



Why people do not purchase green cars in Malaysia: The influence of consumption values on consumers' attitude towards green cars

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ABSTRACT

This paper examined the roles of consumption values in the green automotive industry. Unlike previous studies, this paper added resale price, variety-seeking, and fuel prices as the new dimensions of Sheth's theory of consumption values. Also, this paper is one of the few studies that introduced the impact of green self-identity and self-expressive benefits in Malaysian society. All variables were measured using a 7-point Likert-scale. Three hundred and sixty-eight questionnaires were collected from the respondents in Malaysia. Partial least squares structural equation modelling (SmartPLS) was applied. Five hypotheses were tested by assessing the measurement and structural models. From the results, conditional value is the most significant predictor of Malaysian consumers' attitudes toward green cars, followed by functional and epistemic values. However, the symbolic value did not show a significant effect on consumers' attitudes toward green cars. The implications, limitations, and future research directions were also included.

1. Introduction

Recent statistics from the Malaysian Automotive Association (MAA) show that since 2010, more than seven million new passenger cars have been added to the country's roads. With the increasing number of cars on the road, Malaysia is one of the developing countries that contributed significantly to air pollution (Brohi et al., 2018). According to the Department of Statistics Malaysia (2018), about 70.4% of the carbon emissions originated from passenger cars. Also, passenger cars dominated nearly half of the nation's fuel energy consumption (45.2%), which was comparably higher to other countries such as Singapore with only 5.5% (Energy Market Authority, 2018).

The Malaysian government has been aware of the challenges associated with the increasing number of passenger cars, as the 2014 National Automotive Policy (NAP) was designed to address the need to reduce carbon emissions and promote environmentally friendly vehicles (EFVs) to increase the use of green technology. Several policy initiatives and programmes related to environmental sustainability and energy challenges have been introduced and implemented. One of the recent government plans has included the Green Technology Master Plan

(GTMP) (2017–2030), which was assigned as a sustainable initiative in changing the nation's growth path. The strategy aims to promote the application of green cars on the road with lower energy consumption and carbon emission. According to the GTMP, the government targeted the percentage of new car registration to be hybrid and fully electric to be 45% in 2025 and 100% in 2030. In promoting the adoption of green cars in Malaysia, the government has been installing public electric vehicle charging stations and exempting locally assembled vehicles from incurring sales tax. Likewise, according to the findings of Malaysian Green Technology Corporation MGTC (2015), the total potential savings in opportunity cost were estimated to be RM50,808 (USD 11,550) per car in 10 years. However, the sales trend for green cars in Malaysia is still struggling between 0% and 3% for the past 15 years. According to the statistics of the MAA (2019), only 99,031 hybrid cars were sold in Malaysia between 2004 and 2018. It is important to note that Global EV Outlook 2018 – Analysis – IEA (2018) (2018) reported that other countries exhibited a higher percentage of green car sales record, such as China at 60%, Norway at 49%, and Iceland at 19%.

Many scholars have indicated that the high selling price of green cars is one of the most relevant barriers in hindering their widespread

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adoption on the road (Ensslen et al., 2018; Carlucci et al., 2018; Cecere et al., 2018). However, the prices of green cars in both Malaysian new and used car markets show otherwise. Based on market observations and simple calculations by the authors, the prices of brand-new green cars have been cheaper compared to the same models of traditional internal combustion engine cars. Another barrier that has contributed to the reduction in green car sales is the perceived quality. Besides selling prices, Han et al. (2017) and Wen and Noor (2015) stated that buyers might have quality concerns regarding green cars. However, to the extent that consumers judge the quality of new cars accurately, the low popularity of green cars in society should not be attributed to the quality of green cars, as most existing green cars models are replicas of conventional vehicle models that have gained much acceptance among society such as Toyota, Mercedes-Benz, BMW, Honda, Nissan, Hyundai, and Volvo. Moreover, many previous studies have examined the effects of attitude, subjective norms, and perceived behavioural control (Afroz et al., 2015; Adnan et al., 2018; Mohiuddin et al., 2018). Degirmenci and Breitner (2017) introduced three practical factors, namely, price premium, range confidence, and environmental performance. Likewise, Barbarossa et al. (2017) focused on the personal values that involved both ecological care and moral obligation motivations. However, there was a lack of empirical evidence on some specific factors related to consumer preferences in cars such as the impact of the car's resale price and fuel prices on consumer behaviour towards green cars. Although Coffman et al. (2015) indicated that consumer car purchase choices must be assessed with a full evaluation of ownership costs components, including depreciation costs, fuel prices and maintenance, Letmathe and Soares (2017) found that several costs such as resale price are not yet integrated into the existing literature.

Another cost factor is the fuel price. Paswan et al. (2014) stated that fuel price increases might lead consumers to green cars. Similarly, Lim et al. (2019) assumed that the majority of Malaysians would consider buying green cars if the fuel price increased. However, Helveston et al. (2015) argued that some consumers emphasize less on fuel costs. In this regard, the theory of consumption values of Sheth et al. (1991a) could explain a higher percentage of behaviour, that is not limited to attitude, perceived behavioural control and subjective norms. The theory of consumption values contains five independent multi-dimensional values that were identified to influence behaviour, making it more applicable to predict market choices involving a full range of products and services. Although numerous studies have applied the Theory of Planned Behaviour (TPB) and Theory of Reasoned Actions (TRA) in green cars, studies using consumer values theory are still limited (Han et al., 2017; Wen & Noor, 2015). Besides, the dimensions used in values to examine the behaviour are still also limited although the fundamental premise of the theory is "that market choice is a multi-dimensional phenomenon involving multi values" (Sheth et al., 1991a. p 7).

In order to make a better prediction of Malaysian consumers' attitudes toward green cars, this paper will take into account a number of consumption values. This will enable policymakers and stakeholders to comprehend the reasons behind the low sales and, potentially, develop solutions. These new dimensions could be factors that have been examined in other contexts or from practical elements if they are consistent with value. According to Letmathe and Soares (2017), the resale price of green cars has not yet been incorporated into the existing literature. Besides, diverging findings were discovered in both symbolic and epistemic values in previous studies by Awuni & Du (2016); Lin & Huang (2012). To fill these gaps, this paper adds new dimensions to the consumption values theory model, as follows:

- Resale price as a new dimension examined under functional value to include new literature in the context of green cars.
- Green self-identity as a new dimension examined under symbolic value in the Malaysian context.
- Self-expressive benefits as a new dimension examined under emotional value.

- Variety-seeking as a new dimension examined under epistemic value to include new literature in the context of green cars.
- Fuel prices as a new dimension examined under conditional value to include new literature in the context of green cars.

As the main topic in this study is relevant to the widespread adoption of green cars in Malaysia which aligns with the government's master plans and sustainability needs. The theory of consumption values can examine the proposed attributes and help to fill the related research gaps. The relationship between the exogenous latent variables (functional value, symbolic value, emotional value, epistemic value, and conditional value) and the endogenous latent variable (consumer's attitude towards green cars). SmartPLS was applied to analyse the data and its effects size values were used for interpretation. Thus, policymakers and the automotive industry could make use of the current paper's results to improve sales of green cars, which will lead to better development of the transport sector in Malaysia in line with the sustainability objectives. In this work, the samples involved consumers from all Malaysian states who were targeted to take the survey. To the best of our knowledge, this is among the first studies which covered all Malaysian states, unlike previous studies which only targeted selected areas such as Selangor, Penang, and Johor. Furthermore, despite the challenges due to the Covid-19 pandemic, the collaboration opportunity with a specialist data agency has made it possible to gather data from all main states. Thus, this paper aims to examine the effect of five values on consumers' attitudes towards green cars in Malaysia. Fig. 1 depicts the proposed model for the hypothesis.

2. Theoretical background and hypotheses development

Green consumer behaviours can be classified into two categories; the decline of energy consumption or known as curtailing behaviours and the choices of eco-friendly purchasing or known as green purchase behaviour (Khan et al., 2020). Consumers' attitudes and intentions could influence the actual behaviour toward green consumption (Nguyen et al., 2019). Furthermore, Kataria et al. (2013) discovered that attitude was the leading predictor of consumer buying and selling behaviours. As a result, the better the situation, the more likely a customer will buy environmentally friendly products. According to Ajzen and Beck (1991), attitude is a psychological proclivity expressed by an individual through either a favourable or unfavourable evaluation statement of an object, people, or event. Consumers' attitude toward the green purchase or green products is one of the many variables that has been studied extensively with green buying behaviour (Barber et al., 2012; Chen & Tung, 2014; Erdem et al., 2010; Graham-Rowe et al., 2012; Huang et al., 2014; Jansson et al., 2017; Jayaraman et al., 2015; Kim, 2012; Maichum et al., 2016; Mei et al., 2012; Paul et al., 2016; Ramayah et al., 2010; Wei et al., 2017; Yong et al., 2017). In numerous earlier studies on green cars, such as those by Adnan et al. (2018), Afroz et al. (2015), Mohd and Wan (2012), and Mohiuddin et al. (2018),

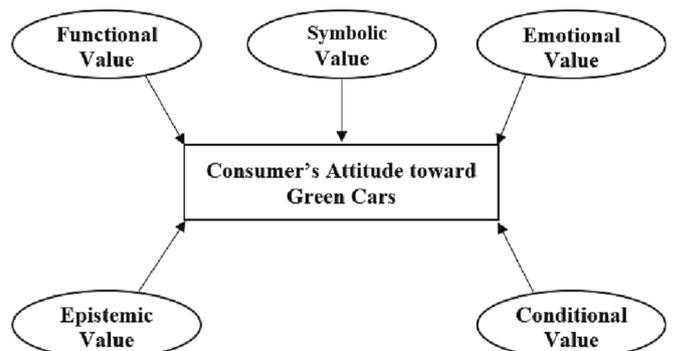


Fig. 1. Proposed model.

attitude served as a useful mediator between the factors studied and consumer behaviour (2018). All of them have found that attitude positively affected the consumers' intention toward green cars, and mediated the relationship between subjective norms, perceived behavioural control, and intention to purchase green cars. Also, Suki (2016) highlighted that more studies should investigate the relationship between consumption values and consumers' green consumerism attitude, as it is an important predictor of intention and can lead to actual behaviour. According to Grunert & Juhl (1995); Poortinga et al. (2004), Values can influence the attitude of the individual and guide the consumers towards objects which fulfil their value. However, only a few studies have investigated this relationship, including Wen and Noor (2015) and Gugkang et al. (2013). The findings of the two studies were inconclusive and inconsistent. For example, Gugkang et al. (2013) have found that there is no significant relationship between consumption values and attitude. On the contrary, Wen and Noor (2015) found that consumption values had a positive effect on consumers' attitudes. Thus, this paper hypothesised positive associations between the five consumption values and consumers' attitudes toward green cars.

The functional value was defined by consumption value theory as "the perceived utility acquired from an alternative's capacity for functional, utilitarian, or physical performance. An alternative acquires functional value through the possession of salient functional, utilitarian, or physical attributes. Functional value is measured from a profile of choice attributes" (Sheth et al., 1991b, p. 160). Many previous studies have shown that functional value had a positive effect on green purchase behaviour (Biswas & Roy, 2015; Han et al., 2017; Lin & Huang, 2012; Ma et al., 2018; Rahnama, 2017; Suki & Suki, 2015; Wen & Noor, 2015; Zailani et al., 2019). On the contrary, an insignificant effect of functional value on consumers' behaviour was also found in other studies (Awuni & Du, 2016; Suki, 2013; Yoo et al., 2013). Functional value typically indicates the received value in terms of product quality and price (Han et al., 2017; Sheth et al., 1991b; Suki, 2013; Teoh, 2015; Zailani et al., 2019). The purchase price of green cars, according to Coad et al. (2009), is a critical factor in determining their adoption by the Swiss, as their prices represent a significant barrier to their widespread adoption, as green cars are more expensive than conventional cars. Barbarossa and Pastore (2015) confirmed those findings by indicating that environmentally conscious consumers in Italy pay attention to the prices of green products. Green car prices in Malaysia, on the other hand, are incredibly competitive when compared to conventional models of the same model, which should aid in the popularity of green cars. However, demand for green cars in Malaysia remains low.

Likewise, the resale price or depreciation value is one of the most critical elements of the car's total cost of ownership model (Palmer et al., 2018). Not only in the context of cars, Chu and Liao (2010) and Liao and Chu (2013) stated that if the products' resale price is higher, consumers will consider purchasing a similar product in the future as more profits can be gained from reselling the product. Thus, consumers may perceive that they are paying less now. According to Thaler (2008), the awareness of the low resale price is one of the reasons buyers avoid buying the product due to loss aversion. In the context of cars, when the price of the used car is high, as a reflection of their high-quality, this makes them more attractive to consumers. The resale prices of cars are a significant consideration for many customers, just like they are for green cars. According to Banerjee and Pillania (2009), consumers' decisions to purchase cars are heavily influenced by the resale price. For Indian consumers, the resale price more accurately reflects a car's dependability and durability than other factors like price, comfort, design, etc. Likewise, the resale price is regarded as the second-largest cost factor in the TCO model of cars (Letmathe & Soares, 2017).

In Malaysia, green cars appear to have a lower resale price than conventional cars in the same model category, as shown in Table 1. This could lead Consumers to reconsider the functional value and evaluate the advantages and disadvantages of buying green or conventional cars. As a whole, green car would be more useful in terms of functional value

Table 1

Examples of car resale prices in Malaysia.

Car model	Fuel	Brand new price	Price after five years	Lower price	Higher price
HONDA CIVIC 2014	Petrol	RM115,980	RM58,000 - RM74000	50%	64%
	Hybrid	RM185,500	RM42,800 - RM53,800	23%	29%
AUDI A6 2014	Petrol	RM336,900	RM125,000 - RM156,000	37%	46%
	Hybrid	RM235,000	RM72,000 - RM85,999	31%	37%

Source: <https://www.carlist.my> (2019), and author calculation.

(price and quality). On the contrary, conventional cars will be more useful if the consumer emphasizes the resale price. For instance, green cars usually depreciate around 70% from their purchasing price in the first five years; meanwhile, conventional cars hold more value upon selling, as shown below.

The low resale price could be one of the reasons that dissuade the consumers' desire from owning a green car, and this also explained on low car sales trend in Malaysia. Thus, the resale price jointly with price and quality dimension form the functional value, and the following hypothesis is proposed:

H₁: Functional value positively affects the consumers' attitude toward green cars.

Sheth et al. (1991b, p.161) defined symbolic value as "the perceived utility acquired from an alternative association with one or more specific social groups. An alternative acquires social value through association with positively or negatively stereotyped demographic, socioeconomic, and cultural ethnic groups. Social value is measured on a profile of choice imagery". On the contrary, both previous studies by Han et al. (2017) and Wen and Noor (2015) found that the consumers' behaviour was not affected by social value significantly. In contrast, Pettifor et al. (2017) found that social value is an important determinant that affects the choices consumers make when purchasing a vehicle, and buyers are influenced by the beliefs and behaviour of the people around them. Furthermore, Barbarossa et al. (2015), Grewal et al. (2000), and Haggman et al. (2016) stated green car owners could gain a social benefit through green self-identity. Many previous studies have shown the different impacts of social value on consumer behaviour toward green cars. Thus, the following hypothesis is proposed:

H₂: Symbolic value positively affects consumers' attitudes toward green cars.

From the literature, the emotional value reflects the feelings from purchasing a product (Sheth et al., 1991b). The feelings can be either positive or negative. The positive feeling can be nostalgia, loyalty, and excitement. Anger feeling includes guilt, hate, and fear. Suki and Suki (2015) stated that the emotions involved would encourage consumers to purchase green products. This is because the consumers assumed that they were playing their role in protecting the environment and contributing to sustainable development. Although some researchers have demonstrated the positive effect of emotional value on consumers' choice toward green products (Awuni & Du, 2016; Hur et al., 2012; Lin & Huang, 2012; Ma et al., 2018; Wen & Noor, 2015; Wong et al., 2019; Yoo et al., 2013; Zailani et al., 2019), other scholars argued that the emotional value did not have any effect on the actual consumers' intention (Han et al., 2017; Suki, 2016; Rahnama, 2017). In the situation of purchasing a car, an emotional value can be related to the level of comfort and safety provided by the car. In other words, the motorist is more likely to purchase a green motor car if the level of comfort offered by a green motor car is high.

In addition, consumers are more satisfied with purchasing green products as they can express their environmental concerns based on Hartmann and Apaolaza-Ibañez (2012). These findings were in good agreement with Belz and Dyllik (1996), who emphasized that consumers

might have self-expressive benefits from the socially visible consumption of green products. In the context of green cars, Ng et al. (2018) found that self-expressive benefits had an indirect positive influence on the consumers' purchasing behaviour through willingness. From this positive relationship, some consumers are more inclined to purchase green cars because they can gain satisfaction by engaging in green consumption as a superior way of life. Consequently, the following hypothesis was proposed:

H₃: Emotional value positively affects consumers' attitudes toward green cars.

Sheth et al. (1991b, p. 162) defined the epistemic as "the perceived utility acquired from an alternative's capacity to arouse curiosity, provide novelty, and satisfy a desire for knowledge. An alternative acquires epistemic value by questionnaire items referring to curiosity, novelty, and knowledge". Biswas and Roy (2015) and Lin and Huang (2012) highlighted the positive role of epistemic value in shaping green consumer behaviour. Sheth et al. (1991a, p.62) said that consumers with the epistemic value might purchase the product immediately without considering the other consumption values. And many consumers buy technologies, gadgets, and fashion products with a desire to own something new without a specific need for it. Previous studies have shown different influences of novelty on consumer intention or decision. For instance, some researchers found that there was a positive effect of the novelty value on consumers' intention to purchase green products (Biswas & Roy, 2015; Lin & Huang, 2012; Ma et al., 2018; Suki, 2016; Rahnama, 2017; Suki & Suki, 2015; Wen & Noor, 2015; Wong et al., 2019; Yoo et al., 2013; Zailani et al., 2019). In contrast, other scholars argued that product novelty did not affect the consumers' intention (Awuni & Du, 2016; Han et al., 2017; Hur et al., 2012). Nevertheless, this paper used a multi-dimensional approach to examine the effect of epistemic values through two dimensions (variety-seeking and curiosity).

Variety-seeking was defined as "the tendency of individuals to seek diversity in their choices of services or goods" Kahn (1995, p. 1). One of the main driving forces in variety-seeking is attributed to the changes in the external environment. According to Sheth et al. (1991a, p.63), variety-seeking motives usually promoted product search and behaviour changes. Katz and Lazarsfeld (1955) suggested that consumers usually changed their preferences and tried on new products. Furthermore, Haines (1966) found out that a small proportion of consumers bought new products to satisfy their need for change or the curiosity to try new products.

Furthermore, variety-seeking is a phenomenon where an individual pursues change (Homburg & Giering, 2001). Consumers can decide and select from a wide range of alternatives under a category level for a specific objective. Variety-seeking can be recognized as a purchaser's shift among the competitive categories. After choosing a particular type, variety-seeking can also persuade consumers to choose from a selected category (Tuu & Olsen, 2013). Another study examined the impact of variety-seeking on consumers' intention to buy organic food in China. The findings showed that variety-seeking positively and directly affected consumers' decisions (Chen & Lobo, 2012). In addition, Jung and Yoon (2012) found that consumers with a high variety-seeking orientation tend to look for new stimuli, and they are ready to switch providers even if there were not facing any issues with it. However, the concept of variety-seeking is still scarce in green products (Wu et al., 2017). Thus, the theory of consumption values involves variety-seeking as one of the new dimensions to evaluate epistemic value.

H₄: Epistemic value positively affects consumers' attitudes toward green cars.

The influence of conditional value on human behaviour has been extensively studied in the marketing discipline since the 1970 s. Belk (1974) stated that time, place, and context were the fundamental elements that defined conditional values. On the contrary, Sheth et al. (1991b) explained that the conditional value from external factors prompted changes in consumers' behaviour, and the effect of the

decision was affected by the external environment. According to the consumption values theory, Sheth et al. (1991b, p. 162) defined the conditional value as "the perceived utility acquired by an alternative as the result of the specific situation or set of circumstances facing the choice maker. An alternative acquires conditional value in the presence of antecedent physical or social contingencies that enhance its functional or social value. Conditional value is measured on a profile of choice contingencies".

Biswas and Roy (2015) explained that conditional value played a decisive role in shaping sustainable consumption behaviour, influencing consumers' purchasing decisions, and impacting consumer behaviour on the environment. Moreover, Wang et al. (2013) also explained that conditional value could be found in many products and services that are primarily consumed in a particular context. This is in line with the findings of Bayer and Ke (2013) and Samson and Voyer (2014), in which consumers purchased products for specific conditions. For instance, today's market trend emphasizes the production of green products that are less harmful to the environment. Conditional value influenced the consumers' choice by considering the environmental consequences (Lin & Huang, 2012). Likewise, Lim et al. (2019) found that environmental attitude was the most reliable indicator of a person's behaviour who preferred green products over conventional goods.

Sheth et al. (1991b) indicated that the external environment mainly caused conditional values. In this regard, Coffman et al. (2015) and Lin and Hsu (2015) introduced a group of external factors that affected consumers' purchasing behaviour toward electric cars. The external dimensions or factors include government policy, sale promotions, and environmental consequences. Furthermore, Diamond (2009) concluded that fuel prices had the highest significant effect on car market growth. Also, Lim et al. (2019) found that the majority of Malaysian consumers preferred green cars if the fuel price increased. However, to the best of the authors' knowledge, this is one of the first studies which examined the influence of fuel prices on consumers' inclination to purchase green cars in Malaysia.

H₅: Conditional value positively affects consumers' attitudes toward green cars.

Likewise, this study extended the conditional value in the theory of consumption values by adding fuel price as one of the conditional value dimensions.

3. Method and questionnaire development

A quantitative method was applied in this paper and used for data collection in Malaysia. First, four items were applied to measure the consumers' attitudes toward green cars, as reported by Taylor and Todd (1995). For instance, the measurement statements included: 1) I like the idea of using a green car, and 2) buying a green car would be a wise decision. Then, 12 items were used to measure functional values from Lin and Huang (2012). For example, the measurement statements of functional value included: 1) the green car purchase price is reasonable, 2) the green car has an acceptable standard of quality, and 3) the green car offers value for money in terms of resale price. Next, seven items were incorporated to measure the symbolic value from Barbarossa et al. (2015) and Lin and Huang (2012). Those items included statements such as 1) buying a green car would make a good impression on other people, and 2) I would describe myself as an ecologically conscious consumer. The emotional value was also measured by six items (Hartmann & Apaolaza-Ibañez, 2012; Lin & Huang, 2012). The measurement statements, for instance, 1) stated Buying a green car instead of a conventional car would feel like the morally right thing. 2) With green cars, I can demonstrate to myself that I care about protecting the environment. Besides emotional value, 12 items were adapted to measure the epistemic values (Agarwal & Karahanna, 2000; Irani & Hanzae, 2011). The measurements of emotional value, for instance, involved: 1) I enjoy making changes in buying new green car models. 2) the experience of buying a green car triggered my curiosity. Finally, 16 items were

employed to measure the conditional value (Barbarossa et al., 2015; Han et al., 2017; Lin & Huang, 2012; Paswan et al., 2014). For example, the measurement statements contained: 1) I would consider buying a green car if there was an increase in fuel prices. 2) I would consider buying a green car if there are more stringent regulations on emissions. 3) I would consider buying a green car if there are promotional activities. 4) I will consider buying a green car if conventional cars cause the depletion of our natural resources. All value variables were measured using multiple items with 7-point Likert scales (see Appendix A).

The present study aimed to examine the factors that influence the attitude of Malaysian consumers towards green cars. The Malaysian consumers here represent the individuals who are eligible to drive cars aged 17 years old and above based on Malaysian driver license eligibility age requirements identified by Road Transport Department Malaysia (JPJ). This study applied simple random sampling and used the database of a high-reputation marketing company to collect the needed data to ensure the respondents' quality. Vase.ai is an online marketing agency in Malaysia and Singapore, hired to conduct customer surveys for major companies such as The Great East, Digi, Grab, KFC, Mudah, UniQlo, etc. Vase.ai has its proprietary panel in Malaysia, consisting of over 357,000 Malaysian consumers who sign up to become its respondent. For every survey, Vase.ai launches their respondent's emails or mobiles where they will be able to answer instantly. In addition, Blumberg et al. (2014) stated that simple random sampling is appropriate when the researcher has a list of all the population members. Moreover, the researcher included filtering questions to ensure that collected data only involved the relevant and appropriate respondents. The screener questions help to extract the respondents who have a firm intention to purchase a car within the next 12 months as they replace the car showroom visitors that were difficult to reach due to the epidemic. Participants who selected the required response to the criteria of the respondents were only considered. The questionnaire link was launched on Jun 3, 2020, at 5:01 PM and ended on Jun 10, 2020, at 6:57 PM. According to the raw data report, 1,000 questionnaires were sent via email to participants on the Vase.ai agency database panel, and 425 were qualified because their answers to the screening question met the targeted criteria of respondents. Those were the only ones who progressed to the data screening and analysis stages. As a result, 575 surveys were invalid or went unanswered. The accepted 425 questionnaires had a 42.5% response rate. This response rate was comparable to that of Michaelidou and Dibb (2006), who used email surveys and obtained a 44% response rate. Appendix B provides a summary of the respondents' backgrounds.

The descriptive analysis was included to give a clear picture of the respondents' responses to each construct. The highly rated factor was attitudes, with a mean value of 5.64 and a standard deviation value of 1.09, which was considered a low value, therefore no spread or dispersion of data. The outcome also indicated that consumers' attitudes play an important role in shaping consumers buying behaviour towards green cars. Conditional value, emotional value and epistemic value are also considered a high rating index, with mean values of 5.34, 5.22 and 5.03 respectively, which were above the mid-point of (4), and standard deviation of 0.95, 1.11 and 0.85 respectively, which considered low value. The results also showed that functional value and symbolic value had the lowest mean value among the variables incorporated in the current study, with a mean value of 4.68 and 4.94 respectively, and a standard deviation of 1.08, which indicated that the mean value of functional value and symbolic value is satisfactory rating index, with mean values of above the mid-point of (4) of the seven-point Likert scale which reflects a satisfactory level of respondents scores. These results support the main argument and hypotheses put forward in the current study, as the participants' assessment of the variables was above the average, which indicated favourable perceptions of the measurements being examined. As a result, the sample data is meaningful for achieving the present study's objectives. Appendix C. shows the summary of the descriptive statistics of the constructs.

Subsequently, the collected data were screened to ascertain the

presence of any ambiguous data characteristics that might affect the results (Sekaran, 2003). SPSS 25 was employed to assess outliers, normality, and common method variance (CMV); 57 items were entered to be assessed for univariate outliers using standardised values with a cut-off of ± 3.29 ($p < 0.001$). The recommended chi-square threshold for this study was 105.97 ($p = 0.001$). The values of Mahalanobis above this threshold have been excluded. Under this criterion, the data set has detected and excluded 57 multivariate outliers as they could impact the precision of the analysis technique. Anyways, 57 outliers could be considered a sizable number. The detected respondents were therefore investigated. SmartPLS was first executed with all of the data (425) and then without the outliers. Results were generally similar. The answers to the 57 applications were then investigated. It was discovered that the majority of applications were submitted in a very brief amount of time (under 5 min), making it impossible for participants to read all questions and give accurate feedback. Since 368 outliers are sufficient for conducting the analysis and to ensure the quality of the assessed data the outliers were removed. Moreover, some of the kurtosis values in this paper were not in the range of -3 and $+3$ (i.e., epistemic value and conditional value). As proposed by Coakes and Ong (2011) and Kline (2015), the criteria of normality were not achieved from the out-of-range kurtosis value. Thus, PLS-SEM was used as SmartPLS as it does not require any normally distributed input data. Lastly, Harman's single factor testing method was applied to detect any false relationships from the constructs, based on SPSS 25, the first factor expounded 47.8% of the constructs' variance, which indicated a satisfactory CMV.

4. Analysis and results

Both covariance-based SEM and PLS analyses include two steps: 1) evaluation of the measurement model (validity and reliability of the constructs); and 2) assessment of the structural model (testing relationships/examining hypotheses).

4.1. The measurement model

The original model of research included 56 reflective measurement indicators (MVs or items) for a total of six variables (LVs or constructs), including five multidimensional independent variables (functional value, symbolic value, emotional value, novelty value, conditional value), consumers' attitude towards green cars as the dependent variable. Smart PLS was used to analyse the proposed model as it can be applied to a complex model. Hair et al. (2017), the data analysis in structural equation modelling divides into two main steps. The first stage involved the five consumption values with the multidimensional variables. The independent variables were operationalized using the Hierarchical Component Model (HCM). The HCM approach was recommended to reduce the complexity of the research framework and achieve greater theoretical parsimony (Hair et al., 2017). Appendix D shows the first measurement model, and Fig. 2 shows the 2nd stage of the measurement model. Internal consistency was the first criterion used to evaluate measurement models. The reliability method was used to evaluate the coherence of the findings on the same test items. Hair et al. (2017) indicated that the accepted CR value should be above 0.7, AVE value should be above 0.5. In addition, the average variance extracted (AVE) indicates the variance between the indicators or objects in the construction. The suggested AVE value shall be higher than 0.5 (Chin, 1998), which means that more than half of its indicators differ in constructs (Hair et al., 2014). The values of CR were (0.897–0.960) and AVE was (0.757–0.923). In addition, outer loadings are regarded as criteria for determining the indicator's reliability. Loadings between 0.40 and 0.70, according to Hair et al. (2017), should be carefully examined and removed only if their removal improves the values of average variance extracted (AVE) and composite reliability (CR). Only one item was removed based on these criteria, as (EPVVS1) has a loading of <0.50 . (See Appendix E).

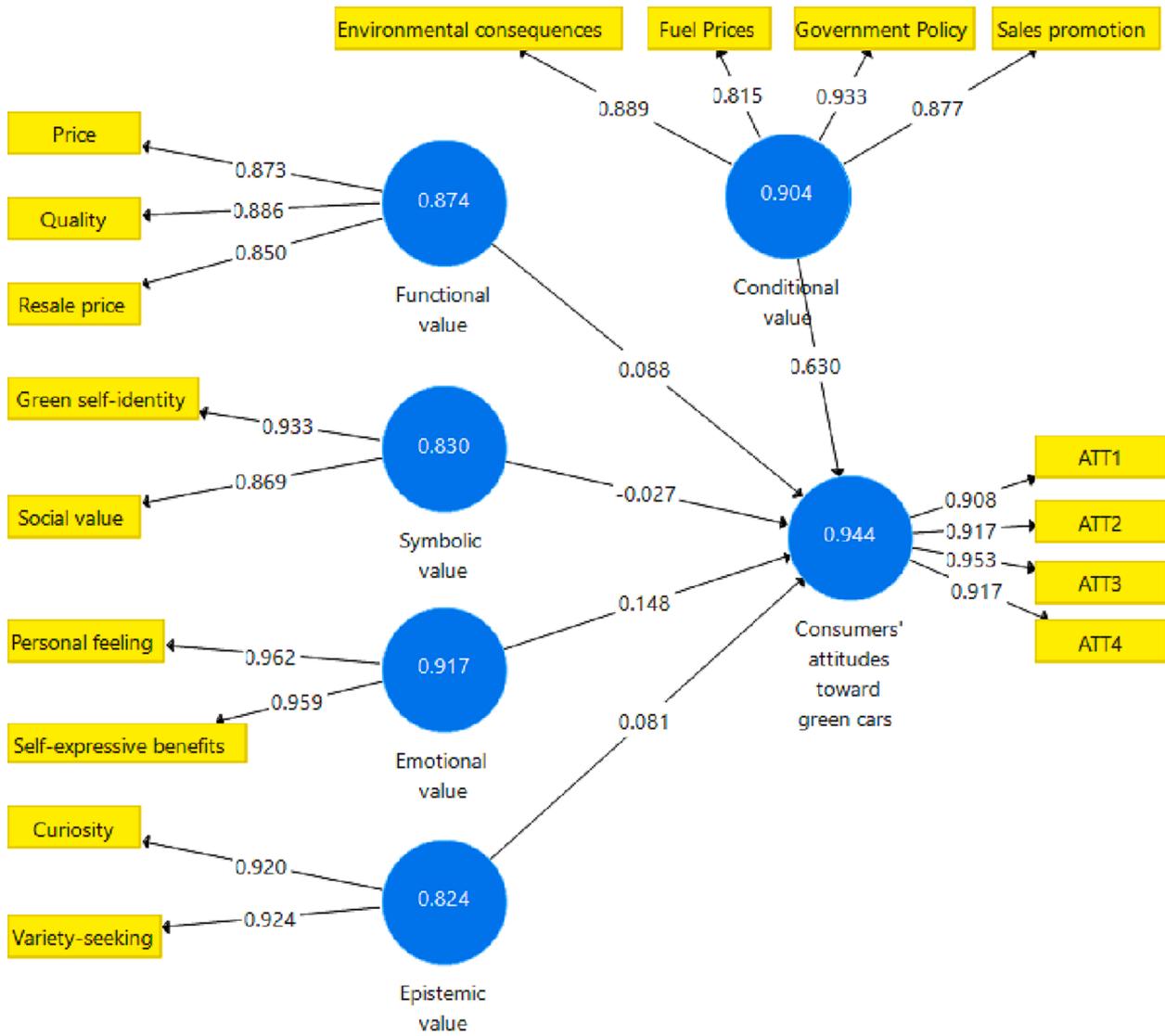


Fig. 2. Measurement model (2nd stage).

In addition, Heterotrait-Monotrait (HTMT) was applied to support the constructs' discriminant validity values, which should be below the conservative upper limit of 0.9 (Gold et al., 2001; Hair et al., 2017). Table 2 shows that criteria were achieved in the assessment of discriminant validity values. Therefore, the findings from this paper verified the assessment of the measurement model and can be proceeded to the structural model tests.

4.2. The structural model

Hair et al. (2017, p.126) indicated that the next step after the measurement model should be the assessment of the structural model. In the evaluation of the structural model, the hypotheses were tested. Both R²

Table 2
Heterotrait-Monotrait (HTMT).

	ATT	CV	EMV	EPV	FV	SYV
Attitudes toward green cars						
Conditional Value	0.891					
Emotional Value	0.720	0.785				
Epistemic Value	0.731	0.828	0.641			
Functional Value	0.576	0.599	0.564	0.621		
Symbolic Value	0.708	0.795	0.859	0.696	0.877	

values and path coefficients were obtained from the PLS algorithm by bootstrapping with 5000 samples and 386 cases. The R² of 0.700 indicated that the five consumption values explained 70% of the variance in consumers' attitudes toward green cars. It concluded that four hypotheses were accepted, and one hypothesis was rejected as shown in Table 3. The main determinant of consumers' attitudes toward green cars was conditional value ($\beta_5 = 0.629$, $p < 0.01$), thus supporting H5. Next, the emotional value from H3 had a significant effect on the consumers' attitude toward green cars ($\beta_3 = 0.151$, $p < 0.01$). Similarly, the epistemic value ($\beta_4 = 0.077$, $p < 0.03$) from H4 had a significant

Table 3
Path coefficients and hypothesis testing.

Hypothesis	Relationship	Path Coefficients	Std. Error	P-value	Decision
H1	FV -> ATT	0.088	0.048	0.032	Supported
H2	SYV -> ATT	-0.026	0.062	0.330	Not Supported
H3	EMV -> ATT	0.151	0.048	0.001	Supported
H4	EPV -> ATT	0.077	0.041	0.024	Supported
H5	CV -> ATT	0.629	0.052	0.000	Supported

ATT = Attitudes, CV = Conditional Value, EMV = Emotional Value, EPV = Epistemic Value, FV = Functional Value, SYV = Symbolic Value.

relationship with consumers' attitudes toward green cars. Likewise, the functional value ($\beta_1 = 0.088$, $p < 0.04$) from H1 had the weakest relationship among the accepted consumption values with consumers' attitudes toward green cars. Finally, the symbolic value had no significant effect on consumers' attitudes toward green cars ($\beta_2 = -0.026$, $p > 0.1$).

Further evaluation of a measure known as effect size (f^2) was considered. The SmartPLS automatically generates effect size values (f^2) during the algorithm. The f^2 effect of consumption values on consumers' attitude towards green cars was functional value ($f^2 = 0.010$), epistemic value ($f^2 = 0.014$), and emotional value ($f^2 = 0.040$), which show that the three values have a small effect. Conditional value ($f^2 = 0.0430$) means conditional value obtains the largest effect on consumers' attitude towards green cars, while symbolic value ($f^2 = 0.003$) reveals a very small effect. The cross-validated redundancy assessment was the last test. The Q^2 for the latent variable consumer attitudes toward green cars was (0.586), which is greater than zero. This value indicates that the predictive relevance is good at the construct level, as proposed by [Shmueli et al. \(2019\)](#), who saw PLS-Predict as a new assessment criterion specifically designed for the predictive nature of PLS-SEM. Furthermore, model fit was evaluated using standardized root mean square residual (SRMR) criteria. The SRMR value should be < 0.10 . ([Hu & Bentler, 1998](#)). As a result, because the SRMR value is 0.064, the current study model is proper.

5. Discussion

The main motivation behind this paper was the relatively low sales trend of green cars in Malaysia as compared to other countries. Therefore, this paper was carried out to investigate and understand the importance of consumption values on the consumers' attitudes toward green cars. From the results, the empirical findings revealed that the conditional value had the most significant impact on consumers' attitudes toward green cars, followed by an emotional value, epistemic value, and lastly functional value. On the contrary, the symbolic value did not have any significant impact on consumers' attitudes toward green cars.

An important detail from the results was that the conditional value had the highest effect on consumers' attitudes toward green cars. This result agrees with the findings of [Biswas and Roy \(2015\)](#), [Gonçalves et al. \(2016\)](#), [Lin and Huang \(2012\)](#), [Ma et al. \(2018\)](#), [Rahnema \(2017\)](#), [Wen and Noor \(2015\)](#), [Wong et al. \(2019\)](#), and [Zailani et al. \(2019\)](#). They found that conditional value positively affected consumers' sustainable consumption behaviour. In this paper, the conditional value involved four dimensions, namely fuel price, government policy, sales promotions, and environmental consequences. [Biswas and Roy \(2015\)](#) also found that the conditional value reinforced the sales of green products and highlighted the importance of factors like financial incentives. For instance, [Li et al. \(2020\)](#) emphasized that policy incentives which include purchase subsidies and other convenience incentives had the most significant positive effects on the green car purchase decision. Moreover, [Whitehead et al. \(2014\)](#) found that Stockholm's tax credit for congestion on electric cars has promoted sales by 10.7%. Other than the US federal income tax credit incentive, which accounted for 20% of the sales of green cars in the year 2006, the income tax credits for hybrid cars have also promoted high demand for green cars.

Comparing benefits and financial exemptions given to green cars in Malaysia, it can be found that in contrast to other countries, they are very modest. In Malaysia, the only incentive provided by the government is tax incentives for locally assembled models. On the contrary, Norway provided a list of incentive policies including no value-added tax (VAT) of 5,000 EUR, free access to bus lanes and the toll road, exemptions from congestion charging, no import duty, no annual car tax, free parking in public car parks, free domestic car ferries, and no car registration tax ([Whitehead et al., 2019](#)). Sweden is another example with major policies introduced, including green car owners being exempted from the first five years of registration fees and congestion tax-

exempt. Free inner-city parking, a reduction of income tax, and a cash rebate offer of around 1,100 EUR are given to car owners with CO₂ emissions of < 120 g/km ([Whitehead et al., 2019](#)). Likewise, incentives provided by the government for green cars could expand the industry. For example, China considered an example of how government policy contributed to increasing green cars' popularity in the country. China is by far the world's largest EV market, with over 1.2 million sold in 2020 - more than 40% of the global total. The support offered enormous benefits to Chinese manufacturers such as BYD Auto Co. and the BAIC Company, enabling them to sell midrange green cars equal to \$20,000 or less after purchase subsidies. As a result, international firms are drawn to invest in China. In a big move forward, Elon Musk the CEO of Tesla opened a new multibillion-dollar plant near Shanghai to produce electric cars ([Bloomberg, 2020](#)).

Besides government policies motivating consumers' attitudes towards green cars, this paper confirmed that an increase in fuel price would increase the preference for green cars in Malaysia, which is consistent with [Lim et al. \(2019\)](#) that an increase in fuel price would accelerate the adoption of green cars in Malaysia, and most of the consumers will consider buying green car if fuel price continues to rise. As regards sales promotions, the findings of this paper agree with [Gonçalves et al. \(2016\)](#) that promotional campaigns should be implemented to encourage consumers to purchase green products by emphasizing the positive environmental consequences. As previously stated, transportation accounts for 70.4% of the environmental pollution problem, with passenger cars remaining the primary source of air pollution in Malaysia. However, other researchers found that conditional value was not a significant predictor of consumers' attitudes towards green products ([Awuni & Du, 2016](#); [Suki, 2016](#); [Ramayah et al., 2018](#)). [Ramayah et al. \(2018\)](#) added that conditional value might be contingent on the decision-maker and product types. Thus, to raise the sale demand for green cars in Malaysia, the government should implement car tax exemption fees for green cars. It is also recommended to increase the fuel consumption tax to make green cars more feasible as environmentally friendly alternatives.

Furthermore, the government's policy was not limited to providing incentives or increasing fuel prices, some governments have made direct investments in the electric vehicle industry. In 2018, the Saudi Arabia Public Investment Fund (PIF) invested \$1 billion in the new American electric car company (Lucid). Currently, Lucid Motors is preparing to build an electric car factory in Saudi Arabia. This would be Lucid's second factory, next to the Arizona plant. Lucid Motors aims to bring new markets by introducing Lucid's exclusive electric vehicle and sustainability technologies in the Middle East, and in Saudi Arabia in particular ([Edelstein, 2021](#)). Similar action was taken in South Africa this time, in 2020 Egypt and China signed to manufacture electric cars in Egypt. The agreement was signed between the Nasr Automobile Company and the Chinese Dongfeng Company. The new car factory is expected to be dedicated to the local market and for export to various countries, which will position Egypt to become a hub for the manufacture of electric cars ("Egypt as electric vehicle hub," 2021). Similarly, Malaysia has the potential to lead the local and regional market of green cars if such moves were taken. The findings of this paper also indicated a positive effect of functional value on consumers' attitudes toward green cars. The result is consistent with the findings from [Han et al. \(2017\)](#) and [Zailani et al. \(2019\)](#). Both works agreed that functional value was a major driver of sustainable transportation. For the impact of resale price, the findings were aligned with that reported by [Li et al. \(2020\)](#). They found that the depreciation rate had a positive impact on the adoption of battery-electric vehicles. Consumers' attitudes toward accepting green cars are significantly dependent on the practical elements of the purchase price, resale price, and quality. In other words, consumers are more focused on these three attributes. Thus, low resale prices might explain the weak sales trend of green cars in Malaysia. Nevertheless, few researchers have established that functional value was not a significant element in affecting consumers' toward green products. [Awuni and Du](#)

(2016) examined the green purchasing behaviour of young adults, and the findings revealed that many young adults focused more on values related to curiosity and innovations other than practical and social values. As for the impact of emotional and epistemic values, the PLS analysis revealed that both emotional and epistemic values are positively associated with consumer attitudes toward green cars. A key point of the epistemic value is the person’s curiosity to learn more about new products and variety-seeking other than self-expressive benefits related to consumers’ norms (Ng et al., 2018). This outcome is in agreement with Han et al. (2017). They found out that both emotional and epistemic values brought a positive impact on the consumers’ attitudes and facilitated the intention of adopting green cars in their life. Furthermore, in the context of green products, these results were consistent with the findings of Gonçalves et al. (2016), Lin and Huang (2012), Yoo et al. (2013), and Zailani et al. (2019). From this paper, the emotional value is revealed as a positive role, which reflects that Malaysian consumers are more attentive to their moral responsibility in protecting the environment. In conclude, the current possible explanation for why symbolic value, unlike conditional, functional, emotional, and epistemic values, does not have a significant relationship with consumers’ attitudes toward green cars is that respondents may not believe that driving a green car will increase their social acceptance, status, or reflect a positive impression. This could be attributed to the fact that many of the respondents in this study have low incomes, so they are more concerned with the practical and financial aspects of the product rather than impressing others. As 55.3% of respondents earn <4,000 RM (900 USD), while only 12.7% earn more than 8,000 RM (1,800 USD).

6. Conclusions and limitations

Within the transport sector, the fuel demands, and the resulting carbon emissions are growing rapidly. To reduce the increasing carbon emissions and fuel consumption, the adoption of green cars on the road has been viewed as an effective alternative and an efficient application for cleaner energy. Malaysia is one of the advocates for the adoption of green cars on the road. Unfortunately, the adoption level is reported to be low. One of the main obstacles hindering the adoption of green cars in Malaysia is the low fuel prices as compared to other countries. As a result, the adoption of green cars on the road seems to be an unfeasible option from the consumers’ perspective. From the results, the benefits of adopting a green car were not the priority of many respondents. The results of this study indicated that potential price savings and opportunity cost was not enough to stimulate consumer attitudes towards green cars. This is in good agreement with the findings of Carley et al. (2013). In this work, all the consumption values were examined empirically. From the results, all the consumption values except symbolic value had a significant effect on consumers’ attitudes toward green cars. Thus, the theory of consumption values in this paper can explain the consumers’ attitudes toward green cars.

Additionally, the Malaysian government is urged to act more quickly considering the findings of this paper. A single package aimed at

correcting the current poor consumption patterns in the transportation sector could make significant progress. Higher fuel prices and taxes on conventional cars, for example, would discourage consumers from purchasing conventional cars while not affecting the country’s economy. Furthermore, the government may limit the licenses of Grab and Uber to green cars. It would also be preferable if the government took the initiative by switching to green cars as much as possible, particularly police cars and other service vehicles, to demonstrate the government’s serious and practical commitment to green cars.

Although this paper achieved the objectives and contributed to the five consumption values, there were some work limitations. Firstly, the insignificant effect of symbolic value on the consumers’ attitudes could require additional dimensions or other methods such as direct interviews or using personal characteristics like income as a control variable may also be worth considering identifying the implied symbolic motives of consumers. Secondly, the relationships between the consumption values should be examined in detail for a more reliable and accurate result. Thirdly, the data was collected during the spread of Covid-19, which made it impossible to meet the respondents physically. Besides, the population type applied as a proxy population is considered one of the limitations of the current study. However, it was the appropriate and practical solution to do the data collection during the lockdown due to the outbreak of the Covid-19 epidemic.

In future studies, the actual behaviour of the current and previous adopters of green cars should be examined and compared. Moreover, the moderation role of conditional value should be investigated in detail by combining it with external factors. Furthermore, as mentioned earlier, MGTC (2015) estimated the financial benefits of using green cars at about 1,500 USD per year. In the future, economic researchers must study the opportunity cost of not replacing cars running on fossil fuels with green cars. Lastly, as mentioned previously, more charging points are being added. Future studies are invited to research the effects of the infrastructure on consumers’ behaviour towards green cars.

CRedit authorship contribution statement

Amr Mohammed Nasser Alganad: Methodology. **Normalisa Md Isa:** Supervision. **Waida Irani Mohd Fauzi:** Supervision.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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Appendix

A. Questionnaire items

Variables	Dimensions and Source	Adapted Items	CR
Attitude	Uni-dimension Taylor and Todd (1995)	I like the idea of using a green car. Buying a green car would be a wise decision. I think buying a green car is a good idea. Driving a green car as a transport mode is a good thing.	0.92

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Variables	Dimensions and Source	Adapted Items	CR
Functional Value	1. Purchase Price Lin and Huang (2012)	The green car purchase price is reasonable. The green car offers value for money in terms of the purchase price. The green car is a good product for the purchase price. The green car would be economical for the purchase price.	0.78
	2. Quality Lin & Huang (2012)	The green car has consistent quality. The green car is well made. The green car has an acceptable standard of quality. The green car would perform consistently.	
	3. Resale Price Lin & Huang (2012)	The green car resale price is reasonable. The green car offers value for money in terms of resale price. The green car is a good product for the resale price. The green car would be economical for the resale price.	
Symbolic Value	1. Social Value Lin & Huang (2012)	Buying a green car would help me to feel acceptable. Buying a green car would improve the way I am perceived. Buying a green car would make a good impression on other people. Buying a green car would give its owner social approval.	0.83
	2. Green Self-Identity Barbarossa et al. (2015)	I think of myself as someone concerned about environmental issues. I think of myself as a “green” consumer. I would describe myself as an ecologically conscious consumer.	0.86
Emotional Value	1. Personal Feelings Lin & Huang (2012)	Buying a green car instead of a conventional car would feel like making a good personal contribution to something better. Buying a green car instead of a conventional car would feel like the morally right thing. Buying a green car instead of a conventional car would make me feel like a better person.	0.82
	2. Self-Expressive Benefits Hartmann and Apaolaza-Ibáñez (2012)	With green cars, I can express my environmental concern. With green cars, I can demonstrate to myself that I care about protecting the environment. With green cars, I perceive myself to be concerned about the environment.	0.91
Epistemic Value	1. Variety-Seeking Irani and Hanzae (2011)	I like to continue doing the same old things rather than trying new things. I like to experience a change in my daily routine. I like a job that offers change, even if it involves some danger. I am continually seeking new ideas. I like continually changing activities. When things get boring, I like to find new experiences. I prefer a routine way of life to an unpredictable one full of change. I am very cautious about trying new green cars.	0.94
	2. Curiosity Agarwal and Karahanna (2000)	I enjoy making changes by buying new green car models. The experience of buying a green car triggered my curiosity. The experience of buying a green car made me curious. The experience of buying a green car aroused my imagination.	0.83
Conditional Value	1. Fuel Prices Paswan et al. (2014)	I would consider buying a green car if there was an increase in fuel prices. I would buy a smaller car if there were an increase in fuel prices. I would start using public transport systems more often. I would try to drive less to save money if there was an increase in fuel prices. I would switch to a lower-octane gas if there were an increase in fuel prices.	0.692
	2. Government Policy Qu et al. (2014); Wang, Li and Zhao (2017)	I would consider buying a green car if there are more stringent regulations on emissions. I would consider buying a green car if there is a subsidy. I would consider buying a green car if an interest-free loan is provided. I would consider buying a green car if there are discount rates for insurance. I would consider buying a green car if there is an exemption from road tolling. I would consider buying a green car if there is an exemption from purchase tax.	0.91
	3. Sales Promotions Lin and Huang (2012)	I would consider buying a green car if the dealer offered discount rates. I would consider buying a green car if there are promotional activities.	0.87
	4. Environmental Consequences Barbarossa et al. (2015)	I would consider buying a green car if conventional car usage may affect the environment. I will consider buying a green car if conventional cars cause the depletion of our natural sources. I would consider buying a green car if conventional car usage causes air pollution.	0.93

Appendix B. . Summary of respondents’ background (n = 425)

Variable	Category	Frequency	Percentage %
Gender	Female	168	39.5
	Male	257	60.5
Ethnicity	Malay	225	52.9
	Chinese	180	42.4
	Indian	20	4.7
Age	17 to 30 years old	196	46.1
	31 to 45 years old	167	39.3
	46 to 60 years old	60	14.1
	60 years old and above	2	0.5
Marital status	Single	228	53.6
	Married	192	45.2
	Divorced	4	0.9

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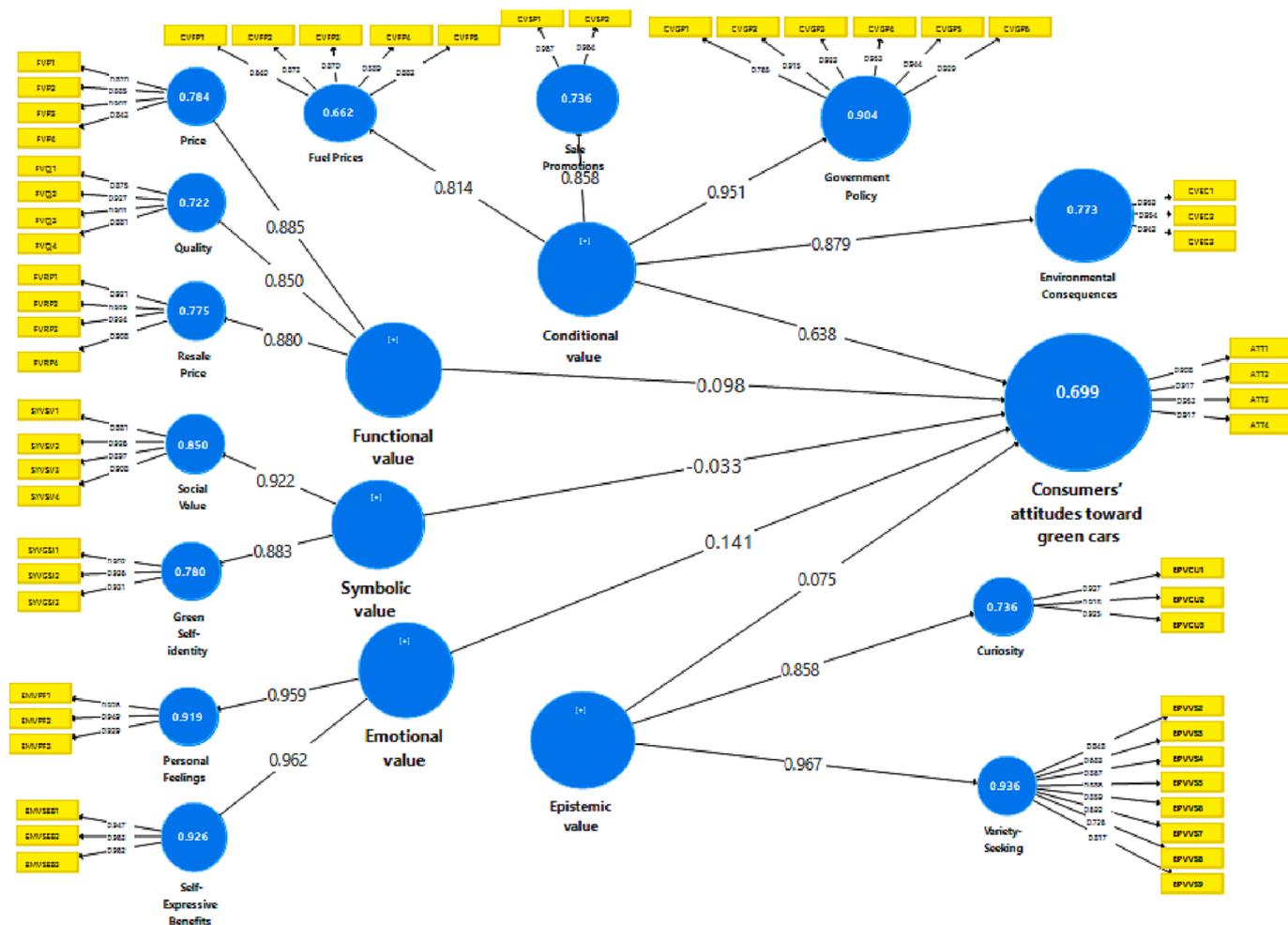
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Variable	Category	Frequency	Percentage %
Education	Widow	1	0.2
	High school	72	16.9
	Diploma	117	27.5
	Bachelor's Degree	193	45.4
	Master's Degree	38	8.9
Monthly income	PhD	5	1.2
	Below RM 2,000	80	18.8
	RM 2,001 - RM 4,000	155	36.5
	RM 4,001 - RM 6,000	87	20.5
	RM 6,001- RM 8,000	49	11.5
Total	RM 8,001 and above	54	12.7
		425	100.0

Appendix C. . Summary of the descriptive statistics of the constructs

Variable	N	Minimum	Maximum	Mean	Std. Deviation
Functional Value	425	1.00	7.00	4.6818	1.08654
Symbolic Value	425	1.00	7.00	4.9492	1.08245
Emotional Value	425	1.00	7.00	5.2286	1.11901
Epistemic Value	425	1.00	7.00	5.0337	0.85487
Conditional Value	425	1.00	7.00	5.3497	0.95164
Consumers' Attitudes toward Green Cars	425	1.00	7.00	5.6424	1.09285
Valid N (listwise)	425				

Appendix D. . Measurement model (1st stage)



Appendix E. . Construct reliability and validity

Construct		Item	Loading	AVE	CR
LOCs	HOCs Attitudes toward Green Cars	ATT1	0.908	0.854	0.959
		ATT2	0.917		
		ATT3	0.953		
		ATT4	0.917		
Price	Functional Value	FVP1	0.873	0.757	0.903
		FVP2	0.870		
		FVP3	0.885		
		FVP4	0.907		
Quality		FVQ1	0.843		
		FVQ2	0.886		
		FVQ3	0.875		
		FVQ4	0.927		
Fuel Prices		FVRP1	0.901		
		FVRP2	0.881		
		FVRP3	0.934		
		FVRP4	0.908		
Social Value	Symbolic Value	SYVSV1	0.850	0.813	0.897
		SYVSV2	0.869		
		SYVSV3	0.881		
		SYVSV4	0.926		
Green Self-Identity		SYVGS11	0.897		
		SYVGS12	0.908		
		SYVGS13	0.933		
		SYVGS13	0.902		
Personal Feelings	Emotional Value	EMVSEB1	0.936	0.923	0.960
		EMVSEB2	0.931		
		EMVSEB3	0.962		
		EMVSEB3	0.926		
Self-Expressive Benefits		EMVSEB1	0.949		
		EMVSEB2	0.929		
		EMVSEB2	0.959		
		EMVSEB3	0.947		
Variety-Seeking	Epistemic Value	EPVVS1	0.963	0.850	0.919
		EPVVS2	0.924		
		EPVVS3	0.848		
		EPVVS4	0.683		
		EPVVS5	0.867		
		EPVVS6	0.886		
		EPVVS7	0.859		
		EPVVS8	0.692		
		EPVVS9	0.726		
Curiosity		EPVCU1	0.817		
		EPVCU2	0.920		
		EPVCU3	0.927		
		EMVSEB3	0.918		
Environmental Consequences	Conditional Value	CVFC1	0.925	0.773	0.931
		CVFC2	0.962		
		CVFC3	0.962		
		CVFC3	0.962		
Fuel Prices		CVFP1	0.889		
		CVFP2	0.952		
		CVFP3	0.954		
		CVFP4	0.942		
		CVFP5	0.815		
Government Policy		CVGP1	0.640		
		CVGP2	0.873		
		CVGP3	0.870		
		CVGP4	0.889		
		CVGP5	0.883		

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Construct	Item	Loading	AVE	CR
Sales Promotions	CVGP6	0.929		
		0.877		
	CVSP1	0.967		
	CVSP2	0.964		

HOCs = higher-order construct, LOCs = lower-order constructs, AVE = Average Variance Extracted CR = Composite Reliability.

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