

Pure Electric Car Purchase Decision Analysis using TAM and TPB

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Abstract:- This study aims to analyze the influence of Perceived Ease of Use and Perceived Usefulness either directly or through Attitude as an intervening variable and the influence of Attitudes, Subjective Norms, and Perceived Control Behavior on Purchasing Decisions of pure electric cars in Indonesia. This research is a quantitative study with population of consumers in Indonesia who have purchased pure electric cars and sample size of 125 respondents. Questionnaire data from respondents were analyzed with the *Structural Equation Modelling-Partial Least Square* method using *SmartPLS* version 3.3.8 software. The results showed that Perceived Ease of Use and Perceived Ease of Use had a significant positive effect on Attitudes, and Attitudes and Subjective Norms had a significant positive effect on Purchasing Decisions. As for Perceived Ease of Use, Perceived Usefulness, and Perceived Control, it turns out that they have no significant effect on Purchasing Decisions. This study also showed that Attitude is able to mediate the influence of Perceived Ease of Use and Perceived Usefulness on Purchasing Decisions.

Keywords:- TAM, TPB, Perceived Ease of Use, Perceived Usefulness, Attitudes, Subjective Norms, Perceived Control Behavior, pure electric car.

I. INTRODUCTION

Battery-based electric cars or BEV cars (Battery Electric Vehicles) or also called pure electric cars became popular with the emergence of Tesla Motors. grow until 2021 becomes the first pure electric car manufacturer capable of cumulatively selling more than 2 million units globally (Zia, 2022). This development is inseparable from

environmental issues. Pure electric vehicles that use electrical energy as propulsion are one of the solutions to reduce dependence on fossil fuels which are increasingly expensive and cause environmental damage.

If conventional vehicle engines produce carbon emissions, pure electric cars produce zero emissions and have several other advantages (Sanguesa, Torres-Sanz, Garrido, Martinez, & Marquez-Barja, 2021), namely:

- Maintenance is cheaper and higher reliability because the number of machine components is less.
- Operational costs are cheaper because electricity costs are cheaper than fuel.
- More comfortable due to the absence of vibration and engine noise.

The pure electric car is also a symbol representing one of the top priorities at the G20 Summit in Bali on 15-16 November 2022, namely the energy transition towards new and renewable energy by prioritizing energy security, accessibility and affordability to ensure a sustainable and green future and addressing real climate change (Ministry of Foreign Affairs, 2022).

With increasing popularity and support from the government, sales of pure electric cars in Indonesia have increased. The graph in Figure 1.1 shows that there is an increasing trend in sales of pure electric cars from 2019 to 2022. Sales from January to September 2022 alone reached 3,801 units which has overtaken sales during 2021 of 687 units with the three best-selling pure electric car brands being Wuling, Hyundai, and Nissan (GAIKINDO, 2022).

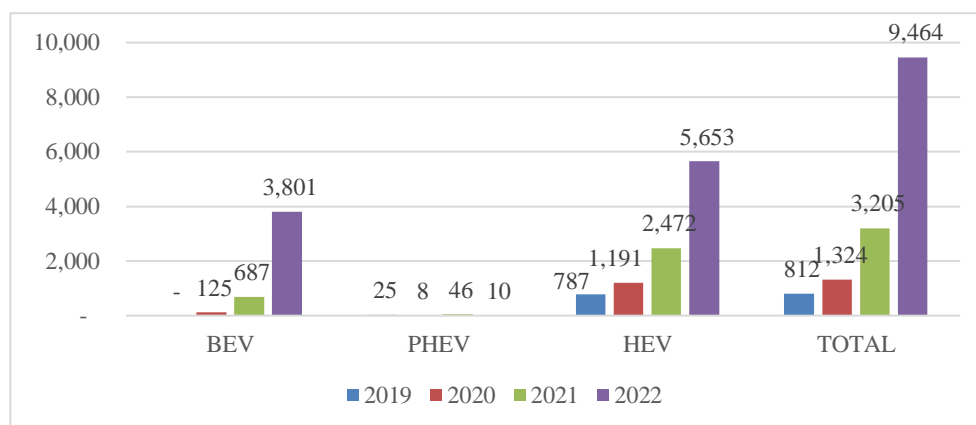


Fig. 1: Graph of Electric Car Sales January 2019-September 2022

Source: GAIKINDO wholesale sales data 2022

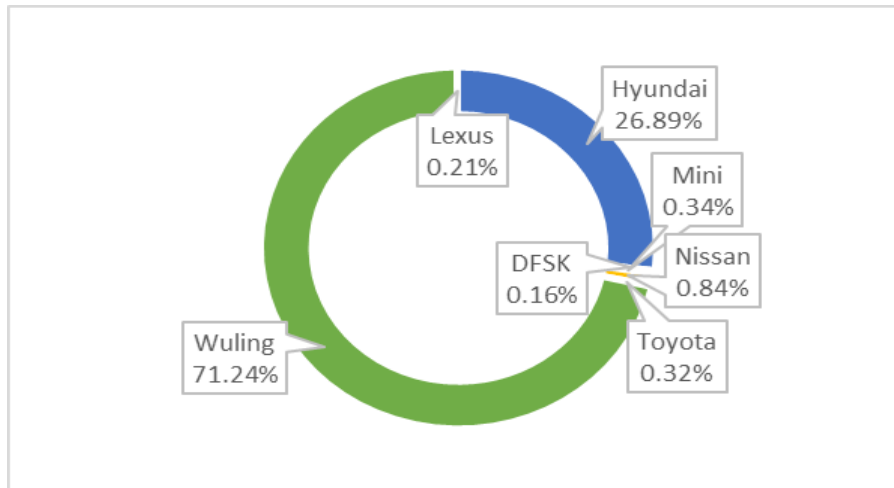


Fig. 2: Pure electric car market share January 2019-September 2022

Source: GAIKINDO wholesale sales data 2022

Table 1: Comparison of Sales of Pure vs Conventional Electric Cars January 2019-September 2022

Year	SALE		PERCENTAGE OF PURE ELECTRICITY/CONVENTIONAL
	PURE ELECTRIC CAR	CONVENTIONAL CARS	
2019	-	1.043.017	0
2020	125	578.762	0,02
2021	687	863.348	0,08
2022	3.801	744.961	0,51

From the graph, it can be seen that the sales of pure electric cars are still lagging behind the sales of HEV (Hybrid Electric Vehicle) cars. As of September 2022 HEV car sales have reached 5,653 units from sales in 2021 of 2,472 units.

Especially when compared to sales of conventional fossil-fueled cars, sales of pure electric cars are still very small. Table 1.1 shows that in 2022 pure electric car sales will only be 0.51% of conventional car sales (GAIKINDO, 2022).

Previous studies have studied the influence of various factors on the adoption or purchase intention of electric vehicles by using one or a combination of theories related to acceptance of innovation such as the Technology Acceptance Model (TAM) and behavioral theories such as Theory of Planned Behavior (TPB)

II. LITERATURE REVIEW

A. Consumer behavior

The study of individuals, groups or organizations and the processes they use to select, secure, use and dispose of products, services, experiences or ideas in satisfying needs and satisfying the impact of these processes on consumers and society is an area that falls under behavioral consumers (Hawkins, Mothersbaugh, & Kleiser, 2019).

At the beginning of the development of consumer behavior in the 1960-1970s, marketing experts only focused on buyer behavior, namely a point in time where a purchase transaction occurred (Solomon, 2019), and from this explanation of consumer behavior it can be seen that consumer behavior is broader than just buying behavior, where there is a cycle that is longer and continuous compared to buying behavior. Therefore, Hawkins, Mothersbaugh, & Kleiser (2019) summarizes consumer behavior into four aspects, namely:

- Consumer behavior is a complex process and consists of many dimensions.
- Successful marketing decisions require an understanding of the processes that underlie consumer behavior.
- Successful marketing decisions require gathering information about the consumers affected by those decisions.
- Marketing practices that affect consumers involve ethical issues that affect companies, consumers, and society.

B. Technology Acceptance Model (TAM)

TAM (Technology Acceptance Model) is a model developed by Davis in 1989 to examine factors that influence widespread computer acceptance by users and has been proven valid in many studies of user acceptance in various areas of technology and innovation (Yuen, Cai, Qi, & Wang, 2020).

Another major construct in TAM is Attitude towards behavior which is the user's emotional response to a technology, and this Attitude is influenced by the user's thoughts on Perceived Usefulness and Perceived Ease of Use (Korkmaz, Fidanoglu, Ozcelik, & Okumus, 2022).

Attitudes will then influence user behavior, while Perceived Usability and Perceived Ease of Use themselves are also influenced by external variables (Tu & Yang, 2019).

C. Theory of Planned Behaviour (TPB)

TPB was coined by Ajzen in 1985 which stated that Attitudes, Subjective Norms, and Perceptions of Behavioral Control are the main factors influencing consumer behavior (Amoako, Dzogbenuku, & Abubakari, 2020).

The TPB model has been widely used in the field of green marketing to examine how consumer beliefs, attitudes, and interests can predict green purchasing behavior (Riskos, Dekoulou, Mylonas, & Tsourvakas, 2021).

D. C-TAM-TPB

TAM and TPB are classified by Fishbein and Ajzen as theories of reasoned action (Thøgersen & Ebsen, 2019) and according to Korkmaz, Fidanoglu, Ozcelik, & Okumus (2022) are the two most widely used theories in research related to consumer acceptance. If TAM focuses more on the level of technology acceptance, then TPB examines human behavior in carrying out an action in general.

Therefore, in this study the C-TAM-TPB (Combined TAM TPB) model was used which is a combination of the TAM and TPB models. By combining the two models, several advantages are obtained (Vafaei-Zadeh, Wong, Hanifah, Teoh, & Nawaser, 2022), namely:

- It is an integration of TAM and TPB so that it can examine the factors that influence individual behavior (in this study is the Purchase Decision) in a more comprehensive or consolidated manner.
- Can be used to research the behavior of experienced and inexperienced consumers.

E. Buying decision

Purchasing decisions are usually preceded by a perception of a problem, namely the difference between the consumer's current condition and the desired ideal condition, which encourages consumers to act to resolve the problem (Hoyer, Macinnis, Pieters, Chan, & Northey, 2021)

The variables used in this study are described in the form of a research model shown in Figure 3 below.

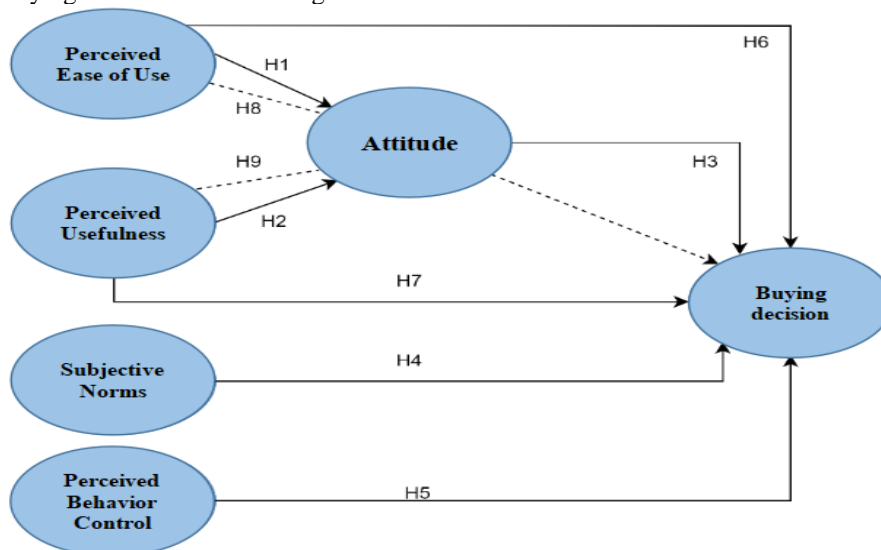


Fig. 3: Research Model

F. Hypothesis Development

The hypotheses in this study include the following:

- H1: Perceived ease of use has a significant positive effect on attitude.
- H2: Perceived Usefulness has a significant positive effect on Attitude.
- H3: Attitude has a significant positive effect on the decision to buy a pure electric car.
- H4: Subjective Norm has a significant positive effect on the decision to buy a pure electric car.
- H5: Perceived behavioral control has a significant positive effect on the decision to buy a pure electric car.
- H6: Perceived ease of use has a significant positive effect on the decision to buy a pure electric car.
- H7: Perceived usefulness has a significant positive effect on the decision to buy a pure electric car.
- H8: Attitudes mediate the effect of Perceived Ease of Use on Purchasing Decisions of pure electric cars.

- H9: Attitude mediates the effect of Perceived Usefulness on Purchasing Decisions of pure electric cars.

III. RESEARCH METHODS

This study collects quantitative data from large groups of people through a survey method that contains structured questions about what they think, feel, and do. The descriptive nature in quantitative research means that numbers and statistics are used to summarize demography, attitudes, and behavior (Hair, Ortinau, & Harrison, 2021)

This research is intended to gain understanding and reveal the relationship between the variables contained in this study, namely as follows:

A. Independent Variables

In this study the independent variables are Perceived Ease of Use (X1), Perceived Usefulness (X2), Subjective Norms (X3), and Perceived Behavior Control (X4).

B. Dependent Variable (Dependent Variable or Dependent Variable)

The dependent variable according to Nunan, Birks, & Malhotra (2020) is a variable that measures the effect of the independent variable on the unit test, where the unit test is the entity (can be a person, organization) whose response to the independent variable is examined. Burns & Veeck (2020) states that the dependent variable is a variable that is measured in response to changes in the independent variable. Meanwhile, the dependent variable according to Leavy (2023) is a variable that is influenced by other variables. In this study, the dependent variable is Purchase

Decision (Y).

C. Intervening Variable (Intervening Variable or Mediator Variable)

This variable is an intermediate variable that lies between the independent and dependent variables, so that the independent variable does not directly affect the dependent variable. In this study, the intervening variable is consumer attitude (Z).

IV. DISCUSSION

A. Schematic of the Smart PLS Model

In this study, testing the hypothesis using the Partial Least Square (PLS) analysis technique with the SmartPLS 3.3.8 program. The schematic model of the PLS program being tested is shown in Figure 4.

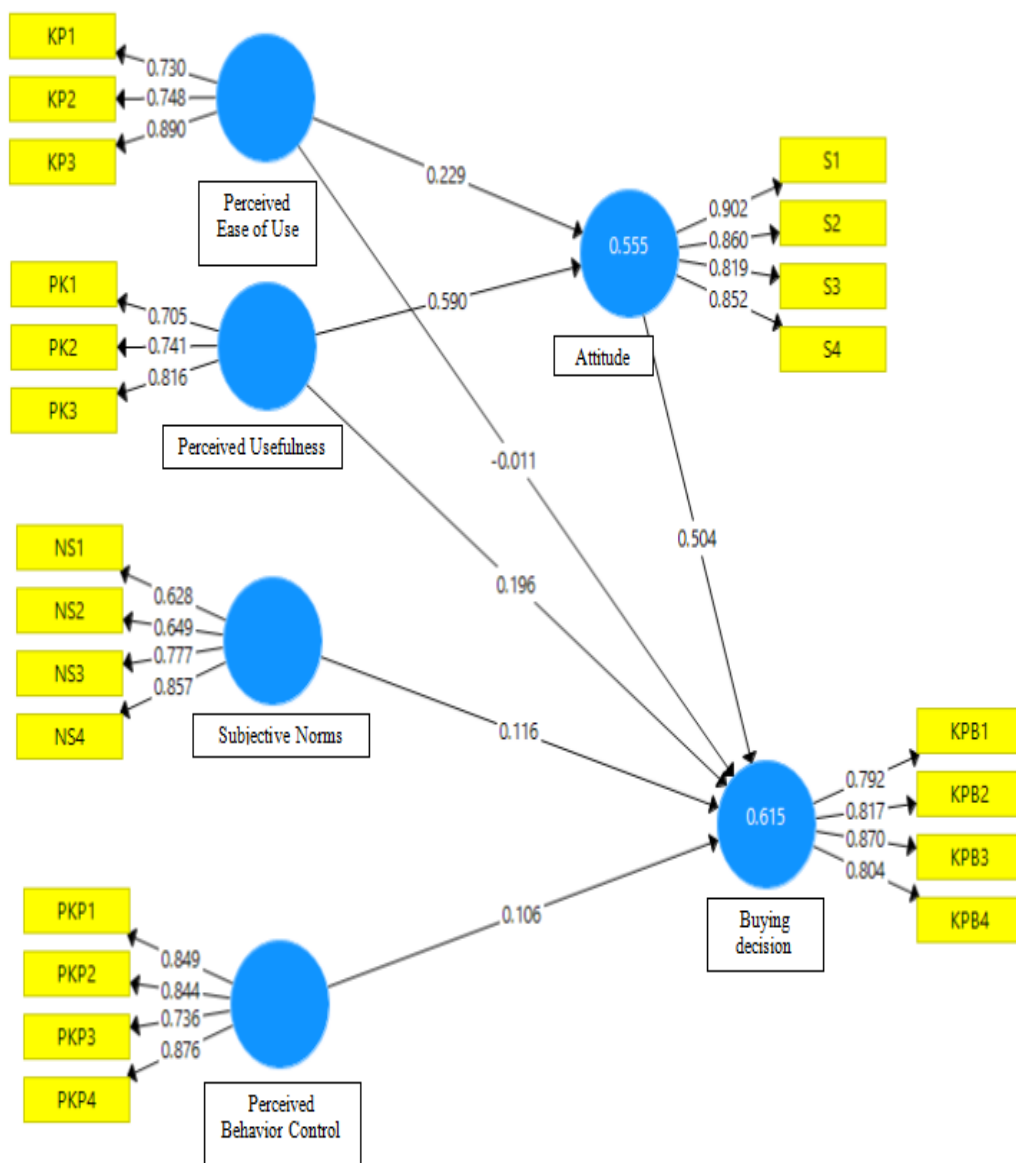


Fig. 4: PLS Program

B. Outer Model Evaluation

➤ Convergent Validity

To test the convergent validity, the value of outer loading or loading factor is used, which for each variable indicator is shown in the following table 2:

Table 2: Outer Loading Value of All Variables (1)

Variable	Indicator Code	Outer Loading Value	Requirement	Explanation
Perceived User Ease	KP1	0.730	> 0,7	Valid
	KP2	0.748	> 0,7	Valid
	KP3	0.890	> 0,7	Valid
Perceived Usefulness	PK1	0.705	> 0,7	Valid
	PK2	0.741	> 0,7	Valid
	PK3	0.816	> 0,7	Valid
Attitude	S1	0.902	> 0,7	Valid
	S2	0.860	> 0,7	Valid
	S3	0.819	> 0,7	Valid
	S4	0.852	> 0,7	Valid
Subjective Norms	NS1	0.628	> 0,7	Invalid
	NS2	0.649	> 0,7	Invalid
	NS3	0.777	> 0,7	Valid
	NS4	0.857	> 0,7	Valid
Perceived Behavior Control	PKP1	0.849	> 0,7	Valid
	PKP2	0.844	> 0,7	Valid
	PKP3	0.736	> 0,7	Valid
	PKP4	0.876	> 0,7	Valid
Buying decision	KPB1	0.792	> 0,7	Valid
	KPB2	0.817	> 0,7	Valid
	KPB3	0.870	> 0,7	Valid
	KPB4	0.804	> 0,7	Valid

Source: Results of analysis using SmartPLS 3.3.8

An indicator is declared to meet convergent validity in the good category if the outer loading value is > 0.7. Based on the data presented, it is known that each research variable indicator has an outer loading value > 0.7, except for the

NS1 and NS2 indicators in the Subjective Norm variable. Thus the two indicators were deleted and a second analysis was carried out to produce the following figures and tables:

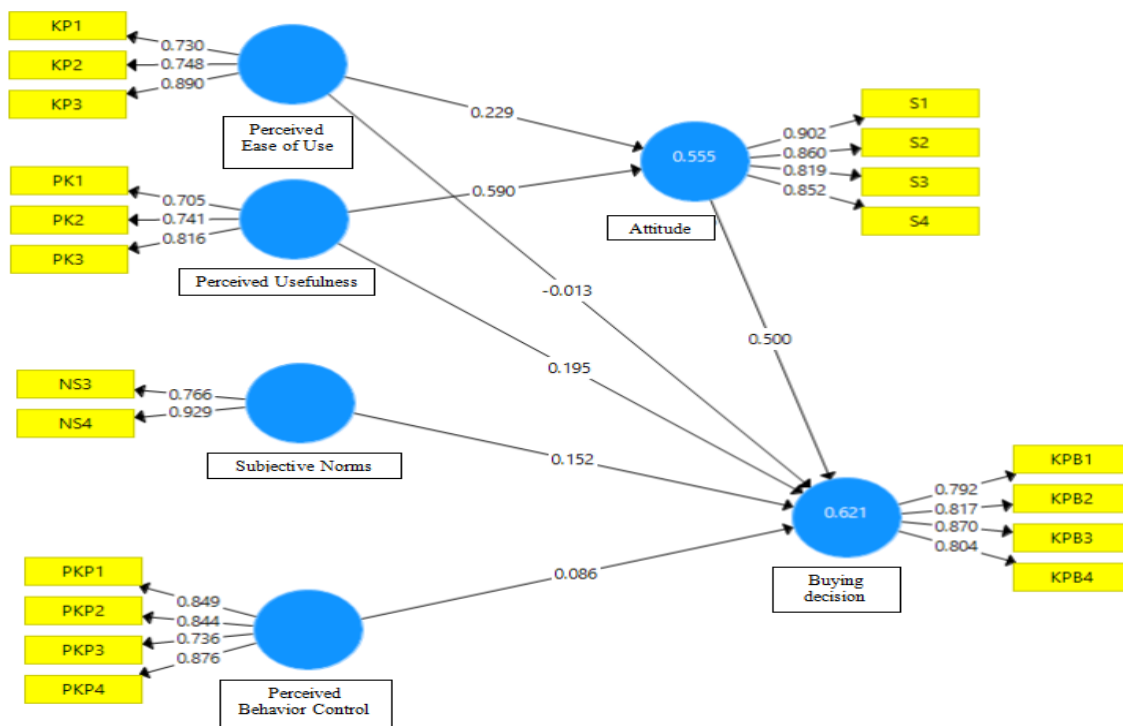


Fig. 5: Outer Model Using SmartPLS 3.3.8 (2)

Based on the data presented in, it is known that each research variable indicator has an outer loading value of > 0.7. According to Chin, as quoted by Imam Ghozali, the outer loading value between 0.5 – 0.6 is considered sufficient to meet the requirements of convergent validity.

The data above shows that there are no variable indicators whose outer loading value is below 0.7, so that all indicators are declared feasible or valid for research use and can be used for further analysis.

Table 3: Outer Loading Value of all Variables (2)

Variable	Indicator Code	Outer Loading Value	Requirement	Explanation
Perceived User Ease	KP1	0.730	> 0,7	Valid
	KP2	0.748	> 0,7	Valid
	KP3	0.890	> 0,7	Valid
Perceived Usefulness	PK1	0.705	> 0,7	Valid
	PK2	0.741	> 0,7	Valid
	PK3	0.816	> 0,7	Valid
Attitude	S1	0.902	> 0,7	Valid
	S2	0.860	> 0,7	Valid
	S3	0.819	> 0,7	Valid
	S4	0.852	> 0,7	Valid
Subjective Norms	NS3	0.766	> 0,7	Valid
	NS4	0.929	> 0,7	Valid
Perceived Behavior Control	PKP1	0.849	> 0,7	Valid
	PKP2	0.844	> 0,7	Valid
	PKP3	0.736	> 0,7	Valid
	PKP4	0.876	> 0,7	Valid
Buying decision	KPB1	0.792	> 0,7	Valid
	KPB2	0.817	> 0,7	Valid
	KPB3	0.870	> 0,7	Valid
	KPB4	0.804	> 0,7	Valid

Source: Results of analysis using SmartPLS 3.3.8

In addition to observing the cross loading value, discriminant validity can also be known through other methods, namely by looking at the Average Variant

Extracted (AVE), Fornell-Larcker values for each indicator for a good model. Values from the AVE table are shown in Figure .5 and Table 4.

Table 4: AVE (Average Variance Extraction) Research Model

Variable	AVE Value	Standar AVE
Buying decision	0.675	0.5
Subjective Norms	0.725	0.5
Perceived Usefulness	0.570	0.5
Perceived User Ease	0.629	0.5
Perceived Behavior Control	0.685	0.5
Attitude	0.737	0.5

Source: Results of analysis using SmartPLS 3.3.8

Based on the data presented it is known that the AVE value of the variable Perceived User Ease, Perceived Usability, Attitude, Subjective Norm, Perceived Behavior Control, and Purchase Decision > 0.5. Thus it can be stated

that each variable has good discriminant validity. Furthermore, discriminant validity testing is carried out by looking at the Fornell-Larcker value. The following are values from the Fornell-Larcker table:

Table 5: Fornell-Larcker Criterion Research Model

	Buying decision	Subjective Norms	Perceived Usefulness	Perceived User Ease	Perceived Behavior Control	Attitude
Buying decision	0.821					
Subjective Norms	0.495	0.851				
Perceived Usefulness	0.645	0.381	0.755			
Perceived User Ease	0.489	0.392	0.571	0.793		
Perceived Behavior Control	0.554	0.490	0.453	0.556	0.828	
Attitude	0.757	0.462	0.721	0.566	0.625	0.859

C. Evaluation of the Inner Model

Table 6: Value of R Square (R²) from the Research Model

Konstruk	R Square	R Square Adjusted
Buying decision	0.621	0.605
Attitude	0.555	0.547

Source: Results of analysis using SmartPLS 3.3.8

Seen in table 6 the relationship between constructs based on the adjusted R-square value can be explained that the Attitude variable is 0.547 this indicates that 54.7% of the Attitude variable can be influenced by the Perception variable Ease of Use, and Perceived Usefulness, while the remaining 45.3% is influenced by other variables beyond those studied. Meanwhile, the adjusted R-square value of the Purchase Decision variable is 0.605. This indicates that 60.5% of the Purchase Decision variable can be influenced by the variables Perceived Ease of Use, Perceived Usefulness, Attitudes, Subjective Norms, and Perceived Behavioral Control, while the remaining 39.5% are influenced by other variables beyond what is being studied.

➤ Q2 Predictive Relevance

Table 7: Predictive Relevance Q² Value of the Research Model

	SSO	SSE	Q ² (=1-SSE/SSO)
Buying decision	500.000	298.804	0.402
Subjective Norms	250.000	250.000	
Perceived Usefulness	375.000	375.000	
Perceived User Ease	375.000	375.000	
Perceived Behavior Control	500.000	500.000	
Attitude	500.000	298.889	0.402

Table 7 shows that Q2 data analysis predictive relevance to exogenous or independent constructs has a value of 0.402, and 0.402 which is above 0 so that it has predictive relevance results for endogenous or dependent constructs using SmartPLS 3.3.8 software.

➤ Test the Goodness of Fit Index (GoF)

The purpose of testing the Goodness of Fit Index (GoF) is to validate the combined performance of the measurement model (outer model) and the structural model (inner model) which is obtained through the following calculations:

$$GoF = \sqrt{AVE \times R^2}$$

$$GoF = \sqrt{0.670 \times 0.588}$$

$$GoF = \sqrt{0.394}$$

$$GoF = 0.63$$

➤ Hypothesis testing

Hypothesis testing was carried out based on the results of Partial Least Square (PLS) analysis by conducting the Bootstrapping test using a confidence level of 95% (alpha 5%) and t-statistic with t-table 1.96. To test the hypothesis in this study, if the t-statistic value > t-table then the hypothesis is

accepted, if the p-value < the level of confidence (alpha = 0.05) then the hypothesis is accepted. The results of testing

the hypothesis using SmartPLS 3.3.8 as follows:

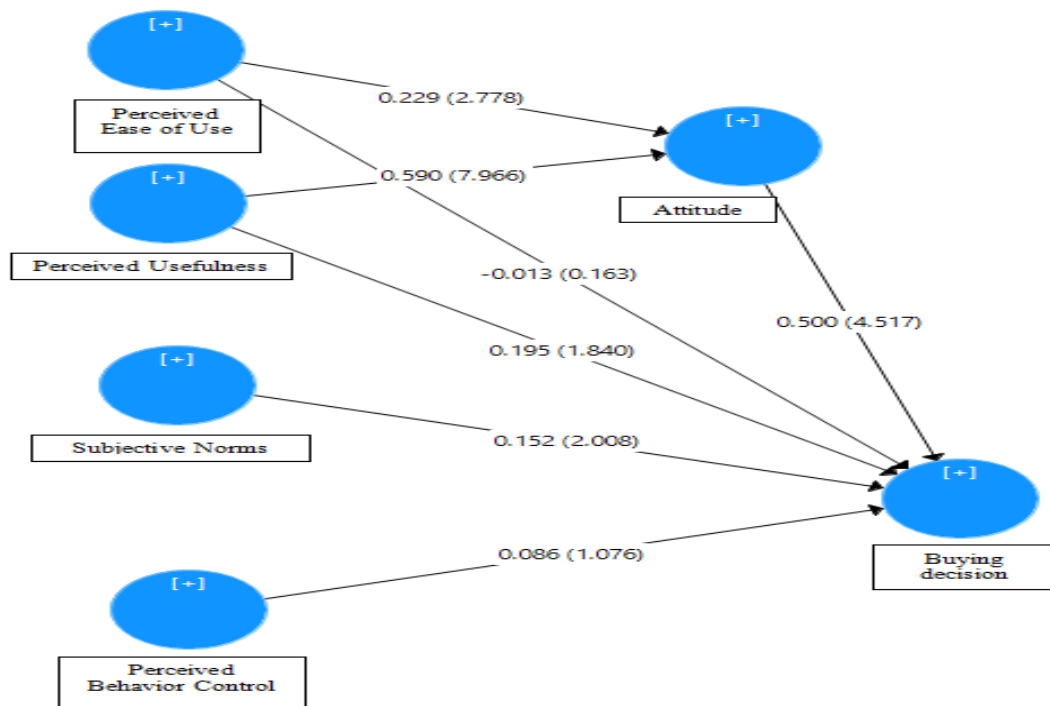


Fig. 6: Model of Path Coefficient and Structural T-Statistics of Research Model

➤ *The Effect of Perceived Ease of Use on Attitudes Directly*

The first hypothesis H1 states that Perceived Ease of Use has a significant positive effect on Attitude. The variable perceived ease of use has a t-statistic value of 2.778 which is greater than the t-table value = 1.96, and a p-value = 0.006 which is smaller than $\alpha = 0.05$. The path coefficient value of the Perceived Ease of Use variable is positive at 0.229, which means the better the Perceived Ease of Use value, the better or increase the value of Attitude is 22.9%.

This shows that the more someone perceives that using a pure electric car is easy, the more positive attitude they will have towards buying a pure electric car. This is in line with the research results of Vafaei-Zadeh, Wong, Hanifah, Teoh, & Nawaser (2022), Maso & Balqiah (2022), Tu & Yang (2019), and Gunawan, et al. (2022), but contradicts the research results of Moon (2020) and Xianglong, Ning, & Junman (2021).

➤ *The Effect of Perceived Usefulness on Attitudes Directly*

The second hypothesis H2 states that Perceived Usefulness has a significant positive effect on Attitude. The variable perceived usefulness has a t-statistic value of 7.966 which is greater than the t-table value = 1.96, and a p-value = 0.000 which is less than $\alpha = 0.05$. The path coefficient value of the Perceived Usefulness variable is positive at 0.590, which means the better the Perceived Usefulness value, the better or increase the value of Attitude is 59.0%.

This finding indicates that the higher a person's perception that a pure electric car benefits their performance or quality of life, the more positive their attitude towards a pure electric car purchase decision. The same results were

obtained from research conducted by Thuy & Hong (2019), Tu & Yang (2019), Yankun (2020), and Masukujjaman, Alam, Siwar, & Halim (2021). The results of this study are different from the results of research by Dutta & Hwang (2021) and Jan, Ji, & Yeo (2019).

➤ *Influence of Attitudes on Purchase Decisions Directly*

The third hypothesis H3 states that attitude has a significant positive effect on purchasing decisions. The Attitude variable has a t-statistic value of 4.517 which is greater than the t-table value = 1.96, and a p-value = 0.000 which is smaller than $\alpha = 0.05$. The path coefficient value of the Attitude variable is positive by 0.500, which means the better the Attitude value, the better the value of the Purchase Decision is 50.0%.

This means that the more positive a person's attitude towards the behavior of buying a pure electric car, the more likely they are to purchase a pure electric car. This finding is consistent with the research results of Shalender & Sharma (2021), Thogersen & Ebsen (2019), Kotb & Shamma (2022), and Amoako, Dzigbenuku, & Abubakari (2020). However, it is different from the research results of Tanwir & Hamzah (2020), Hamzah & Tanwir (2020), Xianglong, Ning, & Junman (2021), and Salsabila & Salehudin (2023).

➤ *Effect of Subjective Norms on Purchasing Decisions Directly*

The fourth hypothesis H4 states that Subjective Norms have a significant positive effect on Purchasing Decisions. The Subjective Norm Variable has a t-statistic value of 2.008 which is greater than the t-table value = 1.96, and a p-value = 0.045 which is smaller than $\alpha = 0.05$. The path coefficient value of the Subjective Norm variable is positive

at 0.152, which means the better the Subjective Norm value, the better the value of the Purchase Decision is 15.2%.

This shows that the greater the influence of the people around the individual to buy a pure electric car, the more likely they are to buy a pure electric car. These results are in accordance with the results of research by Asadi, et al. (2020), Bhutto, Shaikh, & Sharma (2021), Tanuwijaya & Balqiah (2022), and Tuan, Thao, Linh, Le, & Linh (2022), but these results are different from the results of Huang & Ge's research (2019), Pradeep, Amshala, & Raghuram Kadali (2021), Salsabila & Salehudin (2023), and Masukujjaman, Alam, Siwar, & Halim (2021).

➤ *The Effect of Perceived Behavioral Control on Purchasing Decisions Directly*

The fifth hypothesis H5 states that Perceived Behavioral Control has a significant positive effect on Purchasing Decisions. The Perceived Behavior Control variable has a t-statistic value of 1.076 which is smaller than the t-table value = 1.96, and the p-value = 0.282 which is greater than $\alpha = 0.05$. Thus the H5 hypothesis is rejected.

This means that the higher a person's perception that they can afford or easily buy a pure electric car, does not have a major effect on their decision to buy a pure electric car. These results are in accordance with the results of research by Thuy & Hong (2019), Asadi, et al. (2020), Xianglong, Ning, & Junman (2021), but contradicts the results of research by Dong, Zhang, Wang, & Wang (2020), Dutta & Hwang (2021), Salsabila & Salehudin (2023), and Wang, Pei, & Fu (2022).

➤ *The Effect of Perceived Ease of Use on Purchasing Decisions Directly*

The sixth hypothesis H6 states that Perceived Ease of Use has a significant positive effect on Purchasing Decisions. The Perceived Ease of Use variable has a t-statistic value of 0.163 which is smaller than the t-table value = 1.96, and the p-value = 0.871 which is greater than $\alpha = 0.05$. Thus the H6 hypothesis is rejected.

This shows that the higher a person's perception that a pure electric car is easy to use, it will not have a big influence on their decision to buy a pure electric car. This is in line with the research results of Roemer & Henseler, (2022), Wang, Pei, & Fu (2022), and Masukujjaman, Alam, Siwar, & Halim (2021), but different from the results of Thogersen & Ebsen's (2019) research, Yuen, Cai, Qi, & Wang (2020), Tanuwijaya & Balqiah (2022), and Xianglong, Ning, & Junman (2021).

➤ *The Effect of Perceived Usefulness on Purchasing Decisions Directly*

The seventh hypothesis H7 states that Perceived Usefulness has a significant positive effect on Purchasing Decisions. The variable perceived usefulness has a t-statistic value of 1.840 which is less than the t-table = 1.96, and a p-value = 0.066 which is greater than $\alpha = 0.05$. Thus the H7

hypothesis is rejected.

This means that the more someone perceives that a pure electric car is useful and can improve their performance, it will not have a big influence on their decision to buy a pure electric car. The results of this study are in accordance with the results of research by Vafaei-Zadeh, Wong, Hanifah, Teoh, & Nawaser (2022), Maso & Balqiah (2022), and Roemer & Henseler (2022), but contradict the results of research by Yuen, Cai, Qi, & Wang (2020), Tanuwijaya & Balqiah (2022), Sekhar & Minal (2022), and Yankun (2020).

➤ *The Effect of Perceived Ease of Use on Purchase Decisions Through Attitudes*

The eighth hypothesis H8 states that Attitude mediates the effect of Perceived Ease of Use on Purchasing Decisions of pure electric cars. The Perceived Ease of Use variable has a t-statistic value of 2.685 which is greater than the t-table value = 1.96, and the p-value = 0.007 which is smaller than $\alpha = 0.05$. The path coefficient value of the Perceived Ease of Use variable is positive at 0.114, which means the better the Perceived Ease of Use value, the better the value of the Purchase Decision (Y) through Attitude.

These results indicate that the higher a person's perception that using a pure electric car is easy, the more positive their attitude towards pure electric car buying behavior, and the more positive the attitude, the more likely they are to buy a pure electric car. This finding is in line with the results of research by Wang, Pei, & Fu (2022), Masukujjaman, Shah-Alam, Siwar, & Abdul-Halim (2021), Gunawan, et al. (2022), and Yankun (2020), but contradicts the research results of Moon (2020) and Xianglong, Ning, & Junman (2021).

➤ *The Effect of Perceived Usefulness on Purchase Decisions Through Attitudes*

The ninth hypothesis H9 states that Attitude mediates the effect of Perceived Usefulness on Purchasing Decisions of pure electric cars. The variable perceived usefulness has a t-statistic value of 3.502 which is greater than the t-table value = 1.96, and the p-value = 0.001 which is smaller than $\alpha = 0.05$. The path coefficient value of the Perceived Usefulness variable is positive at 0.295, which means the better the Perceived Usefulness value, the better the value of the Purchase Decision (Y) through Attitude.

These results indicate that the greater a person's perception that electric cars are beneficial to their performance, the more positive their attitude towards pure electric car buying behavior will be, and the more positive the attitude, the more likely they are to buy pure electric cars. These results are in accordance with the results of research by Vafaei-Zadeh, Wong, Hanifah, Teoh, & Nawaser (2022), Maso & Balqiah (2022), Thuy & Hong (2019), and Tu & Yang (2019), but different from the results of Jan's research, Ji, & Yeo (2019) and Dutta & Hwang (2021).

V. CONCLUSION

Perceived ease of use of pure electric cars that people

feel has an impact on their attitudes towards purchasing behavior of pure electric cars. So it can be said that the increasing perceived ease of use of pure electric cars by the public will increase their positive attitude towards the buying behavior of pure electric cars.

A. Perceived Usefulness has a significant positive effect on Attitude

Perceptions of the usefulness of pure electric cars that people feel have an impact on their attitudes towards purchasing behavior of pure electric cars. So it can be said that the increasing perception of the usefulness of pure electric cars felt by the community will increase their positive attitude towards the buying behavior of pure electric cars.

B. Attitude has a significant positive effect on the decision to purchase a pure electric car.

People's attitudes towards pure electric car buying behavior have an impact on their decision to buy pure electric cars. So it can be said that the increasing positive attitude of the public towards the buying behavior of pure electric cars will further increase their likelihood of buying pure electric cars.

C. Subjective Norm has a significant positive effect on the decision to purchase a pure electric car.

Subjective norms regarding pure electric cars that people feel have an impact on their decision to buy pure electric cars. So it can be said that the increasing Subjective Norms regarding pure electric cars that are felt by the public will further increase their likelihood of buying pure electric cars.

D. Perceived Behavioral Control has no significant effect on the Purchase Decision of a pure electric car.

Perceived Control The purchasing behavior of pure electric cars that people feel does not have an impact on their decision to buy pure electric cars. So it can be said that the increasing Perception Control Behavior of buying pure electric cars that people feel will not increase their likelihood of buying pure electric cars.

E. Perceived ease of use has no significant effect on purchasing decisions for pure electric cars.

Perceived ease of use of pure electric cars that people feel does not have an impact on their decision to buy pure electric cars. So it can be said that the increasing perceived ease of use of pure electric cars by the public will not increase their likelihood of buying pure electric cars.

F. Perceived usefulness has no significant effect on the purchase decision of a pure electric car.

Perception The use of pure electric cars that people feel does not have an impact on their decision to buy pure electric cars. So it can be said that the increasing perception of the usefulness of pure electric cars that people feel will not increase their chances of buying pure electric cars.

G. Attitude mediates the effect of Perceived Ease of Use on Purchasing Decisions of pure electric cars.

Perceived ease of using pure electric cars that people feel can only have an impact on their decision to buy pure

electric cars if they get the mediating effect of attitude. So it can be said that the increasing perceived ease of use of pure electric cars by the public will increase their positive attitude first towards the buying behavior of pure electric cars and will then increase their likelihood of buying pure electric cars.

H. Attitude mediates the effect of Perceived Usefulness on Purchasing Decisions of pure electric cars.

Perception The usefulness of pure electric cars that people feel can only have an impact on their decision to buy pure electric cars if they get the mediating effect of attitudes. So it can be said that the increasing perception of the usefulness of pure electric cars felt by the community will increase their positive attitude first towards the behavior of buying pure electric cars, then will further increase their likelihood of buying pure electric cars.

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