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## Online Purchasing Behavior of Green Products: A Case Study of Generation Y in Malaysia\*

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### Abstract

Generation Y (Gen Y) consumers are challenging the traditional buyer-seller relationship. Sellers must adapt their approach to marketing in order to win the attention, business and loyalty of Gen Y buyers. Hence, this study aimed to examine Gen Y's green purchasing decisions relating to online products in Malaysia. The study adopted a qualitative and quantitative approach. Items from past studies were adapted and shared with a focus group to ensure they were in line with the current trends and purchasing behavior of the Gen Y population. The items were then validated by two experts from industry and academia. A total of 113 Gen Y consumers completed the questionnaire. The data collected was analyzed using PLS-SEM software. The results of this study show that societal influence, willingness to pay higher prices for green products and government initiatives have a positive and significant effect on Gen Y online green purchasing decisions. This study supports global initiatives to create a green society by providing strong evidence of the variables that influence the Gen Y cohort's decision to purchase green products in Malaysia and, therefore, serves as a valuable insight for producers and the government endeavoring to develop a greener society.

**Keywords:** Generation Y, Online Purchasing Decision, Societal Influences, Government Initiatives, Green Products

**JEL Classification Code:** D71, F64, M30, M31

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### 1. Introduction

The Internet and digitization are transforming the business world at an alarming rate (Karimi & Walter, 2015) and form part of the technology used in e-business, social media, competitive lifestyle options, and entertainment.

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The rapid growth of the global economy is inextricably linked with the increase in consumer purchases around the world (Mei, Ling, & Piew, 2012). However, along with the increase in consumption comes an increase in environmental problems (Sinnappan & Rahman, 2011; Liobikiene, Mandravickaite, & Bernatoniene, 2016; Tan, Ooi, & Goh, 2017). The methods used to purchase these products and the goods themselves cause harm in the form of pollution of the environment (Zahari et al., 2020; Sinnappan & Rahman, 2011). Therefore, environmental protection is imperative in order to protect and develop a sustainable environment (Rajadurai et al., 2021; Lee & Lim 2020).

Currently, online shopping has opened up options and variations to the distribution channels, which contribute to more flexible and greater opportunities for consumers to access digital content and purchase from suppliers around the world. Online shopping has reduced the gap and brought the buyer and seller closer than before. The speedy acceptance of the Internet as a distribution channel has disrupted numerous traditional retail businesses. The new online purchasing method has given rise to many online retailers who are now

leading in online sales (Chatterjee & Kumar, 2017). Most researchers are aware that online channels offer lower prices than traditional stores because of their lower operational costs (Brown & Dant, 2014).

In view of the increase in digital access, more consumers rely on the Internet to find information on a myriad of topics and news items (Karimi & Walter, 2015). Information provided and shared on the web is not only inexpensive, but is also plentiful to the point of being almost limitless. It is now easier for people to use their digital devices more frequently and for longer periods of time. Coincidentally, this behavior also provides the green consumers greater opportunities to exercise their choice of lifestyle and thereby, protect the environment by making green purchasing decisions.

It is suggested that consumers with high levels of environmental awareness are more likely to have an environmentally-friendly purchasing intention (Zahari et al., 2020; Rajadurai et al., 2021; Lee & Lim 2020). It is a good starting point if an individual can motivate him or herself to make a contribution to sustainable development and protect the environment by changing their traditional non-green purchasing behavior to green purchasing behavior (Moser, 2015; Din et al., 2016; Zahari et al., 2020). This view is supported by Liobikiene et al. (2016) who state that promoting the purchase of green products could be one strategy to protect the environment by minimizing the environmental impact and achieving sustainable consumption. In fact, with the rapid growth of online platforms and increasing consumer acceptance of green products, many producers of green products are opening online shops to sell their products. In addition, the online sale of green products can help manufacturers obtain the benefits associated with the increase in demand for their products (Li et al., 2016). Environmental leaders can use online platforms to speedily disseminate information, communicate directly with the public, confront misinformation campaigns and report false or confusing messages (Thaler, Zelnio, & Goldstein, 2007).

Many of today's consumers are more concerned and aware that their purchasing behavior can impact the environment (Zahari et al., 2020; Lee & Lim, 2020; Rahbar, Wahid, & Wahid, 2011; Akehurst, Alfonso, & Martins Goncalves, 2012). Thus, studies indicate that these consumers are becoming the new green consumers (Lee et al., 2010). Although there is evidence that consumers who are concerned about the environment will become green consumers, currently there is only a small number of consumers actually purchasing green products. There are studies that show that people nowadays feel positive towards purchasing green products (Dagher, Itani, & Kassar, 2015), but this mindset is influenced by several factors. Many authors believe that the intention to purchase a green product can be present, but this intention is not always acted upon in

the form of a purchase (Carrigan & Attalla, 2001; Grimmer, Kilburn, & Miles, 2016).

It is a challenging task to study consumer behavior in the present day because consumers display varying and inconsistent behaviors when it comes to their purchasing decisions. Previous studies have investigated consumer's purchasing intentions. However, recently, more studies have shifted focus on purchasing decision. According to consumer behavior literature, the intention to purchase is a step before the decision to purchase (Jaiswal & Singh, 2018; Mishra, Akman, & Mishra, 2014; Ramayah, Lee, & Mohamad, 2010; Yadav & Pathak, 2017). Although purchasing intention is found to be the step before the actual behavior, it does not necessarily indicate a decision to purchase. A study by (Bonini, Hintz, & Mendonca, 2008) indicates that of 7751 consumers in eight countries, namely, Brazil, Canada, China, France, Germany, India, United Kingdom, and United States of America, 87% of the respondents were aware of their purchasing patterns which affect the natural environment, but only 33% were ready to alter their purchasing patterns in terms of carrying out green purchasing behavior.

Studies of generational cohorts reveal that Baby Boomers, Gen X and Gen Y consumers possess different purchasing behaviors and characteristics (Duh & Struwig, 2015; Fishman, 2016; Hume, 2010; Jerome et al., 2014). Gen Y consumers were found to influence green purchasing decision the most (Bathmanathan & Rajadurai, 2019; Jerome et al., 2014; Obal & Kunz, 2013; Williams & Page, 2011). The new generation of Gen Y consumers grew up in a digital world that has profoundly affected the way they shop (Kahn, Inman, & Verhoef, 2017). The new generation of consumers expects retailers to provide them with benefits and to address important societal and environmental issues.

Previous studies of Gen Y purchasing decisions in Malaysia clearly show that this cohort has strong inclinations to purchase green products (Bathmanathan & Rajadurai, 2019; Sang & Bekhet, 2015). Therefore, the researchers believe that this generation would prefer to purchase green products through online platforms because technology is part of their everyday life. Online transactions have been considered by some scholars as a green place, one of today's marketing mix elements, as opposed to tangible bricks and mortar locations associated with the traditional marketing mix (Bathmanathan & Rajadurai, 2019).

Gen Y is the subject of studies conducted by many scholars (Sang & Bekhet, 2015; Yahya et al., 2015; Yeo & Marquardt, 2015) and it is said to have unique generational characteristics (Cui et al., 2003; Duh & Struwig, 2015) because they are exposed to various cultures (Codrington, 2008; Jerome et al., 2014). In the context of purchasing behavior, Gen Y consumers are demanding. They are said to 'want it all' and 'want it now' (Ordun, 2015). Thus, this study investigated the actual behavior of online green consumers

by targeting Gen Y green consumers as the respondents. Hence, the objectives of this study were:

- a) To identify to what extent social influence, influences Gen Y online green purchasing decisions.
- b) To identify to what extent willingness to pay more, influences Gen Y online green purchasing decisions.
- c) To identify to what extent government initiatives influence Gen Y online green purchasing decisions.

## **2. Literature Review**

### **2.1. Gen Y Online Green Purchasing Decision**

Studies of the green purchasing decision have mostly investigated consumers making informed choices when purchasing green products, the drivers of green purchasing habits and the determinants of green purchases (Kumar & Ghodeswar, 2015; Ramayah et al., 2010; Young et al., 2010). However, the green purchasing decision of consumers in Malaysia remains far from clear (Bathmanathan & Rajadurai, 2019b; Chan, 2004; Rahbar & Wahid, 2010).

Gen Y consumers are seen to be environmentally-friendly consumers (Cui et al., 2003) and are believed to be aware of their purchasing decisions (Obal & Kunz, 2013). Many researchers have identified Gen Ys as a sustainable and ethical consumers who want to change the world by embracing a virtual way of life (Codrington, 2008; Williams & Page, 2011; Jerome et al., 2014). Adding to this statement, Gardiner, Grace, and King, (2013); Chaney, et al., (2017) and Nizam, Rajiani, Yahaya, and Siti (2014) identify Gen Ys as the Internet or dot.com generation and the largest group of people using the Internet to purchase online products.

The Internet allows people to carry out activities freely, interact with others, share shopping experiences, and conduct collaborative tasks, which form part of the interaction process. Gen Ys also view shopping as a new form of entertainment and socialization (Duh & Struwig, 2015; Ordun, 2015). This is a form of social interaction. Gen Y is a powerful consumer cohort that makes decisions after a lot of research and information gathering (Rahulan et al., 2015) such as reading online reviews. Besides their own efforts to gather information, they take on board government initiatives and then make their decisions based on their observations. The literature indicates that this cohort is constantly seeking attention and is more likely to be involved in processes that arouse their desires. They do not base their purchasing decisions solely on product and price but on the investment it brings to the future. Gen Y seems to be the cohort that drives change within businesses and encourages government initiatives that ensure sustainable consumption (Bathmanathan & Rajadurai, 2019; Lim & Lee, 2020).

Access to the Internet and digital knowledge has allowed consumers to experience a new form of accessibility to the product they wish to acquire; an option impossible for consumers a decade or two ago (Xu et al., 2017). The Internet has become one of the main places to initiate participation, interaction and fun for some; the space where attitudes and ideas grow without social and physical boundaries (Bargh et al., 2002). As a marketplace that can help the country become more environmentally sustainable, the Internet enables its users to send and receive messages from stakeholders via an instant messaging app or through other channels. New relationships can be formed by developing contacts and interacting with other online contacts sharing similar interests.

Hence, many researchers believe that studying the online purchasing behavior of this cohort is very important to marketers (Rahulan et al., 2015; Williams & Page, 2011). Understanding this group of consumers, in terms of what motivates them and shapes their behavior and attitudes, is vital for the commercial wellbeing of marketers

### **2.2. Social Influence (SI)**

Social Influence has been recognized as an important variable in motivating consumer purchasing decisions (Maram & Kongsompong, 2007). Family, friends, sales representatives, associates and even strangers, can influence consumer purchasing decisions (Chen, 2007; H'Mida, 2009; Nizam, et al., 2014). According to Xu et al. (2017), SI positively affects consumer behavior when it comes to embarking upon online shopping. However, Maram and Kongsompong (2007) found that SI had a higher level of significance among the respondents in India compared to the respondents in Taiwan, Thailand, Australia, and USA. The study found that the SI of the Taiwanese and Americans respondents had a lower level of significance for their purchasing decisions. This indicates that not all Gen Ys are influenced by other people's opinions and suggestions.

Family and friends become important entities for an individual and can influence them to engage in a certain behavior (Hee, 2000). These significant people can influence consumers to have positive attitudes towards a green product and create the intention to purchase these green products. Studies have shown that SI is the strongest predictor of an individual's decision to buy a green product (Lee, 2008; Eze & Ndubisi, 2013; Rehman & Dost, 2013). In a study by Hee (2000), SI was found to be more predictive of a purchasing intention than a positive attitude. Thus, this implies that to encourage a customer's green purchasing behavior, it would be an advantage for marketers or the producers of a green product to pay more attention by creating or increasing a positive attitude within consumers. Engagement between environmentalists and their audience, and allowing

conversations between segments of the population that do not usually interact, is important for a successful environmental campaign (Thaler et al., 2007).

As stated in the Theory of Planned Behavior (TPB), which was formulated by Ajzen (1991), SI is investigated within the confines of subjective norm. SI is reflected in the consumer's perception of social pressure on whether or not to purchase a product (Ajzen, 1991; Belleau, Hintz, & Mendonca, 2007). However, the findings of a study by Belleau et al. (2007) conducted at a major university in the United States were not consistent with the theory. According to their study, Gen Y consumers were not found to be influenced by their peers because they are part of a technologically savvy generation. This characteristic of the Gen Y drives them to seek information by themselves instead of relying on their close personal network. The findings, however, do not reflect the general characteristics of Gen Y as described by Codrington (2008) and Williams and Page (2011). Although this could be an isolated case and may only apply to the specific sample in the said study, in light of the contradictions inherent in previous studies, it is uncertain if SI affects the Gen Y online green purchasing decision (GPD) in Malaysia. Hence, this paper will study the relationship between social influence and online GPD among Gen Y consumers in Malaysia based on the hypothesis that:

*H1: Social influence has a significant and positive effect on Gen Y online GPD in Malaysia.*

### 2.3. Willingness to Pay (WTP)

Intention to purchase green products can be related to the customer's readiness to pay a higher price for a green product because the customer believes that they are contributing to the reduction of environmental problems and they are ready to become a green consumer (Mamun, Fazal, & Mohamad, 2018). The willingness to pay more for a green product is one of the factors that should motivate an organization or green product producer to produce and promote the ecofriendly aspects of their products or services (Lanzini, Testa, & Iraldo, 2016). Past studies have found that the purchase intention among online customers and the tendency to display a willingness to pay a premium price for a green product has increased (Anderson & Swaminathan, 2011; Srinivasan, Anderson, & Ponnayolu, 2002).

Consumers with a positive attitude toward a sustainable environment are more likely and more willing to purchase and pay extra for a green product (Han, Hsu, & Sheu, 2010). The authors further state that consumers who understand the environmental problems are more likely to have an inclination and intention to pay more for a green product. In support of this, Mohd Noor et al. (2016) confirm that if the customer understands the impact of their purchasing behavior on the environment, they are more willing to pay

extra for green products which, in turn, can contribute to preserving the environment.

However, there are contradictory findings in other studies that indicate that consumers are not necessarily willing to pay more for a green product when they have more knowledge of it (Lanzini et al., 2016). Another contradiction in findings is found in a study by Bonini et al. (2008). Their findings show that 21% of 7,751 consumers from eight different countries (Brazil, Canada, China, France, Germany, India, United Kingdom and United States) stated that they were concerned about the environment and were willing to pay more for a green product. However, 53% of the 7,751 were not willing to buy green products even though they were concerned about the environment. Due to different outcomes being generated by different studies, it remains unclear in the case of Malaysia if the Gen Ys' willingness to pay more influences their GPD, so this study will investigate this relationship using the hypothesis:

*H2: Willingness to pay more has a significant and positive influence on Gen Y online GPD in Malaysia.*

### 2.4. Government Initiatives (GI)

To maintain environmental sustainability, the government must be involved in the environmentalism process (Ivanova et al., 2018). Government involvement in resolving environmental problems can make people change their behavior and become more concerned about the environment (Rehman & Dost, 2013; Ivanova et al., 2018). The government should aim to reduce environmental problems by pursuing initiatives to preserve the environment.

Government incentives and policies that encourage organizations and producers to produce more green products will help satisfy customer needs and wants in relation to environmental sustainability (Rajadurai et al., 2021). One of the strategies to encourage manufacturers to produce more green products is by reducing the duties and taxes imposed on green products. This move would attract organizations to produce more green products, encourage customers to purchase these products, which would create a greater demand for them to be available on the market. As important as it is for the government to take the necessary steps to encourage organizations and consumers to produce and purchase green products, it still does not make government initiatives the strongest predictor of GPD (Ivanova et al., 2018).

With the help of many GI in Malaysia since 2000, households, businesses and the government have begun to embrace the Era of Digitalization (Kylasapathy, Hwa, Haris, & Zukki, 2018). Between 2005 and 2016, the number of Internet users doubled to 21 million, mobile cellular penetration doubled to 44 million subscriptions and broadband users doubled to 3 million (International Telecommunication Union, 2016). In 2015, 83% of

government services were accessed via available online platforms (MAMPU, 2016). However, Malaysia is far from becoming the “frontrunner” in the digital arena to fully unlock the economic benefits. The migration to such platforms may also result in structurally lower prices due to enhanced price discovery and the reduced reliance on intermediaries (“middlemen”) to distribute goods and services. Acknowledging the importance of the digital economy, the government is undertaking concerted efforts to spur on the digital transformation. The Malaysia Digital Economy Corporation (MDEC) is tasked with spearheading Malaysia’s Digital Hub and various technopreneurship programs to attract global and local tech start-ups.

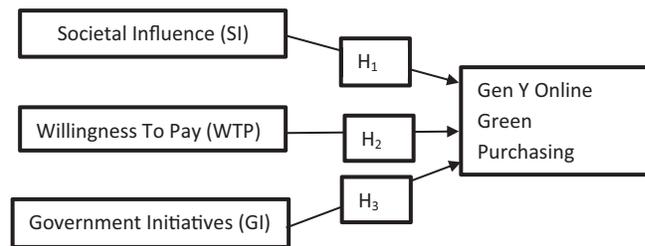
Besides setting up online platforms, political values are also important in the formation of a consumer’s positive attitude towards green products. Globally, governments are instituting numerous initiatives via changes in policies to address environmental issues (Prothero, 1996). According to the author, the increase in public concern for the environment has led to many members becoming green consumers. This situation will also encourage the government to increase environmental regulations. GI is important as it can help implement programs or activities to increase the awareness or concerns of consumers in regard to environmental sustainability (Wahid, Rahbar, & Shyan, 2011).

Even though studies conducted in other countries found that Government Initiatives were important factors influencing the consumer to make a purchasing decision (Sinnappan & Rahman, 2011; Ivanova, et al., 2018), it may not be the case in Malaysia as there is still a gap in the online purchasing decisions of these green consumers. It therefore remains uncertain, in the case of Malaysian Gen Ys, as to whether Government Initiatives influence Gen Ys online GPD. Thus, there is a definite need to investigate this relationship. Therefore, this study will look at government initiatives as a variable that can influence Gen Y consumers to make online green purchasing decisions in Malaysia. Thus, the following hypothesis is proposed:

**H3:** *Government initiatives have a significant and positive influence on Gen Y online GPD in Malaysia.*

## 2.5. Theory of Planned Behavior

The Theory of Planned Behavior (TPB) by Ajzen (1991) is used in this study. By using the TPB approach, this study can predict consumer green purchasing behavior. The TPB is usually determined by three variables, namely, attitude, subjective norms, and perceived behavioral control (Ajzen, 1991; Prothero, 1996; Chen, 2007; Chen & Li, 2010). According to Chen (2007), the first two variables, namely, attitude and subjective norms are related to the expected ability to perform a behavior, while the third variable, perceived behavioral control, refers to



**Figure 1:** Proposed Conceptual Framework

the perception as to whether the behavior is personally controllable.

In this study, social influence and willingness to pay are related to the second and third variables in TPB. Social influence, as a subjective norm, explains the importance of people, such as peers who influence Gen Y consumers to behave in a particular way (Chen & Tung, 2014; Gao, Wang, Li & Li, 2017). Willingness to pay is a variable that relates to perceived behavioral control (Moser, 2015). This factor can either help or hinder an individual to perform a particular behavior. Finally, the third variable, which is the government initiative, is an external variable, which predicts the consumer’s green purchasing behavior.

## 2.6. Conceptual Framework

Based on the review of past literature, this study proposes a conceptual framework, which shows the relationship between the independent variables and dependent variable as shown in Figure 1.

## 3. Research Methodology

### 3.1. Respondents

Gen Y part-time post graduate students are the target population for this study. Gen Y is a group of people that was born between 1980 and 2000 (Bathmanathan & Rajadurai, 2019; Hasan & Ali, 2015; Marcoulides & Saunders, 2006). Therefore, the respondents of this study are Gen Ys aged between 26 and 43 in 2020. The sample was limited to Gen Y post-graduate part-time students coming from a variety of employment backgrounds. The purpose of selecting post-graduate students was to obtain feedback from Gen Y respondents who are knowledgeable. Obtaining feedback from post-graduate respondents would assist the study by revealing a more informative pattern (Jin & Bassett, 2007; Mishra, Akman, & Mishra, 2014). Furthermore, the authors emphasized this by stating that respondents who have a higher education are more concerned about the environment. Hence, this study identified Gen Y post-graduate students as the respondents.

### 3.2. Instrument Development

A qualitative and quantitative approach was used to develop the instrument. As an initial step in developing the instrument, the researcher first reviewed the literature using secondary data from past studies and identified relevant items that were related to the theme of the study. Next, the researcher conducted two focus group discussions (FGD) to test the validity and relevance of the items in relation to the Malaysian Gen Y context. Each FGD session consisted of ten Gen Y green consumers and each group had two moderators to ensure the FGD session was conducted in a productive manner and in line with the study’s objectives. The FGD was also conducted to gain some insights and to gather data about the Gen Y consumers. The information gathered from the FGD was collected, analyzed and reorganized into suitable dimensions to match the variables. Upon conducting the FGD, the items were then refined further using expert opinion. The experts for this study were a field expert who is experienced in Gen Y consumer studies and an academic expert who was a senior lecturer with a management background. The role of the field expert was to determine the validity and content of the item to meet the study objectives, while the academic expert ensured that all the questions were easy to understand and that there were no unsuitable or double-barreled items in the instrument.

After the instrument had undergone the face and content validity test, a pilot study involving fifty respondents, the minimum number required for a pilot study (Hair et al., 2006) from the target group, was conducted to ensure that the questionnaire was clear, reliable and free of any flaws. This study used fifty respondents to complete the factor analysis to ensure content validity.

### 3.3. The Distribution and Collection of Questionnaires

A multilevel sampling technique was implemented to determine the respective sample. In the first stage, a cluster sampling method was used. Cluster sampling helps to divide the population into specific groups (Saunders et al., 2009). Hence, the Gen Y population was divided into five zones in Malaysia: Central, North, South, East Coast and East Malaysia. Based on these zones, a letter requesting permission to conduct the study was sent to the representative universities (usually to the Student Affairs Department). Next, the targeted Gen Y population was selected only from institutions of higher education that consented to this study. Finally, the questionnaire was distributed using stratified sampling which is a type of probability sampling method. All Gen Y postgraduates were listed by race, namely Malay, Indian and Chinese. All races received an equal number of questionnaires to reduce biasness.

In order to answer the questionnaire, all target respondents answered two qualifying questions: 1) Are you a consumer

of green products? and 2) Are you aged between 26 and 43? If the answer was in the affirmative, they qualified to be respondents for this study and were then asked if they were willing to continue answering further questions. They were assured that the questionnaire would only take about 10 to 15 minutes. The multistage sampling method used helped the researcher ensure that this study captured the actual behavior of genuine Gen Y post-graduate green consumers in Malaysia.

### 4. Results

Of the 113 respondents, the dominant group was female (52 % of the respondents). 23% of the respondents were born between 1977 and 1982, 32% between 1983 and 1988, and 45% between 1989 and 1994. The majority of the respondents were senior executives, followed by individuals at the managerial level, executive level, and administration, respectively. Respondents who held non-executive positions were the smallest in number. The salary classifications provided in the survey were between RM18,000 and RM60,000. The average wage per annum of the respondents was above RM60, 000. The percentage of respondents who had been utilizing green items for over 6 years was 28%, followed by 53% who utilized green items between 3 and 6 years, 13% between 1 and 3 years and 6% less than 1 year. This suggests that many respondents may have already moved to sustainable consumption patterns in the past 3 to 6 years, therefore, displaying a positive green purchasing choice.

The researcher tested the proposed conceptual framework by utilizing the SMARTPLS 3.0 as shown in Figure 2. The outcomes were then interpreted, analyzed and compared with past studies. SI, WTP and GI were displayed to determine the indicators of a green buying choice.

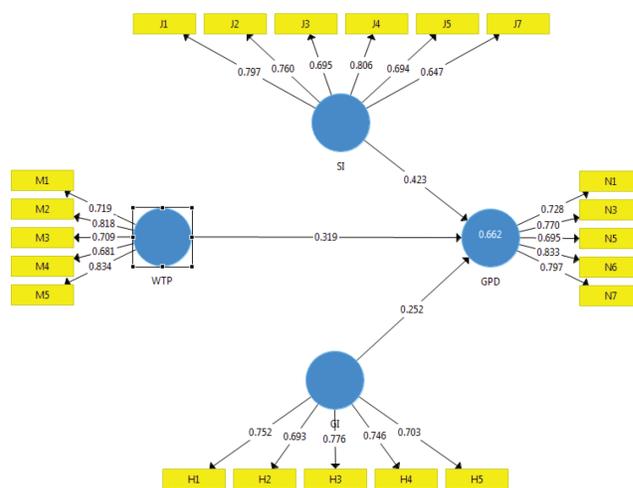


Figure 2: Proposed Conceptual Framework in PLS-SEM

Factor analysis, composite reliability (CR) and the Average Variance Extracted (AVE) for the variables investigated in this study are set out in Table 1 and Table 2. The factor loading results shown in Table 1 and Figure 2, show items that have a loading higher than 0.6 and can be accepted according to Hair et al. (2006) and Marcoulides and Saunders (2006). The composite reliability and AVE, as shown in Table 1 provides data on the item reliability and validity. The CR

was over 0.70, which is within the scope of acceptance, therefore, demonstrating an adequate scope of reliability (Hair et al., 2010). The AVE greater than 0.50 indicates validity as explained by (Hair, Black, Babin, & Anderson, 2010). According to the author, AVE of 0.5 or higher is a good rule of thumb to suggest the acceptable convergence of each construct. Items N2, N4 and J6 were deleted as they did not meet the threshold for reliability and validity.

**Table 1:** The PLS Result of Convergent Validity Measures

Construct and Measured Items		Factor Loading (>0.70)	Composite Reliability (>0.70)	Average Variance Extracted (AVE > 0.50)
<b>My Family/Friends often influence me to Buy Green Products By:</b>				
J1.	Online by making me aware of environmental issues.	0.797	0.875	0.541
J2.	Telling me about environmental products that are available online.	0.760		
J3.	Recommending environmental friendly products that are available online.	0.695		
J4.	Asking me to shop for them online.	0.806		
J5.	Sharing with me their experience of online shopping for green products.	0.694		
J6.	Sharing with me their knowledge of online transactions to purchase green products.	0.647		
<b>I am Willing to Pay More for:</b>				
M1.	Green products, which are available online.	0.719	0.868	0.570
M2.	Products with environmentally friendly packaging available online.	0.818		
M3.	A green product acquired online that is good value for money.	0.709		
M4.	A green product online that has environmental protection features.	0.681		
M5.	A product online that has a percentage of its cost that goes to a worthy environmental cause.	0.834		
<b>I Purchase Green Products Online in Support of Government Initiatives to:</b>				
H1.	Encourage technology for recycling waste products.	0.752	0.854	0.540
H2.	Enforce environmental rules and regulations.	0.693		
H3.	Control environmental pollution.	0.776		
H4.	Protect the environment.	0.746		
H5.	Give priority to the environment through research and/or campaigns over development.	0.703		
<b>I Choose to Buy:</b>				
N1.	Groceries online so that it does not pollute the environment.	0.728	0.876	0.587
N3.	Household products online that are environmentally compatible.	0.770		
N5.	Products online, which have packaging that can be recycled.	0.695		
N6.	Products online that are environmentally friendly.	0.833		
N7.	Products that do minimal damage to the environment.	0.797		

The researchers also performed discriminant validity by measuring the differences between each variable (Mohd Noor et al., 2016). This was achieved by comparing the square root of a given AVE with the variable correlation (Hair J. F et al., 2010). If the square root of each AVE is greater than the variable correlation, then adequate discriminant validity for all variables is deemed to be achieved. The researcher tested the discriminant validity using Heterotrait-Monotrait Ratio (HTMT) instead of Fornell-Larcker criterion as the former option has been reported to be more reliable (Henseler, Ringle, & Sarstedt, 2014). As set out in Table 2, the value for all the variables was below 0.9 which is satisfactory according to Henseler et al. (2014).

As for GPD, estimation of weight, multicollinearity and discriminant validity were tested. Table 3 demonstrates the measurement properties of the GPD. Item weight is measured to represent each item's contribution to the reflective index and a good item weight should be more than 0.10 as recommended by Hair et al., (2010) and Andreev, Heart, Maoz, and Pliskin (2009). The details of items for

**Table 2:** Construct Correlations

	GI	GPD	SI	WTP
GI				
GPD	0.774			
SI	0.639	0.826		
WTP	0.668	0.768	0.528	

**Table 3:** Measurement Properties of the Green Purchasing Decision Construct

Construct and Measured Item	Items Weight (>0.10)	Variance Inflation Factor (VIF) (<3.30)
N1	0.256	1.727
N3	0.256	1.914
N5	0.206	1.772
N6	0.322	1.940
N7	0.257	1.896

**Table 4:** Structural Estimates of the Model

Path	Path Coefficient (PC)	T-stat (>1.96)	95% CI	B	p
GI → GPD	0.252	3.569	(0.109, 0.386)	0.253	0.000
SI → GPD	0.423	5.827	(0.255, 0.549)	0.425	0.000
WTP → GPD	0.319	5.410	(0.201, 0.431)	0.319	0.000

GPD are set out in Table 3 and show they are more than 0.10. Data of multicollinearity analysis showed that at  $p < 0.05$ , the tolerance values were not more than the threshold for multicollinearity of 0.1 and below the maximum threshold of 10 for the Variance Inflation Factor (VIF). VIF should be below 3.30, to demonstrate that multicollinearity does not exist in the variable items (Diamantopoulos & Siguaw, 2006). Therefore, as shown in Table 3, the GPD is steady at the recommended value. In view of the above figures, the requisites for this study is met and accomplished the targets of this investigation.

Next, the researcher tested the connection between the SI, WTP and GI and the Gen Y Online GPD. A bootstrapping procedure was performed to test the hypotheses. In this investigation, 5000 bootstrap tests were utilized as suggested by Hair et al. (2014).

The first hypothesis, H1, confirmed that the SI significantly affects the Gen Y online GPD. As shown in Table 4, the path coefficient and  $t$ -value demonstrates significant values (PC = 0.423,  $T$ -stat = 5.827 and  $p < 0.05$ ). Therefore, the qualities demonstrate that SI has an impact on the green purchasing decision and H1 is accepted in relation to Malaysian Gen Y online green consumers.

The second hypothesis, H2, confirmed that the WTP significantly affects the Gen Y online GPD. The analysis, which appears in Table 3, indicates that there is a positive and significant link between the WTP and the Gen Y online GPD (PC = 0.319,  $T$ -stat = 2.630 and  $p < 0.05$ ). WTP is an essential supporter of Gen Y online green purchasing behavior. Hence,  $H_2$  is accepted.

The third hypothesis, H3, proposes that GI significantly affects the Gen Y online GPD. As a result of the investigation, it was discovered that the path coefficient,  $t$ -value demonstrates an important outcome (PC = 0.252,  $T$ -stat = 3.569 and  $p < 0.05$ ). Therefore, there is enough evidence to state that GI has an association with green purchasing behavior. Hence, H3 is accepted.

## 5. Discussion and Conclusion

In this study, social influence was determined to be the most influential variable in determining Gen Y online GPD. This is in line with previous studies by Chen (2007), H'Mida (2009) and Nizam et al. (2014). Gen Y

revealed that they always share information regarding environmental products online with their friends and that they learned a lot about environmental products the same way. Gen Y also learned about environmental issues online from their friends, which led them to shop online and use green products.

The next variable that plays a significant role in influencing Gen Y to purchase green products online is the willingness to pay higher prices for green products. The findings of this study are in line with previous studies by Wahid et al. (2011); Lanzini et al. (2016) and Mamun et al. (2018). Gen Y is found to be willing to pay more for environmental packaging of products acquired online and prefers the online green products to be appropriate in terms of value for money. This cohort is also willing to pay more for online green products that have environmental protection features and when organizations display the percentages of their cost that go to a worthy environmental cause. This is a useful insight for organizations that wish to promote their green products.

The third factor that influences Gen Y to become green consumers are the government initiatives. This finding is supported by (Rehman and Dost, 2013 & Ivanova et al., 2018). Gen Y will purchase green products online based on the belief that pollution control and environmental protection is the responsibility of the Malaysian government. Gen Y also believes that schools should provide their students with courses dealing with environmental and conservation problems. The government should subsidize research of technology for recycling waste products and enforce environmental rules and regulations.

The above gives a reliable guide to organizations that plan to produce and promote their green products online. This study supports previous research by providing a greater understanding of online green consumer choices by utilizing Gen Y as a profile of a green product consumer. Gen Y is an appropriate target because it has a large population of differing ages, all of whom have considerable purchasing power (Martin & Turley, 2004; Ordun, 2015; Parment, 2013; Pawan Langgat, & Marzuki, 2014). Thus, this study's outcomes provide producers of green products with the impetus to create more online green products to address customer concerns and needs, and provide the authorities with reasons to pursue green growth for sustainability and resilience. This study took the necessary steps to ensure minimum biasness during the data collection process. However, there are still limitations associated with the study, which should be addressed in future studies. Future research should include larger samples in order to help provide more in depth and useful information.

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