# EFFECT OF CYNICISM TOWARDS ENVIRONMENTALLY RESPONSIBLE PURCHASE BEHAVIOUR OF ENERGY EFFICIENT VEHICLE AMONG MALAYSIAN CONSUMERS

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**ABSTRACT. Objective:** One of the toughest challenges in social marketing is behaviour intervention. Previous researchers have developed various models and theories to simultaneously examine behaviour changes and their effects. Due to resources scarcity and global warming, automakers have come out with an innovative idea of Energy Efficient Vehicle (EEV) which has been a great improvement in the automotive industry. This invention targets for behavioural change or behavioural adoption for consumers to adjust their preferences from a conventional vehicle to EEV. High market growth in the automotive industry has encouraged social marketers, policymakers, governments, and academics to propose suitable intervention approach in motivating preferences toward EEV. Using the context of the purchase intention of EEV in Malaysia, this conceptual research paper applies Environmental Responsible Behaviour (ERB) model to evaluate the causal model of materialism, environmental belief and environmental concern transcend on Purchase Intention of EEV. **Methodology:** This study proposed an explanatory quantitative method. Using a partial least squares approach, the measurement model for

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this study is presented. **Implication**: This research presents a conceptually supported framework to describe the moderating role of cynicism on the relationship between environmental concern with purchase intention of EEV due to rising issues of greenwashing in the automotive industry. The study is particularly useful by providing insights in assisting the stakeholders and automotive industry players on promoting the pro-behaviour toward EEV. This paper also provide additional review of Environmental Responsible Behaviour (ERB) model that been derived from Values, Belief and Norms theory (Stern et al., 1995).

**Keywords:** Green marketing, environmental concern, green purchase intention, materialism, cynicism, greenwashing, energy efficient vehicles

#### **JEL CLASSIFICATION: M31**

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#### Introduction

As a human being, transportation is one of the daily essentials. Transportation is one of the biggest carbon emission contributors. Realizing the effects of daily harmful consumption, consumers nowadays are more environmentally sensitive when it comes to purchasing long investment products like automotive products (Djermani & Sulaiman, 2017). Some companies are moving toward providing a greener solution such as EEV for its consumer (Govindan, Rajendran, Sarkis, & Murugesan, 2015; Kumar & Polonsky, 2017). EEV is a range of vehicles that consume less petroleum fuel and produce less carbon emission. EEV includes fuel-efficient internal combustion engine (ICE) vehicles, hybrid, electric vehicles (EV) and alternative fuelled vehicles powered by Compressed Natural Gas (CNG), Liquefied Petroleum Gas (LPG), Biodiesel, Ethanol, Hydrogen and Fuel Cell (MITI, 2014; Mohamed, 2015).

In Malaysia, local automotive market values at RM 43.67-billions and been ranked the third biggest automotive market in ASEAN. EEV represents 58.11 percent or 308, 807 out of 530,000 units of national vehicle production. This had shown a growing number of acceptance of the EEV among Malaysian (Ministry of International Trade and Industry, 2018). This had also depicted that Malaysians are becoming more environmentally sensitive and aware of their harmful consumption when it comes to purchasing long investment products (Y. N. Goh & Wahid, 2015; Lye, 2017). However, huge market value and growing trend of concern on preserving environment have created an opportunity for a few automakers to take chance to provide fake or unclaimed environmental sensitive EEV. These practices called as greenwashing that created negative perception toward buying EEV.

Literature has shown that there is an inconsistent relationship between environmental concerns as depicted in Table 1 below. In author's best knowledge, this may occur due to few factors. Firstly, there is a gap between consumers' favourable attitude towards the actual intention or behaviour or been referred to as 'green attitude-behaviour gap' (Groening, Sarkis, & Zhu, 2018). This has suggested that consumer that highly concerned about the environment may not translate their concern into action.

Hence, it was also suggested that there is a potential external variable that weaken the relationship. With rising greenwashing practices, this study proposes to add negative attitudes (cynicism) as a moderator. Moreover, previous environmental behaviour model studies are inconclusive. These studies do not consider factors that related to negative attitudes such as cynicism (Johnstone & Tan, 2015; Tan, Johnstone, & Yang, 2016). Negative attitudes will demotivate the desired environmental behaviour. It is important to study the effect of the negative attitude (Mohd Suki, 2015). By investigating the effect of negative attitude, the practitioner has to acknowledge this issue and find the ways to counteract the negative attitude.

**Table 1:** Summary of Finding for Relationship between Environmental Concern and Purchase Intention.

Literature	Relationship	Finding	
Joshi & Rahman (2015)	bi & Bahman (2015) Environmental Concern and		
Justii & Raillian (2013)	<b>Purchase Intention</b>	Significance	
Suki (2013)	Environmental Concern and	Not significance	
3uki (2013)	Purchase Behaviors	Not Significance	
Rajadurai, Bathmanathan,	Environmental Concern and	Cignificance	
& Azami (2018)	Purchase Behaviors	Significance	
Yazdanpanah & Forouzani	Environmental Concern and	Not significance	
(2015)	<b>Purchase Intention</b>	Not Significance	
Lee & Yun (2015)	Environmental Concern and	Not Significance	
Lee & Tull (2015)	Purchase Intention	Not Significant	

Source: Lee & Yun (2015), Joshi & Rahman (2015), Rajadurai, Bathmanathan, & Azami (2018)

Azami (2018), Yazdanpanah & Forouzani (2015) and Suki (2013), Secondly, Alwitt & Pitts (1996) and Fransson & Gärling (1999) highlighted that measurement specificity will weaken the relationship between environmental constructs and environmental behaviour. This has supported by a few empirical evidence by Groening, Sarkis, & Zhu (2018); Nayum, Klöckner, & Prugsamatz (2013) and Han, Pauwels, & De Zeeuw (2013). These researchers claimed that environmental domain studies should be addressed with the specific environmental approach. Therefore, this study will use VBN theory that has an environmental construct to measure the environmental domain. Building upon Value Belief Norm (VBN) theory and New Environmental Paradigm (NEP) theory, this research will look into the extended ERB model by redefining the gap between purchase intention with environmental concern. This study will add cynicism due to greenwashing practices as moderator into the ERB model.

#### **Greenwashing Practices among Automakers**

Greenwashing can be defined as tactics or strategies in which green public relation or green marketing is deceptively been used to promote the image of environmentally sensitive for organisation's product, policies, or brand image (Magnier & Schoormans, 2015). GreenPeace (2010) has called these misleading practices as a cynical use of environmental themes approaches to cultivate misbehaviour or termed as greenwashing. Greenwashing usually comes from an unverified claim made by any company that wanted to be associated with environmental concern and making a profit from it. GreenPeace (2010) claimed more than 55 percent of the environmentally sensitive claimed product is misleading and actually harmful towards the environment. Although greenwashing is not a new issue, it has been increasing over the year due to increase in demand for the environmentally sensitive product.

In this competitive automotive, some of frontlines companies such as Volkswagens and Mercedes are struggling to stay consistent in being 'green' or 'sustainable' (Majláth, 2016). These companies have found to often advertise their product without any proof. In 2015, Volkswagen (VW) Group, one of the biggest vehicle producers have been sued by United States Environmental Protection Agency (US EPA) for using fake emission test. VW's defected model produced up to 40 times more emission than US prohibited limit (US EPA, 2016). Aside from that, Japan's sixth biggest automaker, Mitsubishi Motor Company (MMC) admitting to cheating on fuel mileage test for 25 years. These companies have been sued for data manipulating from the test and overstate the fuel efficiency for 625 000 units of their model (BBC, 2016; Farrell, 2016).

These unethical practices will impact consumers' perception and trust in the automotive industry (Chaouali, Souiden, & Ladhari, 2017). Empirical studies had reviewed several impacts, suggesting that exposure to greenwash may lead to increase consumer cynicism and mistrust (Jahdi & Acikdilli, 2009), as appears to happen in other areas where deceptive advertising have been used. In general, the consumer usually will be cynical towards new technology that have been introduced to them. They will judge the outcome of adopting and not adopting new things before engaging to it. Even though consumer is aware and concern about preserving the environment, these two factors will demotivate them to actually adopt EEV as their alternative option.

#### **Proposed Environmental Behaviour Model**

Within the previous environmental problem approach research, environmental constructs have been adopted into an existing attitude behaviour model (L. Chan & Bishop, 2013; Groening, Sarkis, & Zhu, 2018). This study will extend Values, Belief, and Norm (VBN) theory by Stern, Dietz, and Guagnano (1995) that has evolved over the year and the construct in the theory has adopted into the environment problems. This strict causal model proceeds from an abstract level to behaviour and consist of four components as shown in Figure 1 below. The theory begins with values and transcends to specific belief and concern and end with behavioural intention. Hence, it proposed the ERB causal model that derived from VBN theory. The model descends from materialism as values to a specific outcome, purchase intention. The next section will explain the model and variables used in this study.

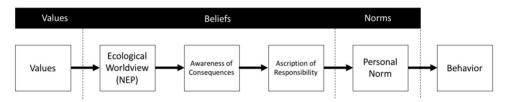


Figure 1: VBN Theory

Source: References: Stern, Dietz, & Guagnano (1995)

# **Model Conceptualization**

In consequence of building upon VBN theory, Environmental Responsible Consumption Behaviour (ERB) conceptual model had been developed by W. Kilbourne & Pickett (2008). From value, which is materialism towards environmental belief. Finally, the belief will change into a norm and reflected by intention as shown in Figure 2 below. Following a brief examination of the constructs found in the proposed model, this subsection will discuss the relationships between the constructs and hypotheses.

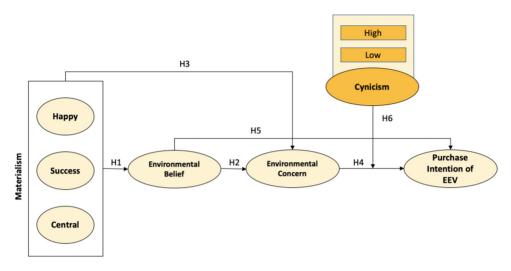


Figure 2: Hypothetical Framework

Source: Author's own construction

#### Materialism Values

According to Coward & Ellis (2016), materialism is referred to as a devotion to material needs and desires, the neglect of spiritual matters which can be defined as a way of life, opinion or tendency based entirely on material interests. Materialism can be seen as a value structure through the individual for seeking for more instrumental value from their good's ownership. In addition, they want a good that can reflect their identity and cultivate their subjective well-being. The previous review had concluded that materialism had an effect both on individualism and their social consequences. (Rastgar & Maleki, 2018; Kasser, 2018)

This study operationalizes materialism as individual value structure where a person seeks more instrumental value from their possession. Materialist seeks for subjective well-being and enhancement from their belongings (Richins & Dawson, 1992). Schlosberg & Coles (2016) depicted that materialism value is growing in less growing economies and making it a global phenomenon and there is a growing number of people that embrace materialism value.

This study focuses on the environmental degradation effect on materialism value. In specific, materialism has been viewed as a value that later transcend into belief. Lai, Liu, Sun, Zhang, & Xu (2015) claimed that materialism has a negative impact on the environmental belief. Materialism found consumer lifestyle has become one of the root causes of environmental degradation. Materialistic lifestyle usually dominated by social and personal preference without concerning about its effect toward the environment (Muhamad Syakir, Zuraidah, Thoo Ai, Norhayati, & Farrah Merlinda, 2017). For example, owning and driving a luxury vehicle may evoke materialist identity but it also polluting the environment.

Hence, realising this fact, the consumer will change their preference for less harmful consumption (Ahonen, 2017). In addition, it means decreasing materialism value in a person who are aware of harmful consumption's effect. If any individuals believe their daily consumption will harm the environment, they will start to make a more conscious decision by eliminating their personal materialistic desire (Haldane, 2016). Therefore, below hypothesis is suggested:

**H1:** There is a negative relationship between materialism and environmental belief

# Environmental Belief

This study is extending the VBN theory (Stern et al., 1995) that depicted values will transcend to belief then proceed to norm. In this study, belief is operationalised as environmental belief. Theoretically, environmental belief and concern are derived from New Environmental Paradigm construct by Dunlap (2008) that measure environmental belief by integrating adverse consequences for valued environmental objects and perceived ability to reduce the threat.

Previous studies suggested that environmental beliefs are preceding to individual values (Pagiaslis & Krontalis, 2014; Ünal, Steg, & Granskaya, 2019). General beliefs are formed by human interaction or relationship with the environment and refer to general insight into the environment (Hiratsuka, Perlaviciute, & Steg, 2018). In specific, the belief is about the global human interaction has caused lots of environmental degradation that manifested by nature in form of natural disaster and climate change.

Facing global warming, consumers have become more alert about the effect of their consumption especially towards the environment (Chan & Bishop, 2013). Thus, showing that there is a belief among consumers regarding their daily consumption can contribute or even accelerate environmental degradation. This belief has later been translated into an attitude of concern on preserving the environment. Logically, a concern will not arise unless proceeded from belief. Thus, below hypothesis is suggested:

**H2:** There is a positive relationship between environmental belief and environmental concern.

Past literature highlighted that if the desired behaviour is harmful to the environment, an individual will change their daily preferences. This has been supported by Stern (2000) proposed that the link from values to environmentalism mediates beliefs because perceived consequences to the individual values will activate norms. Negative consequences from environmental degradation are descending from increasing harmful consumption. This harmful consumption has alternatively change individual values from nurturing materialistic value to post materialism that highly alert about their consumption's effect towards the environment or surrounding. Hence, below hypothesis is suggested:

**H3:** Environmental Belief mediates the relationship between materialism and environmental concern.

#### Environmental Concern

Diekmann & Franzen (2019) describes environmental concern can be associated with the awareness of the consequences of given behaviour, such as knowing the consequences of producing carbon dioxide emission. From that, the purchasing intention will be much influenced by the ecological problem. For this study, environmental concern encapsulates a consumer's affective evaluation of environmental issues (Ritter, Borchardt, Vaccaro, Pereira, & Almeida, 2015) and is often conceptualized as an immediate antecedent to environmental purchase intentions (Chen, Chen, & Tung, 2018; Nyilasy, Gangadharbatla, & Paladino, 2014).

Existing literature has depicted that consumers' concern for environmental issues may determine their green purchase behaviour (Y. N. Goh & Wahid, 2015; Mohd Suki, 2016; Sharma & Joshi, 2017). This is supported by Magnier & Schoormans (2015), a consumer with a high level of concern toward preserving the environment is willing to pay premium price compared to low environmental concern consumer. More recently, Newton *et al.* (2015) showed that environmental concerns motivate customers to learn about the outcomes of environmental purchases. Specifically, customers with a high degree of environmental concern were found to be well-aware of the claims made by the green product and were actively involved in identifying the additional information to aid in their environmental purchase decision.

On the other hand, contradictory findings have been reported. For example, Hwang (2016) did not find environmental concern influences the purchase intentions towards organic food in both older and younger consumers. More recently, Yadav & Pathak (2016) extend the theory of planned behaviour in examining the antecedents of purchasing organic food among young consumers in a developing economy. Their findings showed that environmental concern did not influence the purchase intentions for organic food. While researchers have attributed these inconsistencies in the relationship to a number of external factors including demographics, it is widely accepted that environmental concern has a low to moderate correlation with green purchase intentions (Han, 2015; Newton *et al.*, 2015). These show that there is a need to integrate external variables to enhance the relationship between environmental concern and purchase intention.

In conclusion, environmental concern is likely to have a direct positive relationship with purchase intention. Many studies established attitudes as predictors of behaviour and behavioural intentions. Therefore, the below hypothesis is proposed:

**H4:** There is a positive relationship between environmental concern and purchase intention.

If the individual believes that the environment as a valued object is threatened, the environmental concern will increase (Pagiaslis & Krontalis, 2014; Ünal, Steg, & Granskaya, 2019). This will then increase

the likelihood of more environmentally friendly consumption behaviour. Consumer nowadays believe that their consumption can affect and harm the environment and this belief has transferred into concern on reducing their harmful consumption such as choosing EEV as an alternative for transportation (Axsen & Kurani, 2013; Lai, Liu, Sun, Zhang, & Xu, 2015). EEV has been viewed as an alternative to better ways to move from one place to another as it consumes less fuel and emitted less emission. Therefore, the below hypothesis is proposed:

**H5:** Environmental concern mediates the relationship between environmental belief and purchase intention.

### Purchase Intention of EEV

Purchase intention is not an actual purchase. Once a customer decided to buy something, he or she needs to implement the decision and complete the actual process. Lai et al., (2015) describe that purchasing automotive products in the industry is a complex buying behaviour, whereby it involves high consumer involvement and significant perceived differences among brands. Environmental concern is likely to have a direct positive relationship with purchase intention. Many studies establish attitudes as predictors of behaviour and behavioural intentions (Ajzen & Driver, 1992; Ajzen & Fishbein, 1980). Purchase intentions with regards to individual products were found to be determined almost exclusively by attitudes towards the product.

For this study, purchase intention is referred as green purchase intention. It is becoming very vital to distinguish concept of purchase intention and green purchase intention. Joshi & Rahman (2015) claimed the earliest conceptualization of green purchase by Kousar et al., (2017) that describe green purchasing as a purchase of environmentally friendly products and avoiding products that harm the environment. Some researchers refer to green purchasing as adoption of green product and green acquisition. It is also a complex process of ethical consumer's decision-making behaviour highlighting socially responsible behaviour. It involves considering the public consequences into consumer's private purchase consumption and trying to bring social change by having purchasing power. Conventional purchasing is defined as a process of evaluating

alternative to match a consumer problem without the consideration of environmental impact or degradation (S. Joshi, Patel, & Dave, 2018; Sharma & Joshi, 2017).

In addition, the dependent variable used is purchase intention. Buying an automotive product is a part of a long term commitment purchasing that involve a payback period (C. C. Chen, Chen, & Tung, 2018; Hong, Khan, & Abdullah, 2013). Purchasing a new car involve high purchase decision that involves complex process. It is difficult to measure actual purchase decision of EEV due to time constraint and practicality of the study.

#### Cynicism

Cynicism refers to "a lack of belief in the sincerity or goodness of human motives and actions and is manifested in feelings ranging from 'distrustfulness [and] doubt to contemptuous and mocking disbelief' (Hickman, Piquero, & Piquero, 2004; Regoli, 1976). Cynicism is considered one of the main factors that trigger consumers' decisions to adopt a new product or service (Helm, Moulard, & Richins, 2015). Traditionally, from the marketing point of view described the relationship between the consumer and the market as cooperative and mutually beneficial (Groening, Sarkis, & Zhu, 2018). However, an emerging and diverging stream of research assumes that consumers tend to generalize their suspicion of any product orservice as a defensive strategy, specifically when they are unfamiliar with the product/service (S. K. Goh & Balaji, 2016; Leonidou & Skarmeas, 2017)

In general, consumers often tend to be cynicism when new technologies are introduced such as EEV. Plus, this technology could also be seen as novel as the mass-market consumers had little exposure (Schuitema, Anable, Skippon, & Kinnear, 2013). When consumers doubt the environmental qualities or claims made by the green products, they are likely to evaluate them less favourably than they would if they had no such doubt (M.-F. Chen, 2015). Thus, in the presence of cynicism, consumers should exhibit reluctance in buying green products.

The author operationalized cynical individuals as a group of individuals that may be fooled by company claims (S. K. Goh & Balaji, 2016; Leonidou & Skarmeas, 2017). Cynicism will make an individual perceive reliability and usefulness of a claim as a misleading act by the

company (Torres, Reling, & Hawdon, 2018; Yamamoto, Kushin, & Dalisay, 2017). Greenwashing practices that have been committed by a few automakers mentioned before has become one of the consumers' cynicism trigger towards the automotive industry in general and EEV in specific. Magnier & Schoormans (2015) asserted that deceptive claims or advertisements will encourage negative attitudes such as cynicism. Therefore, the below hypothesis is proposed:

**H6:** Cynicism moderates the relationship between environmental concern and purchase intention of EEV

#### *Implication of the Study*

Sharma & Joshi (2017) and Kumar & Polonsky (2017) depicted that there is a tremendous increase in green consumption's research. However, a small number of researchers are exploring factors that weaken green consumption or intention. These negative factors actually will demotivate the final outcome that has been projected from a few motivations. The consumer with high environmental concern and intended to perform green consumption may change their preference due to these few negative factors. It is important to investigate the negative factors interaction towards green consumption or behaviour (Tan, Johnstone, & Yang, 2016).

Besides that, Kilbourne & Pickett (2008) describe the inconsistent results yield from behavioural model theories. One of these is the issue of measurement specificity. Within the environmental domain, measurement specificity problems weaken the relationship between different environmental constructs and environmental behavioural domain theories (Alwitt & Pitts, 1996; Fransson & Gärling, 1999). This study will extend the ERB model (W. Kilbourne & Pickett, 2008) that evolved from VBN theory to address specific environmental degradation's effect towards green consumption. Hence, this study provides a more accurate result from comprehensive model and theory.

Ministry of International Trade and Industry, Malaysia (2018) projected RM 12.5 billion export value in automotive industry. It has been supported by 52 percent of national production is EEV range. It showed huge market growth and huge EEV's acceptance. Investigating

negative attitude or influence that can demotivate intention of engaging towards environmentally responsible behaviour among Malaysian is crucial and beneficial. This allow automaker and policy maker to acknowledge this issue and later, create custom marketing approach to address high cynical consumer group.

### Methodology

Sample

Hair et al. (2017) and Henseler et al. (2014) propounded that sample size calculation should follow a more elaborate approach such as based on statistical power and effect sizes. The authors also suggested researchers to run an individual power analysis such as by employing the G\*Power analysis. Hence, by employing the G\*Power analysis, with  $\alpha$  = 0.05, anticipated effect size of 0.15, desired statistical power of 0.95 and number of predictors is 5. Hence, the minimum required sample size for this study was 138 samples. This study employed multi-stage which is purposive sampling and convenience sampling. Respondents will be selected within age range above 21 years old which is Malaysia's car driving age and has national minimum income of RM 1050. Aside from that, respondents will come from various states in Malaysia.

# Instrument Development

A 35-item set of self-administrated and unguided questionnaire was developed for this study, and in line with existing literature as shown in table 1, a multi-item Likert scale was applied. The variables were measured using the 7-point Likert Scale, with 7 being 'Strongly Agree' and 1 being 'Strongly Disagree', except for cynicism which was measured using a 5-rank scale. Because respondents were Malay-speakers, it was important that the questionnaire be precisely translated from English to Malay. Therefore, a back translation was performed, a procedure comprehensively been used to test the precision of the translation in a cross-cultural survey (Leonhardt, Liebers, Dionne, & Latza, 2014).

Validated instruments were adapted from related previous studies and been pretested by three experts (academician, practitioner and potential respondent) as shown in Appendix A.

From Appendix A, factor loading was used to test indicator reliability. High loadings on a construct indicate that the associated indicators seem to have much in common, which is captured by the construct (Joseph F. Hair, Hult, Ringle, & Sarstedt, 2017). Factor loadings greater than 0.50 were considered to be very significant (Hair, Hult, Ringle, & Sarstedt, 2016). The loadings for all items exceeded the recommended value of 0.5, except for item CEN2 which was eliminated from the scale due to low loadings. The loading for the remaining items in the model has fulfilled all the requirements. For testing construct reliability all the composite reliability (CR) values ranging from 0.804 to 0.878 were higher than 0.7 (Henseler, Ringle, & Sarstedt, 2014) which adequately indicates that construct reliability is fulfilled. Therefore, CR for all constructs were considered to be sufficiently error-free.

Moreover, for testing convergent validity (the extent to which a measure correlates positively with alternative measures of the same construct), this study used the average variance extracted (AVE), and it indicated that all AVE values were higher than the suggested value of 0.50 ranging from 0.572 to 0.707 (Hair et al., 2017). The convergent validity for all constructs has been successfully fulfilled. Hence, all the items used for this study is sufficiently pass the measurement assessment and appropriate for fieldwork/data collection.

# **Data Analysis**

In this research, data will be analysed using the Statistical Package for Social Science (SPSS) version 23.0. The descriptive analysis will be applied in analysing the demographical data of the respondents. The descriptive analysis may also be used to describe the hypothesis in a simple way. This study will employ multivariate analysis by using Partial Least Squares - Structural Equation Modelling (PLS-SEM). This tool is used as an examination of a set of relationships between one or more independent variables and one or more dependent variables, regardless

of the variables' characteristic; either continuous or discrete (Henseler, Ringle, & Sarstedt, 2015; Marko Sarstedt, Christian M. Ringle, 2017).

Based on the literature and rule of thumb, the PLS-SEM technique was preferred as a tool to analyse the data gathered in this study due to several reasons. First, PLS-SEM was preferred in this study due to its' better prediction capability. It has been acknowledged that PLS-SEM is the more suitable analysis technique to be used in studies that are designed to examine the predictive power validity of the exogenous variables on the endogenous variable, where the theoretical information related to the underlying theory that supports the proposed research model is less available (Marko Sarstedt, Christian M. Ringle, 2017).

For that reason, PLS-SEM was identified as a more appropriate data analysis mechanism to assess the relationships hypothesized in the study, as the research model of this study was very complex with three independent variables, two mediators, 1 dependent variable and moderators'-SEM is still based on theory, but strictly limited for theory testing, theory building and for comparing alternative model structures (Henseler, Dijkstra, et al., 2014). It is also "data driven in order to be predictive and to provide knowledge and new theoretical rationale about the researched phenomenon" (S. Davcik, 2014). Since the objective of the present study was to explore the extent of which factors at happiness, successful and centrality (exogenous variables) are associated with purchase intention of EEV (endogenous variable) and there was no well-established theory that could directly govern the proposed research model, PLS-SEM was therefore a more potentially appropriate tool for data analysis.

# Implication of the Study

Sharma & Joshi (2017) and Kumar & Polonsky (2017) depicted that there is a tremendous increase in green consumption's research. However, a small number of researchers are exploring factors that weaken green consumption or intention. These negative factors actually will demotivate the final outcome that has been projected from a few motivations. The consumer with high environmental concern and intended to perform green consumption may change their preference due to these

few negative factors. It is important to investigate the negative factors interaction towards green consumption or behaviour (Tan, Johnstone, & Yang, 2016).

Besides that, Kilbourne & Pickett (2008) describe the inconsistent results yield from behavioural model theories. One of these is the issue of measurement specificity. Within the environmental domain, measurement specificity problems weaken the relationship between different environmental constructs and environmental behavioural domain theories (Alwitt & Pitts, 1996; Fransson & Gärling, 1999). This study will extend the ERB model (W. Kilbourne & Pickett, 2008) that evolved from VBN theory to address specific environmental degradation's effect towards green consumption. Hence, this study provides a more accurate result from comprehensive model and theory.

Ministry of International Trade and Industry, Malaysia (2018) projected RM 12.5 billion export value in automotive industry. It has been supported by 52 percent of national production is EEV range. It showed huge market growth and huge EEV's acceptance. Investigating negative attitude or influence that can demotivate intention of engaging towards environmentally responsible behaviour among Malaysian is crucial and beneficial. This allow automaker and policy maker to acknowledge this issue and later, create custom marketing approach to address high cynical consumer group.

#### Conclusions

Currently, technologies that are sensitive towards environment has becoming a trend (Kousar, Khan, & Khan, 2017). As one of the biggest industries that contributed to carbon emission, automaker starting to adopt these technologies to the market. Due to this, the government has created a few policies to ensure the technologies used are up to the standard of reducing the impact on the environment (Petroff, 2017). The automotive industry has become more competitive due to increasing awareness toward this industry's effect towards the environment. Since then, automakers try to stay relevant by integrating new technologies that are sensitive towards environment by reducing the carbon emission and fuel consumption.

United States Environmental Protection Agency (2016) had predicted 2016 until 2018 would be a good year for EEV sales that has been driven by continued growth, low interest rates, and reduced gasoline prices. The sales projection from 14.5 million in 2013 to 16.4 million in 2014. It has been projected that it will increase from 16.6 to 17 million by the end of 2015 which equivalent to almost 80 percent of the world vehicles sales. This data had shown a tremendous adoption and acceptance of EEV by the consumer. Due to this, the manufacturer offered their consumer with a various range of EEV and technologies to choose from.

Huge offering by automaker has also created an issue of greenwashing practices. A few automakers taking chances to advertise their unverified environmentally sensitive claimed EEV to grab the market for environmentally concern consumer. These practices yet to be discovered and investigated by the researcher (Lyon & Montgomery, 2015; Majláth, 2016). Although consumers have high environmental concern and intended to purchase a green product or EEV in specific, greenwashing practices will trigger cynical attitudes. Hence, this study will investigate the interaction of cynicism (as moderating variable) between environmental concern and purchase intention of EEV.

Apart from that, this conceptual paper is the earliest article produced from the research. It overviews the background area that motivates the research, delineates the research questions, and hypotheses to be tested, and reviews the literature relevant to the major areas in marketing, such as materialism, cynicism, environmental concern, and purchase intention. Future articles to be generated from this research will discuss greater details on the aspects of quantitative methodology used, survey instruments and administration, descriptive, and inferential results, as well as managerial implications of this research. Findings from this research will assist the car manufacturing industry to further acknowledge the barriers in promoting EEV in order to compete in the global market strategically.

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# Appendix A

# **Questionnaire items and Statistics**

	Item Deleted	Loading	CR	AVE
Material Value Scale				
Success	Adopted from Richins (2004)			
I do pay much attention to the material objects other people own.  Saya memberi perhatian kepada kebendaan yang dimiliki oleh orang lain		0.782		
2) I do place much emphasis on the amount of material objects people own as a sign of success.  Saya meletakkan kepentingan terhadap kebendaan yang dimiliki seseorang sebagai tanda kejayaan.		0.850		0.885
3) I admire people who own expensive objects. Saya mengagumi individu yang memiliki barangan mewah.	n.a	0.804	0.607	
4) The things I own say a lot about how well I'm doing in life. Barang yang saya miliki menggambarkan tahap kehidupan saya.		0.708		
5) Some of the most important achievements in life include acquiring material possessions.  Diantara pencapaian yang terpenting dalam kehidupan adalah memiliki harta benda.		0.714		
Centrality	Adopted from Richins (2004)			
6) I like a lot of luxury in my life Saya gemar kemewahan dalam hidup saya.	One (2)	0.798	0.543	0.825

# EFFECT OF CYNICISM TOWARDS ENVIRONMENTALLY RESPONSIBLE PURCHASE BEHAVIOUR OF ENERGY EFFICIENT VEHICLE AMONG MALAYSIAN CONSUMERS

7) I usually do not buy necessary things I need.				
Saya biasanya tidak membeli semua barangan yang saya		Deleted		
perlukan.				
8) I put emphasis on material things than most people				
I know		0.756		
Saya menitikberatkan kebendaan daripada kebanyakan		0.756		
orang yang saya kenal.				
9) The things I own are all that important to me.		0.601		
Barangan yang saya miliki semuanya penting bagi saya		0.631		
10) Buying things gives me a lot of pleasure		0.550		
Membeli barang memberi saya keseronokan.		0.752		
	Ado	pted fro	m Ricł	nins
Happiness		(200	)4)	
11) I do not have all the things I really need to enjoy life.				
Saya tidak mempunyai semua barangan yang saya		0.599		
perlukan untuk menikmati kehidupan.				
12) I will be happier if I could afford to buy more things.				
Saya akan menjadi lebih gembira sekiranya saya mampu		0.828		
membeli lebih banyak barangan.				
13) I would be any happier if I owned nicer things.				
Saya akan menjadi lebih gembira sekiranya saya		0.860		
memiliki barangan yang lebih baik.	n.a		0.578	0.871
14)My life would be better if I owned certain things				
I do not have.		0.545		
Kehidupan saya akan menjadi lebih baik sekiranya saya		0.747		
mempunyai beberapa barangan yang tidak saya miliki.				
15) It sometimes bothers me quite a bit that I cannot				
afford to buy all the things I'd like		0.700		
Kadangkala saya sedikit terganggu apabila saya tidak		0.739		
mampu membeli kesemua barangan yang saya suka.				
		Adopted from W. E.		
Environmental Belief Scale	Kilb	ourne <i>et</i>	al. (20	09).
16) Many types of pollution are rising to dangerous				
levels.		0.714	0.550	0.000
Pelbagai jenis pencemaran semakin meningkat kepada	n.a	0.714	0.572	0.869
tahap berbahaya.				
• •			l	L

17) Some living things are being threatened with				
extinction.		0.805		
Beberapa benda hidup diancam dengan kepupusan.				
18) Global warming is becoming a problem		0.858		
Pemanasan global menjadi suatu masalah.		0.050		
19) Thinning of ozone layer is an environmental problem Penipisan lapisan ozon merupakan masalah alam sekitar.		0.755		
20) The availability of clean water will become a problem in the future Bekalan air bersih bakal menjadi masalah pada masa hadapan.		0.63		
Environmental Concern Scale  Adopted fr Kilbourne et				
1)Humans are severely abusing the environment.  Manusia telah merosakkan alam sekitar dengan teruk sekali.		0.765		
2) Major political change is necessary to protect the natural environment.  Perubahan besar dalam politik perlu dilaksanakan untuk memelihara alam sekitar		0.585		
3) Anti-pollution laws should be enforced more strongly. Undang-undang anti pencemaran perlu dikuatkuasakan dengan lebih tegas.	n.a	0.831	0.542	0.854
4) I would be willing to reduce my consumption to help protect the environment.  Saya sanggup mengurangkan penggunaan saya demi membantu memelihara alam sekitar.		0.722		
5) I am very concerned about the environment.	•	0.556		
Saya sangat prihatin terhadap alam sekitar.		0.756		
Cynicism Scale	Adopted from Chaouali <i>et al.</i> (2017)			
1) People will tell a lie if they can gain by it. Individu akan berbohong jikalau individu tersebut memperolehi sesuatu daripada perbuatan tersebut.		0.796	0.625	0.874
2) People claim to have ethical standards regarding honesty and morality, but few sticks to them when money is at stake.	n.a	0.771	0.635	U.8/4

# EFFECT OF CYNICISM TOWARDS ENVIRONMENTALLY RESPONSIBLE PURCHASE BEHAVIOUR OF ENERGY EFFICIENT VEHICLE AMONG MALAYSIAN CONSUMERS

Individu mendakwa dirinya mempunyai nilai etika					
mengenai kejujuran dan akhlak, tetapi sedikit sahaja					
yang berpegang teguh pada nilai etika apabila wang					
dipertaruhkan.					
3) People pretend to care more about one another than					
they really do.	0.056				
Individu berpura-pura memberi lebih perhatian kepada		0.856			
orang lain berbanding perhatian sebenar yang diberikan.					
4) Most people are not really honest by nature.					
Kebanyakan individu tidak jujur secara alami.		0.762			
5) Most people are just out for themselves.	•	0 = 0 1			
Kebanyakan individu mementingkan diri mereka sendiri.		0.796			
Purchase Intention Scale			Adopted from Oliver and		
Purchase Intention Scale	Adoj			r and	
Purchase Intention Scale	Adoı	oted fron Lee (2		r and	
Purchase Intention Scale  1) I will request further information on the EEV.	Adop	Lee (2		r and	
	Adop			r and	
I will request further information on the EEV.	Adop	Lee (2 0.751		r and	
I will request further information on the EEV.  Saya akan memperolehi maklumat lanjut tentang EEV.	Adop	Lee (2		r and	
1) I will request further information on the EEV. Saya akan memperolehi maklumat lanjut tentang EEV.  2) I would like to test drive the EEV.	Adop	Lee (2 0.751 0.754		r and	
1) I will request further information on the EEV. Saya akan memperolehi maklumat lanjut tentang EEV. 2) I would like to test drive the EEV. Saya ingin memandu uji EEV.	Adop	Lee (2 0.751	010)	o.889	
1) I will request further information on the EEV. Saya akan memperolehi maklumat lanjut tentang EEV. 2) I would like to test drive the EEV. Saya ingin memandu uji EEV. 3) I think that purchasing EEV would be a wise decision.		Lee (2 0.751 0.754 0.853	010)		
1) I will request further information on the EEV. Saya akan memperolehi maklumat lanjut tentang EEV. 2) I would like to test drive the EEV. Saya ingin memandu uji EEV. 3) I think that purchasing EEV would be a wise decision. Saya rasakan membeli EEV adalah keputusan yang bijak.		Lee (2 0.751 0.754	010)		
1) I will request further information on the EEV. Saya akan memperolehi maklumat lanjut tentang EEV. 2) I would like to test drive the EEV. Saya ingin memandu uji EEV. 3) I think that purchasing EEV would be a wise decision. Saya rasakan membeli EEV adalah keputusan yang bijak. 4) I intend to purchase EEV in the future		Lee (2 0.751 0.754 0.853	010)		
1) I will request further information on the EEV. Saya akan memperolehi maklumat lanjut tentang EEV. 2) I would like to test drive the EEV. Saya ingin memandu uji EEV. 3) I think that purchasing EEV would be a wise decision. Saya rasakan membeli EEV adalah keputusan yang bijak. 4) I intend to purchase EEV in the future Saya berhasrat membeli EEV pada masa hadapan.		Lee (2 0.751 0.754 0.853	010)		
1) I will request further information on the EEV. Saya akan memperolehi maklumat lanjut tentang EEV. 2) I would like to test drive the EEV. Saya ingin memandu uji EEV. 3) I think that purchasing EEV would be a wise decision. Saya rasakan membeli EEV adalah keputusan yang bijak. 4) I intend to purchase EEV in the future Saya berhasrat membeli EEV pada masa hadapan. 5) I intend to purchase EEV as next/second car.		Lee (2 0.751 0.754 0.853 0.864	010)		