Determinant Model of Intention to Purchase Environmentally Friendly Vehicles in the Jabodetabek Area

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ABSTRACT

The transition to environmentally friendly vehicles (EVs) is an important step in supporting sustainable transportation. In understanding and enhancing the adoption of environmentally friendly vehicles, it is important to explore the factors that determine individuals' intentions in purchasing. This research understands the complex interactions of five factors that influence the intention to use environmentally friendly vehicles: the relative advantage of EVs, the Risk Perception Dimension, Environmental Concern, Government Policies and Infrastructure, and their impact on individuals' intention to purchase environmentally friendly vehicles in the Jabodetabek area. This emphasizes the need for an integrated strategy that comprehensively addresses these determinants to accelerate the intention to purchase environmentally friendly vehicles. This study uses regression analysis and obtained a sample of 125 people who expressed their intention to use environmentally friendly vehicles. Data were processed using Structural Equation Modeling (SEM) with LISREL 8.8 software. The results of the hypothesis test reveal that relative advantage and environmental concern positively influence consumer attitudes, which in turn affect consumers' purchase intentions. Furthermore, the dimension of risk perception does not influence the intention to purchase environmentally friendly vehicles. A comprehensive approach that considers factors such as relative advantage, risk barriers, environmental concern factors, government policies, and attitudes is crucial for accelerating the adoption of environmentally friendly vehicles. This finding is expected to provide insights for policymakers, manufacturers, and stakeholders who are striving to promote the adoption of environmentally friendly vehicles and shape future strategies in the environmentally friendly vehicle industry.

Keywords : relative advantage of EV, dimensions of risk perception, environmental concern, government policy, consumer attitude, EV purchase intention.

INTRODUCTION

Problems caused by human activities and productivity cause air pollution which is increasing day by day. This raises serious attention to deal with the pollution problem, so a new business concept is needed that prioritizes maintenance, sustainability and sustainability of the environmental life cycle. The implementation of the sustainability concept will be much more optimal if when it is implemented it can utilize marketing activities. A marketing activity not only favors customer satisfaction and business profits, but must also be able to shift consumption patterns and lifestyles of customers who have social, environmental and economic influences. The marketing concept that is in accordance with the principle of sustainability is known as sustainable marketing. Sustainable marketing is a marketing concept that is based on responsibility for the maintenance and sustainability of environmental and social sustainability in addition to fulfilling the needs of a product from customers. This is expected to maintain and improve the ability of future generations to meet their needs (Rudawska, 2018).

One of the impacts of business on the environment is air pollution. Air pollution problems are often found in areas or regions with high levels of human activity. Human activities that cause air pollution can be divided into three, namely steam power plant site activities, land clearing into productive land (factories, warehouses, plantations) and back and forth movement (mobilization) activities between fossil fuel vehicle users in an area. The problem of air pollution in Indonesia has been tried to be overcome several times in various ways. One way is to provide special status or special status for non-combustion-based vehicles (ICE). These vehicles are vehicles that are driven or run by electric power sources. The use of environmentally friendly vehicles is beneficial for the environment, especially environmentally friendly because environmentally friendly vehicles do not produce gas emissions. This is different from conventional vehicles that emit combustion residues from fuel oil which cause air pollution. Environmentally friendly vehicles do not have these emissions, therefore environmentally friendly vehicles can reduce exhaust emissions that have a negative impact on the environment. Several studies have been conducted to observe consumer purchasing intentions for environmentally friendly vehicles. These previous studies used several approaches with different theories. Jui-Che Tu and Chun Yang (2019) in examining purchasing intentions used the Technology Acceptance Model (TAM) theory. Indira Rachmawati and Rafi Amani Muflih Rahardi used the two theoretical approaches of the Technology Acceptance Model (TAM) and the Theory of Planned Behavior (TPB) in conducting the research. Humans as living beings in behaving consider existing factors. Based on the stimulus-organism-response (SOR) theory, this study tries to answer the following research questions. How do internal and external factors contribute to the intention to purchase environmentally friendly vehicles. Internal factors contribute that stimuli (i.e., relative advantage, risk perception dimensions, environmental concern) affect the individual's internal psychological condition (i.e., attitude to behave environmentally friendly), which in turn motivates them to behave environmentally friendly in transportation mobilization. Government involvement in influencing the carbon emission content in the environment provides a way to actively participate in the role and policies of environmentally friendly vehicle mobilization. Oil scarcity and environmental friendliness are among the issues of concern in Indonesia. Therefore, the Indonesian government

encourages the growth of an environmentally friendly vehicle ecosystem to be an alternative solution to these problems through policy. This is based on research by Jaiswal, et al (2021) which states that government policies influence attitudes. Government policy can be defined as a series of deliberate actions followed by a government agency or official to solve a problem of public concern (Cochran et al. 2009). The Indonesian government hopes that with the incentives and subsidies provided to those interested in environmentally friendly vehicles, as well as the support for the availability of electric charging stations, this will certainly increase people's purchasing intentions as shown in previous research (Sierzchula et al. 2013).

These external factors are external factors that contribute to the stimulus variables for the Stimulus Organism Response theory. Although the SOR theory has been widely used to study other phenomena, this study will contribute to this theory by adapting it (and thus expanding its application) to explain attitudes towards purchase intentions. Internal individual factors in the form of relative advantage, risk, environmental concern in forming attitudes towards environmentally friendly vehicles, and also external individual factors, namely government policies as stimuli for forming attitudes. To support this theoretical contribution, the SOR theoretical framework is prepared using attitude variables as mediating variables in the study. Relative advantage refers to the extent to which the advantages of environmentally friendly vehicles are considered better than traditional fuel vehicles. Specifically, this mainly refers to the advantages of environmentally friendly cars in terms of cost, performance, and environmental protection. Rogers (2003) argues that these innovation characteristics are very important for an individual's decision to adopt or reject an innovation. Green vehicles are considered more economical for everyday use and superior in terms of acceleration, power, and noise, produce less pollution, and have more fashionable designs and logos than traditional fuel vehicles (Burgess et al. 2013; Sierzchula et al. 2014, Peters and Dutschke. 2014). Therefore, perceived ease of use is considered in this study. Consumers often base consumption decisions primarily on the positive consequences of a purchase, the benefits (or value) they expect to receive from the product or service in the future (Holbrook and Hirschman, 1982, Sarkar, 2001, Forsythe et al., 2006, Melewar et al., 2013). The perceived relative advantage of green vehicles refers to an individual's perception of the benefits provided by green vehicles, such as the personal lifestyle enhancements derived from the luxurious experience of driving a green vehicle. Perceived benefits drive higher levels of perceived value for technological innovations (Ray et al., 2019; Kim et al., 2007). With the improvement of battery technology and efficiency of government vehicles. Green vehicles have emerged as one of the attractive vehicle options for consumers (Dijk and Yarime, 2010). Another advantage is the current tax incentives that effectively reduce the purchase price. Many governments are encouraging the adoption of electric vehicles to help reduce greenhouse gas emissions and reduce vehicle noise (Hawkins et al., 2013). From a customer perspective, green vehicles offer great energy efficiency, reduced operating costs, easy maintenance, and generally, more economical operating costs (Sierzchula et al., 2014). Chen (2016), clarified the idea of perceived relative advantage where when consumers find that using green products can improve the quality of life of their users, it can affect their intention to adopt the product. Regarding green vehicles, Wang's (2018) study found that perceived

relative advantage is a positive predictor of a person's attitude towards the intention to adopt green vehicles in China.

Perceived risk was originally a research topic in psychology, and refers to the negative effects that consumers expect to have on purchasing a particular product (Qian & Yin, 2017). Usually negatively correlated with the perceived benefits of environmentally friendly vehicles as the cause of their lack of widespread use, many consumers are still biased towards environmentally friendly vehicles in terms of safety, reliability, and battery life (Xu et al., 2019). These are factors that influence consumer choice of environmentally friendly vehicles. The less consumers know about environmentally friendly vehicles, the more biased they are towards environmentally friendly vehicles and the more negative effects will occur (Wang, et al., 2018). In addition, consumers are not only influenced by perceived benefits, but also perceived risks in their intentions and behaviors, and they will balance benefits with risks before making a final decision and finding the best solution. Environmentally friendly vehicles as new innovation products and also high involvement certainly make respondents really think about the risks involved in electric vehicles. This is in accordance with research by Featherman et al. (2021) and Palash et al. (2022) where risk is considered a factor that reduces the driving force for consumers to purchase environmentally friendly vehicles.

Environmental concern is an awareness of various environmental problems and issues (Schuitema et al. 2013). is a major influence on customer interest. Several studies have explored environmental concern and its influence on environmentally friendly choices (Bang et al., 2000). People who have a stronger understanding and concern for the environment may have greater respect for environmentally friendly things such as environmentally friendly vehicles (Dash, 2019). In addition, several researchers have investigated the relationship between environmental concern and consumer behavior and found that it drives the creation of attitudes towards environmentally friendly goods such as environmentally friendly vehicles (Malik et al., 2017; Dash, 2019; Chen & Chai, 2010).

The government's role in providing support for the eco-friendly vehicle ecosystem has been carried out for several years. Before issuing regulations regarding eco-friendly vehicles and their ecosystems, the Indonesian government had first paid attention to environmentally friendly energy. This attention is in the form of regulations and governance in the use of environmentally friendly energy. In this activity, the government issued Government Regulation No. 79 of 2014 which regulates the National Energy Policy. In PP No. 79 of 2014, it is stated that in Article 22, the government in its activities to encourage energy diversification programs towards environmentally friendly energy needs to provide both fiscal and non-fiscal incentive policies.

Stimulus will shape attitudes (organisms). Attitude refers to an individual's positive or negative evaluation of a particular behavior through observation, experience, research, etc., and their tendency to carry out the behavior (Abbasi, G.A.; Chee Keong, K.Q.; 2022). If someone

evaluates a product positively, their probability of buying it increases. Research shows that individuals have positive emotional attitudes toward purchasing green vehicles (e.g., less damaging to the environment, less noisy engine, provides instant acceleration and smooth driving experience, uses cheaper fuel, buying green vehicles can enhance one's status, etc.), although some studies also found negative attitudes toward the functional properties of green vehicles (Hsu, C.-L, Chen, Y.-C., Yang, T.-N.; 2017). These negative attitudes stem from perceived functional barriers of green vehicles, such as limited range, long waiting time for charging, scarce charging stations, fear of being stranded, etc. Attitudes can be a determinant of consumer purchase intentions. Previous studies have compared individuals with positive and negative attitudes toward green vehicles and found that those with positive attitudes are more likely to purchase green vehicles and are willing to pay more than conventional vehicles (Kim et al., 2008; Luo et al. 2010; Cheng and Huang 2013; Wang et al., 2018a).

RESEARCH METHOD

Explanatory research is research that has the results of testing a theory or hypothesis to strengthen, support, or even reject the theory or hypothesis of previously available studies.

Explanatory research presents a method used to investigate a phenomenon (a situation worth studying) that has never been studied before or has not been explained well and in the right way. The research process aims to find out several things that might be potential answers to the problem. Explanatory research helps researchers to better understand a subject, but does not help them predict what might happen in the future. Explanatory research is also known by other names, such as ex post facto (Latin for "after the fact") and causal research.

Explanatory research can be conducted in various forms, ranging from experimental studies where researchers test hypotheses by manipulating variables, to interviews and surveys used to gather insights from participants about their experiences. Explanatory research does not aim to produce new knowledge or solve a particular problem; rather, it seeks to understand why something happens. The most important goal of explanatory research is to help understand a particular phenomenon. This can be done through basic or applied research.

RESULTS & DISCUSSION

A questionnaire with 5 Likert scales with a value distribution between 1 (Strongly Disagree) to 5 (Strongly Agree). In testing the questionnaire with a Likert scale. The sample in this study consisted of 125 respondents who were taken using the purposive sampling technique, namely a group sample technique taken by following certain criteria desired to fill out the questionnaire. In this case, the criteria for selecting the sample are aged over 21 years with a monthly income range of over Rp 5,000,000.00

The indicators used include the dimensions of risk perception, relative advantage, government regulatory policies, and environmental concerns, consumer attitudes and intentions to purchase environmentally friendly vehicles. The indicators used are 27 questions. The risk perception dimension contributes 6 question points, relative advantage contributes 5 question points, environmental concerns provide 5 question points, government regulatory policies have 4 question points, consumer attitudes use 4 question points and intentions to purchase environmentally friendly vehicles consist of 3 questions.

Descriptive analysis is used to analyze data by describing or depicting the research data. Descriptive analysis for each question with six variables is as follows.

- **Descriptive Analysis of Perceived Risk's Dimension**

No	Indicator	Score					Total	Index
		1	2	3	4	5		
1	Price	19	13	19	37	37	125	87 **(T)**
		19	26	57	148	185	435	
2	Service & Maintenance	18	15	20	40	32	125	85.6 **(T)**
		18	30	60	160	160	428	
3	Battery Changing Fee	19	15	20	45	26	125	83.8 **(T)**
		19	30	60	180	130	419	
4	Electric Station	17	18	18	44	28	125	84.6 **(T)**
		17	36	54	176	140	423	
5	Distances Coverage	12	21	28	36	28	125	84.4 **(T)**
		12	42	84	144	140	422	
6	Learn drive time	8	23	23	43	28	125	87 **(T)**
		8	46	69	172	140	435	

Tabel 4.1 Descriptive Analysis Perceived Risk's Dimension

- **Descriptive Analysis Relative Advantage**

No	Indicator	Score					Total	Index
		1	2	3	4	5		
1	Noiseless	11	9	24	50	31	125	91.2 **(T)**
		11	18	72	200	155	456	
2	Reduce Pollution	13	7	17	49	39	125	93.8 **(T)**
		13	14	51	196	195	469	
3	Comfort Driving	12	9	23	55	26	125	89.8 **(T)**
		12	18	69	220	130	449	
4	No BBM Queuing	12	13	22	51	27	125	88.6 **(T)**
		12	26	66	204	135	443	

Tabel 4.2 Summary Results Relative Advantage

- **Descriptive Analysis Government Incentive Policy**

No	Indicator	Score					Total	Index
		1	2	3	4	5		
1	Well Known	18	14	16	47	30	125	86.4 **(T)**
		18	28	48	188	150	432	
2	Benefits	8	16	19	49	33	125	91.6 **(T)**
		8	32	57	196	165	458	
3	Buying Push	31	42	24	13	15	125	62.8 **(S)**
		31	84	72	52	75	314	
4	The way of	14	12	20	40	39	125	90.6 **(T)**

	promotion							
		14	24	60	160	195	453	
5	Suggest the advance of incentives	16	10	23	41	35	125	88.8 **(T)**

Tabel 4.3 Summary Results Government Incentive Policy

- **Descriptive Analysis Environmental Concern**

No	Indikator	Skor					Jumlah	Indeks
		1	2	3	4	5		
1	Air Pollution Increase	10	9	21	52	33	125	92.8 **(T)**
		10	18	63	208	165	464	
2	Reduce Pollution Desire	6	8	25	55	31	125	94.4 **(T)**
		6	16	75	220	155	472	
3	Support Healthy Environment	35	52	19	11	8	125	56 **(S)**
		35	104	57	44	40	280	
4	Care about the Environment	11	8	21	56	29	125	91.8 **(T)**
		11	16	63	224	145	459	
5	Environment Responsibility	9	11	22	55	28	125	91.4 **(T)**
		9	22	66	220	140	457	

Tabel 4.4 Summary Results Environmental Concern

- **Descriptive Analysis Attitude**

No	Indicator	Score					Total	Index
		1	2	3	4	5		
1	Healthy Option	8	8	31	48	30	125	91.8 **(T)**
		8	16	93	192	150	459	
2	Efficient Option	13	13	23	56	20	125	86.4 **(T)**
		13	26	69	224	100	432	
3	Driving Comfort Option	11	10	23	52	29	125	90.6 **(T)**
		11	20	69	208	145	453	
4	Support the reduce pollution program	11	10	24	48	32	125	91 **(T)**
		11	20	72	192	160	455	

Tabel 4.5 Summary Results Attitude

- **Descriptive Analysis Purchase Intention**

No	Indikator	Skor					Jumlah	Indeks
		1	2	3	4	5		
1	Purchase in the near future	14	8	18	57	28	125	90.4 **(T)**
		14	16	54	228	140	452	
2	Electric Vehicle Preference	7	10	30	47	31	125	92 **(T)**
		7	20	90	188	155	460	
3	Find and obtain the EV information	10	8	23	51	33	125	92.8 **(T)**

		10	16	69	204	165	464	

Tabel 4.6 Summary Results EV Purchase Intention

Analysis of measurement models and structural models is shown in the table and diagram below. In general, SEM consists of two main parts, namely measurement model and structural model.

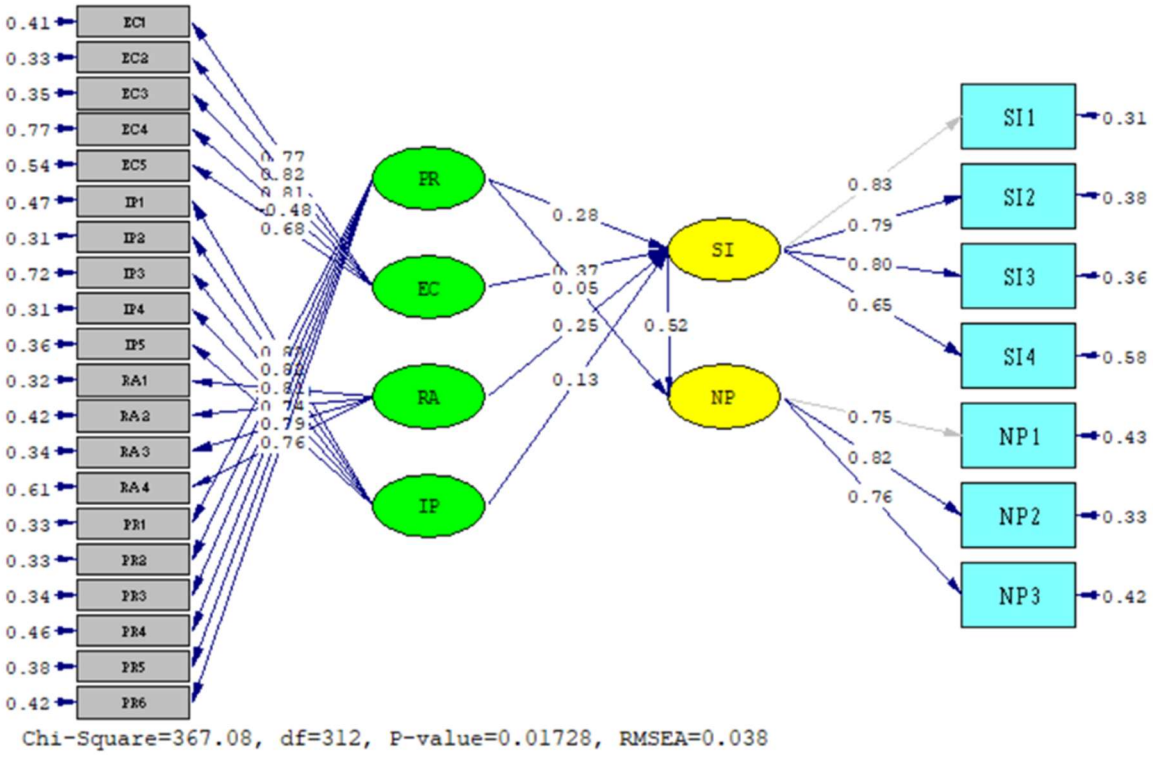
1. Measurement Model

The measurement model or measurement model is part of the SEM model that describes the relationship between latent variables and their indicators. Straight arrows indicate the relationship of latent variables to each indicator. The measurement model is evaluated as other SEM models using the alignment test measurement. The analysis process can only be continued if the measurement model is valid.

2. Structural Model

The structural model is part of the SEM model that describes the relationship between latent variables or between exogenous variables and endogenous variables. This structural model is a set of exogenous and endogenous variables in a model, along with direct effects or indicated by the direction of direct arrows connecting them and disturbance factors for all of these variables.

Variabel	KODE	Loading Factor	t hitung	P-value	AVE	Composite Realibility
Dimensi Persepsi Resiko	PR1	0.82	10.86	0.00	0.585091	0.8173151
	PR2	0.82	10.25			
	PR3	0.81	9.29			
	PR4	0.74	9.81			
	PR5	0.79	10.74			
	PR6	0.76	10.88			
Keunggulan Relatif	RA1	0.82	10.23	0.00	0.64165	0.877208
	RA2	0.73	10.27			
	RA3	0.83	10.42			
	RA4	0.82	11.56			
Kebijakan Regulasi	IP1	0.82	10.76	0.00	0.61338	0.8877488
	IP2	0.82	8.41			
	IP3	0.81	10.45			
	IP4	0.74	10.25			
	IP5	0.72	11.67			
Kepedulian Lingkungan	EC1	0.77	9.85	0.00	0.6319	0.8954345
	EC2	0.82	10.76			
	EC3	0.73	10.56			
	EC4	0.83	5.34			
	EC5	0.82	5.42			
Sikap	SI1	0.83		0.00	0.593875	0.8529784
	SI2	0.79	10.02			
	SI3	0.8	10.23			
	SI4	0.65	7.68			
Niat Pembelian	NP1	0.75		0.00	0.604167	0.8205217
	NP2	0.82	7.99			
	NP3	0.76	7.71			



The results of the first hypothesis test indicate acceptance of the hypothesis that the risk perception dimension influences the attitude of consumers towards environmentally friendly vehicles. Consumer attitudes towards a product are greatly influenced by the evaluation of benefits and risks. If the perceived risk towards environmentally friendly vehicles is greater than the perceived benefits, consumers tend to have a negative attitude. This has been supported by research by Gao et al. (2018) which shows that risk perception has a negative correlation with the intention to purchase environmentally friendly vehicles.

According to Bauer (1960), risk perception is the uncertainty felt by consumers regarding the results of their purchasing decisions, especially those involving potential losses. In the context of environmentally friendly vehicles, this risk perception includes various dimensions such as physical, financial, and functional. Taylor (1974) added that risk perception includes not only the possibility of loss but also the severity of the potential loss. Consumer attitudes towards environmentally friendly vehicles are thus influenced by how they evaluate the benefits compared to the perceived risks. Consumers' risk perceptions can affect their attitudes towards electric vehicles, which in turn affect purchasing decisions. If the risk perception is high in one dimension (for example financial or functional), consumers tend to postpone or even cancel their intention to purchase electric vehicles. On the other hand, if they feel that the benefits are greater and the risks are manageable, they may be more likely to choose an electric vehicle.

Of the six dimensions of risk perception, the measurement shows that consumer risk perception of maintenance complexity has a loading factor of 0.913, compared to consumer risk perception of vehicle battery charging locations of 0.828. This indicates that consumer risk perception is formed by concerns about vehicle maintenance compared to vehicle battery charging locations. The dominant factor of concern about vehicle maintenance is a strong factor in forming attitudes from the risk perception dimension. Respondents feel that the risk of environmentally friendly vehicles is the initial obstacle to a new technology that will be used by humans in the future.

The results of the second hypothesis test show rejection of the hypothesis that risk perception influences consumer purchase intentions for environmentally friendly vehicles. Perception of risk where respondents feel a sense of worry when using environmentally friendly vehicles such as concerns about the condition of reliability and vehicle mileage compared to conventional vehicles (Gao et al., 2017)

Wang et al. (2021) also showed that financial and functional risk perceptions have the greatest impact on purchase intentions for electric vehicles, especially in developing markets. Rezvani et al. (2015) also showed that risk perception has a significant negative relationship with electric vehicle purchase intention. The financial and functional risk dimensions have the greatest impact on consumer decisions.

The results of the SEM LISREL 8.8 test show that risk perception does not affect the intention to buy environmentally friendly vehicles. Basically, respondents do feel worried about the condition of the product if used, one of the reasons is due to the lack of information obtained by the Indonesian people about environmentally friendly vehicle products. The concerns felt on average are whether environmentally friendly vehicles can be used with existing road and infrastructure conditions. However, this can be anticipated by introducing the product to the public, so that product marketers show more product advantages.

The results of the third hypothesis test show support for the hypothesis that relative advantage influences the attitudes of consumers of environmentally friendly vehicles. The third hypothesis shows that if relative advantage increases, consumer attitudes also increase.

Rogers (1995) in the Diffusion of Innovation Theory states that relative advantage is one of the main factors determining the adoption of innovation. In the context of electric vehicles, relative advantage includes aspects such as energy efficiency, lower operating costs, and smaller environmental impacts. This relative advantage greatly influences consumer attitudes, where more positive attitudes tend to emerge when consumers see greater benefits compared to conventional fossil fuel vehicles.

The perception of relative advantage provides an illustration that using environmentally friendly vehicles can later make life easier. Environmentally friendly vehicles can provide comfort

in driving and reduce street noise. This contributes to a need for a life that is free from pollution and noise levels.

Measurement of relative advantage against attitudes shows that the convenience of being free from fuel queues has a loading factor of 0.852, compared to the tendency factor of reducing air pollution of 0.792. This indicates that individual consumers view an ease of life from the presence of environmentally friendly vehicles as higher than the results of reducing air pollution from using environmentally friendly vehicles. The dominant factor of convenience due to being free from fuel queues is a strong factor in forming attitudes from the risk perception dimension. Respondents feel that the convenience of environmentally friendly vehicles is more acceptable and preferred.

The results of the fourth hypothesis test show rejection of the hypothesis that government incentives influence the attitudes of consumers of environmentally friendly vehicles. The fourth hypothesis shows that if government incentives provide less encouragement as a variable forming attitudes, purchasing intentions also increase. This is related to the lack of intensive socialization carried out by the government, both through print media, electronic media and social media.

Research in the PRC found that non-financial incentives, such as access to special lanes and parking relief, have a significant impact on consumer attitudes, especially in large cities with high congestion levels (Zhang et al., 2014). Another study showed that the development of government-managed charging infrastructure is a key factor in building consumer trust and positive attitudes (Wang et al., 2021). Strong support from the government is needed to increase cooperation with various environmentally friendly vehicle manufacturers regarding the Domestic Component Level (TKDN) which is an issue of the government's incentive policy program.

Measurement of government incentives on attitudes shows that suggestions for continued incentive programs from the government have a loading factor of 0.82, compared to an understanding of the types of government incentives of 0.72. This indicates that individual consumers want continued incentive programs from the government higher than their understanding of the types of incentives from the government. Respondents need the continuation of several government incentive programs as a necessity in addition to introducing several existing government incentive programs to increase understanding in community groups.

The results of the fifth hypothesis test show that environmental concern has a positive effect on consumer attitudes in purchasing environmentally friendly vehicles. The fifth hypothesis suggests that if environmental awareness increases, attitudes towards purchasing intentions will also increase. Perception of the environment refers to the role of the environment that will be felt if using environmentally friendly vehicles. However, this does not necessarily affect the intention to purchase environmentally friendly vehicles. According to Ma, Liang, (2014) the perceived environmental impact is a mediator between environmental stimuli and behavioral responses. Environmentally friendly vehicle products are products that can indeed be an alternative in reducing gas emissions. However, when viewed from the fuel in the form of batteries that require

electricity to recharge. Electricity itself in Indonesia is still made using coal. In addition, the use of batteries that have a battery life and must be replaced every 4 years can cause battery waste (Kencana, 2019). Therefore, the government needs to provide a post-use program for environmentally friendly vehicles. These results are in line with previous research by X. He et al., (2018) that perceptions of the environment do not have a significant effect. Indonesian respondents prefer products that can provide savings in their financial expenses. Wang et al. (2021) showed that consumers who care about urban air pollution have a more positive attitude towards electric vehicles because these vehicles are considered to be able to help reduce pollution levels.

Measurement of environmental concern for attitudes shows that the desire to reduce air pollution has a loading factor of 0.83, compared to support for better air quality of 0.73. This indicates that the individual attitude of consumers formed from the desire to reduce air pollution is greater than the support factor for better air quality. The desire of individuals through the presence of environmentally friendly vehicles to reduce air pollution is a form of support for better air quality.

The results of testing the sixth hypothesis show that consumer attitudes have a positive effect on the intention to purchase environmentally friendly vehicles. The sixth hypothesis shows that if attitudes increase, consumer purchasing intentions also increase. In a study conducted by Ikram and Yegin, (2022) stated that attitudes have a positive effect on purchasing intentions towards environmentally friendly vehicles in this case, highlighting all the features of electric vehicles that will have a positive impact on consumer attitudes towards purchasing electric vehicles, such as functional efficiency, price, performance, low fuel consumption, ease of use and adaptation.

An innovation that exists in a person plays a role in the intention to adopt new technology, so that in decision making it will consider the relative period of the new service provided. In addition, the character of the community who has an active character towards environmental concerns is one of the factors that form attitudes towards the intention to purchase environmentally friendly vehicles. Wang et al. (2018b) argue that consumer attitudes from environmental concerns are a variable in consumer intentions to purchase the vehicle.

Attitude is an evaluation of favorable or unfavorable acceptance behavior (Ajzen and Fishbein, 2005) and comes from the user's internal positive or negative beliefs about innovative technology or new products. When consumers have a positive perception of a particular technology, their intention to adopt the technology will increase and vice versa, this is likely to be translated into actual purchase intentions for the environmentally friendly vehicle (Liu et al., 2018; Wang et al., 2018b). Therefore, changing user attitudes is likely to stimulate consumer purchase intentions.

Attitude measurements show that the desire to reduce air pollution has a loading factor of 0.857, compared to the attitude of having an environmentally friendly vehicle as a personal vehicle

of 0.778. This indicates that the individual consumer attitude formed from the desire to reduce air pollution is greater than the personal ownership factor.

CONCLUSION

1. Perceived of Risk Dimension, or the risk perception dimension forms the attitude of consumers of environmentally friendly vehicles. The risk perception dimension consisting of perceptions of physical, functional and financial risks are several factors that constrain or hinder individuals' attitudes in purchasing environmentally friendly vehicles. The risk perception that exists in environmentally friendly vehicles affects the attitude of consumers. Consumers who buy environmentally friendly vehicles view risk perception as an obstacle that will be faced in the attitude of having the latest technology in environmentally friendly vehicles.

2. The Risk Perception Dimension does not affect consumer intentions in purchasing environmentally friendly vehicles. The intention to purchase environmentally friendly vehicles developed from risk perception factors, both physical, functional and financial, does not affect consumers of environmentally friendly vehicles. Consumers who buy environmentally friendly vehicles in accepting various risk perceptions are not seen as obstacles in the intention to purchase vehicles.

3. Relative Advantage or Relative Advantage forms consumer attitudes towards environmentally friendly vehicles. Relative advantage is one of the variables that forms consumer attitudes. In relation to the formation of consumer attitudes for purchases, consumers of environmentally friendly vehicles pay attention to several factors such as driving comfort, absence of noise, reduction of pollution or air pollution and so on. This shows that relative advantage provides some encouragement to form consumer attitudes towards environmentally friendly vehicles.

4. Government Incentive Policy does not shape consumer attitudes towards environmentally friendly vehicles. Prospective consumers in Indonesia pay attention to various strategies or government programs to support the level of use of environmentally friendly vehicles, which are not enough to build attitudes in consumers. Government incentives, such as exemption from environmentally friendly vehicle tax, exemption from Name Transfer Fees and the absence of odd or even license plate rules for environmentally friendly vehicles in the Special Region of Jakarta, are considered not actively socialized enough. This shows that the Government Incentive Policy has not succeeded in significantly influencing the attitudes of prospective consumers towards the intention to purchase environmentally friendly vehicles in Indonesia.

5. Environmental Concern or environmental concern influences attitudes towards environmentally friendly vehicles in Indonesia but is not significant. Consumers in their attitude to purchase environmentally friendly vehicles are aware of their involvement in caring for the environment. Reducing air pollution is the responsibility of consumers in their intention to purchase environmentally friendly vehicles. In addition, consumers are active in preserving the

environment by changing their daily patterns from driving with conventional fuel vehicles to environmentally friendly vehicles.

6. Consumer attitudes play a role in encouraging the intention to purchase environmentally friendly vehicles. Consumer attitudes are built by several variables such as risk perception, relative advantage, environmental concern and government incentive policies that drive purchasing intentions for environmentally friendly vehicles.

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