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**FACTORS INFLUENCING ENVIRONMENTALLY PURCHASING  
INTENTION TOWARDS HYBRID VEHICLES IN MALAYSIA**

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***Abstract***

In this era of globalization, the emerging of the new products, specially technology-based products are perceived as a significant indicating towards current business practices. Eventually, the output of these advanced technologies brought the positive value to the current users. However, these beneficial outputs had invited environmental side effect such as human health, accidents, climate change, and some others. Therefore, these scenarios tend to create a specific group of customers namely environmentally friendly group. While the environmentally friendly vehicle represents one of tools to respond towards the need of these consumer groups. Empirically, hybrid vehicles trust, and environment criterion to influence the purchasing intention among all attitudes perceived as an important criterion to influence the purchasing intention among users in Malaysia. This study focused on the consumers who are in the age range of 18 to 24 years with a sample of 400 respondents by using questionnaire distribution. The selection of the sample based on the future intention and current consumption trend of these generous consumers segment. Two objectives were outlined and tested using multiple regression analysis. After all, hybrid vehicles trust and purchasing intention is observed to have a significant relationship while the other one resulted in an insignificant relationship. Equally important, the findings of the present study are expected to underwrite by making apt market segmentation to yield maximum profitability as well can contribute to the future market sustainability, especially in the environmentally friendly based consumer market.

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**Keywords:** Hybrid vehicles trust, environmental attitudes, environmental friendly vehicles purchasing intention.



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## 1. Introduction

The environmental issues are becoming complexity and challenging due to the innovation of the technology-based products (Ibrahim, 2013). Besides that, it is difficult to protect the environmental because of there are a lot of things might be harmful to environment (Kangovou, 2017). A previous study by Khor (2016) reported that 6,251 peoples died because of the air pollution in Malaysia. In addition, Khor (2016) stated that the air pollution will caused the road accidents and it increase 7,129 from year 2012 to 2013. In Malaysia, the increasing of using private transportation is the one of the reasons of the increased in air pollution because of the emission of carbon monoxide of the vehicles (Hor, 2015). Therefore, environmentally friendly vehicles such as hybrid vehicles was focused to reduce and control the air pollution (Ivan, Liu, Sun, Zhang, & Xu, 2015). In addition, there is a lot of news regarding to launching hybrid vehicles and forthcoming electronic vehicles in Malaysia in order to reduce the air pollution (Rachel, 2017). Hence, the environmental awareness of peoples will lead them in changes of their behaviour to have the desire in protect environment.

## 2. Problem Statement

The increasing of motor vehicles might impact on the air pollution due to the motor vehicles will release a lot of the carbon monoxide which can attenuation of Ozone. Meanwhile, ongoing consumption of environmentally friendly vehicles is one of the methods to reduce and control the air pollution because environment friendly such as hybrid cars vehicles start to adopt with electronic (Ivan et al., 2015). According to Razak, Yusof, Mashahadi, Alias, and Othman (2014), there is positive incremental trend in purchasing hybrid vehicles in the world. This is because the peoples are now discovering the important of environmentally friendly vehicles to help the users to reduce their carbon footprint and CO<sub>2</sub> (Carbon Dioxide) emission. Therefore, hybrid vehicles play the importance role to reduce air pollution index and sustainability.

The issue of air pollution is increasing in Malaysia due to the usage of emission carbon monoxide vehicles are high. The increment of number of private transportation is the reason of the increasing emission of carbon monoxide (Hor, 2015). Another bright overview of this trend was explored by Rachel (2017), there is a lot of news regarding to launching hybrid and forthcoming electronic vehicles in Malaysia. Besides that, BMW Group Malaysia's Head of Corporate Communications Sashi Ambi has been mention that Malaysians are now searching for vehicles with dynamic, sporty, and fuel efficient considering recent fuel prices. Moreover, Green Technology and Water department declared that Malaysia is moving towards to become a marketing hub for electronic vehicles. They target to establish 125 000 charger stations, 2 000 electric buses, 100 electric motorcycles, and 100 000 electric cars in Malaysia (Rachel, 2017). This indicates new hybrid vehicles are growing and importance in Malaysia to sustainability environment.

Therefore, the behavioural scientists recognized the adoption of environmentally friendly products is a main challenge for them. They have been generating and conduct a lot of research into the reasons of this adoption (Chua, Alvin, & Saalem, n.d.). Besides that, environmentally friendly vehicles seek can bring a lot of benefits to human life and the sales trend for hybrid vehicles still growing in Malaysia. As for the above presented facts, it has very interesting why to explore the factors lies behind this positive

scenario. For sure, this circumstance had able to lead customers to repeat purchase environmentally friendly vehicles. This study investigated the factors that drive the purchasing intention toward environmental-aware vehicles in Malaysia.

### **3. Research Questions**

3.1. Is there any relationship between hybrid vehicles trust and environmentally friendly vehicles purchasing intention?

3.2. Is there any relationship between environmental attitudes and environmentally friendly vehicles purchasing intention?

### **4. Purpose of the Study**

4.1. To examine the relationship between hybrid vehicle trust and environmentally friendly vehicles purchasing intention.

4.2. To examine the relationship between environmental attitudes and environmentally friendly vehicles purchasing intention.

### **5. Research Methods**

This study focused on youth hybrid vehicles purchasing intention with a sample of 400 respondents by using self-administered questionnaire. The youth who are between 18 to 24 years old are selected as respondents to answer the questionnaire. Findings by Mohd Suki (2016) revealed that the age between 18 to 24 years old is represent as the highest in consuming the environmentally friendly products in Malaysia. Therefore, generally assumed this consumer market will own a high purchase power by this time. A total of 400 questionnaires were distributed through online survey and 94.25%. The demographical characteristics of respondents was included gender, marital status, education level, estimated income level, and employment status. Thus, female was the highest distribution of questionnaire which is 66.6%. However, most of the respondents were single which representing 83.8%. in term of education level, there are 68.2% of the respondents were degree graduate. In additional, the respondents were estimated the income level will below than RM1,999 which is 36.6%. While, the majority employment status of the respondents are students which representing 58.4%. Hence, the measurement for all the variables in this study will employed five-point Likert Scale which will range from one to five, and one represent strongly disagree to five representing strongly agree.

### **6. Findings**

This study examined two hypotheses, which are:

- Hybrid vehicles trust significantly affects hybrid vehicles purchasing intention.
- Environmental attitudes insignificantly affects hybrid vehicles purchasing intention.

Hence, multiple regression analysis is executed to examine the outlined hypotheses. Table 1 present the finding for the present study. Hybrid vehicles trust is observed to have a significant

relationship with hybrid vehicles purchasing intention. Meanwhile, the other relationship which is environmental attitudes and hybrid vehicles purchasing intention remain insignificant.

**Table 01.** Multiple Regression Analysis

Dependent Variable	Independent Variable	Std Beta
Hybrid Vehicles Purchasing Intention	Hybrid vehicles Trust	0.367**
	Environmental Attitudes	0.099
R <sup>2</sup>		0.112
Adjusted R <sup>2</sup>		0.107
F Change		23.549**

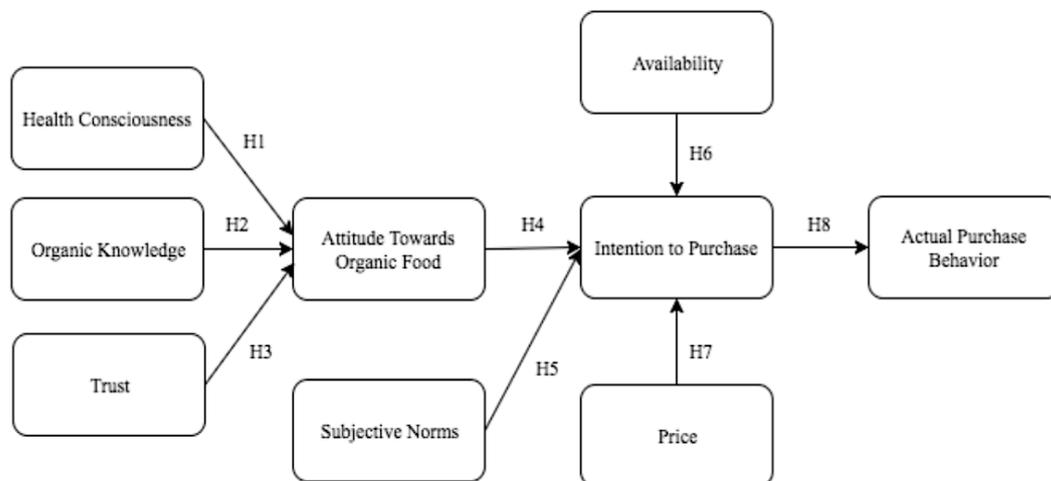
P<0.01\*\*, p<0.05\*

As a result, one hypothesis is supported, and another one hypothesis is rejected. The summary of hypotheses testing is presented in Table 2.

**Table 02.** Summary of Hypotheses Testing

Hypothesis	Statement	Remark
H1	Green trust would have a significant relationship between environmentally friendly vehicles purchasing intention.	Supported
H2	Environmental attitudes would have a significant relationship between environmentally friendly vehicles purchasing intention.	Rejected

Hybrid vehicles purchasing intention plays crucial role to reduce respond towards environmental issues. Generally assumed, consumers who have high purchasing intention will have high possibility in actual purchase (Assyifa, & Herry, 2016). In fact, the study by Assifa and Herry (2016) showed that actual purchase behavior was highly influence by the purchasing intention. Therefore, the figure 2 showed the conceptual framework from the study by Assyifa and Herry (2016) to further support the present findings. Beyond that, study by Chiew, Mohd, Norhayati, and Muhammad (2014) clarified that the purchasing intention of consumers are required to identify by marketers to ensure consumers' future actual purchase especially environment friendly products.



**Figure 01.** Conceptual Framework (Assyifa & Herry, 2016)

Hybrid vehicles trust had also proved the impact on hybrid vehicles purchasing intention in youth who are between 18 to 24 years old presently. Based on the present study's result, the consumers who trust to the hybrid vehicles might have a positive impact on environment will increase the hybrid vehicles purchasing intention among the youth in the future. According to the study by Alshura and Zabadi (2016), trust in green brand has a positive significant relationship with consume green products. This is because the consumers trust the environmentally friendly products such as hybrid vehicles can reduce the harm to environment in term of toxic and emission monoxide (Thomas, n.d.).

Nevertheless, the environmental attitudes have insignificant relationship between hybrid vehicles purchasing intention. In the present study, consumers market in this age (18 to 24) is indicated to represent to future consumers. Therefore, they might be perceived buying a car was not preferable during this time. Moreover, vehicle is also perceived as a depreciating asset, and it might cause the reducing in vehicles purchasing intention (Natalie, 2015). Beyond that, purchasing a vehicle also might cost the consumers a lot in term of fuel cost, repair and maintenance cost, insurance cost, and registration costs (Carmudi, 2015). Therefore, buying a vehicle is a depreciating asset, and the intention in purchasing hybrid vehicles will reduce. In fact, the study results by Ashraf (2016) reported even if the consumers have the desire to protect the environment but the purchasing intention still consider as low due to expensive in purchase a hybrid vehicle.

## 7. Conclusion

All of all, it is important to identify the green perceived value of the consumers and how they behave on environmentally friendly products purchasing intention. As a reason, green perceived value is influenced the consumers' green trust and satisfaction (Aris, Lau, & Ronnie, 2016). In other words, Aris, Lau, and Ronnie (2016) also stated the green perceived value has positively influence green trust especially environmentally friendly products purchasing intention. Therefore, the present study suggests that the green perceived value should monitor to preserve as well to increase the trust of consumers especially environmental-based products.

Next, environmental consciousness and environmental knowledge are the factors that influencing the environmental attitudes of young especially environmentally friendly products (Maichum, Parichatnon, & Peng, 2017). This is because the study by Maichum, Parichatnon and Peng (2017) reported that the environmental consciousness and environmental knowledge have significant relationship between environmental attitudes of consumers in purchasing environmentally friendly products. In order to overcome the insignificant relationship between environmental attitudes with hybrid vehicles purchasing intention, the present study highly recommended that marketers and business practitioner consider the factors such as environmental consciousness and environmental knowledge in order to encourage positive environmental attitudes among this consumer market (Maichum, Parichatnon, & Peng, 2017).

## References

- Alshura, M. S. & Zabadi, M. A. (2016); Impact of green brand trust, green brand awareness, green brand image, and green perceived value on consumer's intention to use green products: an empirical study of Jordanian consumers. *International Journal of Advance. Research*, 4(2). 1423-1433.

- Aris, Y.C.L., Lau, M.M., & Ronnie, C. (2016). Modelling the relationship among green perceived value, green trust, satisfaction, and repurchase intention of green products. *Contemporary Management Research*, 12(1), 47-60.
- Ashraf, M. (2016). Advantages and disadvantages of hybrid cars. Retrieved from <https://www.linkedin.com/pulse/advantages-disadvantages-hybrid-cars-ashraf-makhtar/>
- Assyifa, H., & Herry, H. (2016). Factors influencing the intention to purchase and actual purchase behaviour of organic food. *Journal of Business and Management*, 5(4), 581-596.
- Carmudi, PH. (2015). Is your car an asset or a liability? Retrieved from <https://www.carmudi.com.ph/journal/car-an-asset-or-a-liability/>
- Chiew, S.W., Mohd, S.M.A., Norhayati, Z., & Muhammad, N.M.T (2014). Consumers' perception, purchasing intention and actual purchase behaviour of organic food products. *Review of Integrative Business and Economics Research*, 3(2), 378-397.
- Chua, W. Y., Alvin, L., & Saalem, S. (n.d.). Why do people buy hybrid cars? Retrieved from [http://webcache.googleusercontent.com/search?q=cache:TPd712EW14gJ:www.jrconsumers.com/documents/social\\_marketing\\_forum\\_proceedings/Chua\\_Lee\\_Sedeque.doc+&cd=13&hl=en&ct=clnk](http://webcache.googleusercontent.com/search?q=cache:TPd712EW14gJ:www.jrconsumers.com/documents/social_marketing_forum_proceedings/Chua_Lee_Sedeque.doc+&cd=13&hl=en&ct=clnk)
- Hor, W. Y. (2015). Factors affecting hybrid car purchase intention in Malaysia. Multimedia University.
- Ibrahim, D. A. K. C. (2013). Environmental issues and challenges - Malaysia scenario. Retrieved October 15, 2017, from <http://nehapmalaysia.moh.gov.my/wp-content/uploads/2016/03/Paper-1-Environmental-Issues--Challenges-DOE.pdf>
- Ivan K. W. L., Liu, Y., Sun, X., Zhang H., & Xu, W. (2015). Factors influencing the behavioural intention towards full electric vehicles: an empirical study in Macau. *Journal Sustainability*, 7, 12564-12585.
- Kangovou. (2017). The importance of eco-friendly products. Retrieved from <https://www.kangovou.com/the-importance-of-eco-friendly-products/>
- Khor, M. (2016, 24 October). Act on air pollution, the silent killer. The Star Online.
- Maichum, K., Parichatnon, S., & Peng, K.C. (2017). Factors affecting on purchase intention towards green products: a case study of young consumers in Thailand. *International Journal of Social Science and Humanity*, 7(5), 330-335.
- Mohd Suki, N. (2016). Green product purchase intention: impact of green brands, attitude, and knowledge. *British Food Journal*, 118(12), 2893–2910. <https://doi.org/10.1108/bfj-06-2016-0295>
- Natalie. B. (2015). Is my car an asset or a liability? Retrieved from <https://www.moneyunder30.com/is-my-car-an-asset-or-a-liability>
- Rachel, A. (2017). Hybrid cars in Malaysia: to buy or not to buy. Retrieved from <http://www.buro247.my/lifestyle/motoring/hybrid-cars-in-malaysia-to-buy-or-not-to-buy.html>
- Razak, M. I. M., Yusof, A. M., Mashahadi, F., Alias, Z., & Othman, M. Z. (2014). Intention to Purchase Hybrid Cars in Malaysia An Overview. *International Journal of Economics, Commerce and Management*, 2(10), 1-13.
- Thomas, J. (n.d.). Why hybrid cars are beneficial to the environment. From [http://www.streetdirectory.com/travel\\_guide/57640/cars/why\\_hybrid\\_cars\\_are\\_beneficial\\_to\\_the\\_environment.html](http://www.streetdirectory.com/travel_guide/57640/cars/why_hybrid_cars_are_beneficial_to_the_environment.html)