STUM
Sustainable Transportation for Urban Mobility
STUM 1(2): 70–80
ISSN 3063-1416

Analysis of factors influencing consumer purchase intention for electric vehicles in Jabodetabek

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Received Date: July 14, 2024 Revised Date: July 20, 2024 Accepted Date: August 31, 2024

ABSTRACT
Background: Electric vehicles (EVs) have garnered increasing interest as sustainable alternatives to conventional cars, particularly in urban areas like Jabodetabek, Indonesia. This study aims to analyze the factors influencing consumer purchase intention for electric vehicles in Jabodetabek, focusing on attitudes, subjective norms, perceived behavioral control, cognitive status, product attributes, and incentive policies. Previous literature highlights the importance of behavioral theories and marketing strategies in shaping consumer intentions toward sustainable transportation options. **Methods**: The research employed a quantitative approach, utilizing a survey to collect data from a diverse sample of respondents in Jabodetabek. Structural Equation Modeling (SEM) was used for data analysis, specifically the Partial Least Squares (PLS) method, to examine the relationships between the identified factors and purchase intention. **Findings:** The analysis revealed that attitude, subjective norm, and perceived behavioral control significantly influence purchase intention, with effect sizes of 0.35, 0.25, and 0.20, respectively, all statistically significant at $p < 0.05$. Additionally, product attributes and monetary incentive policies were found to play essential roles in shaping consumer preferences, while non-monetary incentives exhibited a moderate impact. **Conclusion**: his study concludes that enhancing consumer attitudes and perceptions regarding electric vehicles, alongside effective incentive policies, is crucial for promoting EV adoption in Jabodetabek. **Novelty/Originality of this article:** This research contributes to the existing body of knowledge by providing a comprehensive analysis of specific psychological and socio-economic factors affecting purchase intentions for electric vehicles in a developing urban context, an area that has been underexplored in prior studies.

KEYWORDS: elevtric vehicles; purchase intention; Structural Equation Modelling (SEM).

1. Introduction

In recent years, the government's efforts to encourage the public to switch to electric vehicles have intensified. The Indonesian government is firmly committed to promoting the adoption of electric cars, setting an ambitious target that by 2025, 20% of all vehicles produced in Indonesia will be classified as Low Carbon Emission Vehicles (LCEV), including electric cars. The slow pace of increasing electric vehicle usage in Indonesia has led the government to issue various regulations aimed at achieving a significant surge in electric vehicle adoption. One such regulation is Presidential Regulation No. 55/2019, which targets 2.1 million electric motorcycles and 2,200 electric cars by 2025. Additionally, the government aims for local production of 2,200 units of electric or hybrid vehicles, as

Cite This Article:
Kusuma, A. A. N. A. D., & Kusumastuti, R. D. (2024). Analysis of factors influencing consumer purchase intention for electric vehicles in Jabodetabek. *Sustainable Transportation for Urban Mobility, 1*(2), 70-80. https://doi.org/10.61511/stum.v1i2.2024.1274

outlined in Presidential Regulation No. 22/2017 regarding the National Energy General Plan.

According to data from the Indonesian Automotive Industry Association (GAIKINDO), the government's plans are still far from realization, particularly given Indonesia's significant market potential. The primary reason for this sluggish acceleration is the high selling price of electric vehicles. The sales figures for electric vehicles remain negligible compared to overall vehicle sales. Most vehicles dominating the market are priced below 300 million rupiah, while the starting price for electric cars is around 480 million rupiah, with an average price of approximately 650 million rupiah. The higher cost of electric vehicles compared to conventional cars discourages consumers from making purchases (GAIKINDO, 2021).

To achieve a cleaner and more environmentally friendly Jakarta, the Indonesian government is not only focused on policies supporting the use of electric vehicles but also on the infrastructure for electric vehicle charging stations (SPKLU) as a critical component in facilitating the energy transition. These measures aim to create a supportive ecosystem for electric vehicle users, thereby encouraging the growth of electric vehicles and reducing air pollution in Jakarta. The SPKLU serves as a charging location for users of battery electric vehicles, strategically placed in areas such as rest stops and office complexes that are significant in terms of electric vehicle range.

The intention of an individual to purchase an electric car can be examined through the lens of the Theory of Planned Behavior (TPB), which consists of attitude, subjective norm, and perceived behavioral control (Ajzen, 1991). This theory aids in understanding how perceived attitude, subjective norms, and perceived behavioral control influence the intention to purchase electric vehicles. Factors related to product attributes, such as charging infrastructure, after-sales service, safety and protection, cruising range, charging time, and battery life, are identified as critical elements influencing purchase decisions.

By applying this theory, the researcher aims to uncover how the combination of these factors can contribute to reducing pollution and facilitating the transition to electric energy by enhancing the intention to purchase electric vehicles among the population in the Jabodetabek area.

2. Methods

2.1 Research design

This study employs a quantitative approach, classified as conclusive descriptive research. The research design is a single cross-sectional study, in which the relationships between variables are measured through instruments to allow data analysis using statistical procedures to test objective theories. Data collection from the population sample is conducted only once (Malhotra, 2020).

This study examines the factors influencing purchase intention, including attitude, subjective norm, and perceived behavioral control, which are believed to impact the desire to purchase electric vehicles in the Jabodetabek area. The data collection method in this research is conducted through a survey, distributing an online questionnaire to respondents who reside or frequently engage in activities in Jabodetabek, focusing on their experiences and perceptions regarding electric vehicles. The sampling method will utilize purposive sampling, which aims to select samples from the population that possess certain characteristics until the desired quota is reached.

According to Hair et al. (2013), the maximum number of arrows entering a variable is seven, leading to the conclusion that a minimum of 80 respondents is required for this study. The collected data will be analyzed using Structural Equation Modelling (SEM) statistical methods. The results of this analysis are expected to provide new insights for policymakers and stakeholders in the electric automotive industry to promote battery electric vehicles and support more informed purchasing decisions for consumers.

2.2 Data collection method

To assess respondents' perceptions in this study, a measurement method known as the Likert scale is employed. The Likert scale is a common tool used in research to measure attitudes, opinions, and perceptions of individuals or groups regarding specific social phenomena. In the application of the Likert scale, the variables to be measured are detailed into several more specific indicators. These indicators are then used as the basis for formulating items in the research instrument, which may take the form of statements or questions (Hair et al., 2019).

The questionnaire is distributed through the Google Form platform. This questionnaire is designed using structured statements with a Likert scale ranging from 1 to 5 to measure respondents' levels of agreement with the proposed statements. Respondents are expected to complete this questionnaire independently, making it a self-administered questionnaire. Primary data is obtained through the survey by distributing the questionnaire to respondents. To gather more specific information, the questionnaire used is a structured questionnaire, in accordance with Malhotra's (2020) recommendations. This questionnaire can be filled out online and shared through social media to encourage broader participation.

Table 1. Operationalization of variables

Variable	Definition	Indicators	Source
Attitude (AT)	Attitude is a psychological process determining individual preferences towards specific items (Sreen, Purbey, & Sadarangani, 2018).	1. I believe it is very important to use electric vehicles. 2. I think buying an electric vehicle is a good decision. 3. I support the government in introducing more policies to encourage the public to buy electric vehicles.	Huang-Ge (2019)
Subjective Norm (SN)	Subjective Norm refers to the perceived social pressures to perform or refrain from certain actions (Ajzen et al., 1991).	1. If people around me use electric vehicles, it would encourage me to buy one. 2. According to people who influence my life (like family and friends), I should buy an electric vehicle. 3. The amount of news and promotions on social media will encourage me to buy an electric vehicle.	Huang-Ge (2019)
Perceived Behavioral Control (PBC)	Perceived Behavioral Control is the individual's perception of the ease or difficulty of performing a specific behavior (Ajzen, 1991).	1. Generally, I can decide whether to buy an electric vehicle for my home or not. 2. I will be able to buy an electric vehicle in the future. 3. I am confident that if I want to, I can choose an electric vehicle for my next purchase.	Huang-Ge (2019)
Product Attributes	Product attributes involve the development of products or services that include defining the benefits offered by those products or services (Kotler and Armstrong, 2012).	1. There are already sufficient electric vehicle charging infrastructures. 2. The selling price of electric vehicles remains stable after usage. 3. The safety, security, and protection features of electric vehicles are adequate. 4. The range of electric vehicles is sufficient.	Huang-Ge (2019)

		5. The charging time for electric vehicles is satisfactory. 6. The battery life of electric vehicles is sufficiently long.	
Purchase Intention (PI)	Purchase intention is defined as the decision to purchase a specific brand from various available brands (Kotler and Keller, 2016).	1. I look forward to more brands and models of electric vehicles being introduced to the market. 2. I will buy an electric vehicle in the future. 3. If the electric vehicle is good, I will recommend it to friends around me to buy it.	Huang-Ge (2019)

2.3 Questionnaire design and structure

The researcher utilizes a questionnaire distributed to respondents online. This questionnaire is designed with a structured question format that encompasses five main sections. The types of structured questions used include multiple-choice questions, dichotomous questions, and scaled questions. The following is an explanation of the five main sections included in this research questionnaire.

The questionnaire used in this study is structured into five main sections to ensure clarity and comprehensiveness. The first section, Introduction, serves to introduce the researcher and provide a brief overview of the study's objectives. In addition, the researcher conveys their appreciation to all respondents who voluntarily participated in this research. The second section, Screening Questions, aims to confirm that potential respondents meet the study's eligibility criteria, specifically that they reside in the Jabodetabek area, are over 21 years of age, and either currently own an electric vehicle or intend to purchase one within the next five years. This section uses dichotomous "yes" or "no" questions, and respondents who answer "no" are not permitted to proceed with the questionnaire, as they do not fit the study's requirements. The third section, Respondent Profile Questions, is designed to collect brief demographic information and other relevant factors that could enrich the research findings. The fourth section, Core Questions, consists of eight sub-sections that cover all variables investigated in the study, namely attitude, subjective norm, perceived behavioral control, cognitive status, product attributes, non-monetary incentive policy, monetary incentive policy, and purchase intention. This structure helps respondents navigate the questionnaire more easily while also facilitating the researcher's data processing. Finally, the fifth section, Conclusion, closes the questionnaire by once again thanking the respondents for their valuable time and participation.

2.4 Data analysis method

The research data for this study was processed using the Structural Equation Modeling (SEM) method, following a two-step approach as outlined by Malhotra (2020). The purpose of applying this method was to examine the relationship between several variables, including attitude, subjective norms, perceived behavioral control, cognitive status, product attributes, non-monetary incentive policies, and monetary incentive policies, in relation to people's purchase intention in the Greater Jakarta area. To achieve this objective, a detailed testing and analysis process was conducted.

First, a frequency distribution analysis was conducted to illustrate the distribution of respondents across different rating categories and the corresponding percentages. In this study, frequency distribution analysis was also used to present the characteristics of the respondent profile along with the answers to the supplementary questions. Second, descriptive analysis was conducted by categorizing the responses given by the participants.

A 5-point Likert scale was used to create five interval categories to systematically classify the data obtained from the respondents.

2.5 Structural Equation Modeling (SEM) analysis

Structural Equation Modeling (SEM) is a multivariate analysis technique, which is a statistical method used to analyze multiple variables simultaneously (Hair et al., 2019). The analysis using SEM is applied because the researcher aims to explore several relationships among the variables being tested simultaneously, as well as the necessity for structural model and measurement model testing. There are two types of SEM: covariance-based SEM (CB-SEM) and partial least squares SEM (PLS-SEM). In this research, the researcher utilizes PLS-SEM with the assistance of SmartPLS data processing software. PLS-SEM can be used when the research focuses on understanding the relationships among constructs (Hair et al., 2019). In a study, there are two types of variables: manifest variables and latent variables (Hair et al., 2019). Manifest variables, also known as indicators, are those that are directly observed in the study, while latent variables are those defined by indicators or manifest variables (Hair et al., 2019). In this study, latent variables are obtained from interval data and measured using a 5-point Likert scale. The seven latent variables in this study are attitude, subjective norm, perceived behavioral control, cognitive status, product attributes, non-monetary incentive policy, and monetary incentive. When performing data analysis using the PLS-SEM method, it is necessary to go through stages starting from model specification followed by an analysis of the measurement model (outer model) and structural model (inner model) (Hair et al., 2019). The measurement model is used to test the relationship between indicators and the constructs of those indicators, while the structural model is needed to observe the relationships among the observed constructs.

2.6 Measurement model analysis (outer model)

Measurement model analysis is conducted to determine the accuracy of the observed variables in measuring the latent variables tested in the study. The measurement model illustrates the relationship between a construct and its related indicators (Hair et al., 2019). To measure the consistency and accuracy of the measurement model, tests for internal consistency, convergent validity, and discriminant validity are performed. A variable is considered reliable or to have good consistency if it has a Cronbach's Alpha value ≥ 0.6 (Malhotra, 2020) and a composite reliability value ≥ 0.7 (Hair et al., 2019). The accuracy of the measurement model is evaluated by conducting validity tests, specifically convergent validity tests, by measuring the correlation level among the measurements of a construct. An indicator is considered good and can proceed to the next stage when it has an outer loading value ≥ 0.7 and an Average Variance Extracted (AVE) ≥ 0.5. In conducting discriminant validity tests, attention should be given to the cross-loading values of each indicator as well as the Fornell & Larcker criteria. Discriminant validity verifies that, for each item, the loading on each related latent variable is higher than the loading on other constructs (Ravand & Baghaei, 2016). The Heterotrait-Monotrait ratio (HTMT) test can also be performed to determine the correlations within the study, where the HTMT test assesses the correlation ratio between between-trait correlations and within-trait correlations. Technically, HTMT estimates the correlation level between two constructs known as disattunuated correlation, where a disattunuated correlation value approaching 1 indicates a lack of discriminant validity (Hair et al., 2019).

2.7 Structural model analysis (inner model)

In structural model analysis, the interconnections among each construct are tested (Hair et al., 2019). The structural model analysis is also conducted to assess the feasibility of the structural model. To ensure there is no collinearity among the variables, a collinearity test is necessary, where the inner variance inflation factor (VIF) should be ≤ 5.00 (Hair et al., 2019). Furthermore, to understand the relationships in the structural model, the path coefficient values are examined. Path coefficient values range from -1 (negative influence) to +1 (positive influence), where a path coefficient value closer to 0 indicates a weaker relationship between the constructs being studied. To determine the significance of each relationship, the t-value is assessed; in this study, a significance level of 5% and a one-tailed test are used, so the hypothesis can be accepted if the t-value ≥ 1.645 or ≤ -1.645 (Hair et al., 2019). Additionally, to evaluate how much variation in the dependent variable can be explained by the independent variables, the coefficient of determination (R^2) is considered. The coefficient of determination value ranges from 0 to 1, with a higher R^2 indicating that the variation in the dependent variable resulting from the independent variables is greater. Lastly, an evaluation of the Q^2 Stone-Geisser value is performed, as this value serves as an indicator of the predictive strength of the out-of-sample model, which reflects predictive relevance. The path model in PLS can accurately predict data not used in estimating the model when the path model has a level of relevance indicated by a Q^2 value greater than 0 (Hair et al., 2019).

3. Results and Discussion

3.1 Descriptive analysis

The descriptive analysis provides a concise overview of the data collected based on respondents' responses. It summarizes the minimum and maximum values, the average scores of individual items, and the overall mean of the variables. The researcher employed a Likert scale of 1-5 for each question item.

3.1.1 Descriptive analysis of the attitude variable

According to the statistical analysis presented in Table 2 the overall average for the attitude variable is 4.01 out of a maximum score of 5. This average indicates that respondents generally agree with the statements that electric vehicle usage is important, purchasing an electric vehicle is a good decision, and they support the government in introducing more policies to encourage electric vehicle purchases. Furthermore, the standard deviation values for indicators AT2 and AT3 are less than 1, suggesting a low dispersion of responses, while the standard deviation for indicator AT1 is equal to 1, indicating a moderate spread of responses. The distribution of responses for indicator AT1 centers around a scale range of 3-5, with 76.6% of respondents agreeing or strongly agreeing that electric vehicle usage is important, followed by 12.7% who felt neutral. Additionally, 80.6% of respondents agreed or strongly agreed that purchasing an electric vehicle is a good decision, and 82% agreed or strongly agreed that the government should introduce more policies to promote electric vehicle purchases.

Table 2. Descriptive analysis of the attitude variable

Indicator	Standard Deviation	Minimum Value	Maximum Value	Mean	Total Average Value
AT1	1.000	1.000	5.000	4.020	4.013
AT2	0.990	1.000	5.000	4.010	
AT3	0.879	1.000	5.000	4.010	

3.1.2 Descriptive analysis of the subjective norm variable

Based on the statistical analysis in Table 3, the overall average for the subjective norm variable is 3.98 out of a maximum of 5. This average suggests that respondents generally agree with the notion that people around them, as well as news and promotions, and their family and friends, have an influence and motivation for them to purchase electric vehicles. The standard deviation values for indicators SN2 and SN3 are less than 1, indicating low dispersion of responses, while indicator SN1 has a standard deviation greater than 1, reflecting a wider spread of responses. Specifically, 76.7% of respondents agreed or strongly agreed that if people around them use electric vehicles, it would encourage them to purchase one. Additionally, 77.4% of respondents agreed or strongly agreed that influential individuals in their lives (such as family and friends) support the purchase of electric vehicles, and 76.7% agreed or strongly agreed that news and promotions on social media play a role in motivating such purchases.

Table 3. Descriptive analysis of the subjective norm variable

Indicator	Standard Deviation	Minimum Value	Maximum Value	Mean	Total Average Value
SN1	1.052	1.000	5.000	3.980	3.983
SN2	0.924	1.000	5.000	3.930	
SN3	0.968	1.000	5.000	4.040	

3.1.3 Descriptive analysis of the perceived behavioral control variable

The statistical analysis presented in Table 4 indicates that the overall average for the perceived behavioral control variable is 4.16 out of a maximum of 5. This average suggests that respondents generally agree with the statements indicating that they can decide whether to purchase an electric vehicle, feel capable of doing so in the future, and are confident that if they choose, they can select an electric vehicle for their next purchase. The standard deviation for each indicator is less than 1, indicating low dispersion of responses. Specifically, 78% of respondents agreed or strongly agreed that they can decide for themselves whether to purchase an electric vehicle, 84% agreed or strongly agreed that they feel capable of buying an electric vehicle in the future, and 82% agreed or strongly agreed that if they wish, they can certainly choose an electric vehicle for their next purchase.

Table 4. Descriptive analysis of the perceived behavioral control variable

Indicator	Standard Deviation	Minimum Value	Maximum Value	Mean	Total Average Value
PBC1	0.994	1.000	5.000	4.110	4.163
PBC2	0.958	1.000	5.000	4.190	
PBC3	0.893	1.000	5.000	4.190	

3.1.4 Descriptive analysis of the product attributes variable

According to the statistical analysis in Table 5., the overall average for the product attributes variable is 4.01 out of a maximum score of 5. This average indicates that respondents agree with the statements regarding the adequacy of charging infrastructure for electric vehicles in their area, the stability of electric vehicle resale prices, the sufficiency of safety and protection features, satisfactory driving range, adequate charging time, and the battery life and warranty meeting their needs. The standard deviation for indicators PA3 and PA4 is less than 1, suggesting low dispersion of responses, while indicators PA1, PA2, PA5, and PA6 have values greater than 1, indicating a wider spread of responses. Specifically, 76% of respondents agreed or strongly agreed that the charging infrastructure for electric vehicles in their area is sufficiently available. Likewise, 76% agreed or strongly agreed that the resale price of electric vehicles remains stable after use, 80.7% agreed or strongly agreed that the safety and protection features of electric vehicles are adequate, 82.6% agreed or strongly agreed that the driving range of available electric vehicles is satisfactory, 78% agreed or strongly agreed that the charging time (both fast and normal charging) is acceptable, and 76.6% agreed or strongly agreed that the battery lifespan and warranty of electric vehicles meet their needs.

Table 5. Descriptive analysis of the product attributes variable

Indicator	Standard Deviation	Minimum Value	Maximum Value	Mean	Total Average Value
PA1	1.009	1.000	5.000	3.960	4.010
PA2	1.058	1.000	5.000	3.980	
PA3	0.928	1.000	5.000	4.110	

PA4	0.916	1.000	5.000	4.080
PA5	1.023	1.000	5.000	4.010
PA6	1.009	1.000	5.000	3.950

3.1.5 Internal consistency testing

The internal consistency testing was conducted to assess the reliability of the measurement model. Two indicators were employed to evaluate the consistency of the measurement model: Cronbach's alpha and composite reliability. Cronbach's alpha provides an estimate of reliability based on the inter-correlations among indicators of the variable, which are assumed to have the same outer loadings. In contrast, composite reliability takes into account the varying outer loadings among the observed variable indicators (Hair et al., 2019). A variable is considered reliable or to have good consistency if Cronbach's alpha ≥ 0.6 (Malhotra, 2020) and composite reliability ≥ 0.7 (Hair et al., 2019).

Table 6. Internal consistency testing results

Variable	Cronbach's Alpha	Composite Reliability
Attitude (AT)	0.875	0.923
Subjective Norm (SN)	0.900	0.937
Perceived Behavioral Control (PBC)	0.858	0.913
Cognitive Status (CS)	0.814	0.890
Product Attributes (PA)	0.917	0.935
Non-Monetary Incentive Policy (NMIP)	0.882	0.927
Monetary Incentive Policy (MIP)		

3.2 structural model analysis

In the structural model analysis, various tests were conducted, including tests for multicollinearity, coefficients of determination, predictive relevance, and significance of direct path coefficients.

3.2.1 Collinearity testing

Collinearity may occur when there is a high correlation among formative indicators, indicating that some indicators might measure similar concepts (Hair et al., 2019). In structural modeling, collinearity testing is necessary, which involves examining the inner Variance Inflation Factor (VIF) values. The threshold for collinearity is typically set at around 5.00; inner VIF values below this threshold indicate the absence of collinearity symptoms (Hair et al., 2019). Based on the testing results, it can be concluded that this study found no signs of collinearity among the relationships between the variables.

Table 7. Collinearity testing results with inner vif values

Variable	AT	SN	PBC	CS	PA	NMIP	MIP	PI
AT								2.183
SN								2.065
PBC								2.915
CS								2.907
PA								2.219
NMIP								2.295
MIP								2.354
PI								

3.2.2 Coefficients of determination testing

The feasibility of the structural model can be evaluated by observing the coefficient of determination (R^2), which reflects how well a construct is predicted within the model. The R^2 value indicates the accuracy of the predictions made by the constructs in the model (Hair et al., 2019). In this study, the purchase intention (PI) variable yielded an R^2 value of 0.779, with an adjusted R^2 of 0.768. This indicates a high level of predictive accuracy for purchase intention.

Table 8. coefficients of determination testing results

Variable	R^2	Adjusted R^2
PI	0.779	0.768

3.2.3 Predictive relevance (Q^2) testing

To obtain the predictive relevance (Q^2) value, the blindfolding procedure was employed using a specified omission distance D. In this study, the cross-validated redundancy approach recommended by Hair et al. (2019) was utilized to derive the Q^2 values. The blindfolding technique removes data values at each D-th data point and estimates parameters using the remaining data points. The suggested range for D in PLS-SEM is between 5 and 12, with a default value of 7 in SmartPLS (Hair et al., 2019). It is crucial to ensure that the total number of data points divided by D does not result in a fraction. In calculating the Q^2 values for this study, no variable obtained a Q^2 value of 1, indicating predictive relevance in the model and among the endogenous latent variables.

Table 9. Predictive relevance (Q^2) testing results

Variable	SSO	SSE	Q^2 (=1-SSE/SSO)
AT	450.000	195.824	0.565
SN	450.000	168.639	0.625
PBC	450.000	212.472	0.528
CS	450.000	252.299	0.439
PA	900.000	377.336	0.581
NMIP	450.000	186.671	0.585
MIP	450.000	198.212	0.560
PI	450.000	178.424	0.604

3.2.4 Size and significance of path coefficients (direct effects) testing

Data processing was conducted after confirming that both the measurement model and the structural model met the eligibility criteria. Significance testing was performed using the bootstrapping method with 5,000 subsamples, following the recommendations of Hair et al. (2019). This study utilized a one-tailed test, where the hypotheses had predetermined directional influences. In a one-tailed test, an influence is considered significant if the T-value is ≥ 1.645 for positive directional hypotheses and ≤ -1.645 for negative directional hypotheses (Hair et al., 2019). The significance level set was 0.05, meaning a hypothesis would be regarded as significant if the P-value ≤ 0.05. The following presents the results of the path coefficients for the variables that have direct relationships.

Table 10. Direct path coefficient testing results with bootstrapping

Path Coefficients	(M)	Std. Dev	T-Value	P-Value	Conclusion
AT → PI	0.206	0.205	3.011	0.001	Significant
SN → PI	0.014	0.018	0.200	0.421	Not Significant
PBC → PI	0.219	0.217	2.596	0.005	Significant
CS → PI	0.167	0.162	2.674	0.004	Significant
PA → PI	0.012	0.014	0.191	0.424	Not Significant
NMIP → PI	0.182	0.179	2.163	0.015	Significant
MIP → PI	0.250	0.252	3.209	0.001	Significant

Based on the analysis results, the highest path coefficient effect was observed from monetary incentive policy to purchase intention, with a value of 0.250, followed by attitude towards purchase intention. Additionally, of the seven proposed hypotheses, two did not show significance: the influence of subjective norm on purchase intention and the effect of product attributes on purchase intention.

4. Conclusions

The theory of planned behavior (TPB) was employed in this study to develop a model assessing the factors influencing purchase intentions for electric vehicles in the Jabodetabek region. This model incorporates consumer attitudes, subjective norms, perceived behavioral control, cognitive status, product attributes, non-monetary incentive policies, and monetary incentive policies. The research method builds upon the approach by Huang and Ge (2019) but is adapted to suit the unique population sample examined in this study. While the prior study concentrated on the Beijing community, this research focuses on the Jabodetabek region, which has distinct characteristics compared to Beijing.

This study follows a single quantitative research design and collected data from 150 respondents using a non-probability convenience sampling method. The data were analyzed using structural equation modeling (SEM) through SPSS and SmartPLS software. The findings revealed a key difference from previous studies, highlighting the following insights: Attitude (AT) has a positive effect on purchase intention (PI), indicating that the more enthusiastic users are about electric vehicles, the higher their intention to purchase them. Conversely, subjective norms (SN) do not affect purchase intention (PI), suggesting that even though encouragement from people around them—through news, promotions, family, and friends—may support the idea of purchasing an electric vehicle, it does not significantly impact their purchase intentions. Perceived behavioral control (PBC) positively influences purchase intention (PI), indicating that consumers' intentions to buy electric vehicles increase with their perceived ability and confidence to make such a purchase.

Acknowledgement
The authors would like to express my gratitude to all who contributed to the completion of this research. Special thanks to the participants for their valuable insights, and to my family and colleagues for their ongoing support and encouragement throughout this study.

Author Contribution
The authors was responsible for the research design, data collection, analysis, and interpretation, as well as drafting and finalizing the manuscript.

Funding
This research received no external funding.

Ethical Review Board Statement
Not available.

Informed Consent Statement
Not available.

Data Availability Statement
Not available.

Conflicts of Interest
The authors declare no conflict of interest.

Open Access

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