

## EFFECTIVENESS OF GREEN TRUST AS A MEDIATING VARIABLE IN EXTENDING TPB THEORY TO ELECTRICAL AUTOMOTIVE ADOPTION IN INDONESIA



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### Abstract

This research aims to analyze the effectiveness of Green Trust as a mediating variable in expanding the TPB theory for the adoption of electric vehicles in Indonesia. The study method used is a quantitative method. Sampling in this study used a non-probability sampling technique with a purposive sampling method, where researchers deliberately selected respondents who were considered relevant for research purposes. Data was collected through questionnaires to all Indonesian people who have the intention to adopt automotive electrical. The data collection process was carried out through the use of a questionnaire with a Likert scale. The total number of respondents involved in this study was 425 respondents. The data analysis technique used in this study is the SEM PLS method, which consists of outer model and inner model analysis, with the help of SMARTPLS 4.0 software. The research results show that extensions of the TPB theory such as Attitude, Subjective Norm, and PBC variables have an effect on electrical automotive adoption, but green trust does not mediate the relationship between attitude and subjective norm towards adoption (EAV). This research provides valuable recommendations to increase the widespread adoption of electric automobiles in Indonesia.

**Keywords:** Attitudes, Subjective Norms, PBC, Green Trust, EAV

## INTRODUCTION

Air pollution is a pressing global environmental challenge, prompting countries to seek innovative solutions in the transportation sector (Sholahuddin, 2016). In Indonesia, which is experiencing rapid economic growth and rapid urbanization, electric vehicle (EV) adoption is emerging as a key strategy to reduce greenhouse gas emissions and air pollution impacts. Electric vehicles offer significant potential to reduce carbon footprints and address worsening air quality issues. Despite this potential, electric vehicle adoption in Indonesia is still relatively low compared to other countries that have been more advanced in transitioning to green technology (Naufal et al., 2024).

The Theory of Planned Behavior (TPB), introduced by Icek Ajzen in 1985, is one of the most commonly used theoretical models to understand individual behavior in the adoption of new technologies (Rini Kuswati, 2019). TPB states that a person's behavior is influenced by three main factors: attitude toward the behavior, subjective norms, and perceived behavioral control (PBC). In the context of electric vehicles, this theory can help explain how these factors influence consumers' intentions and decisions to switch from fossil fuel vehicles to electric vehicles (Rachmawati & Rahardi, 2023).

Attitudes toward behavior reflect an individual's evaluation of how positively or negatively they view the use of electric vehicles. If consumers have a positive view of the benefits and advantages of electric vehicles, they are more likely to have the intention to adopt this technology. However, these attitudes do not stand alone and can be influenced by a variety of external factors such as available information, personal experience, and social influences (Ong, German, et al., 2023).

Subjective norms refer to the social pressure that individuals feel from those around them, such as family, friends, and society. In the context of electric vehicle adoption, subjective norms may include society's views on electric vehicles and social pressure to choose greener options. If subjective norms favor the use of electric vehicles, consumers may feel more compelled to follow the trend (D. Wang et al., 2023).

Perceived behavioral control (PBC) describes the extent to which individuals feel they have control over the execution of a particular behavior. In the case of electric vehicles, PBC includes factors such as the availability of charging infrastructure, the cost of the

vehicle, and the ease of obtaining information and technical support. If consumers feel that they have sufficient control to access charging infrastructure and overcome financial constraints, they are more likely to adopt electric vehicles (Abbasi et al., 2021).

However, while the TPB provides a useful framework, there is a need to extend this theory to include additional variables relevant to the context of electric vehicle adoption. One important additional variable is green trust. Green trust refers to consumers' belief that the environmental claims of a product or technology are actually valid and not just a marketing ploy. In the context of electric vehicles, green trust reflects how much consumers believe that electric vehicles deliver the promised environmental benefits (Choe et al., 2021).

The role of green trust as a mediating variable can provide additional insight into understanding how consumers' perceptions of environmental claims influence their decision to adopt electric vehicles. As a mediating variable, green trust can strengthen or weaken the influence of attitudes, subjective norms, and PBC on electric vehicle adoption intentions. If consumers have high trust that electric vehicles provide real environmental benefits, this can increase the positive influence of attitudes, subjective norms, and PBC on their intention to adopt this technology (Bhutto et al., 2021).

This study aims to evaluate the effectiveness of green trust as a mediating variable in extending the TPB theory to electric vehicle adoption in Indonesia. By assessing how green trust affects the relationship between attitudes, subjective norms, PBC, and electric vehicle adoption intentions, this study will provide deeper insights into the factors that influence consumer decisions. This is important for designing more effective strategies to increase electric vehicle adoption (Jung Moon, 2020).

In addition, understanding the effectiveness of green trust in this context can help electric vehicle manufacturers, policymakers, and other relevant parties to design better programs to increase transparency and consumer trust in the environmental benefits of electric vehicles. This includes developing more informative and effective educational campaigns and improving policies that support valid environmental claims (S. Wang et al., 2016).

This research will also contribute to the development of behavioral theory by adding a new perspective on the role of green trust as a mediator in the TPB model. By extending

the TPB theory to include green trust, this research can provide more holistic and relevant guidance to understand and increase the adoption of green technologies in emerging markets such as Indonesia.

In the context of electric vehicle adoption, the success of strategies to increase adoption depends on a deep understanding of the factors that influence consumer decisions. This research aims to identify and analyze how green trust influences this process, and to provide valuable recommendations for increasing the widespread adoption of electric vehicles in Indonesia.

Overall, this research is expected to provide a deeper and more comprehensive insight into the role of green trust in electric vehicle adoption, as well as its contribution to the extension of TPB theory. By understanding the factors that influence consumer decisions, it is hoped that the adoption of electric vehicles in Indonesia can be increased, assisting the country in achieving its sustainability goals and reducing excessive emissions.

## **REVIEW OF LITERATURE**

### **TPB Theory**

The Theory of Planned Behavior or the theory of planned behavior is a further development of the Theory of Reasoned Action (TRA). The Theory of Planned Behavior has the definition that a person can act based on intentions or intentions only when that person has control over his behavior (Nur Asida & Kuswati, 2023). What influences a person to do or not do this is not only determined by attitudes and subjective norms, but a person's perception of the control that can be done comes from beliefs about this control. Where in the theory of planned behavior, beliefs affect attitudes towards certain behaviors, subjective norms, and perceived behavioral control. These three components interact and become determinants of intentions which in turn will determine whether the behavior in question will be carried out or not (Gungaphul & Devi Heeroo, 2022).

### **Adoption of Electrical Automotive**

Adoption is the process of accepting or using an innovation, product, or new technology by individuals, groups, organizations, or society at large. Specifically, in the context of electric vehicles or other alternative energy technologies, adoption refers to how

people or entities decide to switch from conventional technologies (such as fossil-fueled vehicles) to new technologies (electric vehicles) (Chaturvedi et al., 2023).

The adoption process involves a variety of factors that influence decision-making, including technological, financial, economic, regulatory, and user preference considerations. It can also be influenced by government policies, fiscal incentives, supporting infrastructure, and market readiness for new technologies. Adoption of technologies such as electric vehicles not only includes the decision to purchase the vehicle, but also includes aspects of use, operation, and integration with existing infrastructure. This adoption process can take place at various levels, from individuals adopting the technology for personal use to companies adopting the technology for their fleets, as well as governments encouraging the use of new technologies through public policies (Alos-Simo et al., 2017).

## **RESEARCH METHOD**

This study uses quantitative research, quantitative research is used to examine populations or samples using measuring instruments or research instruments, and quantitative data analysis to test hypotheses that have been made. According to (Sekaran & Bougie, 2016) population is a generalization area that occurs on objects or subjects that have certain qualities and characteristics set by researchers to study and then draw conclusions.

The population in this study was determined as the first step in determining the research sample (Bougie & Sekaran, 2017). The population used in this study were all Indonesians who had the intention to adopt electric vehicles, the number of respondents in this study was 425 people. The technique used in this sampling uses purposive sampling technique, namely the sample to be selected based on several considerations, namely with respondents selected based on the criteria applied. The criteria that will be used as sample samples are: 1) Age more than 17 years; 2) Have the intention to adopt electric vehicles in Indonesia.

The data collection technique used in this research is the questionnaire method. The questionnaire method is data collection by providing a questionnaire that can contain questions that will be answered by respondents. The research used in this study is primary data. Primary data is a data source where data is provided directly to data collectors. This

primary data can be obtained directly by respondents by giving questionnaires to obtain data on the behavior of Indonesian people in adopting electric vehicles.

The data analysis technique used in this research is the SEM PLS method, which consists of Outer Model and Inner model analysis, Outer model is a measurement to assess the validity and reliability of the model. Inner Model PLS Model Evaluation, This model is a structural model for predicting causal relationships between latent variables.

## RESULTS AND DISCUSSION

### Outer Model Analysis

#### Convergent Validity - Outer Loading

For an indicator to be considered to meet the criteria for convergent validity in a good category, the outer score must be  $> 0.7$ . The following are the outer loading scores for various indicators involved in the study variables.

**Table 1**  
**Outer Loading Value**

Variable	Indicator	Outer Loading
Attitude (X1)	X1.1	0,822
	X1.2	0,867
	X1.3	0,740
	X1.4	0,717
Subjective Norm (X2)	X2.1	0,779
	X2.2	0,839
	X2.3	0,716
	X2.4	0,783
	X2.5	0,752
PBC (X3)	X3.1	0,740
	X3.2	0,801
	X3.3	0,810
	X3.4	0,759
	X3.5	0,744
Green Trust (Z)	Z.1	0,780
	Z.2	0,868
	Z.3	0,776
	Z.4	0,700
	Z.5	0,795
Adoption Electrical Automotive (Y)	Y.1	0,827
	Y.2	0,789
	Y.3	0,767
	Y.4	0,711

According to Table 1, most indicators of the study variables have outer loading scores greater than 0.7. Based on the opinion of Chin (1998), the loading score in the range of 0.5 to 0.6 is considered adequate to meet the convergent validity criteria. The data presented shows that no variable indicator has an outer loading score  $<0.5$ . Thus, all indicators are considered valid and can be used in further studies and analysis.

**Discriminant Validity - AVE**

To assess discriminant validity, researchers need to check the AVE score. If the AVE value is  $> 0.5$ , it can be said that the variable meets the discriminant validity requirements. The following is the AVE value for each variable in this study:

**Table 2**  
**Average Variance Extracted Value**

Variable	AVE (Average Variance Extracted)	Description
Attitude (X1)	0,622	Valid
Subjective Norm (X2)	0,600	Valid
PBC (X3)	0,595	Valid
Green Trust (Z)	0,617	Valid
Adoption Electrical Automotive (Y)	0,600	Valid

Source: Processed Primary Data (2024)

According to Table 2, each variable in this study has an AVE value of  $> 0.5$ . The AVE value for each variable is as follows: attitude worth 0.622, subjective norm worth 0.600, PBC worth 0.595, Green trust worth 0.617, and intention to adopt electrical automotive 0.600. These figures show that each variable in this study meets the characteristics of discriminant validity and can be considered valid.

**Reliability Test**

The reliability test measures how far a measuring instrument or study instrument can provide consistent and stable results when used to measure a particular concept or construct, as explained by Abdillah and Hartono in 2015. In this study, reliability testing was carried out using the Composite Reliability and Cronbach Alpha methods.

**Table 3**  
**Reliability Test Results**

Variable	Cronbach Alpha	Composite Reliability
Attitude (X1)	$\geq 0,7$ 0,795	$\geq 0,7$ 0,868

Subjective Norm (X2)	0,832	0,882
PBC (X3)	0,830	0,880
Green Trust (Z)	0,844	0,889
Adoption Electrical Automotive (Y)	0,781	0,857

Source: Primary Data Processed (2024)

Table 3 shows that all variables in this study have a value of  $\geq 0.7$ . This shows that the variables are in accordance with the standards set for Cronbach's alpha and composite reliability. After conducting validity and reliability tests, it can be confirmed that all indicators and variables in this study are valid and reliable.

### Multicollinearity Test

To evaluate the presence of multicollinearity, we can check the tolerance and VIF values. Multicollinearity detection is carried out using threshold values which show that multicollinearity is considered insignificant when the tolerance value is greater than 0.1 or when the VIF value is  $< 5$ . Below are listed the VIF values found in this study.

**Table 4**  
**Colinearity Statistic (VIF)**

Variable	Adoption (EAV)	Green Trust
Attitude (X1)	1,340	1,319
Subjective Norm (X2)	1,642	1,587
PBC (X3)	2,051	1,672
Green Trust (Z)	1,738	
Adoption Electrical Automotive (Y)		

Source: Processed Primary Data (2024)

From Table 4. presented above, the Collinearity (VIF) statistical results are used to test for multicollinearity. The results show that the VIF value for the attitude variable on adoption (EAV) is 1.340, and the VIF value for the subjective norm variable on adoption (EAV) is 1.642. PBC on Adoption (EAV) is 2.051, and Green trust on Adoption (EAV) is 1.738. While the attitude on green trust is 1.319, the subjective norm on green trust is 1.587, and the PBC on green trust is 1.672. Because each VIF value is  $> 0.1$  and less than 5, this shows that there is no violation of the multicollinearity test.

**Inner Model Analysis**

**The goodness of Fit Test**

Structural model evaluation has the intention of identifying the relationship between variables that can be measured directly (manifest) and variables that cannot be analyzed directly (latent) from several variables that serve as the main predictor, mediator, and final result in a complex model. This model quality assessment includes two types of tests, namely R Square (R<sup>2</sup>) and Q-Square (Q<sup>2</sup>).

The R2 or R-Square value measures how well the independent (exogenous) variables can explain the variation in the dependent (endogenous) variable. The higher the R2 value, the better the model's ability to explain the dependent variable. According to Ghozali (2015), an R2 value of 0.75 shows a model with high determination strength, a value of 0.50 shows moderate determination, and a value of 0.25 shows weak determination. Below is the value of the coefficient of determination found in this study.

**Table 5**  
**R-Square Value**

	<b>R-Square</b>	<b>R-Square Adjusted</b>
Green Trust (Z)	0,725	0,721
Adoption Electrical Automotive (Y)	0,694	0,868

Source: Processed primary data (2024)

Based on Table 5 listed above, the R-Square value is used to assess the extent to which the attitude, subjective norms, and PBC variables affect green trust, with an R-Square score of 0.725 or 72.5%, while attitudes, subjective norms, and PBC affect Electrical Automotive Adoption with an R-square score of 0.694 or 69.4% The rest, namely 30.6%, is revealed by several other elements not included in this study model. So it can be concluded that the relationship between some of these variables is moderate or moderate.

The next test is the Q-Square test. This test involves the Q2 value, known as Predictive Relevance, to assess how optimally the model can predict the observation score and associated parameters. If the Q2 value is > 0, this indicates that the model has good predictive ability. If the Q2 value is less than 0, this indicates that the model is less effective in terms of predictive ability. The following is the calculation result of the Q-Square value

$$\begin{aligned}
 \text{Q-Square} &= 1 - (1 - R^2_1) \times (1 - R^2_2) \\
 &= 1 - (1 - 0,725) \times (1 - 0,694) \\
 &= 1 - (0,275 \times 0,306)
 \end{aligned}$$

$$= 1 - 0,08415$$

$$= 0,91585$$

According to the results of the study, a Q-Square score of 0.91585 was obtained. This value shows that the study model can explain 91.5% of the diversity of the data studied. The remaining 8.5% of the data diversity is explained by several other aspects that are not included in this study model. So the calculation results show that the study model has a good fit or adequate goodness of fit.

### Hypothesis Testing

In the hypothesis testing process, analysis is carried out on the original sample value, t-statistic, and p-value. The following is a table of Path Coefficient test results. If the p-value is <0.05, this indicates a direct impact between variables. Conversely, if the p-value is greater than 0.05, there is no direct impact between variables. In this study, the significance value used is the t-statistic of 1.96 (sig level = 5%). If the t-statistic value > 1.96, then the effect is considered significant. The following is the path coefficient value obtained from the test results.

**Table 6**  
**Hypothesis Test**

	<b>Hypothesis</b>	<b>Original Sample</b>	<b>T-Statistics</b>	<b>P Values</b>	<b>Description</b>
<b>Path Coefficient</b>					
Attitude -> Adoption Electrical Automotive	H1	0,159	3,225	0,001	<b>Accepted</b>
Subjective Norm -> Adoption Electrical Automotive	H2	0,254	4,525	0,000	<b>Accepted</b>
PBC-> Adoption Electrical Automotive	H3	0,157	2,385	0,009	<b>Accepted</b>
Attitude -> Green trust	H4	0,111	2,312	0,011	<b>Accepted</b>
Subjective Norm -> Green trust	H5	0,179	3,267	0,001	<b>Accepted</b>
PBC -> Green trust	H6	0,467	8,482	0,000	<b>Accepted</b>
Green Trust-> Adoption Electrical Automotive	H7	0,112	1,836	0,033	<b>Accepted</b>
<b>Indirect Effects</b>					

Attitude -> Green trust -> Adoption Electrical Automotive	H8	0,012	1,331	0,092	<b>Rejected</b>
Subjective Norm -> Green trust -> Adoption Electrical Automotive	H9	0,020	1,455	0,073	<b>Rejected</b>
PBC -> Green trust -> Adoption Electrical Automotive	H10	0,052	1,886	0,030	<b>Accepted</b>

Source: Primary data processed (2024)

Based on table 6. above, the interpretation is as follows:

1. The first hypothesis tests whether attitude has a positive and significant impact on the adoption of automotive electrical. The table shows a t-statistic score of 3.225 with an impact size of 0.159 and a p-value score of 0.001. With a t-statistic score > 1.96 and a p-values score < 0.05. So it can be concluded that the attitude hypothesis has a significant positive impact or is accepted on the adoption of electrical automotive.
2. The second hypothesis tests whether subjective norms have a positive and significant impact on the adoption of electrical automotive. The table shows a t-statistic score of 4.525 with an impact size of 0.254 and p-values of 0.000. With a t-statistic score > 1.96 and p-values < 0.05. So it can be concluded that the subjective norm hypothesis has a significant positive impact or is accepted on the adoption of automotive electrical.
3. The third hypothesis tests whether PBC has a positive and significant impact on the adoption of electrical automotive. The table shows a t-statistic score with a value of 2.385 a large impact with a value of 0.157 and p-values worth 0.009. With a t-statistic score > 1.96 and p-values < 0.05. So it can be concluded that the PBC hypothesis has a significant positive impact or is accepted on the adoption of automotive electrical.
4. The fourth hypothesis tests whether attitude has a positive and significant impact on green trust. The table shows a t-statistic score of 2.312 with an impact size of 0.111 and p-values of 0.011. With a t-statistic score > 1.96 and p-values < 0.05. So it can be concluded that the attitude hypothesis has a significant positive impact or is accepted on green trust.
5. The fifth hypothesis tests whether subjective norms have a positive and significant impact on green trust. The table shows a t-statistic score with a value of 3.267 with a

- large impact with a value of 0.179 and p-values worth 0.001. With a t-statistic score  $> 1.96$  and p-values  $< 0.05$ . So it can be concluded that the subjective norm hypothesis has a significant positive impact or is accepted on green trust.
6. The sixth hypothesis tests whether PBC has a positive and significant impact on green trust. The table shows a t-statistic score with a value of 8.482 a large impact with a value of 0.467 and p-values worth 0.000. With a t-statistic score  $> 1.96$  and p-values  $< 0.05$ . So it can be concluded that the PBC hypothesis has a significant positive impact or is accepted on green trust.
  7. The seventh hypothesis tests whether green trust has a positive and significant impact on automotive electrical adoption. The table shows a t-statistic score of 1.836 with an impact size of 0.112 and p-values of 0.033. With a t-statistic score  $> 1.96$  and p-values  $< 0.05$ . So it can be concluded that the PBC hypothesis has a significant positive impact or is accepted on the adoption of automotive electrical.
  8. The eighth hypothesis tests whether green trust can mediate the relationship between attitude and electrical automotive adoption. The table shows a t-statistic score with a value of 1.331 a large impact with a value of 0.012 and p-values worth 0.092. With a t-statistic score  $> 1.96$  and p-values  $> 0.05$ . So it can be concluded that the eighth hypothesis is rejected or negatively significant.
  9. The ninth hypothesis tests whether green trust can mediate the relationship between subjective norms and the adoption of electrical automobiles. From the table, it shows a t-statistic score with a value of 1.455 a large impact with a value of 0.020, and p-values worth 0.073. With a t-statistic score  $< 1.96$  and p-values  $> 0.05$ . So it can be concluded that the ninth hypothesis is rejected or negatively significant.
  10. The tenth hypothesis tested whether green trust can mediate the relationship between PBC and automotive electrical adoption. The table shows a t-statistic score of 1.886 with an impact size of 0.052 and p-values of 0.030. With a t-statistic score  $> 1.96$  and p-values  $< 0.05$ . So it can be concluded that the tenth hypothesis is accepted where green trust can mediate the relationship between PBC and automotive electrical adoption.

### **The Influence of Attitude on Electrical Automotive Adoption**

Attitude refers to the way a person responds, feels, or reacts to a situation, object, or person. It involves a combination of feelings, beliefs, and a tendency to act in a certain way. Attitudes can reflect an individual's views and values and influence how they interact with their surroundings (Sholahuddin & Saputri, 2020). Electric vehicle adoption (electrical automotive) refers to the process or trend in which electric vehicles are increasingly accepted and used as an alternative to vehicles that run on fossil fuels, such as gasoline or diesel. Electrical automotive is a car that uses an electric motor as the main drive, which usually gets energy from a rechargeable battery.

In this study, attitudes can influence the adoption of electrical automobiles because individuals' attitudes toward technology and environmental issues influence their decisions in choosing a vehicle. Overall, attitudes towards electric vehicles, whether in terms of environmental, technological, economic, or social, play an important role in determining how quickly and widely the adoption of electric vehicles is in society. This research is in line with research conducted by (Pramesti & Kuswati, 2024 and (Brückmann et al., 2021) which explains that attitudes affect the adoption of electrical automotive

### **The Effect of Subjective Norms on the Adoption of Electrical Automotive**

Subjective norm is a concept in behavioral theory that refers to an individual's perception of other people's or social groups' expectations of a particular behavior. It encompasses a person's beliefs about whether important people in their life (such as family, friends, or colleagues) will support or reject a particular action. In other words, subjective norms reflect the extent to which a person feels that they should do something based on the expectations and opinions of those around them.

This study explains that subjective norms have an impact on the adoption of electrical automobiles in Indonesia. In communities that support the adoption of electric vehicles, subjective norms can strengthen individual decisions. Communities that consider the use of electric vehicles as a positive and modern step will encourage more people to adopt this technology. Overall, subjective norms that support electric vehicle adoption can create a social environment conducive to wider adoption. When social norms, community support, and public policies support the use of electric vehicles, individuals will feel more encouraged to adopt this technology. This research is in line with research conducted by (Hamidu, 2017),

(Hardhianti & Sholahuddin, 2024) and (Boonchunone et al., 2023) which explains that subjective norms affect the adoption of electrical automobiles.

### **The Effect of PBC on Electrical Automotive Adoption**

Perceived Behavioral Control (PBC) is a concept in behavioral theory that refers to the extent to which a person feels they have control over certain behaviors and the ability to perform these behaviors. PBC plays a role in influencing one's intentions and ultimately behavior. In behavioral theory, PBC is considered a key factor in predicting whether a person will carry out a desired behavior. The higher the PBC, the more likely a person is to perform the behavior because they feel they have sufficient control (Praswati et al., 2022).

This research explains that PBC affects the adoption of Electrical Automotive in Indonesia. Perceived Behavioral Control is very important in determining whether individuals feel capable and motivated to adopt electric vehicles. Factors that increase their sense of control and ability, whether in terms of knowledge, external support, or infrastructure, can influence their decision to switch to this technology. Positive experiences with electric vehicles, such as good performance and cost savings, can reinforce PBC. If individuals have satisfactory experiences or hear positive reviews from other users, they will feel more confident and have greater control over the decision to use electric vehicles. This research is in line with the research (Karpurapu & Naga Venkata Raghuram, 2024) and (Ong, Cordova, et al., 2023) which explains that PBC affects the adoption of electrical automotive.

### **The Influence of Attitude on Green Trust**

In the Theory of Planned Behavior (TPB), attitude is one of the three main components that influence individual intentions and behavior. If someone believes that electric vehicles contribute to reducing climate change and air pollution, they will have more confidence in these environmentally friendly claims (Green Trust). This study shows that attitude has a positive and significant effect on green trust, a positive attitude towards electric vehicles tends to strengthen Green Trust because individuals who have a positive view of the environmental benefits of electric vehicles will have more confidence in claims that these vehicles are truly environmentally friendly. Both influence each other and contribute to individual decisions to choose electric vehicles as a sustainable transportation option. This

research is in line with the research (Higuera-Castillo et al., 2023) and (Mouakket & Aboelmaged, 2022) which explains that Attitude affects Green Trust.

### **The Influence of Subjective Norms on Green Trust**

Subjective norms play an important role in shaping Green Trust in the context of electric vehicle adoption or other green technologies. Green Trust is an individual's belief that the product or technology is truly environmentally friendly and contributes to environmental sustainability. This study shows that subjective norms affect green trust. Subjective norms reflect individuals' beliefs about the expectations of people around them such as family, friends, or colleagues for certain behaviors. Social norms support the view that electric vehicles are an environmentally friendly and desirable option, individuals will feel more encouraged to trust these environmental claims. For example, if many people in the community consider electric vehicles a good solution to environmental problems, individuals will be more likely to trust and adopt the technology. This research is in line with the research (Shaikh et al., 2023) and (Jayasingh et al., 2021) which explains that subjective norms affect green trust.

### **The influence of PBC on Green Trust**

This research explains that Perceived Behavioral Control (PBC) influences Green Trust through individuals' perceptions about how much control they have in adopting and using environmentally friendly technology. A high PBC that includes personal control, external support, and ease of use—can increase confidence that the technology is truly environmentally friendly and effective in providing environmental benefits. Conversely, if PBC is low and there are many obstacles or challenges, Green Trust may decrease, reducing individual motivation to adopt environmentally friendly technologies. This research is in line with the research (Rodríguez-Correa et al., 2023) which explains that PBC affects Green Trust.

### **The Influence of Green Trust on Electrical Automotive Adoption**

This research explains that Green Trust plays a crucial role in influencing individual decisions to adopt electric vehicles (electrical automotive). Green Trust, namely the belief that electric vehicles are truly environmentally friendly and contribute to sustainability makes individuals more inclined to choose this technology. High trust can overcome barriers,

increase adoption intentions, and encourage positive decisions. Conversely, a lack of Green Trust may hinder adoption, especially if individuals are skeptical of EV environmental claims or encounter barriers in their experience. This research is in line with the research (Alwadain et al., 2024) which explains that green trust influences the adoption of automotive electrical in Indonesia.

### **The Effect of Attitude on Electrical Automotive Adoption Mediated by Green Trust**

This research explains that green trust does not mediate the relationship between attitudes towards automotive electrical adoption in Indonesia, indicating that there may be a significant negative relationship between attitudes towards automotive electrical adoption. when green trust acts as a mediator, when green trust is low, even though attitudes towards EAVs are positive, EAV adoption may not increase as expected. In summary, to increase the adoption of electric vehicles, manufacturers and stakeholders need to build and strengthen green trust. This can be done through transparency in their environmental practices, demonstrating a clear commitment to sustainability, and effectively communicating the environmental benefits of EAVs. This research is in line with the research (Shalender & Sharma, 2021) which shows that green trust is rejected as a mediator of the relationship between attitudes towards adoption (EAV).

### **The Effect of Subjective Norms on the Adoption of Electrical Automotive Mediated by Green Trust**

Green trust is a person's level of confidence that a company or product has a strong commitment to the environment and sustainability. In this case, green trust functions as a mediator, meaning that it explains how subjective norms influence the decision to adopt EAV. If green trust is low, positive subjective norms toward EAV may not be strong enough to encourage adoption. For example, even if someone perceives that there is social pressure to use electric vehicles, if they do not believe in the environmental commitment of the company making the EAV, they may still be hesitant to adopt the technology. To increase EAV adoption, manufacturers and related parties need to focus not only on creating positive social norms but also on building and strengthening green trust in the eyes of consumers. This research is in line with the research (Higueras-Castillo et al., 2024) and (Shalender &

Sharma, 2021) which explains that green trust is rejected as a mediator of the relationship between subjective norms and adoption (EAV).

### **The Influence of PBC on the adoption of Electrical Automotive which is mediated by Green Trust**

In the context of electric automotive (EAV) adoption, the statement that the influence of Perceived Behavioral Control (PBC) on EAV adoption is mediated by green trust and the results are significantly positive indicates a complex but important relationship between perceived behavioral control, trust in sustainability, and decisions. to adopt environmentally friendly technologies. Individuals who feel they have control over the challenges associated with EV adoption tend to be more open to adoption. In other words, to facilitate EAV adoption, it is important to strengthen green trust and provide support to increase PBC, so that individuals feel more confident and motivated to adopt electric vehicles. This research is in line with the research (Hamidu, 2017) and (Boonchunone et al., 2023) which explains that green trust can mediate the relationship between PBC and automotive electrical adoption

### **CONCLUSION**

The Theory of Planned Behavior (TPB) provides a comprehensive framework for understanding and predicting human behavior, including decisions to adopt technologies such as electric vehicles. By analyzing attitudes, subjective norms, and perceived behavioral control, TPB helps in designing marketing strategies, policies, and interventions that can increase the adoption of electric vehicles, as well as overcome barriers that may exist. Attitudes, subjective norms, and perceived behavioral control (PBC) influence individual intentions and behavior. In the context of electrical automotive (EAV) adoption in Indonesia, the TPB is very important because it provides guidance for understanding consumer motivations. Positive attitudes toward the benefits and efficiency of EAVs, strong social support, and beliefs regarding the ability to overcome practical obstacles significantly influence EAV adoption intentions. Although green trust plays an important role in the final adoption decision, research shows that green trust does not mediate the relationship between subjective attitudes and norms and adoption intention. Therefore, marketing strategies and policies should focus on increasing positive attitudes, strengthening supportive social norms,

and addressing practical barriers to facilitate EAV adoption. TPB helps design more effective interventions by providing an in-depth understanding of the factors that influence consumer decisions, thereby supporting efforts to increase the use of electrical automobiles.

### **Suggestion**

1. **Building Green Trust:** To increase EAV adoption, manufacturers and stakeholders need to focus on strengthening green trust. This includes transparency in environmental practices, concrete evidence of sustainability, and clear communication regarding the environmental benefits of electric vehicles.
2. **Overcoming PBC Barriers:** Supporting individuals in overcoming barriers related to EAV use, such as cost, charging infrastructure, and information, will increase their PBC and strengthen their propensity to adopt EAVs.
3. **Reinforce Social Norms:** While positive subjective norms can motivate EAV adoption, it is important to ensure that these social norms are supported by a strong belief in the product's sustainability claims. Green trusts play a key role in ensuring that positive social influence can be translated into real adoption decisions.

### **ACKNOWLEDGMENTS**

We would like to thank Bima Kemenristekdikti and the UMS Innovation Research Institute (LRI UMS) for the support and funding provided for this research. The assistance provided was invaluable in achieving our research objectives and deepening our understanding in this field. Without such assistance, the results of this research would not have been possible.

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