Determinants influencing green consumption behaviour of household appliances in Vietnam

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This study is conducted to investigate determinants that have effects on green consumption behaviour for household appliances of Vietnamese customers applying the Theory of Planned Behaviour (TPB). The relationship between independent variables (attitude, subjective norm, perceived behavioural control, knowledge, reasonable price and trend - additional variable from Vietnam typical condition), mediating variable and dependent variable (green consumption intention and green consumption behaviour) was identified. Data was collected through the questionnaire survey which was carried out in Ha Noi and Ho Chi Minh cities of Vietnam, an emerging country as the case study. The results show that attitude, perceived behavioural control, knowledge, reasonable price and trend significantly and positively influence the consumption intention. Moreover, consumption intention was found to have a significant positive impact on consumption behaviour.

Key words: *Green Consumption, Consumption Behaviour, Green Consumption Behaviour, Household Appliances.*

Introduction

The worldwide economy in recent years has experienced significant development, along with the growth of environmental problems such as: global warming, the rising of sea level, environment pollution and the rapid exhaustion of the natural resources. With a positively developed economy of a country as Vietnam, protecting the environment is considered as an

important action because economic growth and environmental sustainability have an interdependent relationship. Moreover, current customers, after being aware of environmental protection issues, have become more focused on choosing, using and disposing green products. In addition, recent studies show that consumers are aware of green issues such as scarcity of natural resources, global warming and pollution. When people's consumption trends change, manufacturing businesses have to change their perceptions.

In Vietnam, people's awareness of green consumption behaviours and strategies for developing sustainable green consumption still has been limited. Consumers are partly willing to pay more for green products but they are not fully aware of the concepts of green products, and how they need to be used to help these products be purchased, used and disposed of waste properly. Although, the government has encouraged people to raise their awareness of environmental protection, sustainable and environmentally friendly procurement and to increase their use of eco-products. But separate regulations on green consumption have not yet been set. Therefore, the results are not clear and effective. Saifullah (2017) suggests that the urban population needs to be more aware of the environmental issue as cities tend to have better infrastructure to raise public awareness on green issues. Moreover, the government should increase environmental awareness among the younger generation through workshops, seminars, campaigns and pamphlets.

Nguyen et al., (2020) suggest that it is necessary to raise customers' health consciousness, customers' altruism from disseminating knowledge about environmental protection as well as society to enhance the green consumption in Vietnam. Household appliances are electrical machines, which are used to help people in daily life such as washing machines, air conditioners, vacuum cleaners, fans, cookers and so on. According to Nguyen - Director of School of Heat Engineering and Refrigeration, Hanoi University of Science and Technology, "The home device that consumes the most electricity is air conditioning. If we calculate the average power consumption of the air conditioner compared to other appliances in a year, then about a quarter of that, then the heater, accounting for 18-20% / year, continues to be the refrigerator accounting for 16-18%. The rest: washing machines, electric cookers, induction cookers, ovens and lighting systems, account for about 40-50%".

Therefore, it is necessary to promote the use of energy-saving electronic products to minimise the electrical energy use in each household. For this reason, we will contribute to clarifying the determinants influencing the determining green consumption behaviour of household appliances in Vietnam. The research is in Hanoi and Ho Chi Minh City – the two biggest cities in Vietnam. The research unit is the consumers who are in the field of electronic household appliances. We spent 4 months conducting the survey and got 403 valid surveys. So, this study will have an impact on changing consumer perceptions to protect the environment together especially electric power.

Literature Review

Theory of Planned Behaviour

The Theory of Planned Behaviour (TPB) (Ajzen, 1991) is one of the clear and knowledgeable tools that are used to analyse the purpose of individuals to carry out context-specific actions. According to Taylor and Todd (1997) and Ajzen (1991), the TPB has supported several associated social psychologies and empirical studies. The result of a meta-analysis study that was conducted by Thompson et al., (1994) found that the measure of attitude, subjective norm and perceived behavioural control in intentions explains 40–50% of variance and behavioural intention clarified 19% and 38% of variance.

Conner and Sparks (1996) and Shepherd (1992) also used TPB to conduct research on consumer behaviour in food choices. In other food-related research, TPB is used as the base theory and is regarded as the essential model. Sparks et al., (1992) confirmed the importance of TPB in their research. 600 empirical studies in the last 20 years have concluded that TPB can be the essential theory for any conducted study. Study by Bonne and Vermeir (2007) used habit as an additional variable for halal meat consumption in France with TPB model. This research indicated that attitude, subjective norm and perceived behavioural regulation have a significant impact on the consumption of halal meat.

The planned behaviour model has been used as the model of other inquiries including green product buying behaviour, organic food buying behaviour and online buying behaviour. Many researchers identified that the TPB is one of the most powerful models for predicting the additional variables of consumption behaviour such as knowledge and reasonable price. Ajzen (1991) stressed that by adding further additional variables, TPB is extended. This statement helps the researchers to incorporate additional variables within the framework of extended model TPB. Thus, in this study, knowledge and reasonable price variables are deemed worthy.

Green Consumption Intention and Behaviour

Consumption has several meanings such as using the amount of energy, for instance: fossil fuel, electricity, and the act of eating and drinking. However, in this research, consumption of goods and services is the act of buying and using products.

Green consumption has been examined in developed countries since the 1960s (Coleman et al., 2011) and was defined by Lee (2010) as the behaviour of consuming environmentally friendly products as well as meeting enough environmental concerns. Moreover, consumer behaviour is also clarified as a process including: seeking information, making decisions, buying, using and disposing products, services and experiences (Keller & Kotler, 2011). Green consumption is not only an activity of consuming green products but also a

consumption process that minimises the risks to the environment as well as meeting long-term and sustainable goals of environmental protection.

Intention for green consumption refers to the probability of the customer participating in green consumption. Intention, like purpose to repurchase or intent to prescribe, may be an indicator of a specific action. For example, the intention to post-purchase the customer is a significant index for firms. Increasing consumer buying intention is an important goal for any business. The better their intention to buy, the more likely they are to remain with the firm. Chen (2003) said that green consumption covers a wide variety of behaviours from pre-purchase to post-activity. Such tasks include determining the need for the product to be bought, to be recyclable or labelled as waste, and providing the producer with green needs. All these activities are intended to help protect the environment.

Green consumption behaviour refers to consumer behaviours and purchase decisions that are related to environmental and resources-related problems and are motivated not only by a desire to satisfy individual needs but also by a concern for the welfare of society in general (Antil, 1984). Long and Murray (2013) defined the behaviour of green consumption or in other words the behaviour of ethical consumption as a political, religious, spiritual, environmental, social or other motivation to choose one product over another. This implies that it applies to consumer actions in the purchasing and use of goods which are relevant to the environment to meet their desires while at the same time concern for the welfare of society. Although Mostafa (2007) identified green consumption behaviour or environmentally friendly buying behaviour as consumption of products that are environmentally friendly/beneficial, recyclable or conservative and sensitive/responsive to environmental concerns.

Wang (2014) claimed that green purchasing refers to the procurement of goods that focuses on the production, delivery, use and disposal of products that are deemed environmentally sustainable and have a less harmful impact on the environment. The study of green purchasing behaviour and determinants is widely studied in previous research. Laroche et al., (2001) analysed variables of demographics, beliefs, awareness (eco-literacy), attitudes (such as the extent of environmental problems) and actions (such as consideration of environmental issues while purchasing). Although Haron et al., (2005) had a positive correlation between environmental knowledge and environmental attitude and behaviour, the magnitude of the correlation was low. In addition, even workers who had comprehensive knowledge of green products in ISO 14001 accredited organisations did not automatically buy green products, based on Rashid (2009). Hence, it is important to study determinants that would influence consumers on green behaviour to grasp their green buying behaviour and make them the embassy in encouraging others to green consumption. Green consumption is a means of achieving sustainable growth (Rahbar et al., 2011).

Hypothesis development

Attitude: Fishbein and Ajzen (1975) defined attitude as one's positive/negative evaluation of a specific behaviour. Mostafa (2007) found that the positive relationship between attitude and behavioural intention has been established in many cultures. Attitude has a clear role in the decision to accept a specific behaviour. The study of Won and Kim (2020) investigated the relationship between customer attitude and purchase intention in the context of fashion-sharing platforms will have a positive effect. More specifically, when studying the determinants that influence the intention to buy energy-saving household appliances, Alam et al., (2019) applied Ajzen's intended TPB theory. Alam supports Ajzen with a view that consumer intention is influenced by three determinants: attitude, subjective norms and perceived behavioural control. Therefore, the hypothesis proposed is:

H1: "Attitude" of consumers has positive impact on consumption intention.

Subjective Norm: Fishbein and Ajzen (1975) stated that subjective norm is the perceived social pressure that encourages one to engage in a specific behaviour. Furthermore, Chen and Tung (2014) contended that there is a positive relationship between subjective norm and purchase intention. On the other hand, Khare (2015) did not find support for the relationship between social environmental norms and green buying behaviour. Similarly, Paul and Patel (2016) also failed to find any significant association between subjective norm and green purchase intention. Thus, the present research posits the following hypothesis:

H2: "Subjective norm" of consumers has positive impact on consumption intention.

Perceived Behavioural Control: Perceived Behavioural Control refers to "the perception of ease or difficulty of performing a particular behaviour" (Ajzen, 1991). Past research has identified perceived behavioural control as one of the strongest predictors of human intentions and behaviours across a breadth of green products and services such as organic food and green hotels (Teng et al., 2015). In Indian context, Yadav and Pathak (2017) and Paul and Patel (2016) demonstrated the significance of perceived behavioural control in determining consumers' purchase intention and behaviours toward green products. Based on these findings, we can say that consumers will purchase energy-saving household appliances when they have enough control. So, we design the hypothesis as:

H3: "Perceived Behavioural Control" of consumers has positive impact on consumption intention.

Knowledge: According to Alam et al., (2019) knowledge plays an integral role in the process of making decisions. He focused on customers' knowledge about energy-efficient products to build questionnaires and demonstrated that such knowledge is the most important variable that has a positive impact on predicting purchase intention of energy-efficient household

appliances. Other definitions coming from a study of Alibeli and Johnson (2009) indicated environmental understanding refers to natural truths or key objectives linking to change in environment and responsibility of each person to sustainable development (Taufique et al., 2016). For the above arguments, our research group formally hypothesise:

H4: *"Knowledge" of consumers has positive impact on consumption intention.*

Reasonable Price: In prior research, Alam et al., (2019) proposed diversified opinions of how level of selling price affects green buying intention of customers. Consumers who have a great awareness of the environment purchase green products with any price retailers set and are even willing to pay more for eco-labelling items (Bigsby & Ozanne, 2002). According to Biswas and Roy (2015) price is the main factor that determines the behavioural outcome of sustainable green consumption. If customers are aware of consuming green products sustainably, there will be a higher possibility of their willingness to pay the green products at a premium price. The rationale leads to the fifth hypothesis tested in this research:

H5: *"Reasonable price" of products has positive impact on consumption intention*

Trend: Analysing unique culture, socially historical features of Vietnamese as well as deep interviews with some buyers gives a hint to test the effect of additional variables named "trend". Trend can be recognised as the inclination towards a certain direction in the process of operation and the inclination to certain activities aimed at an essential goal for oneself over a long period of time. We state that trend is a combination of collectivism and social influence determinants.

Collectivism and individualism are defined in Hofstede's work, which have been used widely as key variables in various kinds of environmental research. Hofstede (1984) and Singelis (1995) also clarified the difference between those two determinants as that people from individualistic cultures are seen as independent, self-reliance, choice-freedom, high degree of competition; while collectivism is linked with interdependence, group harmony, group goals, collaboration, social hierarchies and low degree of competition. Kim and Choi (2005) stated that collectivistic individuals tend to make pro-environmental choices since they believe in the positive effects of their behaviour on environmental issues.

Ryan (2001) defined social influence through the use of "homophily"- situations that people share the same values, thoughts and beliefs to others who they communicate with. Thanks to deep interviews, we realised that social influence is the influence of individuals or groups of people on others. Through daily communication, an individual is constantly influenced by social ideologies, culture, education and belief. Therefore, social influence is a decisive factor towards subjective norms as well as consumption intention. We came up with the additional factor named "trend" by combining all those viewpoints. Thus, the present study illustrated below hypothesis:

***H6:*** *"Trend" has positive impact on consumption intention*

Consumption Intention: According to Ajzen (1991), intention is the recapitulation of all emotional determinants having effect on behaviour, showing a person's desire to experience as well as persistence to perform behaviour. Intention is assumed as an intermediary premise of behaviour that greater intention is established, the higher possibility in performing behaviour. Thus, determinants influencing consumption intention do have impact on consumption behaviour. According to Nguyen et al., (2019) the positive effect of the two additional variables (the availability of green products and perceived consumer effectiveness) further strengthens the positive influence of consumption intention on consumption behaviour. However, Son (2007) indicated that there was no relationship between those two determinants. From viewpoints above, we design a hypothesis as:

H7: *"Consumption intention" has positive impact on consumption behaviour.*

Research Model

Based on previous literature, our research model of determinants determining green consumption behaviour of household appliances in Vietnam is illustrated in Figure 1. Beside examining 6 existing determinants in different contexts, "trend" - a unique variable representing Vietnamese consumption behaviour - is included in the assumed research model.

Along with defined determinants, seven hypotheses were constructed to examine the impact of independent variables (attitude, subjective norm, perceived behavioural control, knowledge, reasonable price and trend) to dependent variables (consumption intention and behaviour). Moreover, this study intends to test the different intensity of impact through customers' demographic characteristics.

Figure 1: Research model
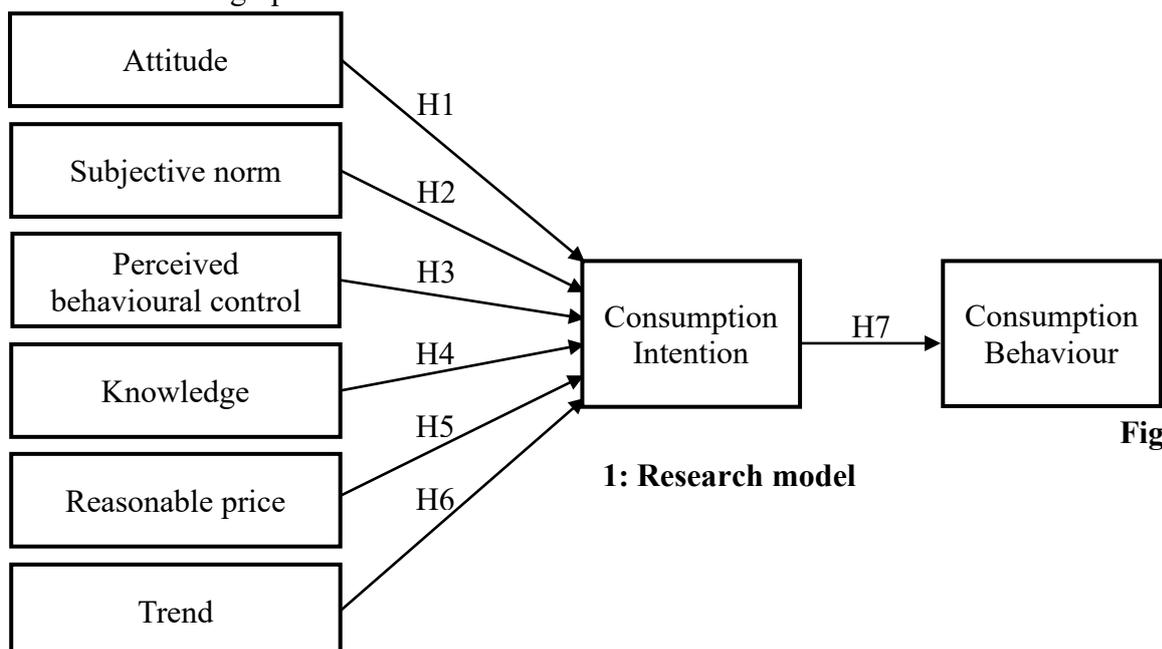
Research Methodology

The questionnaire consisted of two sections. After collecting demographic information of the attendants, the questionnaire focuses more on capturing the measurement items of the exogenous and endogenous variables. The study applied a five-point Likert scale ranging from "Strongly Disagree = 1" to "Strongly Agree = 5". Five out of six independent variables: "attitude", "perceived behavioural control", "subjective norm", "knowledge" and "reasonable price" as well as one dependent variable "buying intention" were adapted from (Alam et al., 2019). Three items were taken from the (Nguyen et al., 2019) to analyse "buying behaviour".

In terms of descriptive statistics, the study was conducted in two Vietnamese municipalities: Ha Noi (the capital city) and Ho Chi Minh City. According to the General Statistics Office of Vietnam, 2019 population is above 96 million people – ranking third in Southeast Asia and fifteenth over the world. Among 63 provinces, Ho Chi Minh City has the highest population (about 9 million people – 9.4%) following that the second rank is Ha Noi with about 8 million inhabitants (accounting for 8.3%). Applying simple random sampling, the surveys were conducted in two ways: offline approach at shopping centre (103 questionnaires) and online approach through social media (300 questionnaires).

Out of 403 questionnaires that were tested, the number of female consumers slightly doubled that of male consumers (65% compared to 35%). Up to 67% survey participants are between 18 and 24 years old, 27% are from 25 to 44 and the rest are over 45 years old. The descriptive statistics also point out that almost all people have attended university or postgraduate training (nearly 93%). For personal average income per month: more than half of sample earns under 6 million VND; 70 questionnaire customers have an income level of 6 to 10 million VND (17.4%); 49 questionnaire customers have income in 20 to 30 million VND (12.2%); under 10% of total questionnaires are a group of customers with an income level of 10 to 20 million VND (5.7%); 30 to 40 million VND (3.7%); and over 40 million VND (1%). To evaluate the popularity of electronic centres, we gave out figures for two brands with the highest selection of attendants (30% for each) and they are "Media Mart" and "Green Electronics".

Research Results

Measurement Model

The measurement model examines the association between observed data and latent variables and defines the measurements of constructs. The measurement model was evaluated based on the assessment of construct reliability, convergent validity and discriminant validity. It is necessary to conduct the following tests: consistency reliability i.e., Cronbach's α, composite reliability; convergent validity i.e., outer loading, average variance extracted (AVE); and discriminant validity i.e., Heterotrait - Monotrait (HTMT).

Table 1: Measurement model analysis

Convergent Validity Consistency Reliability					
Construct	**Item**	**Loadings**	**AVE**	**Cronbach's α**	**CR**
Attitude	ATT1	0.901	0.814	0.886	0.929
	ATT2	0.911			
	ATT3	0.894			
Subjective Norm	SN1	0.809	0.717	0.802	0.884
	SN2	0.872			
	SN3	0.859			
Perceived Behavioural Control	PBC1	0.825	0.608	0.681	0.822
	PBC2	0.829			
	PBC3	0.675			
Knowledge	KL1	*	0.614	0.786	0.863
	KL2	*			
	KL3	0.663			
	KL4	0.803			
	KL5	0.806			
	KL6	0.850			
Reasonable Price	RP1	0.723	0.629	0.703	0.835
	RP2	0.826			
	RP3	*			
	RP4	0.825			
Trend	TR1	0.648	0.507	0.676	0.804
	TR2	0.668			
	TR3	0.775			
	TR4	0.750			
Consumption Intention	CI1	0.873	0.751	0.834	0.900
	CI2	0.884			
	CI3	0.842			
Consumption Behaviour	CB1	0.859	0.711	0.797	0.880
	CB2	0.865			
	CB3	0.804			

[*]Note: *Item eliminated due to factor loadings < 0.5

Table 2 shows that Cronbach's α values for all constructs fell in between 0.676 to 0.886, which outrun the suggested value of 0.6 (Robinson et al., 1991). All values of composite reliability (CR) were greater than required threshold values 0.7 suggested by (Chin, 2010). As denoted in Table 2, convergent validity can be evaluated by using outer loading (value outer loading of each item should be larger than 0.5) (Wang et al., 2016) and average variance extracted (AVE) (the value must be larger than 0.5). Author has eliminated 3 items (KL1, KL2, RP3) lower than the required threshold value of outer loading. AVE is greater than the required threshold values indicating meaningful convergent validity.

HTMT ratio is one of the widely employed methods for discriminant validity evaluation. To fulfil the requirement, this study employs HTMT ratio assessment, where the HTMT ratio of each construct should be not exceeding 0.85 (Kline 2015). As indicated in Table 2, all HTMT

values are lower than 0.85. Hence, all constructs have satisfied discriminant validity. The HTMT results are presented in Table 2.

Table 2: Discriminant validity (Heterotrait - Monotrait (HTMT)

|	ATT	CB	CI	KL	PBC	RP	SN	TR
ATT								
CB	0.589							
CI	0.615	0.813						
KL	0.661	0.753	0.774					
PBC	0.573	0.567	0.604	0.609				
RP	0.416	0.417	0.395	0.35	0.271			
SN	0.571	0.456	0.527	0.542	0.472	0.413		
TR	0.333	0.588	0.581	0.505	0.457	0.229	0.433	

Structural Model

Variance Inflation Factor (VIF) values are below the threshold of 5, confirming the absence of collinearity issue (Hair et al., 2011). The result shows that VIF values for all constructs fell in between 1.181 to 2.654, so no collinearity phenomenon occurs. To examine hypothesised relationships, a bootstrapping technique with 5000 resamples was conducted. The hypothesis resulting from a t-value higher than 1.96 and p-value less than 0.05 lead to the acceptance of hypotheses. The result in Table 4 shows that six out of seven hypotheses were supported. The results indicate that attitude (β = 0.164, t = 2.943 > 1.96, $p < 0.05$), perceived behavioural control (β = 0.124, t = 2.510 > 1.96, $p < 0.05$), knowledge (β = 0.360, t = 6.676 > 1.96, $p <$ 0.05), reasonable price (β = 0.078, t = 1.969 > 1.96, $p < 0.05$). Trend (β=0.193, t = 4.543 > 1.96, $p < 0.05$) were significant influences on consumption intention. The result of H2 (SN□ CI) shows that it is rejected at the value of β = 0.068 with a p-value of 0.172 > 0.05 and t-value of 1.367 < 1.96. consumption intention (β= 0.668, t = 17.075, p <0.05) were significant influences on consumption behaviour.

According to Hair et al., (2011) and Henseler et al., (2009) the value of R^2 with 0.75, 0.50 and 0.25 respectively, describes substantial, moderate, or weak levels of predictive accuracy. The results show that the R^2 value for consumption intention is 0.511 and for consumption behaviour is 0.445, which are considered above and approximate moderate as suggested by Hair et al., (2011 and Henseler et al., (2009). According to Hair et al., (2011) the effect size f^2 describe the impact of a specific predictor variable on the endogenous construct. Base on the f^2 value it can be determined such that 0.02, 0.15 and 0.35 represent small, medium and large effects (Cohen, 1988). According to Hair et al., (2011) Q^2 value is a mean for assessing the model predictive relevance. Table 4 shows both Q^2 values for consumption intention and consumption behaviour (Q^2 = 0.372; Q^2= 0.309) is higher than 0, which means the model has a predictive relevance.

Table 3: Structural model analysis

Hypotheses	Relationship	Path Coefficient	Standard Deviation	t-Value	p-Value	Supported	R^2	Q^2	f^2
H1	ATT→CI	0.164	0.056	2.943	0.003	Yes	0.511	0.372	0.032
H2	SN→CI	0.068	0.05	1.367	0.172	No			0.006
H3	PBC→CI	0.124	0.05	2.510	0.012	Yes			0.022
H4	KL→CI	0.360	0.054	6.676	0.000	Yes			0.157
H5	RP→CI	0.078	0.04	1.969	0.049	Yes			0.011
H6	TR→CI	0.193	0.043	4.543	0.000	Yes			0.062
H7	CI→CB	0.668	0.039	17.075	0.000	Yes	0.446	0.309	0.806
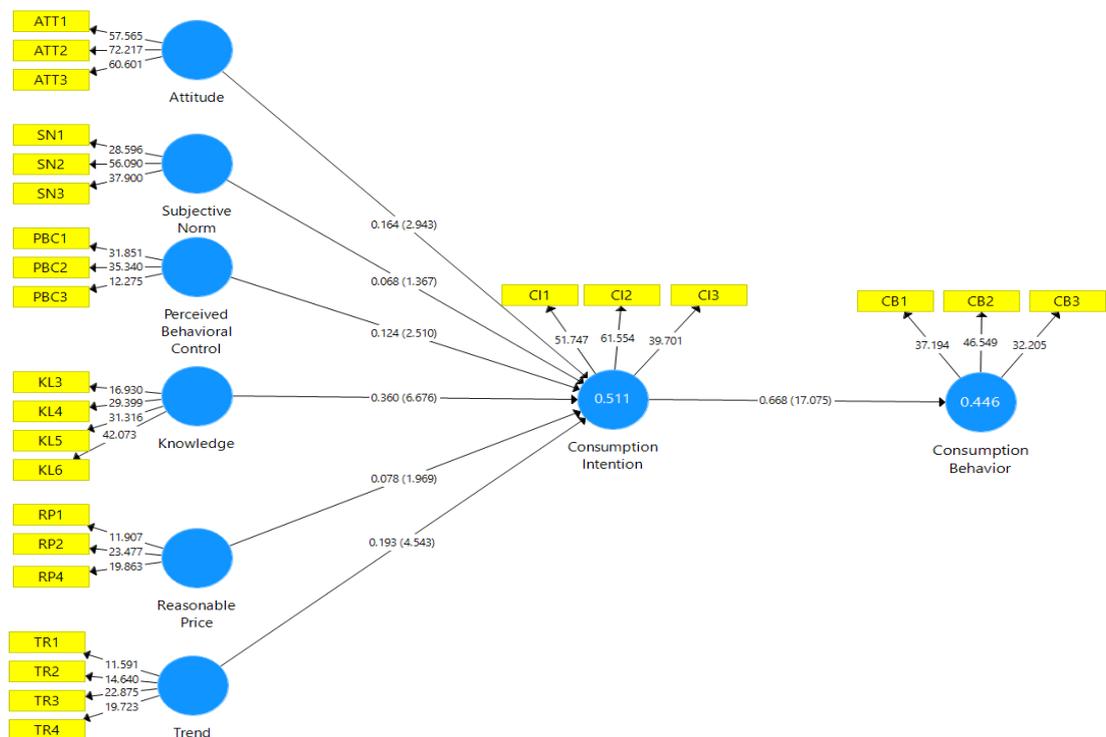
Figure 2: Structural model (Bootstrap)

Discussion

The necessity of environmental protection was early realised by developed Western countries in the 1960s and 1970s, leading to the fact that most existing research on green consumption targeted those countries (Chaudhary, 2018). Whereas, because of globalisation, environmental issues become such an urgent matter, drawing attention of national authorities. Recent high levels of economic growth and consumption have led to increasing pressures on the environment in Vietnam. Therefore, protecting the environment is not only the responsibility of policymakers but also each individual householder. This study aimed to shed light on determinants determining green consumption behaviour of household appliances in Vietnam. For attempting to examine consumer's behaviour, the present study applied the TPB model in structuring independent variables. Along with the TPB model, SEM analysis

reveals that attitude, perceived behavioural control, knowledge, reasonable price and trend have positive and significant impact on consumption intention eco-friendly products. Moreover, consumption intention was also found to have positive and significant impact on consumption behaviour.

The results showed that attitude had a significant and positive influence on consumption intention ($\beta = 0.164$, $t = 2.943 > 1.96$, $p < 0.05$). The result corroborates the finding of prior research (Ajzen, 1991; Chan, 2001; Bamberg, 2003). Especially, according to Chyong et al., (2006) attitudes are the most consistent explanatory factor in predicting consumers' willingness to pay for green products. Therefore, the attitude factor has a great influence on the green consumption intention; consumers have a positive attitude towards environmental protection and energy saving, fully aware of the importance of green consumption. The better the attitude of consumers, then the higher intention to consume green products.

Subjective norm was found to have non-significant impact on consumption intention ($\beta = 0.068$, $t = 1.367 < 1.96$, $p > 0.05$). The results are in agreement with Chaudhary (2018). This suggests that social entities such as family and friends are of little value in directly shaping the sampled consumers' green consumption intention. Moreover, this finding corroborates the results of prior studies where subjective norm had no influence on consumption intention (Paul et al., 2016). Research results of Zhang (2019) showed that subjective norm had a positive and significant effect on purchase intention for organic clothing, while it had an insignificant effect on purchase intention for energy efficient household appliances. So, a consensus has not been formed about how subjective norms affect consumption intention for different types of green products.

The results suggest that perceived behavioural control has a positive and significant impact on consumption intention ($\beta = 0.124$, $t = 2.510 > 1.96$, $p < 0.05$). The results are in line with Ajzen in the TPB model, perceived behavioural control has a direct relationship on behavioural intention. Moreover, the results are in agreement with previous studies (Alam, 2019; Zhang, 2019; Maichum et al., 2017). This relationship has a great influence in green marketing because perceived behavioural control has been considered a good indication of the individuals' intentions to purchase green products.

Knowledge was found to have a significant and positive effect on consumption intention ($\beta = 0.360$, $t = 6.676$, $p < 0.001$). The results agree with Alam (2019) and Kusuma et al., (2018). Knowledge of the product as well as interest in and understanding of the environment have a strong foundation in the hearts of consumers, which is reflected in 74% of consumers attracted to eco-label products. A large percentage of consumers have a clear understanding of the utility, features and superiority of energy-saving household electronic products for the environment. Therefore, marketers can stimulate consumers' intention by shedding light on information about energy-efficient products.

Reasonable price was also found to have significant effect on consumption intention (β = 0.078, t = 1.969, p < 0.05). The results are verified by previous research (Alam, 2019; Zhen et al., 2012). Price of products is always one of the considerations in consumer intention because this factor is directly related to the income level of each individual. Most of the respondents think that the price of products is too high and need to be adjusted more reasonably.

An addition value was introduced (trend) by the research team based on typical features in Vietnam. H3 hypothesised the positive influence of trend on consumption intention (β=0.193, t = 4.543, p < 0.05). The results reveal that trend was also found to have significant and positive effect on consumption intention of consumers regarding household appliances saving energy. Consumers agree to refer to family, friends, colleagues as well as somewhat believe in the choice of the majority. In other words, when people buy and use electronic products that make a positive impact on the environment, consumers will consider similar behaviour. In the current era of technology 4.0, connecting people through social networks as well as media is very easy and consumers can quickly access and keep up with the changes of consumption trends in the country as well as in the world.

Consumption intention was found to have significant positive effect on consumption behaviour (β= 0.668, t = 17.075, p < 0.001) this result is consistent with Bhutto (2019) and Wu & Chen (2014). When consumers have a purchase intention to household appliances, they will easily transform it into actual consumer behaviour. Our descriptive statistics results showed that in general, 78-86% of customers prefer to choose and use products to save energy and reduce environmental pollution. However, a lower proportion 72% of consumers is willing to persuade people to also choose these products. Similar to the consumption intention, most consumers will continue to buy and plan to choose environmentally friendly electronic products and appliances in the future (78.7% - 79.4%). At the same time, up to 70% of selected people will recommend everyone to use the research product group.

In short, the research shows that five determinants are influencing green consumption intention for household appliances in Vietnam. Of which the variables knowledge and trend are respectively the two strongest determinants, followed by attitude, perceived behavioural control and the lowest influencing factor is reasonable price. It can be seen that customer's knowledge about green consumption, eco label, energy- efficient household appliances, environment issues and consumption behaviour related to protecting the environment, along with their positive attitude towards environmental protection and saving energy has a positive influence on green intention.

Their mindset about green consumption intention is quite elevated; thus, they are keen on using energy-saving household electronic products. Those clients would believe in the choices of common views from their friends, families and social trends since they are living in a close community and each decision is strongly influenced by other relationships. In

Vietnamese society, people live in the community and their decisions are strongly influenced by other relationships. This is reflected that Vietnamese consumers have a quick and positive reaction after receiving advice and encouragement to use eco-friendly household products. As the common psychology of Vietnamese consumers is that they don't spend extravagantly, the price of green household appliances for them is quite expensive and about 20%- 30% higher than ordinary products. However, customers can understand the reason for that high price of green household appliances since they have access to accurate information about the characteristics of these products.

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Appendix No. 1

Attitude (ATT)
ATT1 - I like the idea of buying green household appliances

ATT2 - I think that buying green household appliances is a good idea

ATT3 - I have favorable attitude toward green household appliances
Subjective Norm (SN)

SN1 - My family members advise me to buy green household appliances

SN2 - My close friends advise me to buy green household appliances
SN3 - Other people who are important to me (colleagues, idols) advise me to buy green household appliances

Perceived Behavioral Control (PBC)

PBC1 - I will buy green household appliances even my friends tell me not to buy.

PBC2 - Buying green household appliances is entirely within my control.
PBC3 - I have resources and ability to buy green household appliances.

Knowledge (KL)
KL1 - I have sufficient knowledge about green household appliances

KL2 - My knowledge about green household appliances is based on previous experience

KL3 - I have positive impression about green household appliances
KL4 - I make sure that green household appliances have positive influence on the environment

KL5 - I am attracted to green- label products

KL6 - I am ready to change my behavior for the environment
Reasonable Price (RP)

RP1 - The price of green household appliances is the most important factor that affects my decision
RP2 - The current price of green household appliances is too high

RP3 - The current price of green household appliances is affordable

RP4 - I think the price for green household appliances should be more affordable

Trend (TR)

TR1 - I know about green household appliances through my family members, colleagues and friends

TR2 - Most of my family members and my friends use green household appliances

TR3 - I will buy if people surrounding me choose green household appliances
TR4 - I believe in the choosing green household appliances decision of majority

Consumption Intention (CI)

CI1 - I like to choose green household appliances

CI2 - I like to choose products that do less harm to environment
CI3 - I will persuade others to choose environmentally friendly products

Consumption Behavior (CB)

CB1 - I will continue to buy green household appliances in the near future

CB2 - I intend to continue to choose green household appliances in the future

CB3 - I will introduce green household appliances to other people to use