Model Analysis of Millennials' Purchase Intention Electric Cars in JABODETABEK

Veryzal Danang Nugraha¹; Djumarno²
Postgraduate Student¹; Postgraduate Lecturer²
Faculty of Economic and Business Mercu Buana University Jakarta, Indonesia

Abstract:- This study explores a model of customer purchase intention in millennial segment electric car buyers in Jabodetabek using a modified Theory of Planned Behavior (TPB) and analyzed by Structural Equation Modeling using Smart-PLS 3.2.9. Although sales of electric cars in Indonesia are increasing, consumer purchase interest, especially the millennial generation, is still low compared to other Asian countries. This study examines the influence of factors in the modified TPB, including Attitude, Subjective Norms, Perceived Behavioral Control, Government Policy and Environmental Concern on the purchase intention of electric cars. Data was collected through a survey of millennials in Jabodetabek. The results of SEM analysis show that Attitude and Environmental Concern have a positive and significant influence on the purchase intention of electric cars. Meanwhile, Subjective Norms, Perceived Behavioral Control and Government Policy have a positive but insignificant impact on the purchase intention of electric cars for millennials in Jabodetabek. The findings of this study provide insights for manufacturers, policymakers and marketers on how to increase the adoption of electric cars among millennials. Appropriate strategies can be designed to drive electric car market growth and overcome existing barriers.

Keywords:- Electric Car, Purchase Intention, Millennial, Theory Of Planned Behavior, Structural Equation Modeling.

I. INTRODUCTION

Today, vehicles such as cars, trucks, motorcycles, and other types of motorized vehicles dominate the urban scene. Technological breakthroughs optimized production processes have improved the speed, range, safety, comfort, and fuel efficiency of motor vehicles, making them more affordable for many people. Mobility and living standards have improved thanks to these vehicles, which are the backbone of many daily activities. However, the increase in the number of vehicles also brings challenges such as congestion, air pollution, and dependence on fossil energy that have both local and global impacts. In response to these challenges, there is a trend towards hybrid and electric vehicles, which use electrical energy as a power source. This trend is based on the assumption that electrical energy is obtained from renewable energy sources such as solar, wind, or hydropower (Brinkmann & Bhatiasevi, 2023).

Electric vehicles are a significant innovation in the automotive industry that is gaining global attention. Currently, the global electric car market is experiencing rapid growth with sales exceeding 10 million units by 2022. According to a report by the International Energy Agency (2023), 14% of all new cars sold in 2022 will be electric cars, up from around 9% in 2021 and less than 5% in 2020. Three major markets dominate global sales. China again leads the way, accounting for about 60% of global electric car sales. More than half of global electric cars are now in China, and the country has already exceeded its new energy vehicle sales target for 2025. In Europe, the second largest market, electric car sales increase by more than 15% by 2022, so that more than one in every five cars sold will be electric. In the United States, the third largest market, electric car sales increased 55% by 2022, reaching a sales share of 8%. Electric car sales are expected to remain strong through 2023, with more than 2.3 million electric cars sold in the first quarter, about 25% more than in the same period a year earlier.

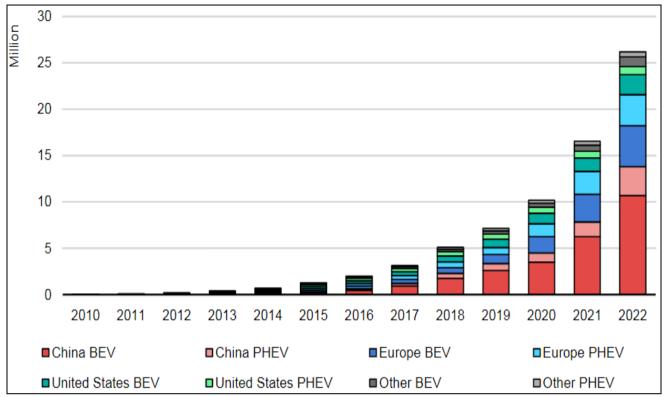


Fig 1: Global Electric Car Sales 2010-2022

According to a report by the Indonesian Automotive Industry Association (Gaikindo), sales of electric cars in Indonesia in the past five years have continued to increase significantly. This growth is due not only to increased awareness of environmental issues, but also to various government incentives that support the use of low-emission vehicles. Here is the data on electric car sales in Indonesia for the last 5 years:

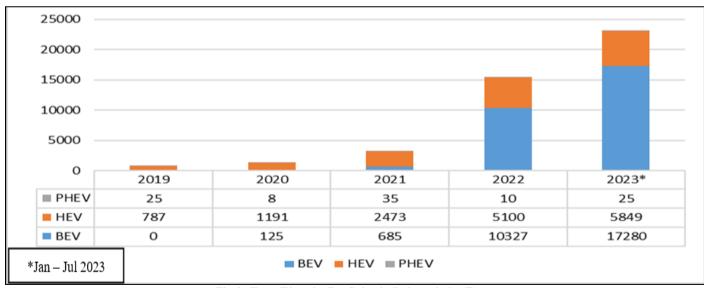


Fig 2: Type Electric Car Sales in Indonesia by Type

In the first semester of 2023, sales of electric cars in Indonesia reached 23,154 units, exceeding the total sales in the previous year which recorded 15,437 units. Of these, 17,280 units were Battery Electric Vehicle (BEV) cars, while hybrid electric cars reached 5,849 units. Meanwhile, sales of plug-in hybrid-based electric cars in Indonesia recorded the lowest number during the first semester of 2023, namely 25 units.

The phenomenon observed by the researcher is that although sales of electric cars in Indonesia have increased in the past year, interest in buying electric vehicles in Indonesia is still low compared to other Asian countries that are developing electric vehicles. McKinsey research data shows that interest in buying electric vehicles in Indonesia only reaches 0.1%, much lower than Thailand which reaches 0.7% and India which reaches 0.5%. The

https://doi.org/10.38124/ijisrt/IJISRT24JUL1113

lack of interest in buying electric cars is also reinforced by research conducted by Adnan Padhilah Ilham Rizqian Fahreza Surya Pintoko Aji et al. (2023), which stated that 71.2% of respondents had difficulty finding a Public Electric Vehicle Charging Station (SPKLU), while 62% of respondents considered the price and maintenance costs of electric vehicles were still too high.

The focus of this research is the millennial generation which has location restrictions, namely in Jakarta, Bogor, Depok, Tanggerang and Bekasi (JABODETABEK). The millennial generation consists of people born between 1980 and 1996 and is highly influenced by technological advances (Elif et al., 2023). According to Ju & Hun Kim's (2022) prediction, millennials will be the majority of electric car users in the future. This prediction is reinforced by Yeoh's research (2023) which says that millennials are the demographic that will drive electric cars in the future. According to research conducted by Jaiswal et al. (2022), millennials are potential buyers of electric vehicles. It is crucial to create effective marketing strategies and policies to encourage the adoption of electric cars in Indonesia by knowing the interest in buying electric cars among this generation.

Previous research by Ramadhani and Yuliana (2023) showed that customer perceptions do not affect their desire to buy an electric car. A study conducted by Huang and Ge in 2019 found that attitudes, perceived behavioral control, cognitive status, product perceptions, and financial stimulation policy measures have a significant positive effect on customers' desire in Beijing to purchase electric vehicles (EVs). However, subjective standards and financial stimulation policies have no significant effect on customers' desire to purchase EVs. However, Wulandari (2023) stated that further research is needed to investigate additional components that influence purchase intention, such as consumers' knowledge and their perceptions of electric vehicles.

A preliminary survey was conducted to dig deeper and find out the variables that influence the behavior of interest in buying an electric car in 30 electric car buyers.

Based on the results of the preliminary survey below, the variables that will be used as variables are variables with a value of $\geq 93\%$ for those who answered "yes". Of the twelve variables tested in the pre-survey, five variables were obtained that had the highest scores, namely Attitude, Subjective Norm, Perceived Behavioural Control, Government Policy and Environmental Concern.

Table 1: Preliminary Survey

Statement	Variables	Percentage
I think electric vehicles will benefit the environment in the long run.	Attitude	93%
Most people who are important to me will want me to use environmentally friendly electric vehicles rather than vehicles with internal combustion engines.	Subjective Norm	97%
I have the financial ability to purchase an electric car in the future.	Perceived Behavioral Control	93%
Using an electric car for daily activities can save money.	Cost	90%
I know about the government regulation on electric cars.	Government Policy	97%
I care about environmental issues.	Environmental Concern	93%
Operating costs of electric cars are cheaper than those of conventional cars.	Prince	90%
I think electric cars have good performance.	Perfomance	90%
I prefer to have charging facilities at home.	Availability of Charging Facility	80%
Overall, I believe that the environmental claims of electric vehicles are credible.	Trust to EV	80%
I am willing to pay more for an environmentally friendly electric vehicle.	Willingness to Pay	70%
I have difficulty in maintaining/repairing electric vehicles.	Perceived Risk	20%

Source: Research Data

II. THEORY REVIEW AND HYPOTHESIS DEVELOPMENT

A. Consumer Behavior

According to Kotler & Keller (2016), consumer behavior is the study of how people, groups, and organizations choose, buy, use, and place goods, services, ideas, or experiences to meet their needs and wants. In contrast, according to Schiffman & Wisenblit (2014), consumer behavior is how people choose to spend available resources, such as time, money, and effort, on goods that marketers sell and offer.

B. Theory of Planned Behavior

The Theory of Planned Behavior (TPB), proposed by Ajzen and Fishbein, is an evolution of the Theory of Reasoned Action (TRA), which first appeared in 1967. Before it was developed into TPB, TRA said that attitudes and subjective norms affect a person's intention. Attitude according to Ajzen (1991) is a person's perception of the impression they get when they perform a certain behavior. Perceptions are influenced by their opinions about certain consequences and their opinions about their beliefs.

However, subjective norms refer to the way one sees others and how they are perceived to be important for behavior. Therefore, the presence of a role model and the desire to follow their example affects subjective norms. Ajzen, however, asserts that this theory can be used in situations where behavior is controlled by willpower, opportunity, and available capital, such as money, time, skills, and education. Therefore, to complement the TRA, Perceived Behavioral Control was added to the TPB (Ajzen, 1991).

C. Purchase Intention (PI)

According to Schiffman & Kanuk (2007), interest is one of the psychological components that strongly influence attitudes and behavior. Someone who wants to buy a product is influenced by the information they know about the actual function of the product.

Morwitz (2014) states that purchase intentions can be used to predict future purchasing behavior because it allows each person to include the things that are most relevant to them when making purchasing decisions. In addition, a person's intention to engage in a behavior, along with other psychological constructs such as perceived behavioral control, can predict actual behavior. Because it is highly correlated with behavior, intention is considered the single best predictor of behavior. In general, the stronger a person's intention to perform a behavior, the more likely they are to perform it (Ajzen, 1991).

- ➤ According to Research Conducted by Huang & Ge (2019), Purchase Intention can be Identified through the Following Indicators:
- The desire to purchase electric vehicles with more and more brands and models being introduced.
- Intention to purchase an electric vehicle for future use.

• Willingness to recommend electric vehicles to friends and relatives.

https://doi.org/10.38124/ijisrt/IJISRT24JUL1113

D. Attitude (AT)

According to Solomon (2017) Attitude is a person's tendency to evaluate an object or product either positively or negatively. The attitude formed towards a product or service will determine whether we will buy or not. Meanwhile, according to Kardes et al., (2010) Attitude is an evaluative assessment of good or bad, favorable or unfavorable or pleasant or unpleasant carried out by consumers in finding certain people (such as, sellers, spokespersons), places (such as, retail outlets, Web sites, or vacation sites), objects (for example, products, packages, advertisements), or issues (for example, political platforms, economic theories). Evaluative judgments have two main components: direction (positive, negative, or neutral) and extremity (weak, moderate, or strong).

- ➤ According to Research Conducted by Huang & Ge (2019) Attitude can be Identified Through the Following Indicators:
- Considering the use of electric vehicles as a very important decision.
- Seeing electric vehicles as a good option.
- Support government policies that encourage the purchase of electric vehicles.

E. Subjective Norm (SN)

According to Daxini et al. (2019), subjective norms are social pressures and expectations that a person feels or has obtained from other people's references and can influence their decisions about what they should do. According to research by Gunawan et al. (2022) it is known that the greater the social pressure that comes from the government or the surrounding environment, such as influential close people, the more likely a person is to behave in a certain way. Support and encouragement from family, close friends, coworkers, and the media have a positive impact according to subjective norms (Yuen et al., 2020).

- ➤ According to Research Conducted by Shalender & Sharma (2021) Subjective Norm can be Identified through the Following Indicators:
- Desire of people important to the individual to adopt an electric vehicle in the near future.
- It is likely that people who are important to the individual also adopt electric vehicles if the individual does so
- The influence of people who influence the opinions of individuals who prefer that individuals adopt electric vehicles.

F. Perceive Behavioral Control (PCB)

Perceived Behavioral Control evaluates the perceived level of difficulty or ease perceived by the individual as a cermi. In the case of electric cars, this means potential buyers' opinions on price, technology, ease of use, and the ability to adapt to electric vehicles (Shalender & Sharma, 2021).

- > According to Research Conducted by Shalender & Sharma (2021) PBC can be Identified through the following Indicators:
- Ease of finding a place to purchase an electric vehicle after making a decision.
- The role of electric vehicle prices in individual purchase decisions.
- Repair and maintenance of electric vehicles as an important factor in individual purchasing decisions.

G. Government Policy (GP)

Government Policy can be defined as a set of deliberate actions followed by an agency or government official to resolve issues of public concern (Cochran, 2009).

- According to Research Conducted by Zhang et al., (2013) Government Policy can be Identified through the Following Indicators:
- Awareness of government policies for electric cars through various sources, including mass media.
- The view that government policies are needed to encourage the purchase of electric cars.
- Confidence that government policies very supportive of electric car purchases.

H. Environmental Concern (EC)

Ozaki & Sevastyanova (2011) define Environmental Concern or environmental awareness as an understanding and concern for environmental issues. The increase in the number of people who own private cars is one of the main factors that cause environmental pollution problems. They also concluded that people who care about the environment will behave differently from others.

https://doi.org/10.38124/ijisrt/IJISRT24JUL1113

- According to Research Conducted by Tuan et al., (2022) Environmental Concern can be Identified through the Following Indicators:
- Awareness of the seriousness of environmental pollution today.
- The belief that the environment needs to be protected.
- The view that electric vehicles should be used to protect the environment.

Based on the literature review that has been carried out, the following research framework is compiled:

I. Hypothesis

- ➤ Based on the Framework, the Following Hypothesis is Made:
- H1: AT has a positive & significant effect on PI.
- H2: SN has a positive & significant effect on PI.
- H3: PCB has a positive & significant effect on PI.
- H4: GP has a positive & significant effect on PI.
- H5: EC has a positive & significant effect on PI.

III. **METHODOLOGY**

This study used a quantitative survey. Millennials in JABODETABEK who are interested in electric cars are the demographics used. To determine the sample size following the theory of Hair et al. (2010), which states that the sample size should be adjusted to the number of indicators used in the questionnaire. For an unknown population, the recommended sample size is five to ten times the number of indicators present across latent variables. In this study, the indicators consisted of 18 pieces, so the minimum number of samples used was 5 x 18 = 90, and the number of samples rounded up to 100 respondents to increase the sample size. The research hypotheses were tested through the Partial Least Squarebased Structural Equation Model method with SmartPLS 3.2.9 software.

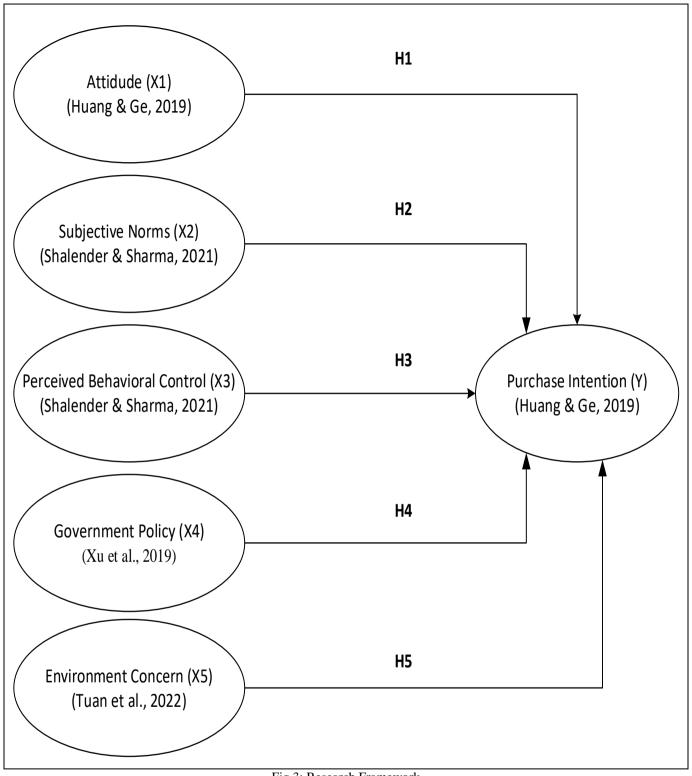


Fig 3: Research Framework

IV. RESULT AND DISCUSION

A. Characteristics of Respondents

Based on the questionnaires distributed in accordance with the required respondent criteria, the questionnaires

were completed by 100 respondents in the millennial age group with the following characteristics:

Table 2: Respondent Characteristics

	Characteristics	Total	Percentage
	Male	54	54%
Gender	Female	46	46%
	Total	100	100%
	28-31	67	67%
	32-35	12	12%
Age	36-39	13	13%
	40-43	8	8%
	Total	100	100%
	Jakarta	28	28%
	Bogor	38	38%
Domicile	Depok	12	12%
Domicile	Tanggerang	12	12%
	Bekasi	10	10%
	Total	100	100%
	Senior High School	6	6%
	Diploma	6	6%
Education	Scholar	72	72%
	Postgraduate	16	16%
	Total	100	100%
	Government Employees	24	24%
	Health Workers	3	3%
	Educator	2	2%
Profession	Officials of State-Owned Enterprises	3	3%
	Private Sector Employee	57	57%
	Entrepreneur	11	11%
	Total	100	100%
	< 3.000.000 IDR	4	4%
	> 3.00.000 IDR to 5.000.000 IDR	15	15%
Income Day Month	> 5.000.000 IDR to 10.000.000 IDR	54	54%
Income Per Month	> 10.000.000 IDR to 20.000.000 IDR	20	20%
	> 20.000.000 IDR	7	7%
	Total	100	100%

Source: Research Data

B. Outer Model Evaluation

Outer model evaluation consists of four stages, namely Convergent Validity, Discriminant Validity, Composite Reliability and Cronbach's Alpha tests. Testing the Convergent Validity of reflexive indicators can be seen from the Loading Factor value for each construct, where the recommended loading factor value is 0.7 or greater, for

confirmatory research, and the loading factor value between 0.6 to 0.7 for explanatory research is still acceptable, and the Average Variance Extracted (AVE) value must be greater than 0.5 (Hair et al., 2017). The following are the results of the outer model calculation (PLS Algorithm) using the SmartPLS 3.2.9 program:

Table 3: Convergent Validity Test Results

Variable	Indicator	Outer Loading Value	AVE Value	Result
	AT1	0.912		
Attitude	AT2	0.882	0.802	Valid
	AT3	0.892		
	SN1	0.826		
Subjective Norms	SN2	0.761	0.673	Valid
_	SN3	0.871		
	PBC1	0.628	0.586	Valid
Perceived Behavior Control	PBC2	0.829		
	PBC3	0.823		
	GP1	0.667		
Government Policy	GP2	0.905	0.678	Valid
	GP3	0.878		
	EC1	0.816		
Environmental Concern	EC2	0.842	0.663	Valid
	EC3	0.784		
	PI1	0.859		
Purchase Intention	PI2	0.917	0.772	Valid
	PI3	0.859]	

Source: Research Data

https://doi.org/10.38124/ijisrt/IJISRT24JUL1113

In addition, the Composite Reliability component is used to evaluate the reliability value of indicators on a particular variable. If the composite reliability value of a variable is greater than 0.7, the variable is considered to meet composite reliability. Cronbach's Alpha value is used

to evaluate the internal consistency of a latent variable. Cronbach's alpha value can be used to strengthen the composite reliability test above. A variable is considered reliable if its Cronbach's alpha value is also greater than 0.6

Table 4: Contruct Reliability Test Results

Variabel	Composite Reliability	Cronbach's Alpha	Result
Attitude	0.924	0.876	Reliabel
Subjective Norms	0.860	0.758	Reliabel
Perceived Behavior Control	0.807	0.636	Reliabel
Government Policy	0.861	0.761	Reliabel
Environmental Concern	0.855	0.758	Reliabel
Purchase Intention	0.910	0.852	Reliabel

Source: Research Data

C. Inner Model Evaluation

➤ Determinant Coefficient (R²)

R-Square testing is used to predict the strength of the structural model of the latent variable. The following are the results of the R-Square calculation.

Table 5: R-Square Test Result

Variabel	R-Square	R-Square Adjusted
Purchase Intention	0.587	0.566

Source: Research Data

Prediction Relevance (Q^2)

Q-Square (Q2) testing for Predictive relevance is a test conducted in showing how well the observation value

is generated by using the blindfolding procedure by looking at the Q-Square value. The following are the results of the Q-Square calculation.

Table 6: Q-Square Test Result

Variabel	sso	SSE	Q2 (=1-SSE/SSO)
Attitude	300.000	300.000	
Subjective Norms	300.000	300.000	
Perceived Behavior Control	300.000	300.000	
Government Policy	300.000	300.000	
Environmental Concern	300.000	300.000	
Purchase Intention	300.000	173.603	0.421

Source: Research Data

➤ Fit Test Model

Fit Model Assessment testing is to validate the combined performance of the outer model and inner model obtained through the following calculations:

Table 7: Fit Test Result

Parameter	Nilai	Syarat	Keterangan
SRMR	0.10	0.08-0.10	Acceptable Fit

Source: Research Data

➤ Hypothesis Test

Based on the findings of the Partial Least Square analysis, hypothesis testing is done using a t-statistic with a t-table of 1.96 and a boostraping test with a confidence level of 95% (alpha 5%). In order to test the hypothesis in

this study, the hypothesis is accepted if the p-value is less than the confidence level and the t-statistic value is more than the t-table. The following tables and figures show the outcomes of the hypothesis testing conducted with the SmartPLS 3.2.9 software:

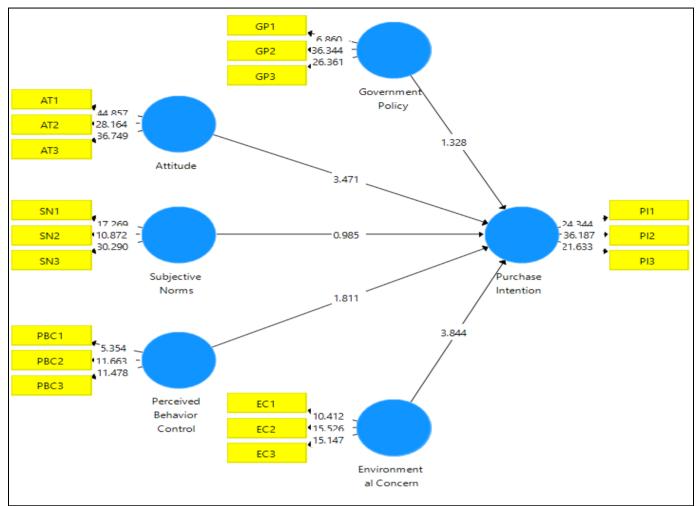


Fig 4: Path Analysis

Table 8: Path Analysis

	Hypothesis	Original Sampel (O)	T Statistics (O/STDEV)	P Values	Result
H1	Attitude -> Purchase Intention	0.303	3.471	0.001	Accepted
H2	Subjective Norms -> Purchase Intention	0.069	0.985	0.325	Rejected
H3	Perceived Behavior Control -> Purchase Intention	0.131	1.811	0.071	Rejected
H4	Government Policy -> Purchase Intention	0.150	1.328	0.185	Rejected
H5	Environmental Concern -> Purchase Intention	0.318	3.844	0.000	Accepted

Source: Research Data

Respondents in this study are millennials. They live in the JABODETABEK area & have an income. These respondents are considered to be potential customers for the object of research, namely electric cars, where it is likely that currently the respondents do not have sufficient finances to buy electric cars, but in the future, they have the potential to buy and use electric cars.

The test results of this study show that attitude has a positive and significant impact on purchase intention, so the hypothesis (H1) is accepted. The sample origina value, which produces a positive value of 0.303, is the result shown in table 4.21.

In addition, the results show that attitude has a positive and significant relationship with purchase intention, with a statistical T value greater than 1.96, namely 3.471, and a P value lower than 0.05, namely 0.001. This finding is in line with research conducted by Huang & Ge (2019), which found that attitude has a positive and significant influence on purchase intention.

This study is consistent with previous research findings showing that a positive attitude towards a product or service tends to increase purchase intention. This attitude reflects the overall evaluation of the product based on the consumer's experience, knowledge and information. Attitudes determine behavioral intentions, according to

https://doi.org/10.38124/ijisrt/IJISRT24JUL1113

research conducted by Ajzen (1991) in the Theory of Planned Behavior.

So that electric car manufacturers must focus on strategies that can increase positive consumer attitudes towards electric cars. This can be done through effective marketing campaigns, emphasis on product quality, positive testimonials from users, and providing information that supports the advantages of electric cars over conventional vehicles.

The test results show that subjective norms have a positive but insignificant impact on purchase intention; therefore, hypothesis (H2) is rejected. Table 4.21 shows that the subjective norm variable has a positive impact on purchase intention, with the initial value of the sample reaching a positive value of 0.069. This indicates that the desire to purchase an electric car will increase with a greater subjective norm factor, and conversely, with a lower subjective norm factor, the desire to purchase an electric car will decrease. This result is in line with research by Huang and Ge (2019) in Beijing, Shakeel (2022) in Paskitan, and Permana et al. (2023) in Indonesia. The subjective norm factor has a positive but insignificant effect on the intention to buy an electric car.

Although there is a positive correlation between subjective norms and purchase intention, the result is not significant. This is due to the fact that the statistical T value obtained is less than 1.96, which is 0.985, so hypothesis (H2) is rejected, which means that subjective norms are not significantly tested against purchase intention. Additional testing showed that between subjective norms and purchase intention is not significant, with a P value >0.05, which is 0.325.

In contrast to some previous studies that found that subjective norms can influence purchase intention, especially among people who are strongly influenced by the opinions and actions of others, this study shows that subjective norms do not show a significant influence on the purchase intention of electric cars. But in the case of electric cars, personal preferences and direct benefits influence decisions more than social pressure.

Although subjective norms are not significant, electric car manufacturers can still utilize social influence by involving influencers, public figures, and environmentally concerned communities in their campaigns. Although the direct effect on purchase intention is not as strong as other factors such as attitude or environmental concern.

The test results in this study show that perceived behavioral control has a positive but insignificant impact on purchase intention; therefore, the hypothesis (H3) is invalid. Table 4.21 shows that the perceived behavioral control variable has a positive impact on purchase intention, with the initial value of the sample resulting in a positive value of 0.131. Consequently, this indicates that the desire to buy electric car products will increase with a larger Perceived Behavior Control factor, and conversely,

with a smaller factor, the desire to buy electric car products will decrease. These results are in line with research conducted by Solekah et al. (2023) and Permana et al. (2023), who found that the perceived behavior control component does not have a positive but insignificant impact on purchase intention.

Although there is a positive correlation between Perceived Behavior Control and Purchase Intention, the result is not significant. This is due to the fact that the statistical T value obtained is less than 1.96, i.e. 1.811, so the hypothesis (H3) is rejected, which means that perceived behavioral control does not test significant on purchase intention. Additional testing shows that perceived behavioral control is not significant to purchase intention, with a P value greater than 0.05, which is 0.071.

Perceived Behavior Control does not have a significant impact on the desire to buy an electric car. Consumers believe that there are many challenges from outside sources, such as limited infrastructure for charging electric cars, high costs, and lack of information about maintaining electric cars. Therefore, manufacturers and other stakeholders should focus their efforts on reducing these obstacles. This could include improving charging networks, providing financial incentives such as subsidies or discounts, and providing clear support and information on the maintenance and use of electric cars. By doing so, customers will feel more confident and able to purchase electric cars.

The test results in this study indicate that government policy has a positive but insignificant impact on purchase intention, so the hypothesis (H4) is rejected. Table 4.21 shows that the government policy variable has a positive impact on purchase intention, with the initial sample value resulting in a positive value of 0.150. Therefore, this indicates that the desire to buy an electric car will increase with greater government political factors, and conversely, with lower political factors, the desire to buy an electric car will decrease. This result is in line with research by Huang & Ge (2019), Manutworakit & Choocharukul (2022) and Brinkmann & Bhatiasevi (2023), who found that the government policy component has a positive but insignificant impact on purchase intention.

Although Government Policy and Purchase Intention have a positive relationship, the results are not significant. This is due to the T statistic value obtained ≤ 1.96 , which is 1.328, so it can be concluded that the hypothesis (H4) is rejected where Government Policy is not tested significant to Purchase Intention. Another test to show that Government Policy is not significant to Purchase Intention by looking at the P Value> 0.05, which is 0.185.

Government policies had no significant effect on the purchase intention of electric cars in this study, in contrast to several other studies that show that government incentives can encourage the adoption of green technology. This could be due to a lack of awareness or a perception that the policies are not strong or relevant enough. Electric

car manufacturers should work with the government to ensure existing policies are known and utilized by consumers. Public education on tax incentives, subsidies, and other benefits from the government that support the purchase of electric cars should be increased. In addition, advocacy for stronger and clearer policies that support electric car infrastructure and incentives is possible.

Based on the test results in this study, it shows that Environmental Concern has a positive and significant effect on Purchase Intention, so the hypothesis (H5) is accepted. These results are shown in table 4.21 where the original sample value produces a positive value, which is 0.318.

Other results that show a positive and significant relationship between Environmental Concern and Purchase Intention by looking at the T statistic value obtained> 1.96, which is 3.844 and the P Value value <0.05, which is 0.000. The results of this study are in line with research conducted by Krupa et al. (2014) which states that Environmental Concern has a positive and significant effect on Purchase Intention.

In addition, this result is also in line with research trends that show that consumers are increasingly concerned with environmental issues and this affects their purchasing decisions. The study by Laroche et al., (2001) also found that environmental concern is a strong predictor of purchase intention for green products.

So electric car manufacturers should highlight the ecofriendly aspects of their products in marketing campaigns. Providing information on how electric cars help reduce carbon emissions, save energy, and protect the environment can attract consumers who care about the environment. In addition, integrating green initiatives into the company's operations and demonstrating a commitment to sustainability can also increase the purchase intention of environmentally concerned consumers.

V. CONCLUSIONS AND SUGGESTIONS

A. Conclusion

This study found that subjective norms and perceived behavioral control have no significant influence on millennials' electric car purchase intention. In contrast, positive attitudes have a significant influence on their electric car purchase intention. In addition, government policies do not seem to have a significant impact on consumers' purchase intentions; this may be because consumers do not know or do not consider them important. However, environmental concern has a positive and large impact, suggesting that customers who care about environmental issues are more likely to be interested in buying an electric car.

https://doi.org/10.38124/ijisrt/IJISRT24JUL1113

B. Suggestion

➤ Theoretical Advices:

- Future research should include a more diverse sample in terms of demographics, geographics and psychographics to ensure generalization of the results. Variables such as Cost, Prince, Performance, Availability of charging facility, Trust to EV, Willingness to pay and Perceived Risk can also be considered as they may affect the results.
- Using a longitudinal research design will provide deeper insights into how attitudes, subjective norms, behavioral control, government policies, and environmental concerns change over time and how these changes affect purchase intentions.
- Future researchers can examine the role of mediating and moderating variables such as product knowledge, trust in technology, and user experience in the relationship between the constructs studied and purchase intention.
- Conduct qualitative research such as in-depth interviews or focus group discussions to gain a richer understanding of consumer motivations and barriers to purchasing electric cars. This approach can reveal factors that are not identified in quantitative research.
- Delve deeper into how specific government policies affect purchase intentions. Research could focus on specific types of policies, such as subsidies, tax incentives, or emissions regulations, to see which are most effective in driving electric car adoption.

➤ Managerial Advices:

- Electric car manufacturers should focus on marketing campaigns that highlight the environmental benefits, cost efficiency, and technological advantages of electric cars. Using early user testimonials and free trials can help build a positive attitude among consumers.
- Manufacturers and other stakeholders should work to reduce barriers such as limited charging infrastructure and high prices. This could include expanding charging networks, offering financial incentives such as subsidies or discounts, and providing clear information on electric car maintenance.
- Public education on government policies that support
 the purchase of electric cars needs to be improved.
 Manufacturers can work with the government to ensure
 that consumers understand and can take advantage of
 tax incentives, subsidies, and other benefits. Advocacy
 for stronger and more relevant policies can also be
 done.
- Electric car manufacturers should continue to highlight the eco-friendly aspects of their products. Campaigns that show how electric cars help reduce carbon emissions and protect the environment will attract consumers who care about the environment. The integration of green initiatives in company operations can also strengthen the company's image as an environmentally responsible entity.

 Using influencers, public figures, and communities that support electric cars in marketing campaigns can help create a favorable social environment for electric car adoption. Testimonials and success stories from respected public figures can help build consumer trust and interest.

REFERENCES

- [1]. Adnan Padhilah Ilham Rizqian Fahreza Surya Pintoko Aji, F., Arinaldo Handriyanti Puspitarini Julius C Adiatma, D. D., & Tumiwa Julius Adiatma, F. C. (2023). Indonesia Electric Vehicle Outlook 2023 Electrifying Transport Sector: Tracking Indonesia EV Industries and Ecosystem Readiness.
- [2]. Ajzen. (1991). The Theory of Planned Behavior.
- [3]. Brinkmann, D., & Bhatiasevi, V. (2023). Purchase Intention for Electric Vehicles Among Young Adults in Thailand. Vision, 27(1), 110–118. https://doi.org/10.1177/09722629211001981.
- [4]. Cochran, C. E. (2009). American public policy: an introduction. Wadsworth Cengage Learning.
- [5]. Daxini, A., Ryan, M., Odonoghue, C., Barnes, A., & Buckley, C. (2019). Using a typology to understand farmers' intentions towards following a nutrient management plan. Resources Conservation and Recycling, 146, 280–290. https://doi.org/10.1016/j.resconrec.2019.03.027
- [6]. Elif, P., Najmudin, & Ahmad Fatoni. (2023). 603-Article Text-2544-1-10-20230204. Jurnal Pemikiran Dan Penelitian Ekonomi Islam, 11(1), 21–44.
- [7]. Gunawan, I., Redi, A. A. N. P., Santosa, A. A., Maghfiroh, M. F. N., Pandyaswargo, A. H., & Kurniawan, A. C. (2022a). Determinants of Customer Intentions to Use Electric Vehicle in Indonesia: An Integrated Model Analysis. Sustainability (Switzerland), 14(4). https://doi.org/10.3390/su14041972.
- [8]. Huang, X., & Ge, J. (2019). Electric vehicle development in Beijing: An analysis of consumer purchase intention. Journal of Cleaner Production, 216, 361–372. https://doi.org/10.1016/j.jclepro.2019.01.231
- [9]. International Energy Agency, I. (2023). Global EV Outlook 2023: Catching up with climate ambitions. www.iea.org
- [10]. Jaiswal, D., Deshmukh, A. K., & Thaichon, P. (2022). Who will adopt electric vehicles? Segmenting and exemplifying potential buyer heterogeneity and forthcoming research. Journal of Retailing and Consumer Services, 67, 102969. https://doi.org/10.1016/J.JRETCONSER.2022.1029 69
- [11]. Ju, N., & Hun Kim, S. (2022). Electric vehicle resistance from Korean and American millennials: Environmental concerns and perception. Transportation Research Part D: Transport and Environment, 109, 103387. https://doi.org/10.1016/J.TRD.2022.103387

[12]. Kardes, F., Cronley, M., & Cline, T. (2010). Consumer Behavior. Cengage Learning. https://books.google.co.id/books?id=nwew7nJ6000

https://doi.org/10.38124/ijisrt/IJISRT24JUL1113

- [13]. Kotler, P., & Keller, K. L. (2016). Marketing Management. Pearson. https://books.google.co.id/books?id=UbfwtwEACA AJ
- [14]. Krupa, J. S., Rizzo, D. M., Eppstein, M. J., Brad Lanute, D., Gaalema, D. E., Lakkaraju, K., & Warrender, C. E. (2014). Analysis of a consumer survey on plug-in hybrid electric vehicles. Transportation Research Part A: Policy and Practice, 64, 14–31. https://doi.org/10.1016/j.tra.2014.02.019
- [15]. Laroche, M., Bergeron, J., & Barbaro-Forleo, G. (2001). Targeting consumers who are willing to pay more for environmentally friendly products. Journal of Consumer Marketing, 18(6), 503–520. https://doi.org/10.1108/EUM0000000006155
- [16]. Manutworakit, P., & Choocharukul, K. (2022). Factors Influencing Battery Electric Vehicle Adoption in Thailand—Expanding the Unified Theory of Acceptance and Use of Technology's Variables. Sustainability (Switzerland), 14(14). https://doi.org/10.3390/su14148482
- [17]. Morwitz, V. (2014). Consumers' Purchase Intentions and Their Behavior. Now Publishers. https://books.google.co.id/books?id=o0zOrQEACA AJ
- [18]. Ozaki, R., & Sevastyanova, K. (2011). Going hybrid: An analysis of consumer purchase motivations. Energy Policy, 39(5), 2217–2227. https://doi.org/10.1016/j.enpol.2010.04.024
- [19]. Permana, R., Yuliati, E., & Wulandari, P. (2023). Analisis faktor-faktor yang mempengaruhi konsumen terhadap purchase intention kendaraan listrik di indonesia.
- [20]. Ramadhani, S., & Yuliana, L. (2023). Pengaruh Persepsi Konsumen Terhadap Minat Beli Mobil Listrik Mercedes-Benz EQS. Jurnal Orientasi Bisnis Dan Entrepreneurship (JOBS), 4(1), 35–44. https://doi.org/10.33476/jobs.v4i1.3614
- [21]. Schiffman, L. G., & Kanuk, L. L. (2007). Consumer Behavior. Pearson Prentice Hall. https://books.google.co.id/books?id=vTRPngEACA AJ
- [22]. Schiffman, L. G., & Wisenblit, J. L. (2014). Consumer Behavior. Pearson Education. https://books.google.co.id/books?id=lEXSAgAAQB
- [23]. Shakeel, U. (2022). Electric vehicle development in Pakistan: Predicting consumer purchase intention. Cleaner and Responsible Consumption, 5. https://doi.org/10.1016/j.clrc.2022.100065
- [24]. Shalender, K., & Sharma, N. (2021). Using extended theory of planned behaviour (TPB) to predict adoption intention of electric vehicles in India. Environment, Development and Sustainability, 23(1), 665–681. https://doi.org/10.1007/s10668-020-00602-7

- [25]. Solekah, N. A., Ratnasari, K., & Hirmawan, A. P. (2023). Prediction of Green Purchase Intention for Electric Vehicles: A Theory of Planned Behavior Approach. Jurnal Minds: Manajemen Ide Dan Inspirasi, 10(2), 297–320. https://doi.org/10.24252/minds.v10i2.40772
- [26]. Solomon, M. R. (2017). Consumer Behavior: Buying, Having, and Being. Pearson. https://books.google.co.id/books?id=FCcXswEACA AJ
- [27]. Tuan, P. Van, Thao, N. T. P., Linh, L. T. T., Le, T. T., & Linh, N. T. (2022). Factors Influencing Purchasing Intention Toward Electric Vehicle in Vietnam. Journal of Social Commerce, 2(2), 82–99. https://doi.org/10.56209/jommerce.v2i2.30
- [28]. Wulandari, H. (2023). Exploring The Purchase Intentions and Perceptions of Generation Z Towards Electric Vehicles in Jakarta: Insights and Recommendations. Journal of World Science, 2(4), 684–699. https://doi.org/10.58344/jws.v2i4.266
- [29]. Yeoh, W. W. (2023). To Study the Contribution of Price Factor Towards the Purchase Intention of EV Market in Malaysia Among Generation Y Consumers. Journal of Technology Innovations and Energy, 2(1), 49–54. https://doi.org/10.56556/jtie.v2i1.458
- [30]. Yuen, K. F., Huyen, D. T. K., Wang, X., & Qi, G. (2020). Factors influencing the adoption of shared autonomous vehicles. International Journal of Environmental Research and Public Health, 17(13), 1–16. https://doi.org/10.3390/ijerph17134868
- [31]. Zhang, X., Wang, K., Hao, Y., Fan, J. L., & Wei, Y. M. (2013). The impact of government policy on preference for NEVs: The evidence from China. Energy Policy, 61, 382–393. https://doi.org/10.1016/j.enpol.2013.06.11.