

The Importance of Consumers' Attitudes towards Purchase Intention of Hybrid Car in Malaysia

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ABSTRACT

The purpose of this study is to investigate the influence of consumer consumption values on consumers' purchase intention with the mediating effect of consumers' attitude as well as to examine the importance of consumers' attitudes as mediator and dependent variable. The study has been examining the direct relationships between consumption values and consumers' purchase intention, and indirect relationship between consumption values and consumers' intention to purchase hybrid car through consumers' attitude. From the literature, five consumption values are identified based on theory of consumption values (i.e. functional value, symbolic value, emotional value, novelty value and conditional value). Each variable was measured using 7-point Likert-scale or interval scale. Using primary data collection method, questionnaires were distributed to consumers in Klang Valley. The data were analysed using structural equation modeling (SEM) using PLS. Functional value, conditional value and consumers' attitudes are found to have significant relationships with consumers' purchase intention while emotional value influence consumers' purchase intention indirectly through the indirect consumers' attitudes. Marketers should reconsider the marketing strategies and marketing plan based on the findings of this study. Future research should look into the factors that influence the behaviour between hybrid car user and non-hybrid car user.

Keywords: Hybrid Car, Partial Least Squares, Purchase Intention, Structural Equation Modeling, Theory of Consumption Values

INTRODUCTION

Natural disaster, global warming and climate changes that happen in the past decade had given us a signal of environmental pollution and deterioration. In today's world, most of the countries are facing the same problem of pollution. Environmental degradation caused by over consumption, rapid growth of global economy and utilization of natural resources. Environmental problems are related to the patterns of production by industry, consumption and behavior of the consumers directly or indirectly. Most of the consumers have realized that their consumption behavior will reflect to the environmental problems. Therefore, citizens, organizations and government are responsible to the environmental degradation. As environment continues to exasperate, developing countries like Malaysia start it green movement to preserve the environment (Ramayah, Lee, & Osman, 2010). Environmental friendly concept or green marketing is considered as a new concept in Malaysia.

Green products are made for global sustainability since global sustainability has become an important global issue. Green products or environmentally friendly products are products that made from recycled materials that will not pollute the earth by reducing the waste, and can be recycled after used (Mostafa, 2007; Ooi, Kwek, & Tan, 2012). Green car is one of the most important products in green product industry (Turrentine & Kurani, 2001; Marcus, Fremeth, 2009; Ishioka & Yasuda, 2009). This is because cars or vehicles were the major threat of air pollution.

Eight percent of Malaysian consumers have claimed that they are willing to purchase green products (Lung, 2010). This shows that Malaysian consumers are willing to pay more to support green product. However, study need to be carry out before extra cost and investment incurred in introducing green products as our national brands producer did not introduce any hybrid car to the market yet.

The literature on the determinants of green purchase intention is vast. Different researchers explored different variables on green purchase intention in different contexts. For instance, cost, environmental concern and brand (Razak, Yusof, Mashahadi, Alias, & Othman, 2014); emissions self-efficacy, willingness to seek green information, congruence with self-image, and social value (Oliver & Lee, 2010); responsibility feeling, environmental values, environmental knowledge, perception of environmental advertising, and perception of environmental friendly product (Jamaliah, Singh, & Rashidah, 2013); attitude, subjective norm, and perceived behavioral control(Hong, Khan, & Abdullah, 2013); financial conditions, consumer awareness, quality of vehicle, and demographic background (Wong & Hao, 2013).

On the other hands, over 40 predictors of green purchase intention have been studies. For example, environmental attitudes, social influence, self-efficacy, store image, and roles of salesperson (Chan, 2013); perceived value, perceived risk, and consumption attitude (Chen, Chen, Chen, & Hsieh, 2012); self-transcendence, conservation, self-enhancement, environmental consequences, and individual consequences (Ramayah et al., 2010); and environmental knowledge, environmental attitude, government initiative, peer pressure, and eco-label (Ooi et a., 2012), to name a few. Therefore, this study is carried out to close the gap by examining what the consumers think (consumers' attitude), what caused them to act (consumption values) and how they act (green purchase intention). Besides, this study will concentrate on consumption values as predictors to predict the green purchase intention.

Numerous of research has been conducted on attitude-behavioral relationship in various field of study. However, without examining the mediating effect of attitude between value and green purchase intention, it is still unable to provide full picture of consumer purchase decision, although intention is a good predictor of behavior (Schiffman & Kanuk, 1997).

Nevertheless, although there is an increasing demand for green products in Malaysia (Ooi et al., 2012). However, there is a low-level of actual purchase behavior in Malaysia. Although the hybrid car sales increased year by year, hybrid car only took up 3 percent (approximately fifty thousand units sold since 2008) of market share in the automotive industry. Besides, a comparison with ASEAN partner, Thailand, the ASEAN automotive market leader, there are 37,530 units of hybrid car registered in Thailand (Laoonual, 2013), however, only 18,967 units hybrid car sold in Malaysia in 2013 (Malaysia Automotive Association, 2014). On the other hands, as compare to western countries, in US market, hybrid car was available for more than 15 years, in 2004; the hybrid car sales hit 88,000 units (Jarquio, 2007). Besides, 36,155 units of hybrid car sold in 2013 in US (Cobb, 2013). Thus, this study is carried out with the aims to use theory of consumption values which explain the prediction, description and explanation in affecting consumers' consumption behavior. Apart from that, attitudes were included as a mediator in this study which will contribute as a new dimension for theory of consumption value.

LITERATURE REVIEW

Green purchase intention is the readiness of consumers to purchase products or services where it is considered as environmental friendly (Chan, 2000). In other words, green purchase intention also means consumers' willingness to consider purchasing green products

in their purchase decision. Although there are studies carried out in Malaysia regarding green purchase intention. However, the results are varies among the previous studies and it cannot be generalized in Malaysia due to the differences in terms of culture, social, demographic, context and time. Therefore, it is crucial to examine green purchase intention to predict the behavior and as a proxy for actual behavior. However, two factors are forms as part of the considerations in the process of purchase intentions. There are attitude and consumption values.

Values and attitudes can differentiate in four ways although they are similar in terms of adaptations, accommodation, organization, and integration of environmental information in order to promote interchanges with the environment favorable to preservation of optimal functioning (Homer & Kahle, 1988; Vaske & Donnelly, 1999). Firstly, values represent single and stable beliefs that individual uses as standard in evaluating attitude and behavior (Vaske & Donnelly, 1999). Secondly, values transcend objects, situations, and issues (Vaske & Donnelly, 1999). Thirdly, the central component of a person's belief system is value (Vaske & Donnelly, 1999) and lastly, values tend to be limited to number, while attitudes can be numerous (Vaske & Donnelly, 1999). Values are the most abstract of the social cognition and due to the abstraction attitudes and behaviors are manufactured. Hence, values guide behaviors from abstract values to attitudes to specific behavior. This shows that an attitude does play a mediating role between values and behaviors.

According to Allport, attitudes can be defined as “a mental and neural state of readiness, which exerts a directing influence upon the individual's response to all objects and situations with which it is related” (Tan & Lau, 2010). Attitudes can be defined as the favorable or unfavorable feelings expressed by consumers toward a specific product or service. An attitude has become a significant predictor that used to guide, influence, direct, shape or predict actual purchase behavior (Kraus, 1995). However, there was caution that attitude would not always be highly predictive of behavior (Kraus, 2010). Conceptually, attitudes can be divided into specific attitude and general attitude (Sun & Wilson, 2008). Attitudes has been identifies as important predictor to predict behavior, behavioral intention as well as behavior in social psychological literature (Kotchen & Reiling, 2000). Between general attitude and specific attitude, specific attitude was found as a strong predictor of a single behavior on a particular object while lower correlation was found between general attitude and behavior (Tan, 2011). However, there are studies that show insignificant relationships between attitude and intention. For instance, Nabsiah, Elham and Tan (2011) found those Malaysian green volunteers' environment attitudes did not influence their intention to purchase green products. Elham and Nabsiah (2011) found that Malaysian consumers' awareness on green product as alternative to non-eco-friendly product is not widely promoted in Malaysia. Therefore, specific attitude is being chosen because of strong correlation between attitude-behavior.

Value refers as the consumer's overall assessment of a product's benefit on received and given from the product (Zeithaml, 1988). Values might influence individual's attitude and guiding the person purchasing decision to look for objects that will satisfy their value (Grunert & Juhl, 1995; Poortinga, Stec & Vlek, 2004). Perceived value should be multi-dimensional rather than uni-dimensional (Sheth, Newman, & Gross, 1991; Wong, Liao, & Yang, 2013). Therefore, this study will utilize the multi-dimensional approach theory of consumption values to examine the green purchase intention. The multi-dimension approach as suggested by Sheth et al. (1991) can be categorized as functional, social, emotional, epistemic and conditional.

Functional value was defined as “the perceived utility acquired from an alternative’s capacity for functional, utilitarian, or physical performance” (Sheth et al., 1991). According to basic of theory of consumption values, functional values are operationalized as price and quality (Sheth et al., 1991). However, in this study, maintenance cost will be added as an additional dimension for functional value.

Social value in this study will refer as symbolic value. Symbolic value refers to “the meaning associated with the product and image of the product” (Sheth et al., 1991). Previous study studies social value, self-identity and social influence as each single predictor (Sinnappan & Rahman, 2011) and found that the social influence and self-identity do not influence or insignificant towards green purchase behavior. Therefore, the three dimensions mentioned will be included in this study under symbolic value.

Emotional value is another dimension of consumption values. Emotional values refer to the benefits obtained from the use of a product in regard to feelings and emotions and the value is consumers’ reactions against the product (Sheth et al., 1991; Xiao & Kim, 2009). Human daily lives are associated with emotional responses. Thus, emotional value is likely to be a key factor in influence the green purchase intention.

Epistemic value also known as novelty value. Epistemic value is the most significant predictor among the consumption values (Lin & Huang, 2012; Lin, Huang, & Wang, 2010). Knowledge plays an important role in determining consumer behavior (Laroche, Bergeron, & Barbaro-Forleo, 2001; Alba & Hutchinson, 1987). Most of the previous studies included either product knowledge or environmental knowledge. However, this study includes both environmental knowledge and product knowledge.

Conditional value is defined as “the perceived utility acquired by an alternative is the result of specific situation or set of circumstances facing the choice maker” (Sheth et al., 1991). The rose of hybrid car sales in Malaysia was due to the tax exemption (Hong et al., 2013) and after the end of tax exemption, the hybrid car sales trend seem to be flat and slow (Mahalingam, 2014). Hence, government’s role as conditional value might influence green purchase intention.

With the above literature, hypotheses for this study are formed as below:

- H1: Consumers’ attitude towards hybrid car is positively associated with consumers’ purchase intention toward hybrid car.
- H2: Functional value positively affects consumers’ purchase intention toward hybrid car.
- H3: Symbolic value positively affects consumers’ purchase intention toward hybrid car.
- H4: Emotional value positively affects consumers’ purchase intention toward hybrid car.
- H5: Novelty value positively affects consumers’ purchase intention toward hybrid car.
- H6: Conditional value positively affects consumers’ purchase intention toward hybrid car.
- H7: Consumers’ attitude towards hybrid car positively mediates the relationship between functional value and consumers’ purchase intention toward hybrid car.
- H8: Consumers’ attitude towards hybrid car positively mediates the relationship between symbolic value and consumers’ purchase intention toward hybrid car.
- H9: Consumers’ attitude towards hybrid car positively mediates the relationship between emotional value and consumers’ purchase intention toward hybrid car.

H10: Consumers’ attitude towards hybrid car positively mediates the relationship between novelty value and consumers’ purchase intention toward hybrid car.

H11: Consumers’ attitude towards hybrid car positively mediates the relationship between conditional value and consumers’ purchase intention toward hybrid car.

METHODOLOGY

This study used proportionate stratified sampling to determine the sample from each city according to the population in each city. Data were collected by self-administered questionnaire through intercept research method in selected showrooms in Klang Valley. Klang Valley was chosen because of high traffic flow (*The Star Online*, 2014) and 24 percent of Malaysia population was living in Klang Valley (Saleh, 2014).

404 sets questionnaires were distributed to the selected consumers in Klang Valley and 306 sets of questionnaires were returned and used for data analysis, giving a response rate of 75 percent.

This study used structural equation modeling (SEM) to analyze the causal relationship between latent variables. PLS analysis involves two stages. The first stage involves analysis of measurement model while second stage involves analysis of structural model.

FINDINGS

Based on the data collected, 48 percent (147 male respondents) of the total respondents are male while 52 percent (159 female respondents) are female. The age distributions of this study were: 21-38 years old (73.5 percent) was the highest scored respondents’ age group, followed by 39-49 years old (19.9 percent) and 50 years old and above (6.5 percent). Most of the respondents have achieved a qualification level of Bachelor’s degree (39.5 percent), Diploma (28.8 percent), secondary school (17.6 percent), Master’s degree (13.1), primary school (0.7 percent) and PhD (0.3 percent).

Convergent validity and discriminant validity were carried out in the first stage. Convergent validity can be confirmed if the loadings are greater than 0.5 (Bagozzi & Yi, 1991), composite reliability must be greater than 0.7 and average variance extracted is greater than 0.5 (Hair, Hult, Ringle, & Sarstedt, 2014). Eight items (CA_8, CA_11, FV_7, FV_10, SV_1, SV_4, SV_5, SV_9) were deleted due to the loadings below 0.5. The convergent validity and reliability as shown in Table 1 while the discriminant validity in Table 2. The values shown in Table 1 are above the cut off values; therefore, the measures have sufficient convergent validity.

Apart from convergent validity, discriminant validity was also carry out. The criterion for discriminant validity is the value in the diagonal should be higher than the other values in the row and column. Therefore, it can be concluded that the measurements have discriminant validity.

Table 1. Convergent validity and reliability of constructs

<i>Construct</i>	<i>Item</i>	<i>Loadings</i>	<i>AVE</i>	<i>CR</i>	<i>CA</i>
Consumers' Attitudes (CA)	CA_1	0.879	0.676	0.949	0.939
	CA_2	0.879			
	CA_3	0.878			
	CA_4	0.872			
	CA_5	0.842			
	CA_6	0.836			

	CA_7	0.820			
	CA_9	0.671			
	CA_10	0.693			
Conditional Value (CV)	CV_1	0.655	0.660	0.906	0.868
	CV_2	0.872			
	CV_3	0.846			
	CV_4	0.875			
	CV_5	0.793			
Emotional Value (EV)	EV_1	0.860	0.725	0.955	0.946
	EV_2	0.889			
	EV_3	0.821			
	EV_4	0.865			
	EV_5	0.848			
	EV_6	0.861			
	EV_7	0.895			
	EV_8	0.769			
Functional Value (FV)	FV_1	0.786	0.671	0.942	0.928
	FV_2	0.708			
	FV_3	0.875			
	FV_4	0.903			
	FV_5	0.893			
	FV_6	0.898			
	FV_8	0.754			
	FV_9	0.706			
	Consumers' Purchase Intention (Int)	Int_1	0.786	0.651	0.918
Int_2		0.832			
Int_3		0.793			
Int_4		0.806			
Int_5		0.787			
Int_6		0.836			
Novelty Value (NV)	NV_1	0.912	0.792	0.958	0.947
	NV_2	0.923			
	NV_3	0.895			
	NV_4	0.901			
	NV_5	0.864			
	NV_6	0.843			
Symbolic Value	SV_2	0.781	0.615	0.927	0.910
	SV_3	0.807			
	SV_6	0.766			
	SV_7	0.705			
	SV_8	0.741			
	SV_10	0.860			
	SV_11	0.868			
	SV_12	0.728			

Note: AVE = Average Variance Extracted; CR = Composite Reliability;
CA = Cronbach's Alpha

Table 2. Discriminant validity of constructs

	<i>CV</i>	<i>CA</i>	<i>EV</i>	<i>FV</i>	<i>Int</i>	<i>NV</i>	<i>SV</i>
<i>CV</i>	0.812						
<i>CA</i>	0.642	0.822					
<i>EV</i>	0.645	0.757	0.852				
<i>FV</i>	0.537	0.802	0.719	0.819			
<i>Int</i>	0.598	0.759	0.659	0.717	0.807		
<i>NV</i>	0.668	0.609	0.629	0.594	0.571	0.890	
<i>SV</i>	0.600	0.713	0.752	0.758	0.634	0.632	0.784

After the validity and reliability for each construct have been confirmed, the next is to test structural model. The results are presented in Table 3 and Figure 1. The R² value for consumers' purchase intention is 0.630 while consumers' attitude is 0.734. This means that 63 percent of the variance of the consumers' purchase intention was explained by consumers' attitudes and consumption values while 73.4 percent of consumers' attitude was explained by consumption values. As shown in Table 3, six out of eleven hypotheses were supported.

Table 3. Path coefficient and hypothesis testing

<i>Hypothesis</i>	<i>Relationship</i>	<i>Std. Beta</i>	<i>Std. Error</i>	<i>t-values</i>	<i>Supported</i>
H1	CA -> Int	0.385	0.0829	4.6448**	Yes
H2	FV -> Int	0.2586	0.0721	3.5872**	Yes
H3	SV -> Int	0.0073	0.0658	0.1116	No
H4	EV -> Int	0.0549	0.0675	0.8138	No
H5	NV -> Int	0.0514	0.0621	0.8279	No
H6	CV -> Int	0.1379	0.0568	2.4265*	Yes
H7	FV -> CA -> Int	0.1875	0.0506	9.6332**	Yes
H8	SV -> CA -> Int	0.0127	0.0523	0.6329	No
H9	EV -> CA -> Int	0.0966	0.0503	4.9852**	Yes
H10	NV -> CA -> Int	0.0057	0.0453	0.3293	No
H11	CV -> CA -> Int	0.0725	0.0478	3.941**	Yes

Note: p < 0.01; p < 0.05

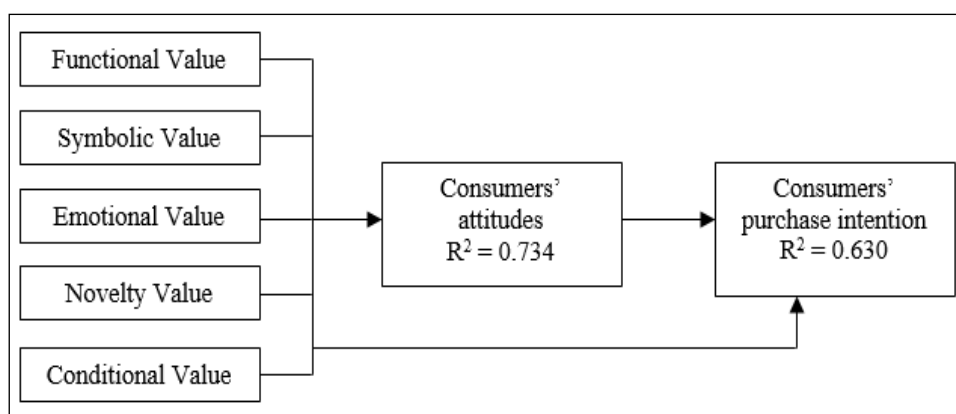


Figure 1. Structural model analysis results

DISCUSSION AND IMPLICATIONS

The study reveals that two consumption values (functional value and conditional value) and consumers' attitudes have significant positive relationships with consumers purchase intention. To promote the hybrid car in Malaysia market, producers or manufacturers should focuses on the functional attributes of hybrid car in terms of price, quality and maintenance cost. On the other hand, producers and government can consider for collaboration to carry out promotion or subsidy for future hybrid car buyer. Government should come out more policies that could support the hybrid car market such as tax exemption. As mentioned by Hong et al. (2013), tax exemption might be the reason that caused the rose of hybrid car sales in year 2012. Symbolic value and novelty value shows insignificant relationships with consumers' purchase intention directly and indirectly through consumers' attitudes. This is might be because consumers can easily obtain information about hybrid car through internet and consumers seem to have strong personal belief especially for high involvement product such as hybrid car. Therefore, marketer should do promotion that can create consumers' awareness about the product and provide information or details through internet or official websites. If consumers are intents to purchase, they will browse through internet, while if consumers have no interest, they will not bother whatever information you provided. Hence, marketer should first create consumers' awareness through promotion in terms of the functional attributes and conditional value such as on-going promotion or subsidy that create consumers intention.

Consumers' attitudes in this study showed an important dependent variable as well as mediator. The consumption values have explained 73.4 percent of consumers' attitudes while only 63 percent of consumers' purchase intention. This means that consumption values are better in influencing consumers' attitudes and through consumers' attitudes as mediator to influence consumers' purchase intention. Besides, consumers' attitude does play an important role as mediator where the emotional value is fully mediated by consumers' attitudes while functional value and conditional value are partially mediated by consumers' attitudes.

CONCLUSIONS AND FUTURE RESEARCH

This study concludes that the factors namely functional value, conditional value and consumers' attitudes directly influences consumers' purchase intention of hybrid car in Malaysia while emotional value influences consumers' purchase intention indirectly through consumers' attitudes.

Although age is not included as one of the objectives in this study, there is a significant difference among age group. Therefore, age group can be included in future research as moderator which will give a better insight about consumers' purchase intention.

Based on the results, this study can conclude that consumers' purchase intention towards hybrid car tend to be higher and is influenced by functional value, conditional value and consumers' attitudes. One of the reasons consumers are intents to purchase hybrid car is because of environmental issues and they believe that purchasing hybrid car could give a better environment for future generations.

Future research should consider to examine the repurchase intention of hybrid car among the existing consumers. This is because consumers will only repurchase if they are satisfied with the product. This means that if consumers' repurchase intention is high, consumers are satisfied with current hybrid car and vice versa. Besides, future research should compare the factors influence consumers' behavior between hybrid car user and non-hybrid car user.

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