



DOI: <https://doi.org/10.38035/dijeфа.v6i1>
<https://creativecommons.org/licenses/by/4.0/>

Factors Influencing Interest in Buying Electric Motorcycles in Jakarta

Baharudin Yudha Permana^{1*}, Arie Septayudha², Ramlan Nurdiansah³, Synthia Atas Sari⁴

¹Universitas Bina Nusantara, Jakarta, Indonesia, email: baharudin.permana@binus.ac.id

²Universitas Bina Nusantara, Jakarta, Indonesia, email: arie.septayudha@binus.ac.id

³Universitas Bina Nusantara, Jakarta, Indonesia, email: ramlan.nurdiansah@binus.ac.id

⁴Universitas Bina Nusantara, Jakarta, Indonesia, email: synthia@binus.edu

Corresponding Author: baharudin.permana@binus.ac.id

Abstract: The aim of this research is to determine the factors that influence the intention to purchase electric motorbikes in the community, find out the influencing variables, and use the results as material for decision-making for producers and also the government to develop the implementation of the use of electric motorbikes in Indonesia. This research focuses on independent variables that influence the dependent variable. Using a quantitative approach, data is collected through surveys targeting potential buyers and analyzed using statistical methods. This study highlights the importance of increasing public awareness about the benefits of electric motorbikes and optimizing government policies to encourage the use of electric motorbikes. These findings provide valuable insights for policymakers and industry players who want to accelerate the transition to sustainable transportation in Jakarta.

Keywords: Electric Motorbike, Community, Transportation, Buying

INTRODUCTION

Motor vehicle emissions are a carbon contributor to the earth, life cycle assessment (LCA) of greenhouse gas (GHG) emissions from vehicles in China, Europe, India, and the United States, where these four markets are home to the majority of passenger car sales and reflect most of the variation in the global vehicle market conducted by the International Council on Clean Transportation, shows that fossil fuel vehicles contribute the highest exhaust emissions over their life cycle when compared to hybrid and battery vehicles (Bieker, 2021). Still the same research body, also studied the situation in Indonesia with the results saying that electric vehicles far outperform gasoline and diesel vehicles available in Indonesia in terms of environmental friendliness (Mera, Zamir, and Bieker, George, 2023). DKI Jakarta is the province with the highest population density in Indonesia, which is 15,978 people/km², this figure is very far from the second most populous province which is only 1,379 people/km² in West Java, (BPS Indonesia, 2023).

The Ministry of Environment and Forestry (2023) provided an official statement that air quality pollution is dominated by local pollution sources, where the transportation sector is

the most polluting, followed by the industrial, manufacturing, and housing, and commercial sectors which are the smallest. However, the number of vehicles continues to increase simultaneously from year to year, with the type of transportation mode being motorbikes occupying the largest position, followed by cars, trucks, and buses (BPS, 2023). In fact, in a release from the Public Relations Division of the Indonesian National Police, Jakarta was ranked third for the city with the worst air quality in the world with an index score of 165, after Lahore, Pakistan with a score of 187, and Delhi, India with a score of 174, in 2023. Seeing this, the President of Indonesia also took part in ratifying Presidential Regulation No. 55 of 2019 concerning the Acceleration of the Battery-Based Electric Motor Vehicle Program for Road Transportation.

By looking at the data released by BPS, motorbikes are the most widely used mode of transportation so they have the potential to be an entry point for converting conventional fuel vehicles, their prices are not as expensive as electric cars, and also make it easier for people to reach them. However, the number of electric vehicle users is still far from the target. Rafika (2023) from the Parliamentary Analysis Center of the DPR RI Expertise Agency also summarized data on the realization of new electric motorbike sales which only reached 4% of the target of 200,000 units (7,000 units) in 2023, and electric motorbike conversions only reached 0.2% of the target of 50,000 units (100 units) in 2023. Therefore, researching the patterns of people's motivational behavior in buying and using electric vehicles can provide information for the automotive industry and government to overcome problems that are obstacles to achieving the target of using electric vehicles.

Furthermore, in the realm of research, Venkatesh (2012) developed an existing model that he also found with other researchers, namely UTAUT or the Unified Theory of Acceptance and Use of Technology to understand the adoption of technology in the workplace into a new model specifically to understand how individual consumers adopt and use new technologies. Their new model, UTAUT2, considers additional factors relevant to consumer behavior, such as hedonic motives and price value, in addition to the factors already considered in the original UTAUT model. Within this UTAUT framework, many researchers use UTAUT such as Abbasi et al. (2021) which is effective in measuring consumer motivation in purchasing electric vehicles in a study in Malaysia. Gunawan et al. (2022) in their research in Indonesia also used this theory to conclude the factors and risks that influence attitudes towards the use of electric vehicles. In Thailand, researchers also implemented UTAUT in investigating people's purchasing interest in electric vehicles (Manuttworakit and Choocharukul, 2022).

Previous research has provided different results for each country and the majority of studies use Electric Cars as the object. With the road conditions in Indonesia, especially Jakarta, which often experiences congestion, 2-wheeled vehicles are the most effective mode of transportation so they are the main choice for people to choose daily vehicles so electric motorbikes have great potential as a means of transportation in Indonesia. Based on the discussion above, in previous literature, there are still many inconsistent findings and differences from the theory. Electric motorbikes are also still very rarely studied even though their population is much larger than cars. This research will focus on electric motorbikes, especially in Jakarta, and will examine the factors that influence the desire to buy electric motorbikes. The results of this study will be very useful for manufacturers or the government to encourage the implementation of the electric vehicle ecosystem in Indonesia. With the discussion above, there are questions about the research that must be answered, namely, how do each Performance Expectancy, Effort Expectancy, Social Influence, Facilitating Condition, Perceived Cost, Hedonic Motive, Perceived Risk, Price Value, Environmental Awareness, and Government Incentives affect the Purchase Intention of Electric Motorbikes for people in Jakarta and its surroundings?

METHOD

This study uses a quantitative approach that requires data to be collected. With this method, the intended research can be carried out with limited time and efficient costs in its implementation (Uchenna et al., 2011). The sampling technique used in this study uses a non-probability technique with judgmental sampling. Purposive or judgmental sampling is used when a limited number or category of a group of people have the required information (Sekaran et al., 2019) by taking samples from conventional motor vehicle users, continued by using until the smallest unit of the desired population is achieved (Novosel., 2023). The use of this method is based on the breadth of the sample taken, namely electric motorbike users in the DKI Jakarta province area with one reason being the lack of targets for the use of electric vehicles in developing countries (Jakarta as the main city) (Yegin.T et al., 2022), and strengthening data from the Ministry of Energy and Mineral Resources (2023). DKI Jakarta was chosen for the study because it has the largest population of electric motorbikes in Indonesia (Korlantas Polri, 2022), based on Bloomberg data, of the total 400 electric motorbike dealers, the majority are in DKI Jakarta and is the city with the highest economy in Indonesia and contributes IDR 2,937.47 with the highest minimum wage in Indonesia.

This study aims to examine the intention to buy an electric motorbike for personal use for users in the province of DKI Jakarta. Data collection was carried out in a certain period (one-shot) during the period December to February 2024. Meanwhile, the data used in this study are primary in the form of questionnaires sent to respondents. Empirical data were collected through surveys of conventional motorbike users and people who wanted to buy a motorbike. The sampling criteria used were residents of DKI Jakarta aged 18-55 years who had a Class C driving license and could make decisions (Yuniaristanto et al., 2022). Productive age and having a driving license are assumed to provide more accurate results for the desire to buy an electric motorbike. The questionnaire was distributed using a link, QR code, via text message, conversation, or email, in cases of direct filling such as in crowded places such as Malls, Transjakarta Bus Stops, Stations and other crowded places were also carried out. The questionnaire distributed was also designed to determine demographics, monthly expenses, measurements of perspectives on electric motorbikes, subjective factors that encourage buying electric motorbikes, and perspectives on other supporting facilities for electric motorbikes.

The population to be studied is existing users of conventional motorcycles and people who want to have a motorcycle and they are not necessarily residents with DKI Jakarta ID cards so the population size is not known with certainty. To calculate the sampling size, the Cochran formula can be used in Sugiyono (2019), namely:

$$n = \frac{z^2 pq}{e^2}$$

$$n = \frac{(1,96)^2 (0,5)(0,5)}{(0,05)^2}$$

$$n = 384,16 \text{ up to } n = 384 \text{ respondents}$$

Information:

n = sample

z = value in the normal curve for a 5% deviation, with a value of 1.96

p = true chance 50% = 0.5

q = chance of error 50% = 0.5

e = margin error 5%

So the number of samples obtained is 384 respondents. The sampling method used is purposive sampling to better represent the variables studied, especially for users who intend to buy a motorbike or first-time motorbike owners (Sekaran et al., 2019). The questionnaire will be created digitally using a tab and respondents selected according to the researcher's criteria will be asked to answer questions with a Likert scale with a score of 1-5 with 1 and 5 indicating the opinion of "strongly disagree" and "strongly agree." The data will be analyzed using the PLS-SEM method. The partial least square or partial least square method is a multivariate statistical analysis method used to test hypotheses about the relationship between latent variables. PLS is a good method for multiple regression analysis and principal component regression because this method is more robust or immune to certain assumptions. SmartPLS can be used for data processing.

RESULT AND DISCUSSION

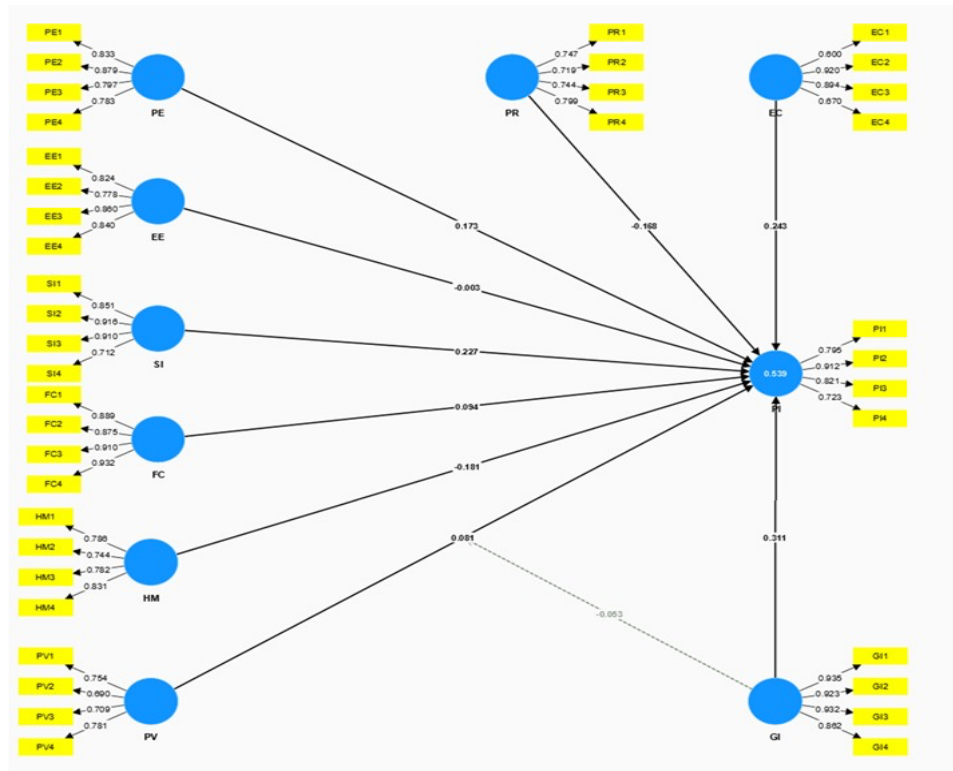
Data Analysis

Table 1. Data Analysis

CHARACTERISTIC RESPONDEN		
ITEM		JUMLAH KOMPOSISI
		%
Umur		
	17 - 25 tahun	9
	26 - 35 tahun	46
	36 - 45 tahun	34
	46 - 55 tahun	11
	Total	100
		100.00%
Jenis Kelamin		
	Laki-laki	62
	Perempuan	38
	Total	100
		100.00%
Jumlah Penghasilan		
	< Rp 5.000.000 / bln	10
	Rp 5.000.001 - 10.000.000 / bln	23
	Rp 10.000.001 - 20.000.000 / bln	38
	Rp 20.000.001 - 50.000.000 / bln	25
	> Rp 50.000.000 / bln	4
	Total	100
		100.00%

In this study, we distributed a survey using a Google form that successfully collected 106 respondents. Of the total respondents obtained, 2 respondents were excluded because they were over 55 years old and 4 respondents were excluded because they gave the same answers for all variables or unengaged respondents. Overall, respondents consisted of 38 women and 64 men. From the age group, respondents were dominated by 26-35 years old as many as 46 people, followed by 36-45 years old 34 people, 46-55 years old 11 people, and the remaining 17-25 years old 9 people. Based on income groups, respondents are dominated by the income group of IDR 10,000,001 - 20,000,000 / month as many as 38 people, high income > IDR 50,000,000 / month as many as 4 people, IDR 20,000,001 - 50,000,000 / month as many as 25 people, and at the lowest level there are 10 people who earn <IDR 5,000,000 / month. Of the total respondents, 16 of them considered that using electric motorbikes is very useful in everyday life. The data obtained were first tested for validity and reliability using Smart PLS4.

From the respondent data, validity and reliability tests were then carried out for the measurement model with Smart-PLS3 software with the PLS-SEM method. The model built on smart PLS is as follows:



The first thing to do is to test convergent validity and discriminant validity and the following results were obtained:

	EC	EE	FC	GI	HM	PE	PI	PR	PV	SI	GI x PV
EC1	0.600										
EC2	0.920										
EC3	0.894										
EC4	0.670										
EE1		0.824									
EE2		0.778									
EE3		0.860									
EE4		0.840									
FC1			0.889								
FC2			0.875								
FC3			0.910								
FC4			0.932								
GI1				0.935							
GI2				0.923							
GI3				0.932							
GI4				0.862							
HM1					0.786						
HM2					0.744						
HM3					0.782						
HM4					0.831						
PE1						0.833					
PE2						0.879					
PE3						0.797					
PE4						0.783					
PI1							0.795				
PI2							0.912				
PI3							0.821				
PI4							0.723				
PR1								0.747			
PR2								0.719			
PR3								0.744			
PR4								0.799			
PV1									0.754		
PV2									0.690		
PV3									0.709		
PV4									0.781		
SI1										0.851	
SI2										0.916	
SI3										0.910	
SI4										0.712	
GI x PV											1.000

From the outer loading test table, there are 3 measurement indicators with values <0.708 . This value is maintained and then see the AVE value and all are >0.5 , as shown in the composite reliability table below:

	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted(AVE)
EC	0.809	0.956	0.860	0.614
EE	0.849	0.871	0.896	0.683
FC	0.924	0.935	0.946	0.814
GI	0.933	0.941	0.953	0.834
HM	0.800	0.822	0.866	0.619
PE	0.845	0.874	0.894	0.679
PI	0.829	0.841	0.887	0.665
PR	0.749	0.761	0.839	0.567
PV	0.718	0.718	0.824	0.540
SI	0.871	0.896	0.912	0.724

To test the validity of the discriminant, you can see the following HTMT matrix:

	EC	EE	FC	GI	HM	PE	PI	PR	PV	SI	GI x PV
EC											
EE	0.285										
FC	0.358	0.462									
GI	0.341	0.325	0.448								
HM	0.434	0.468	0.223	0.453							
PE	0.165	0.556	0.299	0.326	0.494						
PI	0.382	0.395	0.429	0.639	0.424	0.555					
PR	0.122	0.274	0.184	0.345	0.539	0.427	0.474				
PV	0.304	0.431	0.282	0.455	0.593	0.672	0.639	0.781			
SI	0.191	0.430	0.190	0.349	0.646	0.640	0.555	0.474	0.607		
GI x PV	0.058	0.154	0.039	0.141	0.113	0.069	0.177	0.077	0.188	0.033	

From both tables, it can be seen that the Validity and Reliability constructs have met the threshold value requirements as recommended by Hair et al (2019). Hypothesis testing in smart PLS uses bootstrap mode. Hypothesis testing is carried out based on the results of the inner model (structural model) test including r-square output, parameter coefficients and t-statistics (Sayyida & Alwiyah, 2018). To see whether the hypothesis can be accepted or rejected, among others, by looking at the significance value between constructs, t-statistics, and p-value. Hypothesis testing in this study uses the help of SmartPLS 3.0. free trial. These values can be seen from bootstrapping (J.F Hair, G.T.M Hult, C.M Ringle, 2017). The rules of thumb used in this study are t-statistics >1.96 with a significance level of p-value 0.05 (5%) and a positive beta coefficient. Based on testing in SEM-PLS, the hypothesis results are as in the following table:

Collinearity statistics (VIF) - Inner model - List		
	VIF	
EC → PI	1.387	
EE → PI	1.626	
FC → PI	1.457	
GI → PI	1.517	
HM → PI	1.946	
PE → PI	1.890	
PR → PI	1.778	
PV → PI	2.186	
SI → PI	1.791	
GI x PV → PI	1.079	

Collinearity statistics (VIF) - Outer model - List		
	VIF	
EC1	1.731	
EC2	2.510	
EC3	2.540	
EC4	1.874	
EE1	1.766	
EE2	2.113	
EE3	2.296	
EE4	1.867	
FC1	3.137	
FC2	2.338	
FC3	4.012	
FC4	4.649	
GI1	4.295	
GI2	3.954	
GI3	4.269	
GI4	2.525	

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O /STDEV)	P values	
EC → PI H8	0.243	0.259	0.124	1.953	0.025	Accepted
EE → PI H2	-0.003	-0.009	0.118	0.029	0.488	Rejected
FC → PI H4	0.094	0.079	0.117	0.809	0.209	Rejected
GI → PI H9	0.311	0.279	0.093	3.348	0.000	Accepted
HM → PI H5	-0.181	-0.149	0.110	1.639	0.051	Rejected
PE → PI H1	0.173	0.180	0.102	1.693	0.045	Accepted
PR → PI H7	-0.168	-0.161	0.106	1.589	0.056	Rejected
PV → PI H6	0.081	0.083	0.113	0.715	0.237	Rejected
SI → PI H3	0.227	0.216	0.100	2.285	0.011	Accepted
GI x PV → PI H10	-0.053	-0.045	0.087	0.609	0.271	Rejected

From the above test, it shows that only a few factors contribute significantly to purchase intention for electric motorbikes in Jakarta. It can be seen that Environment Concern, Government Incentive, Performance Expectancy, and Social Influence have a significant correlation because they have a P value < 0.05 with a positive path coefficient. While Hedonic Motive and Perceived Risk have P values approaching 0.05 but are still rejected, this could be due to the lack of samples used.

H1. Based on the hypothesis test data, there is a positive and significant influence between Performance Expectancy (PE) on Purchase Intention (PI). This is evidenced by the beta coefficient value of 0.173, indicating a positive relationship between PE and PI. This means that when PE increases, PI will also increase. The t-statistic value of 1.693 is greater than the critical value of the t-table at a significance level of 0.05, indicating that the relationship between PE and PI is statistically significant. The p-value of 0.045 is smaller than the significance level of 0.05, indicating significance. Thus, there is a positive and significant influence between Performance Expectancy (PE) on Purchase Intention (PI). Consumer expectations of product performance (PE) affect their intention to purchase the product (PI).

H2. The results of the hypothesis test indicate that there is insufficient evidence to support hypothesis 2 which states that Effort Expectancy (EE) has a positive and significant effect on Purchase Intention (PI). The beta coefficient value of -0.003 indicates a very weak negative relationship between EE and PI. This means that when EE increases, PI will actually decrease slightly. The t-statistic value of 0.029 is much smaller than the critical value of the t-table at a significance level of 0.05, indicating that the relationship between EE and PI is not statistically significant. The p-value of 0.488 is much greater than the significance level of 0.05, indicating that the effect is not significant. In this case, EE does not have a significant effect on PI. This shows that the ease or difficulty in using the product (EE) does not affect consumer intention to purchase the product (PI).

H3. The results of the hypothesis test show support for this hypothesis which states that Social Influence (SI) has a positive and significant effect on Purchase Intention (PI). The beta coefficient value of 0.227 indicates a moderate positive relationship between SI and PI. This means that when SI increases, PI will also increase. The t-statistic value of 2.285 is greater than the critical value of the t-table at a significance level of 0.05, indicating a statistically significant relationship. The p-value of 0.011 is much smaller than 0.05, indicating a 1.1% probability that the results occur by chance. So SI has a positive and significant effect on PI. Social influence from others (SI) affects consumer intention to buy the product (PI).

H4. Furthermore, this hypothesis test shows that there is insufficient evidence to support this hypothesis which states that Facilitating Condition (FC) has a positive and significant effect on Purchase Intention (PI). The beta coefficient of 0.094 indicates a weak positive relationship between FC and PI. The t-statistic value of 0.809 is much smaller than the critical value of the t-table at a significance level of 0.05, indicating a statistically insignificant

relationship. The p-value of 0.209 is much greater than 0.05, indicating a 20.9% probability that the results occur by chance. Thus, it is clear that FC does not have a significant effect on PI, or in other words, ease of access and use of the product (FC) does not affect consumer intention to purchase electric motor products (PI).

H5. Based on the results of the hypothesis test, there are several findings related to this hypothesis which state that Hedonic Motives (HM) have a positive and almost significant effect on Purchase Intention (PI). The beta coefficient of -0.181 indicates a weak negative relationship between HM and PI. This means that when HM increases, PI will actually decrease slightly. This is contrary to the hypothesis proposed. The t-statistic value of 1.639 is quite large, but the p-value of 0.051 is right on the 0.05 significance limit. This shows that the relationship between HM and PI is almost statistically significant at the 0.05 level. So statistically, there is not enough evidence to support this hypothesis that HM has a positive and significant effect on PI, and interpretively, there is a weak negative relationship between HM and PI, although not statistically significant.

H6. In the test of this hypothesis, there is not enough evidence to support the hypothesis that Perceived Value (PV) has a positive and significant effect on Purchase Intention (PI). The beta coefficient of 0.081 shows a weak positive relationship between PV and PI. This means that when PV increases, PI will only increase slightly. The t-statistic value of 0.715 is much smaller than the critical value of the t-table at the 0.05 significance level, indicating that the relationship between PV and PI is not statistically significant. The p-value of 0.237 is much greater than the significance level of 0.05, indicating a probability of 23.7% that the results obtained occurred by chance, indicating the conclusion, PV does not significantly affect PI. That consumer perception of product value (PV) does not affect their intention to buy the product (PI).

H7. Almost the same as the findings in H5, there are several findings related to the hypothesis that states Perceived Risk (PR) has a negative and significant effect on Purchase Intention (PI). The beta coefficient of -0.168 indicates a weak negative relationship between PR and PI. This means that when PR increases, PI will decrease slightly. This is following the proposed hypothesis. The t-statistic value of 1.589 is quite large, but the p-value of 0.056 is right on the significance limit of 0.05. This shows that the relationship between PR and PI is almost statistically significant at the 0.05 level. So, statistically, there is not enough evidence to support the hypothesis that PR has a negative and significant effect on PI. However, interpretively, there is a weak negative relationship between PR and PI, although it is not statistically significant.

H8. The results of this hypothesis test show support for the hypothesis that states that Environmental Concern (EC) has a positive and significant effect on Purchase Intention (PI). The beta coefficient of 0.243 indicates a moderate positive relationship between EC and PI. This means that when EC increases, PI will also increase. The t-statistic value of 1.953 is greater than the critical value of the t-table at the 0.05 significance level (usually 1.96), indicating a statistically significant relationship. The p-value of 0.025 is much smaller than 0.05, indicating a 2.5% probability that the results obtained occurred by chance. In this case, EC has a positive and significant effect on PI, or consumer concern for environmental sustainability (EC) affects their intention to buy environmentally friendly products (PI).

H9. This test shows that government incentives (GI) have a positive and significant effect on purchase intention (PI). This is evidenced by the beta coefficient of 0.311, t-statistic of 3.348, and p-value of 0.000. The beta coefficient of 0.311 indicates that when GI increases by 1 unit, PI will increase by 0.311 units. The t-statistic value of 3.348 indicates that the relationship between GI and PI is very statistically significant. The p-value of 0.000 indicates that the probability of the results obtained occurring by chance is 0%. So it is clear that government incentives have proven effective in increasing consumer intentions to buy certain

products. This can be interpreted that consumers are more interested in buying products that receive incentives from the government.

H10. In the hypothesis that the relationship between price (PV) and purchase intention (PI) is moderated by government incentives (GI). The test results show that this hypothesis is not proven. The beta coefficient of -0.053 shows that the relationship between PV and PI is indeed negative, but not statistically significant. The t-statistic value of 0.609 and p-value of 0.271 indicate that this relationship is not significant. It can be said that government incentives are not proven to moderate the relationship between price and purchase intention. This can be interpreted that government incentives do not influence how consumers perceive product prices.

Discussion

This study aims to examine the factors that influence consumers in their intention to purchase electric vehicles, especially electric motorcycles. The variables in the UTAUT Theory are not used entirely in this study considering the variables that are relevant to the conditions of motorcycle riders, especially in DKI Jakarta, Indonesia. Variables that have a significant effect on Purchase Intention such as Environment Concern (EC), Government Incentive (GI), Performance Expectancy (PE), and Social Influence (SI). This is in accordance with the results of previous studies. People in DKI Jakarta still consider Electric Motorcycles.

CONCLUSIONS

The purpose of this study is to create a framework that can be used to investigate the intention and adoption of electric motorcycles among potential and actual buyers. A total of 40 articles published between 2003 and 2023 were analyzed, focusing on highlighting key information and findings. The articles are dominated by quantitative research articles conducted in various countries. To encourage greater adoption of electric vehicles, manufacturers and legislators must understand the expectations of actual and potential buyers. From a policymaker's perspective, the results of the proposed study will help countries achieve sustainable development goals, such as reducing greenhouse gas emissions from the transportation sector. Conversely, electric motorcycle manufacturers will reduce the gap in the market in terms of available products and the provision of after-sales services that can facilitate customers in maintaining their electric motorcycles. Understanding the electric motorcycle market is essential to achieving sustainability goals. The purpose of this study is to determine the factors that influence the intention to purchase electric motorcycles in the community, to determine the variables that influence and to use the results as decision-making material for manufacturers and also the government for the development of the application of electric motorcycle use in Indonesia. The limitation in this study is in sampling, where the number of samples obtained is still lacking to obtain maximum results. This research is useful as a basis for decision making for the government in determining policies regarding the implementation of regulations related to the use of electric motorbikes. In the future, this research is expected to focus more on the development of the current UTAUT 2 model.

1. It is recommended that future research use a different methodology from this research
2. The discussion in this study is limited to electric motorbikes, it is recommended that in the future more general research can be carried out on electric vehicles.
3. This research is oriented towards analyzing the influence of factors that influence the intention to buy electric motorbikes. In future research, it is recommended to connect the factors that influence purchasing intentions with the development of the implementation of policies that apply in a place.
4. Due to time constraints, this study only took a limited sample. In future research, it is recommended that sampling be carried out massively and with a more varied classification

of respondents, both in terms of livelihood, domicile and income, especially in areas that are targeted for the development of the use of electric vehicles.

REFERENCE

- Sari, Rafika. 2023. PERMASALAHAN DALAM PENYALURAN SUBSIDI SEPEDA MOTOR LISTRIK. Info Singkat Bidang Ekonomi, Keuangan, Industri, dan Pembangunan. Pusat Analisis Keparlemenan Badan Keahlian Dewan Perwakilan Rakyat Republik Indonesia.
- Gunawan, I., Redi, A. a. N. P., Santosa, A. A., Maghfiroh, M. F. N., Pandyaswargo, A. H., & Kurniawan, A. C. (2022). Determinants of customer intentions to use electric vehicle in Indonesia: an Integrated model analysis. *Sustainability*, 14(4), 1972. <https://doi.org/10.3390/su14041972>
- Venkatesh, V., Morris, M., Davis, G. B., & Davis, F. D. (2003b). User acceptance of information Technology: toward a unified view. *Management Information Systems Quarterly*, 27(3), 425. <https://doi.org/10.2307/30036540>
- Manutworakit, P., & Choocharukul, K. (2022d). Factors influencing battery electric vehicle adoption in Thailand—Expanding the unified theory of acceptance and use of technology's variables. *Sustainability*, 14(14), 8482. <https://doi.org/10.3390/su14148482>
- Yuniaristanto, Y., Utami, M. W. D., Sutopo, W., & Hisjam, M. (2022b). Investigating key factors influencing purchase intention of electric motorcycle in Indonesia. *Transactions on Transport Sciences*, 13(1), 54–64. <https://doi.org/10.5507/tots.2022.002>
- Sekaran, U., & Bougie, R. (2019). *Research Methods for Business: A Skill Building Approach*. John Wiley & Sons.
- Sugiyono. (2019). *Metodelogi Penelitian Kuantitatif dan Kualitatif Dan R&D*. Bandung: ALFABETA.