


The Effect Of Green Life Style, Futuristic Design, Technology On Purchasing Decisions For Electric Motorbikes With Confidence As An Intervening Variable In Medan City

¹Syafrida Yani Harahap, ²Satria Tirtayasa

^{1,2}Faculty of Economics and Business, Universitas Muhammadiyah Sumatera Utara, JL. Kapt. Mukhtar Basri No. 3 Medan 20238 North Sumatra

Article Info	ABSTRACT
Keywords: Green Lifestyle, Futuristic Design, Technology, Confidence	The purpose of this study is to systematically analyze the influence of Green Lifestyle, Futuristic Design, and Technology on Purchasing Decisions for Electric Motorbikes in Medan City. In addition, this study aims to assess the mediating role of Confidence as an important variable in shaping the relationship. The sample size was 100 respondents selected through purposive sampling. The results showed: (1) green lifestyle has a positive and significant effect on purchasing decisions (2) futuristic design has a positive and insignificant effect on purchasing decisions. (3) technology has a positive and significant effect on purchasing decisions. (4) confidence has a positive and significant effect on purchasing decisions. (5) confidence does not play a role in mediating the relationship between Green Lifestyle, Futuristic Design and Technology on Purchasing Decisions.
This is an open access article under the CC BY-NC license 	Corresponding Author: Syafrida Yani Harahap Faculty of Economics and Business, Universitas Muhammadiyah Sumatera Utara, JL. Kapt. Mukhtar Basri No. 3 Medan 20238 North Sumatra syafridayaniharahap2004@gmail.com

INTRODUCTION

Many environmental problems in the world seem to be increasing (Begum et al., 2022). People's actions and routines, such as producing excessive amounts of carbon dioxide, contribute significantly to these problems (Kumar et al., 2021). Sustainability is becoming an important social issue as more people realize the influence their consumption patterns have on the environment and what they eat. Eco-friendly methods are being implemented by companies as a result of a paradigm shift in customer decision-making. Therefore, companies are using environmentally friendly production methods, which raises issues of ethics and sustainability. (Sharma et al., 2023)

Individual pro-environmental behaviors, such as walking, using public transportation, and paying electricity bills online, play an important role in this context (Ashfaq et al., 2022). Green technologies, also known as green technologies or clean technologies, provide practical answers and pave the way for society to work towards environmental conservation. These technologies can help reduce waste and carbon footprint, and conserve

water (Q. Wang et al., 2019).

The growing popularity of green practices is a response to the worldwide epidemic of climate change and air pollution. Murphy argues in Khayru et al. (2021) that transportation can help build a more equitable and environmentally friendly economy. An integrated domestic industrial structure will increase competitiveness around the world, and give credence to this. (Department of Industry, Year 2022).

Electric motorcycles are one of the increasingly popular modes of transportation. To reduce their impact on the environment and promote sustainability, more and more people today are choosing electric motorcycles over conventional motorized vehicles. This way of life is good for the planet, your health, and your ability to go about your day. "Editorial" from 2023.

Domestic sales of motorcycles and exports of compact motorcycles increased in August 2023, according to the Indonesian Motorcycle Industry Association (AISI). A total of 534,000 units of three-horsepower motorcycles were sold in the country. According to Annur (2023), this figure represents a monthly increase of 12.39% when compared to July 2023, when 475,428 units were sold. If this trend continues, it would not be surprising if the figure continues to rise in the following years. More motorcyclists on the road means more pollution. Currently, governments around the world are working to reduce transportation- related gas emissions (Habibie & Sutopo, 2020).

Compared to the same period last year, when the number was 3.6 million, this is a huge increase. At the end of September 2023, there were 66,978 motorcycles recorded in the Electric Vehicle-Based Motor Vehicle Registration (KBLBB). The strategy to assist the government in purchasing KBLBB two-wheelers is one of the projects of the Ministry of Industry. (Yunianto, 2023).

Over the past few years, the use of electric cars in Indonesia has skyrocketed. By 2020, the electric vehicle fleet in Indonesia will consist of 2,176 units, according to a study conducted by Deloitte and Valimo. From an initial percentage of 244.58% in 2020, this number grew to 7,498 cars in 2021. In 2021, this figure rose by 244.58 percent. There will be 33,461 electric vehicles on Indonesian roads in 2022, an increase of 344.27% from 2021. Thus, the use of electric vehicles in Indonesia has increased tenfold in just two years.

Given these dynamics, this study aims to empirically investigate the interaction between Green Lifestyle, Futuristic Design, and Technology Engagement in relation to Purchase Decision. In addition, it also seeks to explore the mediating effect of Confidence on this relationship, thereby contributing to a deeper understanding of Purchase Decision in the context of electric motorcycles. This research seeks to shed light on the multifaceted dimensions of contemporary consumer behavior, offering insights with academic and practical implications in the automotive industry.

Purchase Decision

(Kotler & Armstrong, 2012) defines purchasing decisions as part of consumer behavior, namely the study of how individuals, groups and organizations choose, buy, use, and how goods, services, ideas or experiences satisfy their needs and desires. In purchasing

decisions there are also several stages carried out by consumers which will result in a decision to buy a product or not. According to (Kotler & Armstrong, 2012) the purchasing decision process consists of five stages, namely:

- a. Problem Introduction
- b. Information Search
- c. Evaluation of Alternatives
- d. Purchase Decision
- e. Post-Purchase Behavior

In purchasing decisions according to (Kotler & Armstrong, 2012) there are six indicators of purchasing decisions according to what is used as an indicator of purchasing decisions, namely:

1. Product choice
2. Brand choice
3. Choice of dealer
4. Time of purchase
5. Purchase amount
6. Payment method

Green Lifestyle

In research conducted by (Saleky & Souisa, 2019) Green lifestyle is a lifestyle that is friendly to the environment, and the results of this study show that this lifestyle directly has a positive influence on consumer purchasing decisions. Recent research conducted (Górska-Warsewicz et al., 2021) identifies that trust in environmentally friendly products affects green attitudes, otherwise consumers who start an environmentally friendly lifestyle will foster a sense of confidence that is perceived as an environmentally friendly practice that drives consumer intentions. Similar research was conducted by (Sharma et al., 2022) (Soomro et al., 2020).

Several personal factors, such as beliefs, previous sustainable actions, and social and cultural influences, can affect the likelihood of engaging in sustainable actions in the future. Therefore, businesses need to consider rational choices related to making green purchasing decisions to improve their sustainability and encourage a greener future (Lopes et al., 2024). Furthermore, the hypothesis is formulated as follows:

Futuristic Design

(Djaslim saladin, 2004) defines product design as part of technical product development. Product design has been recognized as having an important role in influencing consumer purchasing decisions. In the context of vehicle design, aspects can include exterior aesthetics and innovative features that combine comfort and safety. The results of his research show that design (futuristic design) has a positive relationship with purchasing decisions. In line with previous research conducted by (Dwikisaputra & Yunanto, 2023), (Ongky Hermawan & Fauzi, 2023), (Amanah et al., 2018) highlighted that attractive design can affect consumer perceptions, value and product quality. Therefore, strong product design in electric motors can be a determining factor that influences

consumer decisions to adopt electric vehicle technology.

Technology

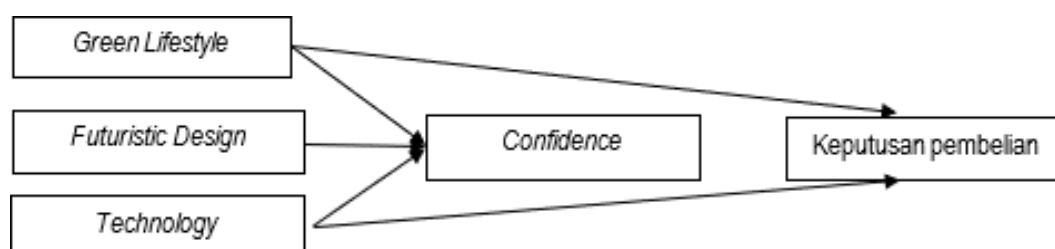
Based on research conducted by (Gondoiswanto, 2023) the perception of electric vehicles still cannot inspire the intention to purchase electric vehicles. The reason is that the use of electric vehicles is still complex. The results of his research indicate that technology has a significant effect or has a positive relationship to purchasing decisions.

The results of research conducted by (Utami et al., 2020) support the research above. The results show how significant the frequency of sharing technological factors such as mileage and battery, maximum speed of electric motorbikes, battery charging time, availability of charging station infrastructure at work and availability of charging in supporting purchasing decisions for electric motorbikes in Indonesia. In using technology, the easier it is to use, the higher the consumer's interest in using technology, especially if the use of the technology can be learned by themselves. If the technology does not provide benefits, they will no longer be interested in using the technology because there are other options available (Shaikh et al., 2023).

Confidence

According to (Kotler & Keller, 2018) consumer trust is as follows: "Trust is the willingness of a firm to rely on a business partner. It depends on a number of interpersonal and interorganizational factors, such as the firm's perceived competence, integrity, honesty and benevolence ". In other words, consumer trust is a belief in product attributes and how consumers assess the performance of these product attributes. Consumer confidence comes from what has been seen and then a conclusion is formed in the minds of consumers.

The results of research conducted (Gondoiswanto, 2023) suggest that the experience of using electric vehicles that is still minimal makes consumers still not believe in these electric vehicles. This highlights that consumer confidence has a significant effect and is positively related to the decision to purchase an electric vehicle, in this case an electric motorcycle. Furthermore, the hypothesis can be formulated as follows:



Gambar 1.2 Conceptual Framework

METHODS

The type of research used is quantitative research with a survey method. The purpose of this method is to obtain information about the matter to be studied from a number of respondents who are considered representative of a population. This research focuses

on electric motorcycle users in Medan City. Since the exact number of the population is unknown and quite extensive, purposive sampling method, which is included in non-random sampling, was used. Since the exact population size is unknown, this study used Lemeshow's formula for calculation purposes:

$$n = \frac{1,96^2 \cdot 0.5(1 - 0.5)}{0.1^2}$$

$$= 96.04$$

The study determined a sample size of 96.04 and rounded up to 100 respondents based on the mentioned calculations. It investigated three independent variables: green lifestyle (X1), futuristic design (X2), and technology (X3), together with one intervening variable, confidence (Z), and one dependent variable, purchase decision (Y). Data was collected through questionnaires, and data analysis was conducted using SMPLS.

RESULTS AND DISCUSSION

Measurement Model Analysis Construct Validity and Reliability

The following presents the results of Construct Validity and Reliability testing conducted in this study:

Tabel 2.1 Construct Validity and Reliability test

	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
Confidence	0.959	0.962	0.970	0.891
Futuristic Design	0.964	0.970	0.971	0.827
Green Lifestyle	0.915	0.916	0.959	0.922
Keputusan Pembelian	0.961	0.965	0.969	0.838
Technology	0.937	0.942	0.960	0.889

Based on the output results in table 2.1, all question items show a composite reliability value above 0.60. This means that all question items are proven reliable.

Discriminant Validity

Table 2.2 Discriminant Validity Test

	Confidence	Futuristic Design	Green Lifestyle	Keputusan Pembelian	Technology
Confidence					
Futuristic Design	0.842				
Green Lifestyle	0.714	0.807			
Keputusan Pembelian	0.767	0.816	0.871		
Technology	0.799	0.889	0.895	0.880	

Based on the output results in table 2.2, it shows that all research variables have met discriminant validity. Through the measurement of the Heterotrait-Monotrait correlation ratio, the HTMT value of all research variables is below 0.90. Therefore, it can be concluded that the indicators used in the study have met good discriminant validity in the preparation of each variable.

Structural Model Analysis R-Square

Tabel 2.3 R-Square Test

	R-square	R-square adjusted
Confidence	0.682	0.672
Keputusan Pembelian	0.772	0.765

Based on the output results in table 2.3, it shows that all independent variables simultaneously have an influence of 67.2%. This means that the ability of all variables to have a model that is classified as strong in explaining the endogenous variable, namely purchasing decisions.

F-Square

Tabel 2.4 F-Square Test

	Confidence	Futuristic Design	Green Lifestyle	Keputusan Pembelian	Technology
Confidence				0.079	
Futuristic Design	0.302				
Green Lifestyle	0.001			0.186	
Keputusan Pembelian					
Technology	0.037			0.144	

Based on the output results in table 2.4, the green lifestyle and futuristic design variables in explaining purchasing decisions have a value of 0.186. This value is above 0.15, meaning that it is classified as a moderate / moderate effect of exogenous variables on endogenous variables. However, the value generated in the technology variable in explaining the purchasing decision variable of 0.144 indicates a weak effect of the exogenous variable on the endogenous variable.

Path Analysis Direct Effect

The path coefficient shows that all path coefficient values seen in the original sample are positive, including:

Tabel 2.5 Direct Effect

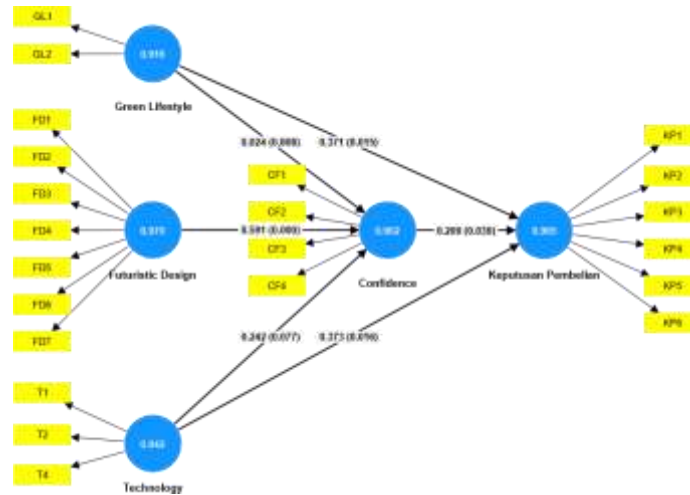
	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values
Confidence -> Keputusan Pembelian	0.209	0.210	0.101	2.070	0.039
Futuristic Design -> Confidence	0.591	0.575	0.155	3.808	0.000
Futuristic Design -> Keputusan Pembelian	0.124	0.121	0.068	1.816	0.069
Green Lifestyle -> Confidence	0.024	0.038	0.099	0.243	0.808
Green Lifestyle -> Keputusan Pembelian	0.376	0.404	0.156	2.415	0.016
Technology -> Confidence	0.242	0.240	0.137	1.772	0.077
Technology -> Keputusan Pembelian	0.423	0.393	0.156	2.710	0.007

Indirect Effect

Tabel 2.6 Indirect Effect

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values
Futuristic Design -> Confidence -> Keputusan Pembelian	0.124	0.121	0.068	1.816	0.069
Green Lifestyle -> Confidence -> Keputusan Pembelian	0.005	0.009	0.022	0.225	0.822
Technology -> Confidence -> Keputusan Pembelian	0.051	0.051	0.040	1.254	0.210

The overall framework of the results of the path analysis above is depicted in the figure below:



Gambar 1.1 Graphical Output

Discussion

The Effect of Green Lifestyle on Purchasing Decisions

Based on the partial test results, the effect of green lifestyle, hereinafter referred to as the Green Lifestyle variable on purchasing decisions through perceived value, obtained a positive original sample value of 0.376 with a P-values value of $0.016 < 0.05$. Thus there is a positive and significant influence between Green Lifestyle on Purchasing Decisions. The positive path coefficient of 0.376 indicates that the greater the consumer's concern for environmental sustainability, the more selective consumers will be in making decisions so that the goods consumed do not damage the environment. This is in line with research conducted (Khayru et al., 2021) which states that environmentally friendly products and environmentally friendly lifestyles or in this study referred to as green life style have a significant influence or have a positive relationship on purchasing decisions.

The Effect of Futuristic Design on Purchasing Decisions

The results of path analysis through perceived value between the influence of Futuristic Design on Purchasing Decisions obtained a positive original sample value of 0.124 with a P- value of $0.069 > 0.05$. Thus these results confirm the insignificant positive effect of the Futuristic Design variable on Purchasing Decisions. This can be interpreted that in making decisions to purchase electric motorbikes, consumers no longer consider other factors of the electric motorbike to be purchased. This means that consumers will continue to purchase electric motorbikes because they are interested in good electric motorbike factors without prioritizing design factors, but rather lifestyle. This research is in line with what was done (Dwikisaputra et al., 2023) explaining that the design variable or in this study with futuristic design has no effect or has a negative relationship on purchasing decisions for electric motorbikes.

The Effect of Technology on Purchasing Decisions

Based on the results of the partial test output through the perception of value between Technology and Purchasing Decisions, a positive original sample value of 0.423 is obtained with a P-value of $0.007 < 0.05$. Thus showing a positive and significant influence between technology on purchasing decisions for electric motorbikes. These results are in line with research conducted by (Utami et al., 2020), (Nazneen et al., 2018) in their research showing that technological factors such as mileage and batteries need to be considered by manufacturers to be improved to support the adoption of electric motorbikes. The results of this study explain that technology has a significant effect or has a positive relationship to purchasing decisions.

The Effect of Green Lifestyle through Confidence on Purchasing Decisions

The results of path analysis through perceived value between the influence of Green Lifestyle through Confidence on Purchasing Decisions obtained a positive original sample value of 0.005 with a P-value of $0.822 > 0.05$. Thus these results confirm the insignificant positive effect of Green Lifestyle variables through Confidence on Purchasing Decisions for electric motorbikes. These results are in line with research (Chen et al., 2021) that consumers generally have a positive attitude towards environmentally friendly products and are willing to buy them.

The Effect of Futuristic Design through Confidence on Purchasing Decisions

The results of path analysis through perceived value between the influence of Futuristic Design through Confidence on Purchasing Decisions obtained a positive original sample value of 0.124 with a P-value of $0.069 > 0.05$. Thus these results confirm the insignificant positive effect of the Futuristic Design variable through Confidence on purchasing decisions for electric motorbikes. In general, consumers always pay attention to design to increase confidence during the decision-making process. However, in the decision to purchase an electric motorcycle, many consumers do not influence the shape and design of the product. This is because the shape and design used by electric motorbikes are still very common and similar to motorbikes in general. So that consumers do not pay much attention to the design of electric motorbikes when making purchasing decisions.

The Effect of Technology through Confidence on Purchasing Decisions

The results of path analysis through perceived value between the influence of Technology through Confidence on Purchasing Decisions obtained a positive original sample value of 0.051 with a P-value of $0.210 > 0.05$. Thus these results confirm the insignificant positive effect of the Technology variable through Confidence on purchasing decisions for electric motorbikes. Based on research conducted by (Gondoiswanto, 2023), (Sakinah et al., 2023) the perception of electric vehicles still cannot inspire the intention to purchase electric vehicles. The reason is the complexity of using electric vehicles. This complexity can be seen from the lack of charging points for electric vehicles.

CONCLUSION

Green Lifestyle: Empirical evidence strongly supports the assertion that Green Lifestyle has a positive impact. However, Green Lifestyle has a statistically insignificant positive impact in the context of electric motorcycle purchase decisions. Therefore, the automotive industry is advised to help introduce a green lifestyle that cares about the environment to consumer vehicle users. Futuristic Design: The results confirm the important role played by Futuristic Design in the purchase decision-making process of shaping the perceivable dilemma attitude. Consumers tend to make design as one of the considerations to increase confidence when using it in the purchase decision-making process. However, considering that the design and shape used in electric motorbikes tend to be scooter-shaped and more similar to conventional motorbikes, it is difficult for consumers to distinguish them. Technology: Empirical findings confirm a positive and significant relationship between technology involvement and purchase decisions on electric motorcycles in Medan City. The government and manufacturers of these vehicles should increase investment in infrastructure and technology. These measures can help build trust in electric vehicles. The results show that people are already aware of the benefits to the environment. Purchase Decision: It should be noted that purchasing decisions, directly reinforce and influence green lifestyle, futuristic design and technology and confidence level involvement in the purchasing decision-making process may have a moderate effect on consumer purchasing behavior. Therefore, it is recommended that the automotive industry must continue to pay attention to the technology and shape and design used in making electric motorbikes.

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