepted)

Rent-to-own decisions are heavily influenced by attitudes and understanding regarding electric automobiles. Adoption is more likely when people have a more optimistic outlook and are more knowledgeable about EV technology. When it comes to customer decision-making, psychological preparedness is crucial.

5.4. Charging Infrastructure (H6 Accepted)

Charging infrastructure has a positive and significant effect ($p=0.002$; $\beta=0.269$). This is consistent with the Technology Acceptance Model (TAM), which holds that adoption is influenced by perceived ease of use. Users of rent-to-own schemes require reassurance that charging their electric motorcycles is simple. The initiative loses its viability in the absence of sufficient charging outlets. According to this research, before anticipating broad adoption, suppliers should make investments in charging infrastructure.

5.5. Penalty for Late Payment (H8 Accepted)

Late payment penalties have a significant and favorable impact ($p<0.001$; $\beta=0.483$). It's interesting to note that explicit fines raise interest rates rather than lower them. According to the Uncertainty Reduction Theory, using clear language fosters trust and lessens ambiguity. Users feel more comfortable signing up for the program when they are aware of the consequences of making a late payment. Uncertain or imprecise language breeds mistrust and diminishes attention.

5.6. Concern risk damage (H9 Accepted)

Concern about potential vehicle damage significantly influences adoption decisions. Higher perceived risk affects consumer willingness to participate in the scheme. Risk perception is therefore an important determinant in EV adoption behavior.

5.7. Non-Significant Factors

Because their significance values are greater than 0.05, the results show that Trialability (TRL) and Operational Cost Saving (OCS) have no discernible impact on the Rent-to-Own choice. This implies that when choosing to implement the plan, respondents might not give long-term operational savings any thought. Rather, perceived risks and upfront expenses seem to be more important. Furthermore, the chance to test electric cars before committing has no discernible impact on decision-making, perhaps because respondents already depend more on financial reasons, social influence, or available information than on firsthand product experience.

Similarly, the Rent-to-Own option is not greatly influenced by Demographics, Income, and Education (DNE). This result suggests that interest in the Rent-to-Own program is not limited to particular socioeconomic or demographic categories.

Consumer adoption behavior appears to be more influenced by psychological factors, infrastructure availability, and cost-related variables than by demographic traits.

6. Conclusion

This study contributes to the empirical literature by providing quantitative evidence on the determinants of rent-to-own adoption in the context of electric two wheeled vehicles in Indonesia. Analysis results linear regression shows that PT.XYZ's strategy for rent scooter electricity for Rp. 55,000/ day with rent-to-own options are influenced by six factors main namely battery infrastructure, Leasing/rental cost, attitude & knowledge, charging infrastructure, penalty if renter damage EV and concern risk damage. The most influence factors is charging infrastructure, Availability station easy charging accessible and reliable is prerequisite important For reduce anxiety distance range anxiety and increase perception convenience usage. factor This in harmony with Technology Acceptance Model theory which views availability adequate infrastructure become driver online motorcycle taxi drivers for follow *the rent to own* program [26].

Another factor that becomes inhibitor interest driver For following *the rent to own* program is existence system fine cut damage direct from income driver. This is own implications significant psychological and behavioral effects. Although aim protect assets, approach This can cause stress financial and lower motivation tenant. Situation fine This in harmony with the Loss Aversion Theory [27] explains that fear lost income (as a result fine) more strong than Power pull incentive future ownership. Therefore that, the implementation system This must accompanied by with criteria transparent damage, mechanism fair inspection, and path clear communication For settlement disputes in order to maintain trust user.

Based on results analysis in research In this case, the success of a *rent to own* strategy depends on striking the right balance. between facility supporting (charging infrastructure) and structures incentive-disincentive (reward-penalty system). PT.XYZ must ensure that the total cost rent and potential fine No exceed perception perceived value driver. The benefits of *the rent to own program* must be give offer savings term length and improvement of economic status program participants. Good communication about benefits of *the rent to own* program will strengthen intention term long users [28]. With designing a model that minimizes risk perception and maximizing perceived value, PT.XYZ can create ecosystem sustainable and attractive EV leasing for driver.

Compliance with ethical standards

Disclosure of conflict of interest

No Conflict of interest to be disclosed.

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