DIJDBM: Dinasti International Journal of Digital Business Management
E-ISSN: 2715-4203
P-ISSN: 2715-419X
https://dinastipub.org/DIJDBM dinasti.info@gmail.com +62 811 7404 455
DINASTI PUBLISHER
DOI:https://doi.org/10.38035/dijdbm.v7i2

Analysis of Discounts and Consumer Perceptions as Driving Factors of Purchase Intention for Electric Motorcycles in Kudus Regency

Milad Nufal Akbar[1], Darsin[2]
[1]Universitas Muhammadiyah Kudus, Kudus, Indonesia, miladnaufal@umkudus.ac.id.
[2]Universitas Muhammadiyah Kudus, Kudus, Indonesia, darsin@umkudus.ac.id.

Corresponding Author: miladnaufal@umkudus.ac.id[1]

Abstract: The increase in electric motorcycle sales in Indonesia reflects market conditions that are dynamic and unstable. However, following the withdrawal of government subsidies in September 2024, sales experienced a significant decline. This study aims to analyze the influence of discounts and consumer perceptions on purchase intention toward electric motorcycles, particularly in the Kudus region. The research adopts an explanatory quantitative approach using a nonprobability sampling technique involving 200 respondents from two showrooms of the UWF and UM brands. Data were collected through interviews with 100 walk-in respondents and from 100 registered respondents by distributing online questionnaires. The data were analyzed using Structural Equation Modeling (SEM) with the assistance of SmartPLS. The findings indicate that discounts and consumer perceptions have a significant effect on purchase intention, with discounts exerting a more dominant influence than perceptions. Furthermore, price perception emerges as the strongest factor compared to value and risk perceptions. Therefore, more targeted promotional strategies and improvements in the quality of sales human resources are required to support the growth of the electric motorcycle market.

Keyword: Purchase Intention, Perception, Discount, Electric Motorcycle.

INTRODUCTION

The increase in electric motorcycle sales in Indonesia indicates a fairly promising outlook, in line with growing attention to environmental issues and energy efficiency. The government responded to this development by designating electric vehicle development as a strategic agenda through the issuance of a Presidential Regulation on the Acceleration of the Battery-Based Electric Motor Vehicle (KBLBB) Program in 2019. Research conducted by Deloitte Indonesia and Foundry shows that over the past two years, the use of electric motorcycles has increased nearly thirteenfold, from 1,947 units in 2020 to 25,782 units in 2022. Furthermore, throughout 2024, electric motorcycle sales exceeded 62,000 units, with the majority of transactions driven by the government subsidy program (katadata.co.id). However, the high level of dependence on these subsidies raises questions regarding the long-term

sustainability of the industry's growth, namely whether it reflects sustainable development or merely a temporary phenomenon.

The surge in electric motorcycle sales has also been accompanied by fluctuating market conditions. PT Terang Dunia Internusa Tbk, the producer of United brand bicycles and electric motorcycles, recorded a 21.69% decline in sales in the third quarter of 2024, with total revenue falling to IDR 436.6 billion following the termination of government subsidies (Kontan.co.id). This decline also affected the company's net profit, which decreased by as much as 63.24% year-on-year. These conditions indicate that previous reliance on government incentives and subsidy quotas played a major role as a sales driver through discount mechanisms.

A 2024 survey by Kompas Research and Development, involving 1,200 randomly selected respondents from 38 provinces in Indonesia, revealed that 53.9% of respondents were not interested in purchasing electric vehicles, while only 36% were aware of the government subsidy program. Among the 19.9% of respondents who expressed interest in buying an electric motorcycle, this interest was largely driven by lower price offerings, even though respondents were not fully aware that these prices resulted from government subsidy policies. In addition to price factors, the limited availability of supporting infrastructure—such as public electric vehicle charging stations (SPKLU)—and the underdeveloped electric vehicle ecosystem, including after-sales service networks and spare parts availability, also pose barriers to electric vehicle adoption. Another important consideration is battery durability, as limited battery capacity results in shorter travel distances compared to gasoline-powered vehicles, along with longer charging times ranging from 4 to 8 hours.

Strategically, these various factors require support from well-designed and effective marketing activities. Research by Fahmi (2024) shows that product attractiveness, discount programs, and perceived value are important determinants in shaping consumer purchase intention, while price factors and perceived risk may become barriers if not balanced with appropriate marketing communication strategies. This issue has become increasingly relevant following the termination of government subsidies in September 2024, which led to a decline in electric motorcycle sales, including in Kudus Regency, which was also affected by the policy. Therefore, this study aims to analyze the relationship between consumer perceptions—comprising perceived value, price perception, and risk perception—and the role of discounts in shaping purchase intention toward electric motorcycles, particularly in Kudus Regency.

Discounts represent a form of marketing communication that functions to convey product value to consumers. Effectively designed discount programs are able to shape positive perceptions, reduce uncertainty, and encourage purchase intention as well as purchasing decisions (Belch & Belch, 2012). In addition, discounts aim to disseminate information, persuade, and attract consumer attention; when managed properly, discounts can increase awareness and positive perceptions of products, ultimately stimulating purchasing behavior (Kotler & Keller, 2009). In the context of electric motorcycle sales, the implementation of educational and experience-based discounts—such as test rides and cost simulations—has been shown to enhance consumer trust in the product. In line with this, Fahmi (2024) found that discounts and product attractiveness have a significant influence on purchase intention toward electric motorcycles.

METHOD

RESULTS AND DISCUSSION

This study employs an explanatory quantitative research design aimed at explaining the cause-and-effect relationships among the variables examined, particularly the causal relationships between perceived value, perceived risk, price perception, and discounts on consumers' purchase intention toward electric motorcycles (Suliyanto, 2018). The quantitative approach is applied by utilizing numerical data to test theories and hypotheses in a systematic, structured, and objective manner (Kasiram, 2008). Through this approach, the study not only

focuses on describing phenomena but also emphasizes analyzing the influence of independent variables on the dependent variable.

Data were collected from two sources, namely primary and secondary data. Primary data were obtained through interviews using a structured questionnaire developed based on the research indicators, while secondary data were derived from scientific articles, journals, books, and internal data from the showrooms serving as the research objects. The questionnaire distribution was conducted using two methods: offline, by directly administering questionnaires to respondents visiting the showrooms, and online, through a Google Form link sent to consumers recorded in the showroom database. The measurement scale employed was an interval scale using a five-point Likert model, ranging from a score of 1 indicating "strongly disagree" to a score of 5 indicating "strongly agree."

A population refers to a group of individuals belonging to the same species, located within a specific area, and influenced by similar environmental conditions (Ferdinand, 2006). In this study, the population consists of all electric motorcycle consumers in Kudus Regency. The research locations include two UWF brand electric motorcycle showrooms and two UM brand electric motorcycle showrooms.

Sample selection was carried out using a nonprobability sampling technique through the quota sampling method. This technique was chosen because the overall population size could not be precisely determined. The sample quota was subjectively determined by considering the need to obtain a representative overview of the factors influencing purchase intention toward electric motorcycles.

Table 1. Distribution of Research Samples

No	Keterangan	Jumlah
1	Showroom UWF daerah 1 (Customer walk in)	25
2	Showroom UWF daerah 2 (Customer walk in)	25
3	Showroom UWF daerah 1	25
4.	Showroom UWF daerah 2 (kuesioner secara online)	25
5.	Showroom UM daerah 1 (Customer walk in)	25
6.	Showroom UM daerah 2 (Customer walk in)	25
7.	Showroom UM daerah 1 (kuesioner online)	25
8.	Showroom UM daerah 2 (Kuesioner online)	25
	Sampel yang digunakan dalam penelitian	200

Out of the total 200 respondents included as research samples, 100 respondents were consumers who were directly encountered at the showrooms during the research period, from January 13 to January 17, 2025. The remaining 100 respondents were obtained through the distribution of online questionnaires.

In this study, the independent variables are discounts (X1) and consumer perception (X2). Consumer perception is operationalized through several indicators, namely perceived risk, perceived value, and perceived price (Kotler & Armstrong, 2019). The discount variable is measured through the forms of promotion applied, including sales promotion, personal selling,

and advertising (Kotler & Armstrong, 2019). Meanwhile, the dependent variable in this study is purchase intention (Y).

Data analysis was conducted using Structural Equation Modeling (SEM), which is employed to examine complex relationships among variables (Hair et al., 2019). This study adopts the Partial Least Squares (PLS) approach, as it is suitable for predictive model analysis with relatively weak theoretical foundations. With the assistance of SmartPLS software, the relationships among variables were tested in two stages: evaluation of the outer model to assess the reflective measurement model, and significance testing at a 95% confidence level or a significance level of 0.05. In addition, multivariate normality testing was performed using R software. The Kolmogorov–Smirnov (K–S) test results indicate that all variables have significance values greater than 0.05, leading to the conclusion that the data meet the assumption of normality.

Validity Test

The validity test is conducted to ensure that the research instrument is able to accurately measure the variables under study and produce data that are consistent with the research objectives.

Table 2. Tabel Outer Weight, Outer Loading dan Outer Vif

Variabel	Item Pengukuran	Indikator	Outer Weight	P-value Outer Weight	Outer Loading	P-Value Outer Loading	Outer Vif
Persepsi	X1.1	persepsi resiko	0.362	0.011	0.721	0.000	1.272
	X1.2	Persepsi nilai	0.469	0.002	0.726	0.000	1.186
	X1.3	persepsi harga	0.528	0.003	0.755	0.000	1.143
Promosi	X2.1	sales promotion	0.493	0.000	0.639	0.000	1.047
	X2.2	personal selling	0.472	0.000	0.619	0.000	1.046
	X2.3	advertising	0.586	0.000	0.670	0.000	1.013
Minat Beli	Y1.1	Minat Transaksional	0.462	0.000	0.630	0.000	1.051
	Y1.2	Minat referensial	0.553	0.000	0.675	0.000	1.027
	Y1.3	Minat Eksploratif	0.504	0.000	0.666	0.000	1.052

Based on the results of data processing, all indicators were proven to be significant in measuring the research variables, as indicated by p-values < 0.05. This finding is consistent with the study by Avania and Umbara (2024), which states that consumers' decisions to purchase electric motorcycles are influenced by low perceived risk, affordable prices, and perceived ease of use. In addition, the implemented discount programs were also shown to play a role in increasing consumers' purchase intentions, as noted by Belch (2012).

Table 3. Outer Loading, Composite Reliability dan Avarage Variance Extracted

Variabel	Item Pengukuran	Indikator	Outer Loading	Composite Reliability	AVE
Persepsi	X1.1	Persepsi resiko	0.721	0.778	0.579
	X1.2	Persepsi nilai	0.726		
	X1.3	Persepsi harga	0.755		
Promosi	X2.1	Sales promotion	0.639	0.709	0.503
	X2.2	Personal selling	0.619		
	X2.3	Advertising	0.670		
Minat Beli	Y1.1	Minat Transaksional	0.630	0.715	0.512
	Y1.2	Minat referensial	0.675		
	Y1.3	Minat Eksploratif	0.666		

The perception variable was measured using three indicators that were confirmed to be valid, with outer loading values ranging from 0.721 to 0.755, indicating that all three indicators

are strongly correlated in representing consumer perception. The discount variable was also measured by three valid indicators, with outer loading values between 0.619 and 0.670, suggesting that all indicators adequately explain the discount construct. Meanwhile, the purchase intention variable was measured using three valid indicators with outer loading values ranging from 0.630 to 0.675. Although several outer loading values are below the 0.70 threshold, according to the criteria proposed by Chin (1998), outer loading values above 0.60 are still considered acceptable. Therefore, all indicators used in this study are deemed appropriate.

Reliability Test

Based on the results presented in the table, the perception variable demonstrates an adequate level of reliability, with a composite reliability value of 0.778, which exceeds the recommended threshold of 0.70, and meets the convergent validity criterion with an AVE value of 0.579, which is greater than 0.50. Among the three measurement indicators, price perception emerges as the most dominant indicator in forming the perception variable, indicating that consumers' purchase intentions for electric motorcycles are still strongly influenced by price factors.

Furthermore, the discount variable is also considered reliable, with a composite reliability value of 0.709, exceeding the 0.70 threshold, and fulfilling convergent validity with an AVE value of 0.503. Among the three discount indicators, advertising in the form of banners and flyers shows the strongest influence compared to sales promotion and personal selling.

Meanwhile, the purchase intention variable exhibits an acceptable level of reliability, with a composite reliability value of 0.715, which is higher than 0.70, and an AVE value of 0.512, indicating that convergent validity is achieved. Among the purchase intention indicators, referential intention is the most influential, as reflected by the fact that some respondents visited the UWF and UM showrooms after receiving recommendations or information from other consumers who had previously made purchases.

Table 4. Diskriminan Validity Fornel dan Lacker

	Minat Beli (Y)	Persepsi (X1)	Promosi (X2)
Minat Beli (Y)	**0.657**		
Persepsi (X1)	0.249	**0.734**	
Promosi (X2)	0.476	0.431	**0.643**

The development of electric motorcycle sales in Indonesia reflects a dynamic and fluctuating market condition. However, the termination of government subsidies in September 2024 led to a fairly sharp decline in sales. This study aims to examine the influence of discounts and consumer perceptions on purchase intention for electric motorcycles, with a specific focus on Kudus Regency. An explanatory quantitative approach was employed, using nonprobability sampling of 200 respondents drawn from two electric motorcycle showrooms of the UWF and UM brands.

Data were collected through direct interviews with 100 walk-in respondents and through the distribution of online questionnaires to 100 registered respondents. Data analysis was conducted using Structural Equation Modeling (SEM) with the assistance of SmartPLS software. The results indicate that both discounts and consumer perceptions have a significant effect on purchase intention, with discounts exerting a stronger influence than consumer perceptions in stimulating purchase intention. In addition, price perception emerged as the most dominant indicator compared to value perception and risk perception. These findings suggest

the need to formulate effective discount strategies and to enhance the quality of sales personnel in order to support the sustainable growth of the electric motorcycle market.

Discriminant validity based on the Fornell–Larcker criterion is considered satisfactory when the square root of a variable's AVE is greater than its correlations with other variables. The analysis results show that the purchase intention variable has a square root of AVE of 0.657, which is higher than its correlation with the perception variable (0.249) and the discount variable (0.476). Furthermore, the perception variable exhibits a square root of AVE of 0.734, which is also higher than its correlation with the discount variable (0.431). These results indicate that all variables in the study meet the discriminant validity criteria.

In addition, discriminant validity testing using the Heterotrait–Monotrait (HTMT) ratio also demonstrates satisfactory results. The HTMT value between the perception and purchase intention variables is 0.529, while the HTMT value between the discount and purchase intention variables is 0.417; both values are below the recommended threshold of 0.90. Therefore, discriminant validity evaluation based on the HTMT method can be considered fulfilled.

Structural Model Evaluation

The structural model evaluation was conducted to test the hypotheses regarding the relationships among the variables in this study. This evaluation process was carried out through three main stages as follows:

Table 5. Hypothesis Testing

Hipotesis	Path coefficient	p-value	95% Interval kepercayaan path coefficient		F. Square
			Batas Bawah	Batas Atas	
Persepsi (X1) -> Minat Beli (Y)	0.254	0.003	0.063	0.206	0.003
Promosi (X2) -> Minat Beli (Y)	0.452	0.000	0.318	0.587	0.216

Based on the results of the hypothesis testing, several key findings can be summarized as follows:

1.The first hypothesis (H1) is accepted, indicating a significant effect of discounts on purchase intention. This is evidenced by a path coefficient of 0.452 and a p-value of 0.000 (< 0.05). At the 95% confidence level, the magnitude of the effect of discounts on purchase intention ranges from 0.318 to 0.587.

2.The second hypothesis (H2) is also accepted, suggesting that consumer perception has a significant influence on purchase intention. This finding is supported by a path coefficient of 0.254 and a p-value of 0.003 (< 0.05). At the 95% confidence interval, the effect of perception on purchase intention ranges from 0.063 to 0.206.

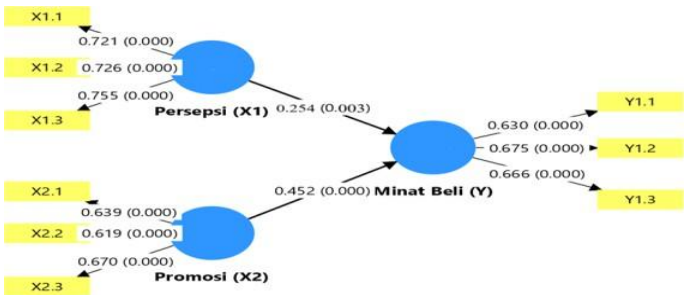

Figure 1. Conceptual Framework

Evaluation of Model Goodness and Fit

The R Square statistic indicates the proportion of variance in the endogenous variable that can be explained by exogenous variables and/or other endogenous variables within the model. According to Chin (1998), the qualitative interpretation of R Square values is classified into three categories: 0.19 as low, 0.33 as moderate, and 0.66 as high. Based on the data analysis results, the combined influence of perception and discount variables on purchase intention yields an R Square value of 0.35, which falls into the moderate category.

Meanwhile, the Q Square value of 0.489 indicates that the model has good predictive relevance. This result suggests that the research model is able to explain 48.9% of the variance in purchase intention, while the remaining 41.1% is influenced by other factors not included in the model.

Tabel 6. Tabel SRMR

	Model
SRMR	0.098
d_ULS	0.752
d_G	0.173
Chi-square	195.046
NFI	0.001

According to Yamin (2022), the Standardized Root Mean Square Residual (SRMR) is used as an indicator of model fit, representing the difference between the empirical data correlation matrix and the correlation matrix estimated by the model. Hair et al. (2021) state that an SRMR value below 0.08 indicates a good model fit, while Schmelleh et al. (2003) argue that SRMR values ranging from 0.08 to 0.10 can still be classified as an acceptable fit. Based on the estimation results, the SRMR value of 0.098 indicates that the research model achieves an acceptable level of fit.

Furthermore, the Goodness of Fit (GoF) index is employed to evaluate the overall model fit, encompassing both the measurement model and the structural model. The GoF index can only be calculated for reflective measurement models, using the square root of the geometric mean of average communality and the average R Square value. According to Wetzels et al. (2009), GoF values are interpreted as 0.10 indicating low fit, 0.25 moderate fit, and 0.36 high fit. The results of this study show a GoF value of 0.325, which falls into the moderate category and is close to high fit.

Further calculations reveal that the average loss difference in the comparison between the PLS model and the average indicator (AI) model is negative for the purchase intention variable, with a value of −0.024. In addition, the test of differences in prediction errors between the PLS model and the comparative average indicator (IA) model yields a p-value < 0.05, indicating a statistically significant difference. A subsequent comparison between the PLS model and the linear model (LM) also shows a negative average loss difference for the endogenous variable of purchase intention. These two comparisons indicate that the prediction error of the PLS model is lower than that of the AI and LM models, suggesting superior predictive performance of the PLS model.

Hair et al. (2019) state that the PLS-SEM approach is primarily developed with a predictive orientation. Therefore, model validation measures are required to assess the strength of the model's predictive capability. A PLS model is considered to have predictive power if its RMSE or MAE (Mean Absolute Error) values are lower than those of a linear regression model. Based on the data analysis results, the RMSE and MAE values of the PLS model are lower than those of the LM (linear regression) model, indicating that the PLS model used in this study demonstrates a moderate level of predictive capability.

CONCLUSION

The results of this study indicate that the First Hypothesis (H1) and the Second Hypothesis (H2) are accepted, demonstrating that discounts and consumer perceptions have a significant influence on purchase intention for electric motorcycles in Kudus City. Discounts, particularly those represented by the advertising indicator, are proven to be the most dominant factor in increasing purchase intention compared to other forms of discounts. Meanwhile, the contribution of personal selling remains relatively low, due to limitations in the effectiveness of salesforce communication.

On the other hand, consumer perception also plays an important role, with price perception emerging as the primary factor driving purchase decisions, while risk perception shows the weakest influence as a result of uncertainty regarding future market trends. Overall, discounts are identified as the variable with the strongest impact on purchase intention. Therefore, the formulation of more appropriate discount strategies and the improvement of salesforce quality are necessary to stimulate the growth of electric vehicle sales.

REFERENCE

Asosiasi Kendaraan Listrik Indonesia (AVERI). (2024). Statistik penggunaan kendaraan listrik tahun 2024.

Badan Pusat Statistik. (2023). Data pengguna kendaraan listrik di Provinsi Jawa Tengah.

Belch, G. E., & Belch, M. A. (2018). Advertising and promotion: An integrated marketing communications perspective. McGraw-Hill Education.

Dong, X., Zhang, B., Wang, B., & Wang, Z. (2020). Urban households' purchase intentions for pure electric vehicles under subsidy contexts in China: Do cost factors matter? Transportation Research Part A: Policy and Practice, 135, 183–197. https://doi.org/10.1016/j.tra.2020.03.012

Fahmi, S. (2023). Pengaruh daya tarik produk dan diskon terhadap minat beli sepeda listrik. Jurnal Manajemen dan Bisnis, 5(2), 112–120.

Frost & Sullivan. (2020). The future of electrified vehicles in Southeast Asia. Nissan Futures – Electrification and Beyond.

Kementerian Energi dan Sumber Daya Mineral. (2023). Laporan tahunan 2023: Pengembangan kendaraan listrik di Indonesia.

Kotler, P., & Keller, K. L. (2016). Marketing management. Pearson.

Manutworakit, P., & Choocharukul, K. (2022). Factors influencing battery electric vehicle adoption in Thailand: Expanding the unified theory of acceptance and use of technology variables. Sustainability (Switzerland), 14(14). https://doi.org/10.3390/su14148482

Mishra, S., & Malhotra, G. (2019). Is India ready for e-mobility? An exploratory study to understand e-vehicles purchase intention. Theoretical Economics Letters, 9(2), 376–391. https://doi.org/10.4236/tel.2019.92027

Monroe, K. B. (2012). Pricing: Making profitable decisions. McGraw-Hill.

Ng, M., Law, M., & Zhang, S. (2018). Predicting purchase intention of electric vehicles in Hong Kong. Australasian Marketing Journal, 26(3), 272–280. https://doi.org/10.1016/j.ausmj.2018.05.015

Populix. (2024). Electric vehicle consumer insight report: Trends, preferences, and barriers in Indonesia. Populix Research Publications.

Rahmanullah, E. S., & Nurjanah, S. (2018). Influence of product quality, price, and supporting infrastructure on perceived value and interest in buying electric motorcycles. MATEC Web of Conferences, 215. https://doi.org/10.1051/matecconf/201821502006

Solomon, M. R. (2018). Consumer behavior: Buying, having, and being. Pearson.

Rohmah, N. F. (2018). Pelatihan dan pengembangan sumber daya manusia. Intizam: Jurnal Manajemen Pendidikan Islam, 2(1), 1–11.

Watriningsi, & Amrico, A. (2021). Pengaruh diskon terhadap keputusan pembelian konsumen pada produk kendaraan bermotor. Jurnal Ekonomi dan Bisnis, 9(1), 33–41.

Xie, W., Huang, X., Xu, X., & Chan, D. Y. C. (2020). Usage intention of the internet of vehicles: A study based on the technology acceptance model. ACM International Conference Proceeding Series, 118–123. https://doi.org/10.1145/3409929.3416795.