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ANALYSIS OF GREEN SELF IDENTITY AND ENVIRONMENT CONCERN ON ADOPT ELECTRIC VEHICLE INTENTION WITH PERCEPTION OF EV AND SUBJECTIVE NORM AS MEDIATION VARIABLES

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Abstract

The issue of environmental damage often arises in recent years, as a result of continuous and uncontrolled emission of harmful atmospheric pollutants. through various human activities. The consumption of fossil fuels by industry as well as the transportation system is considered to be the main reason, from which several studies have paid considerable attention to the pollution caused by vehicles. As indicated by the statistics of the International Energy Agency (IEA), a recent estimate of the number of one million vehicles used worldwide, with daily consumption of about 60 million barrels per day (nearly 70% of total oil production); nearly 36 million barrels of daily oil consumption is attributed to private vehicles, which cause the emission of 14 million tons of carbon dioxide. As a result, the replacement of conventional vehicles with renewable energy vehicles can be considered as a promising solution. In this regard, electric vehicles are expected to reduce negative effects on the environment and also help conserve scarce non-renewable fuel reserves throughout the life cycle. Electric Vehicles are considered an effective alternative to sustaining transportation through the reduction of oil dependence and subsequent air pollution, leading to significant health and environmental benefits. The purpose of this study is to analyze consumer behavior towards the intention to adopt an electric vehicle by involving the variables of Green Self Identity, Environment Concern, Perception of Electric Vehicle, and Subjective Norms. With 250 respondents spread across Indonesia and using the SmartPLS software, the results of a partial analysis of Green Self Identity proved to have an effect on Environment Concern. Meanwhile, Environment Concern was proven to affect Perception of EV and Subjective Norms, but did not affect Adoption Intention. For the indirect effect analysis, Perception of EV and Subjective Norms variables proved to be mediating variables between Environment Concern and Adoption Intention.

Keywords: green self-identity; environment concern; adoption intention; perception of electric vehicle; subjective norms.

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INTRODUCTION

The issue of environmental damage has often emerged in recent years, as a result of the continuous and uncontrolled emission of harmful atmospheric pollutants through various human activities. The consumption of fossil fuels by industry as well as the transportation system is considered to be the main reason (Asadi et al., 2020; Ju, Ju, Gonzalez, Giannakis, & Wang, 2019).

Different studies have paid considerable attention to the pollution caused by vehicles, while it has been analyzed extensively due to serious environmental outcomes. The global increase in individual vehicle ownership has been accompanied by considerable energy

consumption, contributing to the production of more gases and greenhouse gases (Xu, Zhang, Bao, Zhang, & Xiang, 2019) and causing serious problems related to energy security and environmental conservation (Huang & Ge, 2019). Statistics show International Energy Agency, an estimated number of one million vehicles are currently in use worldwide, with daily consumption of around 60 million barrels per day (nearly 70% of total oil production); nearly 36 million barrels of daily oil consumption is attributed to private vehicles, which causes the emission of 14 million tons of carbon dioxide (Sang & Bekhet, 2015). As a result, the replacement of conventional vehicles with renewable energy vehicles can be considered as a promising solution (Tu & Yang, 2019).

In this case, electric vehicles/ Electric Vehicles (EV) are expected to reduce negative effects on the environment and also help conserve scarce non-renewable fuel reserves throughout the life cycle (Liu, Ouyang, & Cheng, 2019).

EVs are considered as an effective alternative for sustaining urban transport through reducing oil dependence and subsequent air pollution, leading to significant health and environmental benefits (Wu, Liao, Wang, & Chen, 2019). Previous studies have shown that EVs can lead to a 30-50% reduction in carbon dioxide emissions and a 40-60% increase in fuel efficiency compared to conventional fuel-dependent vehicles (Liu et al., 2019).

EV deployment has become the center of attention by setting targets and implementing policies, thereby enabling EVs to become an important component of future vehicles (Buekers, Van Holderbeke, Bierkens, & Panis, 2014). Currently, there has been an increase in EV registrations worldwide, Indonesia is a country that is highly dependent on energy sources, which is focused on increasing its energy productivity and working to reduce its carbon emissions.

According to the Air Quality Live Index (AQLI), the condition of air quality in Indonesia has continued to deteriorate since the last two decades, and is currently ranked as the 20th country with the worst air quality in the world. WHO has determined that the average annual concentration of air pollutants or particulate matter (PM2.5) should not exceed 10 microns per cubic meter. PM2.5 is an air particle smaller than 2.5 microns or 30 times smaller than a human hair. In areas with high pollutant levels, these particles can reduce visibility and threaten human health.

These serious issues must be addressed in order to meet the goal of reducing natural emissions, given the fact that transportation consumes a large proportion of fossil fuels, its contribution to carbon emissions is also higher than in other sectors. As a result, electric vehicles should be a potential future alternative to overcome the energy crisis as well as environmental problems. This energy-saving technology will be very useful for reducing emissions.

Because EV is a relatively new technology in Indonesia, and electronic vehicles are also relatively new in the Indonesian automotive industry. At the same time, this technology was recently introduced to many consumers who decided to adopt it. On the other hand, in developing countries including Indonesia where the government has noticed the benefits of adoption, steps have been taken to promote its use.

While it is important to adopt EVs for issues including environmental sustainability as well as a sustainable transportation system, the acceptance of individual consumers must also be considered to continue the achievement. It seems that the adoption of electric vehicles is mainly related to consumer choice, but the acceptance remains an alternative and a change in behavior. As a result, in this study it is necessary to find out the factors that drive their adoption at the individual level to be very important (Liu et al., 2019).

Several studies have examined the factors that influence EV adoption from a customer perspective. For example, Wu, Liao,

Wang, and Chen (2019) investigates the influence of public acceptance of autonomous electric vehicles. Their results show that environmental concern is significant with people's intention to use autonomous EVs. Moons and De Pelsmacker (2012) identified the determinants of consumer intention to use EV from the Theory of Planned Behavior (TPB) lens. Their results show that attitude is the strongest determinant of consumer intention to purchase an EV, followed by subjective norm factor.

Several researchers investigated the antecedents of individual intentions for EV adoption from two points of view. The mainstream emphasizes that the likelihood of EV adoption will depend on the perception of instrumental or moral attributes as for example Barbarossa, De Pelsmacker, and Moons (2017) states that Green Self Identity is the variable that causes the intention to adopt EV.

In accordance with what has been described above, this study aims to examine the EV adoption model by involving several variables that are predicted to be antecedents and several variables that mediate and moderate the intention to adopt EV in Indonesia. The purpose of this study was to predict and analyze the effect of environmental concern identity, perceptions of electric vehicles and subjective norms on consumer intentions to adopt electric vehicles in Indonesia.

METHOD

The conceptual framework of this research was obtained from the literature review and previous research as shown in the figure 1.

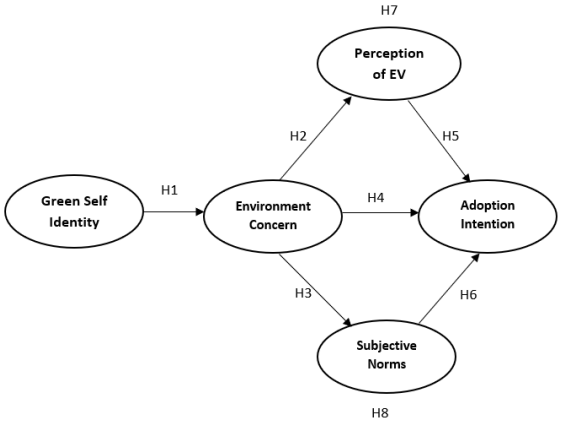

Figure 1. Research Concept Framework

This research is a research using quantitative methods, with the aim of testing the effect of exogenous variables on endogenous variables directly and indirectly through hypothesis testing, including:

Hypothesis 1. Green Self Identity has a positive effect on Environmental Concern

Hypothesis 2. Environmental Care has a positive effect on Electric Vehicle Perception

Hypothesis 3. Environmental Concern has a positive effect on the Subjective Norm

Hypothesis 4. Environmental Concern has a positive effect on Intention to Adopt Electric Vehicles

Hypothesis 5. Perception of Electric Vehicles has a positive effect on Intention to Adopt Electric Vehicle

Hypothesis 6. Subjective Norm has a positive effect on the Intention to Adopt Electric Vehicles

Hypothesis 7. Perception of Electric Vehicles is a mediating variable between Environmental Concern and Intentions to Adopt Electric Vehicles,

Hypothesis 8. Subjective Norms become in the mediating variable between Environmental Concern and Intention to Adopt Electric Vehicles

The population in this study are consumers of two- and four-wheeled vehicles spread across the territory of the Republic of Indonesia. While the sample in this study uses Non Probability sampling with convenience sampling technique, which is based on the availability of elements and the ease of getting

respondents' answers. Research that uses SEM analysis requires a minimum of 5 times to 10 times the number of indicators (Hair, 2011), in this study researchers used a sample of 250 respondents. Methods of collecting data using survey methods, data obtained by distributing questionnaires either online or offline to respondents.

The analysis technique uses Partial Least Square (PLS), because this research is predictive and exploratory and seeks to build a model to understand user behavior, it is believed that the PLS approach is more suitable for current research (Chin, 1998b). The general stages in processing PLS data include:

1. Designing a Structural Model (Inner Model)
2. Designing the Measurement Model (Outer Model)
3. Convert Path Diagram to System of Equations
4. Estimation: Weight, path analysis, and factor loading
5. Evaluation of Goodness of Fit
6. Hypothesis Testing (Resampling Bootstraping)

RESULTS AND DISCUSSION

Analysis using the SmartPLS software obtained the following results:

Stage 1: Convergent Validity

Convergent aims to measure the suitability between the indicators of variable measurement results and theoretical concepts that explain the existence of indicators of these variables. The Convergent Validity can be evaluated in three stages, namely by looking at the outer loadings, composite reliability, and Average Variance Extracted (AVE).

Table 1
Outer Loading

Indicator	Adoption Intention	Environment Concern	Green Self Identity	Perception of EV	Subjective Norms
A12	0,883				
AI1	0,788				
AI3	0,870				
AI4	0,824				
EC1		0,855			
EC2		0,861			
EC3		0,852			
EC4		0,643			
GSI1			0,775		
GSI2			0,860		
GSI3			0,807		
GSI4			0,836		
PEV1				0,626	
PEV2				0,711	
PEV3				0,656	
PEV4				0,638	
PEV5				0,754	
PEV6				0,795	
PEV7				0,812	
PEV8				0,791	
PEV9				0,778	
SN1					0,879
SN2					0,869
SN3					0,757
SN4					0,884

Source: output smart-PLS (2022).

From table 1, it can be seen that the magnitude of the loading factor estimated from each indicator that measures the construct. The estimation results show that all indicators have met good validity because they have a loading factor of more than 0.50. Because the validity test with outer loadings has been fulfilled, the measurement model has the potential to be tested further.

The next check of Convergent Validity is reliability. Reliability is defined as the ability of instrument indicators to produce the same value repeatedly (consistency) in each research activity. The level of reliability is measured by the value of composite reliability and the value of AVE. The composite reliability assumes that all indicators have unequal assessment weights. The composite reliability greater than 0.7 indicates the construct has reliable reliability output composite reliability obtained from the PLS Algorithm Report SmartPLS is presented in table 2.

Table 2
Composite reliability Test

	Composite Reliability
Adoption Intention	0,907
Environment Concern	0,881
Green Self Identity	0,891
Perception of EV	0,912
Subjective Norms	0,911

Source: smart-PLS output (2022).

From table 2. the results of the composite reliability show that all constructs are reliable or have an composite reliability acceptable. This is because the composite reliability for each construct is greater than 0.7. Another measurement that is also used to test reliability is Average Variance Extracted (AVE). The AVE value aims to measure the level of variance of a construct component that is collected from its indicators by adjusting the level of error. Tests with AVE values are more critical than composite reliability. The minimum recommended AVE value is 0.50. The AVE output obtained from PLS Algorithm Report is presented in table 3.

Table 3
Average Variance Extracted (AVE)

	Average Variance Extracted (AVE)
Adoption Intention	0,709
Environment Concern	0,653
Green Self Identity	0,673
Perception of EV	0,536
Subjective Norms	0,720

Source: smart-PLS output (2022).

From table 3, the test results with the AVE value indicate that all constructs have potential reliability to be tested further. This is because the AVE value for all constructs is greater than 0.50.

Stage 2: Discriminant Validity Test

Discriminant validity is the level of differentiation of an indicator in measuring instrument constructs. To test discriminatory validity , it can be done by examining cross loading, namely the correlation coefficient of the indicator to its association construct (loading) compared to the correlation coefficient with other constructs (cross loading). The value of the correlation coefficient of the indicator must be greater for the association construct than for other constructs. This larger value indicates the suitability of an indicator to explain its association construct compared to explaining other constructs. Another discriminant validity test is to compare the correlation between variables with the square root of AVE. The measurement model has discriminant validity if each variable is greater than the correlation between other variables. SmartPLS as a tool for PLS-SEM analysis includes a discriminant validity. The discriminant validity assessment generated by SmartPLS uses the Fornell-Lacker Criterion and cross loadings. The following are the results of the cross loadings obtained from the PLS Algorithm Report.

Table 4
Cross Loading

Indicator	Adoption Intention	Environment Concern	Green Self Identity	Perception of EV	Subjective Norms
AI1	0,788	0,408	0,249	0,692	0,760
AI2	0,883	0,447	0,368	0,626	0,588
AI3	0,870	0,448	0,359	0,659	0,633
AI4	0,824	0,362	0,208	0,652	0,551
EC1	0,373	0,855	0,621	0,437	0,388
EC2	0,376	0,861	0,468	0,462	0,405
EC3	0,450	0,852	0,449	0,481	0,389
EC4	0,396	0,643	0,427	0,476	0,470
GSI1	0,335	0,530	0,775	0,368	0,269
GSI2	0,252	0,496	0,860	0,242	0,197
GSI3	0,282	0,484	0,807	0,256	0,294
GSI4	0,279	0,497	0,836	0,320	0,266
PEV1	0,478	0,520	0,263	0,626	0,460
PEV2	0,467	0,386	0,123	0,711	0,485
PEV3	0,327	0,315	0,118	0,656	0,445
PEV4	0,453	0,382	0,319	0,638	0,404
PEV5	0,530	0,434	0,312	0,754	0,545
PEV6	0,709	0,383	0,253	0,795	0,702
PEV7	0,743	0,447	0,319	0,812	0,705
PEV8	0,710	0,438	0,348	0,791	0,641
PEV9	0,588	0,480	0,276	0,778	0,659
SN1	0,663	0,404	0,287	0,687	0,879
SN2	0,669	0,559	0,340	0,678	0,869
SN3	0,532	0,330	0,171	0,625	0,757
SN4	0,702	0,425	0,244	0,668	0,884

Source: output smart-PLS (2022)

The reading of cross loadings in table 4 is column based. It can be seen that the indicators AI1, AI2, AI3, and AI4 have a higher correlation to the association construct, namely Adoption Intention with correlation coefficients of 0.788, 0.883, 0.870, and 0.824. The correlation coefficient value of the indicator block has a greater value to the association construct than the other constructs.

Indicators EC1, EC2, EC3, and EC4 also have a higher correlation with their association construct, namely Environment Concern. Likewise, the other construct indicators have a higher correlation with the association construct compared to other constructs, so it can be said to have discriminant validity.

The next check is to compare the correlation between variables with . The measurement model has discriminant validity if each variable is greater than the correlation between variables. The value can be seen from the Fornell-Larcker Criterion SmartPLS output which is presented in table 5.

Table 5
Fornell-Larcker Criterion

	Adoption Intention	Environment Concern	Green Self Identity	Perception of EV	Subjective Norms
Adoption Intention	0,842				
Environment Concern	0,496	0,808			
Green Self Identity	0,352	0,613	0,820		
Perception of EV	0,785	0,578	0,364	0,732	
Subjective Norms	0,761	0,514	0,313	0,782	0,849

Source: output smart-PLS (2022).

The reading of the Fornell-Larcker Criterion table in table 5 is row based. It can be seen that the value of the Adoption Intention is 0.842, while the highest correlation value of the Adoption Intention variable with other variables is only 0.496, thus

the Adoption Intention is greater than the correlation between Adoption Intention and other variables. Likewise for other variables that show a greater correlation than the correlation between variables. So that the discriminant validity have been met.

Structural Model Evaluation

The evaluation of the structural model aims to test whether or not there is an influence between constructs, *R Square,* and the effect of an indirect relationship between constructs. The structural model was evaluated using *p-value* to determine the significance of the structural path parameter coefficients and *R Square* to determine the effect of the independent latent variable on the dependent latent variable whether it has a substantive effect.

a) Evaluation of R Square value

R square value is used to explain the effect of exogenous variables on endogenous variables. The R Square is obtained from the SmartPLS PLS Algorithm Report and can be seen in table 6.

Table 6
R Square

	R Square
Adoption Intention	0,672
Environment Concern	0,376
Perception of EV	0,334
Subjective Norms	0,264

Source: smart-PLS output (2022).

The R Square value of the Adoption Intention variable is 0.672, which means that the Environment Concern, Perception of EV, and Subjective Norms variables are simultaneously able to explain their effect on the Adoption Intention variable of 67.2% while the remaining 32.8% is explained by other variables outside the model. researched. While the R Square value of the Environment Concern variable is 0.376, which means that the Green Self Identity variable is able to explain the effect of 37.6% while the remaining 62.4% is explained by other variables outside the model studied. Then the R Square value of the Perception of EV variable is 0.334, which means that the Environment Concern variable is able to explain the effect of 33.4% while the remaining 66.6% is explained by other variables outside the model studied. And finally, the R Square value of the Subjective Norms variable is 0.264, which means that the Environment Concern variable is able to explain the effect of 26.4% while the remaining 73.6% is explained by other variables outside the model studied.

Then for the assessment of goodness of fit in this study, it can be seen from the Q-Square value. The Q-Square value has the same meaning as the coefficient determination (R-Square) in regression analysis, where the higher the Q-Square, the model can be said to be better or more fit with the data. The results of the calculation of the QSquare value are as follows:

Q-Square = $1 - (1 - R_1^2) (1 - R_2^2) \dots (1 - R_p^2)$

= 1 − [(1 − 0.672) x (1 − 0.376) x (1 − 0.334) x (1 − 0.264)]

= 0.899

Based on the above calculation results, the Q-Square 0.899. This shows that the diversity of the research data that can be explained by the research model is 89.9%. While the remaining 10.1% is explained by other factors that are outside the research model. Thus, from these results, this research model can be declared to have a good goodness of fit .

b) Evaluation of the significance of the path relationship on the research hypothesis.

To conclude whether the hypothesis is accepted or rejected, the p-value at a significance of = 5% or 0.05. If the p-value <0.05 then H_0 is rejected , meaning that there is an effect, in other hand, if the p-value > 0.05, then H_0 is accepted, meaning that there is no effect. The following are the results of the evaluation of the structural

model obtained from the Bootstrapping Report SmartPLS presented in table 7.

Table 7
Path Coefficients T-Values, P-Values

	Original Sample (O)	T Statistics (|O/STDEV|)	P Values	Description
Green Self Identity -> Environment Concern	0,613	9,069	**0,000**	**Influenced**
Environment Concern -> Perception of EV	0,578	7,706	**0,000**	**Influenced**
Environment Concern -> Subjective Norms	0,514	7,067	**0,000**	**Influenced**
Environment Concern -> Adoption Intention	0,030	0,313	**0,755**	**Not Influenced**
Perception of EV -> Adoption Intention	0,475	4,020	**0,000**	**Influenced**
Subjective Norms -> Adoption Intention	0,374	3,533	**0,000**	**Influenced**

Source: output smart-PLS (2022).

c) Evaluation of the significance of the indirect effect (mediation effect)

To conclude whether the hypothesis is accepted or rejected, the p-value at significance = 5% or 0.05 is used. If the p-value <0.05 then H_0 is rejected, meaning that there is an indirect effect (mediation effect).other hand, if the p-value > 0.05, then H_0 is accepted , meaning that there is no mediating effect. The following are the results of the evaluation of the structural model obtained from the SmartPLS Bootstrapping Report presented in table 8.

Table 8
Specific Indirect Effects T-Values, P-Values

	Original Sample (O)	T Statistics (|O/STDEV|)	P Values	**Description**
Environment Concern -> Perception of EV -> Adoption Intention	0,274	3,562	**0,000**	**Influence**
Environment Concern -> Subjective Norms -> Adoption Intention	0,192	2,975	**0,003**	**Influence**

Source: smart-PLS outputs (2022).

Bootstraping output for evaluating the direct effect by looking at the path coefficient values and P-values is presented in Figure 2.

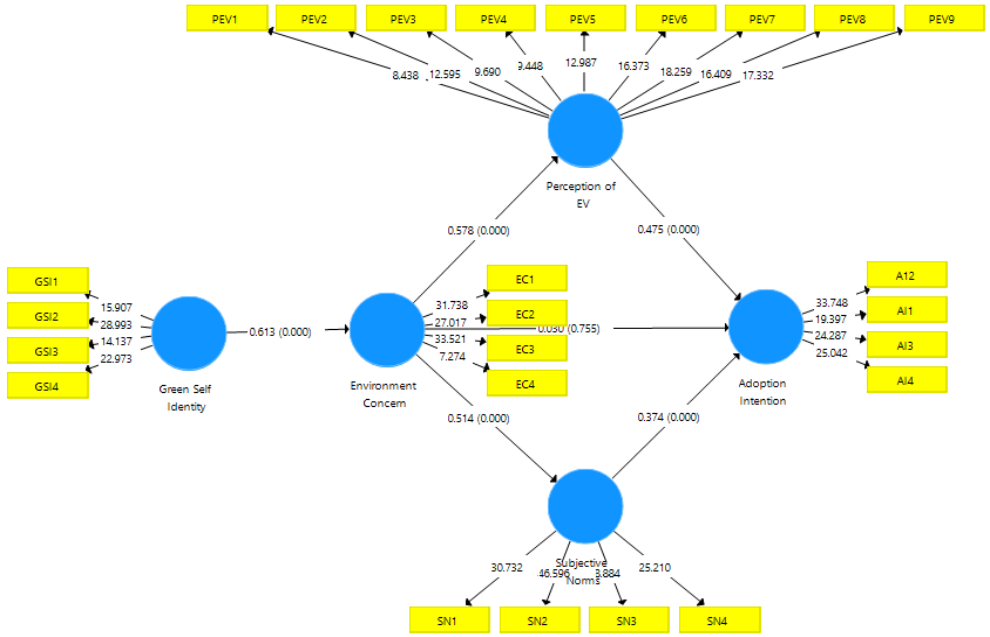

Figure 2. output bootstrapping
Source: output smart-PLS (2022).

Discussion

1. **Effect Green Self Identity on Environment Concern**

Based on the results of data analysis shows that Green Self Identity has a positive and significant impact on Environment Concern, this is indicated by the path coefficient value of 0.613 with a P Value (significance) of 0.000 < 0.05, meaning that the test contribution between the two variables obtained a coefficient value of 61.3%. Proving that Green Self Identity or self-identity as a Green Person has a significant role in Environmental Concern. This shows that someone who has a high character of love for the environment will have an effect on his attitude towards environmental care, the results of this study are in line with previous research which stated that Green Self Identity has a positive effect on Environment Concern (Adhitama, 2020; Alvin, 2018; Tung, Koenig, & Chen, 2017).

2. **Effect Environment Concern on Perception of EV**

Based on the results of data analysis, it shows that Environment Concern has a positive and significant effect on Perception of EV or Perception of Electric Vehicles, this is indicated by the path coefficient value of 0.578 with a P Value variable Environment Concern shows its effect on perceptions of electric vehicles with a fairly high coefficient of 61.3%. This proves that environmental care has a significant role in the perception of electric vehicles, meaning that the more people have knowledge and care about their environment, they tend to have a tendency to things related to a healthy environment, and this is evidenced by knowledge of electric vehicles. This means that the more people care about their environment, the more they will have a high perception of electric vehicles. the results of this study are in line with previous research which stated that Environment Concern had a positive effect on Perceptin of EV (Ghasri, Ardeshiri, & Rashidi, 2019; Rezvani, Jansson, & Bodin, 2015).

3. **Effect Environment Concern on Subjective Norms**

Based on the results of data analysis, it shows that Environment Concern has a positive and significant impact on Subjective Norms or Subjective Norms, as shown from the results of data processing

with a path coefficient value of 0.514 with a P Value (significance) of 0.000 < 0.05, meaning that the Environment Concern shows its effect on subjective norms with a fairly high coefficient of 51.4%. This proves that environmental care also has a significant role in subjective norms. Subjective Norm is a person's perception or view of the beliefs of others that will affect the intention to perform or not perform the behavior under consideration (Jogiyanto, 2007), in this case it means that the higher people have knowledge and care about their environment, the easier it is to believe. or believe about electric vehicle information obtained from the closest people, including family, close friends, or people who are considered important, so that it can be said that this environmental concern has a large enough influence on subjective norms, this is in line with research conducted by (Bamberg, 2003; Helenita, Jose, Edgard, & Marcos, 2013; Özkan, 2009; Ruslim, Kartika, & Hapsari, 2022).

4. **Effect Environment Concern on Adoption Intention**

Based on the results of data analysis, it shows that Environment Concern or environmental concern has no effect on Adoption Intention or Intention to adopt Electric Vehicles, this is indicated by the path coefficient value of 0.030 with a P Value (significance) of 0.755 > 0.05, meaning that the Environment Concern shows no there is an effect on the intention to adopt an electric vehicle indicated by a very low coefficient of 3%. This does not show evidence that environmental awareness has a role in people's intention to adopt electric vehicles. From the analysis of researchers that environmental care is one of the attitudes of respondents that is not related to the desire to adopt electric vehicles, meaning that concern for the environment is a form of concern for keeping the environment safe, healthy and not polluted, this is not related to the desire to adopt a vehicle, Moreover, electric vehicles are currently still relatively expensive, so they have not become a focus for the community at this time.

5. **Effect of Perception of EV on Adoption Intention**

Based on the results of data analysis shows that Perception of EV or perception of electric vehicles has a positive and significant impact on Adoption Intention or Intention to adopt Electric Vehicles, this is indicated by the path coefficient value of 0.475 with a P Value (significance) of 0.000 <0.05, meaning that perception variable about electric vehicles shows its effect on the intention to adopt an electric vehicle with a high coefficient of 47.5%. This proves that the perception of electric vehicles has a significant influence on people's intention to adopt electric vehicles, meaning that the higher people have knowledge of electric vehicles, the higher the intention to adopt electric vehicles. In fact, it has been proven that more and more people have knowledge of the positive features that are environmentally friendly and many positive things, including being efficient, having stylish and futuristic models and so on, and the increasing number of electric vehicle products offered by motorcycle and car manufacturers, the higher the desire to use electric vehicles which incidentally are vehicles that do not damage the environment and do not emit smoke that pollutes the air. Research that raises the effect of Perception of EV on Adoption Intention is in line with previous research conducted by Ghasri et al. (2019).

6. **Effect of Subjective Norms on Adoption Intention**

Based on the results of data analysis shows that Subjective Norms or subjective norms have a positive and significant impact on Adoption Intention or Intention to adopt Electric Vehicles, this is indicated by the path coefficient value of 0.374 with

a P Value (significance) of 0.000 <0.05, meaning that the subjective Norm variable shows its effect on the intention to adopt an electric vehicle with a coefficient of 37.4%. This proves that beliefs about electric vehicles from the closest people and people who are considered important have a considerable influence on their intention to adopt electric vehicles, meaning that the higher people's trust in close people and people who are considered important about electric vehicles. electric vehicles will increase their intention to adopt electric vehicles. From the researcher's analysis, it is evident that the more people are influenced by the people closest to them such as knowledge of positive features that are environmentally friendly and many positive things, including efficiency, stylish and futuristic models and so on, the more the desire to use electric vehicle. Research that raises the influence of Subjective Norms on Adoption Intention is in line with previous research conducted by (Helenita et al., 2013; Ruslim et al., 2022).

7. **Perception of EV mediates the effect of Environment Concern on the Adoption Intention of Electric vehicles.**

   Based on the results of data analysis, it shows that the Perception of EV or the perception of electric vehicles is an intermediate variable or mediation or intervening between Environment Concern on the Adoption Intention of Electric vehicles is proven or it can be said that there is a mediating effect, this is indicated by the path coefficient value of 0.274 with a P Value (significance) of 0.000 < 0.05 or acceptable (significant). It can be said that when people have high environmental awareness, it will affect the intention to adopt an electric vehicle, but when someone wants to adopt an electric vehicle there is an intermediate variable (mediation), namely the Perception variable about electric vehicles, meaning that this perception of electric vehicles proves that before People have the desire to adopt electric vehicles. The power of perception about electric vehicles is a bridge between environmental concerns and people's desire to adopt electric vehicles.

8. **Subjective Norms mediate the effect of Environment Concern on the Adoption Intention of Electric vehicles.**

   Based on the results of data analysis shows that Subjective Norms or subjective norms become an intermediate variable or mediation or intervening between Environment Concern on the Adoption Intention of Electric vehicles, it is proven or it can be said that there is a mediating effect, this is indicated by the path coefficient value of 0.192 with a P Value (significance) of 0.003 < 0.05 or acceptable (significant). It can be said that when people have high environmental awareness, it will affect the intention to adopt electric vehicles, but when someone wants to adopt electric vehicles there is an intermediate variable (mediation) namely subjective norm variables, meaning subjective norms prove that before people have the desire to adopt vehicles Electricity, confidence and trust about electric vehicles obtained from the closest people and people who are considered important will make someone higher to adopt electric vehicles.

CONCLUSION

The hypothesis of a direct relationship (direct effect) between variables can be accepted, including: Green Self Identity on Environment Concern, Environment Concern on Perrception of EV, Environment Concern on Subjective Norms, Perception of EV on Adoption Intention, and Subjectiove Norms on Adoption Intention, shows the results have a positive effect, this can mean that the higher the causal variables (Green Self Identity, Environment Concern, Perception of EV, and

Subjectiove Norms) the higher the effect variable (Environment Concern. Perception of EV, Subjective Norms, and Adoption Intention). However, there is one direct relationship hypothesis that cannot be accepted or rejected, namely the Environment Concern hypothesis on the Adoption Intention of Electric Vehicles, meaning that in this study environmental concern has no effect on the desire to adopt electric vehicles.

While the hypothesis of an indirect relationship (indirect effect) or the effect of mediation, among others, such as perception of EV as a mediating variable between Environment Concern and Adoption Intention of Electric vehicles is acceptable (there is a mediation effect), and subjective Norms become a mediating variable between Environment Concern and the Adoption Intention of Electric vehicles is acceptable (there is a mediation effect)

From the results of the analysis of this study, researchers can provide suggestions such as to improve the government's program for electric vehicles with the aim of reducing environmental pollution and the shift of people using fossil fuels to environmentally friendly vehicles, namely electric vehicles, campaigns for environmental awareness should be increased, increasing education about the importance of a "Green Person" attitude starting from early education. to higher education, encouraging automotive products to increase the promotion of the use of electric vehicles followed by more economical electric products at affordable prices, so as to increase people's intention to use electric vehicles, and for further researchers, they can use the results of this study for the development of further research related to public acceptance of electric vehicles, which also aims to preserve the environment that is beneficial for the next generation.

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