

PURCHASING BEHAVIOUR OF  
ENVIRONMENTALLY FRIENDLY PRODUCTS  
AMONG GENERATION Y IN MALAYSIA

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This dissertation is specially dedicated to:

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For all her guidance and advice

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## LIST OF ABBREVIATIONS

GenY	Generation Y
TPB	Theory of Planned Behaviour
TRA	Theory of Reasoned Action
SPSS	Statistical Package for the Social Sciences

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## ABSTRACT

The environment is deteriorating every day, and consumers are playing a very important role on this because household consumptions are playing a major role in environmental issues. Hence, It is crucial to study the purchase behaviour of environmentally friendly products especially among GenY consumers because they are the future market participants. In the proposed conceptual model, the independent variables tested were “product attributes”, “collectivism”, “attitudes” and “knowledge” with “purchase intention” as the mediator.

The main objective of this study is to examine the predictors affecting the purchasing behaviour of environmentally friendly products among GenY consumers in Malaysia. The target respondents are the GenY consumers residing in Selangor and Kuala Lumpur that already started working and having a stable income stream. A total of 300 questionnaires have been collected. The samples were analysed with the Statistical Package for Social Science (SPSS) version 24.0 program. The analyses carried by the researcher in this research were frequency analysis, central tendency analysis, internal reliability analysis, Pearson correlation analysis, linear regression analysis and mediation analysis.

The results showed that the four factors have positive relationship with purchase intention, and purchase intention have positive relationship with purchase behaviour of environmentally friendly products among GenY consumers. Any case, the variable “attitudes” has the strongest effect with purchase intention, and the proposed model will be stronger with purchase intention as the mediator.

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# CHAPTER 1

## INTRODUCTION

### 1.0 Introduction

This research serves to understand the purchase behaviour of environmentally friendly products among generation Y (GenY) in Malaysia. Chapter one starts with a brief description on the background of research by defining environmentally friendly products and their existence, followed by the problem statement, research objectives, research questions, hypotheses, significance of the study and delimitations.

### 1.1 Research Background

Environmental issues in example of global warming, reduction of stratospheric ozone layer, pollution of water, noise as well as light and acid rain are not new to people nowadays (Bhate & Lawler, 1997; Ramlogan, 1997). The rapid economic development is viewed as the main cause of environmental issues and exhaustion of natural resources (Joshi & Rahman, 2016). The dramatic economic growth and increase in population are putting earth on stress by causing numerous environmental degradation issues to become more serious (Thieme et al., 2015). The effect of environmental degradation is borderless, and the quality of life of the current and future generation depends on the preservation and protection of ecosystems (Said et al., 2003). As these environmental issues are getting worsen every day, academicians and practitioners around the globe

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have to take extra attention on them and adopt sustainable countermeasures to reduce the impact of unplanned development to the environment.

Environmental awareness started to get its utmost attention around the 1970s, but it did not last long due to plentiful of legislative initiatives aiming at solving issues such as the released of harmful gases into the atmosphere until the late 1980s. The 1990s period was considered as “the Earth decade” or “decade of the environment” because environmental concerns had spurred in these years causing a more inspiring increase in environmental awareness among consumers (Prothero, 1996; Kalafatis et al., 1999). Few factors led this situation to happen, including the emergence of activists from various non – profit organizations (NGO), the existence of national and international legislation, media coverage of environmental issues, the impact of major environmental disasters and rise in environmentalism among consumers (McIntosh, 1991; Wustenhagen & Bilharz, 2006). Today, various studies showed that consumers are becoming more environmental conscious (Chyong et al., 2006; Zanon & Teichmann, 2016). For instance, Unilever revealed a study done among 20,000 respondents in five countries which consist of United Kingdom, United States, India, Turkey and Brazil stating that 33% of consumers are now choosing to purchase from brands they believe are socially and environmentally responsible, representing a huge potential of untapped opportunities for environmentally friendly products (Unilever, 2017). When consumers are troubled by the increased numbers of environmental problems, many of them are becoming more supportive to the companies that are selling environmentally friendly products (Thieme et al., 2015).

Antil (1984) defined that environmentally friendly products are produced, consumed or disposed in ways which are less harmful to the environment. In overall, environmentally friendly products do not contain harmful elements, hence they are friendlier to the environment (Borin, Cerf & Krishnan, 2011). On the other hand, socially conscious consumers are individuals who care about the consequences caused to the public by their own consumption (Webster, 1975). Usually they have high environmental consciousness (Norazah & Norbayah. 2015). Therefore, they often

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associate the purchase of certain products with environmental consequences. For instance, consumers that have this characteristic will only consider products with disposable packaging as this will affect the amount of trash generated (Follows & Jobber, 2000). In fact, Moser (2015) stated that changing daily consumption behaviour will be a suitable starting point to contribute to environmental conservation.

In general, consumer awareness on environmental issues is rising tremendously, as consumers are changing their behaviours by adding environmental considerations into their lifestyles, leading businesses to catch the consumers' attention with their concerns regarding these issues (Punyatoya, 2015). Indeed, businesses have recognized the seriousness of the environmental issues also, and therefore have started to become more ecological as well especially international firms (Thieme et al., 2015; Joshi & Rahman, 2016). Some of them may see the rise of environmental awareness as market opportunities instead of regulations to be observed (Cheah & Phau, 2011; Pickett – Baker & Ozaki, 2008). There are also researchers who found that environmentally friendly firms can make their environmental attributes as a type of competitive advantage since they usually have higher employees' commitment, customer satisfaction, and therefore able to achieve higher market shares and profitability (Maignan & Ferrell, 2001; Menguc & Ozanne, 2005; Luo & Bhattacharya, 2006; Chen & Chai, 2010). In addition, going green is able to enhance positive brand image of a particular business (Punyatoya, 2015). Sometimes when consumers are becoming more environmentally conscious, they expect businesses to be the same like them (Rothenberg & Matthews, 2017). Hence, the availability of environmentally friendly products is increasing in the marketplace. Meanwhile, many firms are applying green practices as part of their marketing strategies also (Gam, 2010).



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## 1.2 Problem Statement

Environmental issues can be caused by production practices and the ways of consumption by consumers indirectly or directly (Chyong et al., 2006). Since the industry and consumers have caused the problems, then both have to seek for solutions. The environment degradation caused by humans has enlarged the prominence of responsible role of numerous parties including consumers, governments, institutions, media and companies (Carrete et al., 2012). Grunet and Juhl (1995) mentioned that consumers' household purchases solely were already accountable to 40% of the environmental damages. Any case, overconsumption can also hurt the natural environment and human beings' quality of life in the long run (Felix & Braunsberger, 2016).

Fortunately, consumers that convert their environmental concern into action are getting more (Chyong et al., 2006). Based on Rahbar and Wahid (2011) apparently a raise of environmentalism has emerged in the United States and Western Europe. For instance, the report from the European Commission in 2013 showed 89% of Europeans believe that purchasing environmentally friendly products is able to make a difference to the environment, and 95 per cent of them agree that purchasing environmentally friendly products is the "right thing to do" (Barbarossa & Pastore, 2015). Generally, consumers in developed countries tend to take environmental impact into consideration on the products they purchase (Moon & Balasubramaniam, 2003).

However, there are also researchers showing causes and potential limits of the growth in the environmentally friendly products market (Borin, Cerf & Krishnan, 2011). Many consumers tend to purchase products with low environmental quality due to lack of knowledge and trust. (Ottman, 1998). Besides, studies also found that consumers think environmentally friendly products are more expensive with inferior quality (D'Souza et al., 2007). As such, it causes consumers to be reluctant in purchasing environmentally products (Jay, 1990). These consumers may express to pay a premium price for environmentally friendly products, but their actions are inconsistent with their

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expressions (Thieme et al., 2015). In fact, Young et al. (2010) mentioned that the increased of willingness to purchase environmentally friendly products may not be converted into action, while unplanned consumption practices might lead to environmental degradation also. Furthermore, the majority of consumers have not realized their power in making a difference to the environment (Laroche et al., 1996). It is unfair for the government to face the challenge alone, as the business community and consumers are playing a greater role in environmental issues. Hence, formulating law alone is not enough to address environmental issues effectively, but to make the society as a whole to become more aware of the environmental impacts that are related to their consumption patterns and then convert their awareness into actions will be the key (Joshi & Rahman, 2016).

This research addresses some research gaps and intends to answer them. First of all, most of the related researches are done in the “Euro – American” context and these findings may differ in other country’s context due to reasons especially cultural difference (Bodur & Sarigollu, 2005; Cheah & Phau, 2011). In fact, Khare and Varshneya (2017) mentioned that the awareness on the impact of environmentally friendly products towards the society in Western countries is higher. However, there are signs showing that environmental awareness has started to rise in Asian markets (Gurau & Ranchhod, 2005). According to Burgess and Steenkamp (2006) they mentioned that more market research needs to be done in emerging countries. In addition, researches such as Konuk (2015) and Yadav and Pathak (2016) stated that very limited researches have been done on green purchasing behaviour especially in developing countries including Malaysia. In this case, it is crucial to explore how consumers make their choices on environmentally friendly products especially in developing markets, as D’Souza et al. (2006) mentioned that environmental concerns have blended into mainstream marketing. Thus, it is necessary to understand the consumers’ behaviours in this region from the business’s ground (Jansson et al., 2010). Firms can plan their targeting and segmentation strategies better if they understand the characteristics of green consumers (D’Souza et al., 2007). Moreover, it seems that a lot of space of improvement still available in this market (Trivedi et al., 2015).

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On the other hand, despite the theory of planned behaviour (TPB) is commonly used in environmental research as it is considered as the most effective and inclusive theory in predicting intentions and behaviour as stated by Conner and Armitage (1998) but Wang and Wang (2016) mentioned that there are some studies showing that TPB is underserving because only the concepts of self – identity and ethical contributions are contributing to the prediction of behavioural intentions. Hence, it is necessary to combine some extra elements into the TPB model so that it can provide a broader perspective of green behaviours, such as the product attributes of environmentally friendly products.

Based on the circumstances mentioned, the researcher sees the needs to study on the purchase behaviour of environmentally friendly products among the GenY consumers in Malaysia. One of the main reasons is due to not many related or updated studies have been done in the Malaysian context although Malaysia is one of the developing countries in Asia as mentioned by Konuk (2015) and Yadav and Pathak (2016). Based on the World Economic Forum Competitiveness Report (WEF) 2015, Malaysia ranks the 18th most competitive economy among 140 economies, ranking in the highest position among all developing Asian economies during that time (Akoum 2016). Most importantly, The Nielson Global Online Environmental and Sustainability Survey in 2011 showed that nine among ten Malaysians are alert with the negative consequences of environmental issues (The Edge, 2011). Furthermore, the Malaysian government is trying to implement various environmental policies recently which are believed to be able to raise awareness and educate the people, for instance enforcing a smoking ban at hawker stalls, restaurants and coffee shops nationwide from first of January 2019, as well as charting a zero-waste plan aiming to abolish single-use plastic by year 2030 (The Star, 2018; Zein, 2018). Due to these reasons, it is believed that there are promising opportunities for environmentally friendly products in Malaysia.

Furthermore, this research is focusing on the GenY group, which are individuals born between the 1980s to 2000s because they are viewed as the future potential market of environmentally friendly products (D'Souza, 2004; Cheah & Phau, 2011; Viswanathan

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& Jain, 2013). In fact, there are statistics which have proven that socio – demographic factors in terms of generation gap could be one of the factors that is considerably influential (Cheah & Phau, 2011).

Hence, the consumers' collectivism value, knowledge, attitude, and product attributes are decided to be the research elements in affecting purchase behaviour of environmentally friendly products from the perspective of GenY, since they are found to be the few factors that supported by the most researches and scholars for these related topics.

### **1.3 Research Questions**

Several questions are proposed in order to define the scope of this research. Below showing the questions that help the researcher in examining the factors that affect GenY's purchasing behaviour of environmentally friendly products in Malaysia:

- i. What is the relationship between the four independent variables (product attributes, collectivism, attitudes and knowledge) towards GenY's purchase intention of environmentally friendly products in Malaysia?
- ii. Which independent variable has the strongest prediction on purchase intention of environmentally friendly products?
- iii. What is the relationship between purchase intention towards GenY's purchase behaviour of environmentally friendly products in Malaysia?
- iv. Does purchase intention mediates the relationship between independent variables towards GenY's purchase behaviour of environmentally friendly products in Malaysia?

### **1.4 Research Objectives**

The main purpose of doing this research is to understand GenY consumers' purchase behaviour on environmentally friendly products in Malaysia, by recognizing the

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variables that have positive significant relationship with it. The research objectives in details are:

- i. To investigate the relationship of the four independent variables (product attributes, collectivism, attitudes and knowledge) towards GenY's purchase intention of environmentally friendly products in Malaysia.
- ii. To identify the strongest factor towards purchase intention of environmentally friendly products.
- iii. To investigate the relationship of purchase intention towards GenY's purchase behaviour of environmentally friendly products in Malaysia.
- iv. To examine the mediation effect of purchase intention between the independent variables and purchase behaviour of environmentally friendly products among GenY in Malaysia.

## **1.5 Hypotheses of the Study**

Hypotheses are formed in order to assure the research is heading to the right track and they will be considered as a result prediction of the research. The hypotheses formed based on the research are:

- H1:** There is a positive relationship between product attributes towards GenY's purchase intention of environmentally friendly products in Malaysia.
- H2:** There is a positive relationship between collectivism towards GenY's purchase intention of environmentally friendly products in Malaysia.
- H3:** There is a positive relationship between attitudes towards GenY's purchase intention of environmentally friendly products in Malaysia.
- H4:** There is a positive relationship between knowledge towards GenY's purchase intention of environmentally friendly products in Malaysia.
- H5:** There is a positive relationship between purchase intention and purchase behaviour of environmentally friendly products among GenY in Malaysia.

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## **1.6 Significance of the Study**

This research provides a better picture of GenY's perception on purchasing environmentally friendly products. For marketers, understanding this topic is able to provide them great potential marketing value - return in the long run. It is crucial to understand the consumers' selection process in order for environmentally friendly products to become common (Pickett – Baker & Ozaki, 2008). As Joshi and Rahman (2016) stated, it is important to conduct such study in developing countries like Malaysia due to the limited numbers of researches available as raised by Yadav and Pathak (2016). In fact, developing countries should be promising markets for environmentally friendly products due to their existing environmental issues, growing economy and huge customer base. For policy makers, this research enables them to study and design the most suitable policies to enhance environmentally friendly efforts in the future. These environmental oriented policies may able to provide ideas to businesses in continuously developing marketing strategies which are aiming to increase the consumers' purchase in environmentally friendly products. All the policies and strategies made should be targeting GenY consumers as they are the majority of the entire population and also acting as a driver in encouraging environmentally conscious behaviour in developing markets in the near future (Nguyen et al., 2017).

The findings of this research can also advance the body of knowledge in this field. After conducting this research, researchers and scholars are able to get more updated understanding on the factors that affect the GenY group to purchase environmentally friendly products. Eventually, this research can be a reference for other researchers that have the intention to conduct similar researches.

## **1.7 Delimitations**

In this research, only the responses of GenY individuals that have started to work and having a stable income stream will be taken into account in the analysis, because it is believed that they are able to make decision on their own purchase due to this reason,

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regardless of their amount of income and occupation. Besides, although Malaysia is known as a multi – racial country, however, the “race” element from the responses collected will not be investigated because all Malaysians regardless of race will be viewed as a whole.

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## **CHAPTER 2**

### **LITERATURE REVIEW**

#### **2.0 Introduction**

This chapter begins with literature review of the four factors, which are product attributes, values, attitudes and knowledge followed by purchase intention and purchase behaviour of environmentally friendly products among GenY in Malaysia. A conceptual framework will be created by integrating the four factors and TPB, where purchase intention as the predecessor of purchase behaviour. Hypotheses will be developed based on the conceptual framework as the foundation of this research. Lastly, this chapter will be ended by exploring into every hypothesis formed.

#### **2.1 Review of the Literature**

##### **2.1.1 Product Attributes**

A product is defined as a bundle of features or qualities, and consumers may have different preferences over these characteristics (Lancaster, 1966; Fishbein, 1967). A product's environmental attribute will influence the purchase decision of environmentally friendly products. Environmental attributes can be characteristics including recyclability and recycled content or fuel efficiency, integration of green



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characteristics into package design decisions and material selection, or involving environmentally sound production processes (Peattie, 1995; Chen, 2001).

According to Chen (2001) environmentally friendly product development has emerged as a sustainable and innovative instrument for solving the current environmental problems. For firms producing environmentally friendly products, inserting environmental attributes has become a difficult mission in their product development process (Mackenzie, 1997). Besides product design, integrating green elements in process improvement and adopting environmental standards are also part of the green innovation process (Xu et al., 2018).

Usually uncomplicated symbols, colour codes, labels with necessary information to detailed environmental information about product ingredients will be stated as environmental information on a product (Borin, Cerf & Krishnan, 2011). Environmental attributes can be integrated into the product's package design also which can be an effective appeal to consumers who are primarily concerned in protecting the environment (Barber, 2010). In the study by Rashid (2009) it showed awareness of eco – labelling has positive effect on customers' knowledge and then lead to favourable customers' purchasing intension. In addition, Barber (2010) also mentioned that environmentally packaging such as the recyclability of the packaging, which is a part of product attributes has become a concern to consumers in making their purchases.

Some consumers will consider environmentally friendly products due to their environmental concerns but it is also crucial to determine whether the particular environmentally product can provide values to the consumers (Cheah & Phau, 2011; Punyatoya, 2015). It means the environmental compatibility of products will be seen as one of the main factors when consumers shop (Azzone & Bertele, 1994). Besides, some consumers will select environmentally friendly products because they have better environmental outcome (Chatterjee, 2009). Regrettably, there are also consumers who think that the quality of environmentally friendly products is inferior (D'Souza et al.,

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2007). There are some studies that found perceived quality is directly correlated with purchase intentions as mentioned by Wells et al. (2011) and Boakye et al. (2012) but there are also several that found otherwise (Wen et al., 2014).

Meanwhile, consumers will face some difficulties in comparing the benefits among products if they cannot understand the symbols on the packaging that suppose to convey some environmental benefits (Thøgersen, 2000; Borin, Cerf & Krishnan, 2011). Some labelling may not able to provide full environmental information also as mentioned by Carrete et al. (2012). However, Drichoutis et al. (2006) mentioned that there are also consumers which are unwilling to evaluate additional information which may seem complicated to them.

### **2.1.2 Collectivism**

Behaviours are influenced by values, while values are defined as principles or concepts about behaviours beyond particular circumstances, guidelines or assessment of behaviour on certain situations, and ordered by comparative importance (Schwartz & Bilsky, 1987; McCarty & Shrum 1994). According to Hoyer and MacInnis (2004) consumers' values are one of the important factors to be taken into consideration while examining purchasing decisions.

The effect of core values on behaviours has been examined by researches related to environmental actions (Carrete et al., 2012). Collectivism is one of the values that are studied most commonly in ecological behaviour (McCarty & Shrum, 1994). Laroche et al. (2001) proposed that collectivism value influences consumer behaviour. This is due to collectivists are not stressing on personal gains, but emphasizing in teamwork, helpfulness and group's goals achievements (Crane, 2000).

Normally, collectivists are seen to be friendlier towards the environment (Laroche et al, 2001). As a support, Chan (2001) and Leonidou et al. (2010) also stated that collectivism is positively correlated with environmental awareness. Meanwhile, Kim

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and Choi (2005) as well as Sharma (2010) found that collectivists will often prioritize the goals of the groups, hence they will be more concern of the public wellness including the environment. The collectivists will feel more motivated to protect the environment so that the others will be able to enjoy the benefits together (Cho et al., 2013).

### **2.1.3 Attitudes**

Attitude is important in determining an individual's behaviour as it is seen to be the pillar which supports the sales and profits of a brand or product for a large corporation (Aaker & Myers, 1987). Consumer attitude is defined as a bundle of a intentions, feelings and beliefs towards an object (Chyong et al., 2006). In simple terms, attitude is something that a consumer likes or dislikes. Meanwhile, environmental attitude is the learned tendency to respond consistently to the environment (Dispoto, 1997). Kotchen and Reiling (2000) reinforced that usually environmental attitude will be perceived as a cognitive determinant towards values related to environmental conservation, at the same time emphasizing the positive relationship between environmental attitude and environmental behaviour.

First and foremost, there are many studies stated that attitude has influenced significantly on green purchasing intentions (Morris & Viswanath, 2000; Nysveen et al., 2005). Based on empirical studies in developed economies, the significance of attitudes in predicting ecological behaviours is emphasized (Carrete et al., 2012). Consumers tend to purchase consumer environmentally friendly products more if they are involved closer to the environment (Paco et al., 2009). Additionally, Krarup and Russell (2005) stated that the tendency of purchasing environmentally friendly products can be predicted through a consumer's attitudes towards social issues. Chan (2001) mentioned that consumers may be willing to pay more solely to support environmentally friendly products. In addition, consumers who have favourable attitude towards the environment are greatly motivated to consume environmentally friendly products (Carrete et al., 2012; Tanner & Kast, 2003). Balderjahn (1988) further

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reinforced that strong environmental attitude is predicted to have more tendency to purchase environmentally friendly products.

According to Amyx et al. (1994) and Laroche et al. (2001) they had identified two main attitudinal attributes, which are “importance” and “convenience”. Both attitudinal attributes are most extensively observed and referred in the study of green marketing (Dunlap & Van Liere, 1981). Perceived importance can be defined as the extend of someone’s concern towards ecological issues, which also means whether a consumer sees environmentally friendly behaviours are important to his or herself or to the overall society (Amyx et al., 1994). In example, whether a consumer will purchase an energy saving electronic appliance is highly dependent on their self – interest of their intention to promote environmental benefits (Ginsberg & Bloom, 2004). In the meantime, inconvenience means the extend of a person feels inconvenient to perform ecologically behaviours (Roberts & Bacon, 1997). For instance, some people believed that recycling is troublesome, hence leading to reluctance of performing such behaviour (McCarty & Shrum, 1994).

#### **2.1.4 Knowledge**

Knowledge is a crucial factor in affecting consumers collecting and arranging information, then determining how much the information will be used to evaluate certain products and services which eventually influencing decisions to be made (Murray & Schlacter, 1990). Both importance and effect of lacking knowledge in the decision-making process have been examined frequently by many researchers (Laroche et. al 2001). According to Chan (1999) consumer knowledge is always seen to be an important predictor to environmentally friendly behaviour because it is closely linked with environmental issues.

Environmental knowledge is the concepts, facts and relationships related to the nature and its whole ecosystems (Frycell & Lo, 2003). Environmental knowledge can be related to information on pollution proliferation or the impact and causes of

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environmental issues to the environment. Environmental knowledge is important because it determines what people know and belief about the environment and the impacts they are able to make. Hence, environmental knowledge is crucial to create favourable attitude towards green consumption (Stutzman & Green, 1982). In this case, it indicates that consumers who have environmental knowledge may have higher possibility to purchase environmentally friendly products (D'Souza et al., 2007). According to Noor et al. (2012) it is found that environmental knowledge has direct effects towards environmental attitude in Malaysia context.

Peattie (1995) suggested that consumers' purchase behaviour is associated with their environmental knowledge. The level of acceptance of environmentally products will increase if the consumers understand on how these products can solve environmental problems (Ottman, 1992). In other words, it means that environmental knowledge is able to create brand awareness and favourable attitudes towards environmentally friendly products (D'Souza et al., 2007).

### **2.1.5 Purchase Intention**

According to Blackwell et al. (2005) one of the most crucial skills a business should have is to predict consumers' behaviour. Intentions are important in predicting consumers' actual purchase behaviour (Ko et al., 2013). Purchase intention is defined as a consumer's likelihood in purchasing certain product or visiting a store for services (Grewal et al., 1998; Shao et al., 2004). Hence, green purchase intention simply means the likelihood of purchasing environmentally friendly products, which have lower impact to the environment (Chen & Lee, 2015). Nik Abdul et al. (2009) explained green purchase intention as the willingness and probability of an individual prioritize in purchasing environmentally friendly products over conventional products; whereas Chen and Chang (2012) referred it as the possibility of purchasing a product based on the consumers' environmental needs.

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As mentioned by Chandon et al. (2005) and Azjen & Fishbein (1975) purchase intention is always been widely used in marketing academic literatures and treated as a highly crucial variable due to its nature as a good proxy of a consumer's actual purchase behaviour. Usually greater intention will lead to greater possibility of a purchase (Berkman & Gilson, 1978). Although there might be possibilities where differences between intentions and behaviour may arise, but there are many studies that show these two variables are correlated (Ferraz, 2017). By evaluating consumer's purchase intention, firms can adjust the positioning of their products and services by understanding the market trend better. According to Chan (2001) purchase intention of environmentally friendly products can be measured by three items, which are considering to purchase green products, switch of brands due to environmental reasons, and switching to a greener version of product. Lee et al. (2011) further added intention in the green context can be defined as the likelihood of purchasing and recommending green products to others.

#### **2.1.6 Purchasing Behaviour of Environmentally Friendly Products among Generation Y Consumers**

The Generation Y, or commonly known as GenY, the millennials, net generation or generation next are individuals born between the 1980 to the 2000 (Viswanathan & Jain, 2013). It is believed that the GenY consumers are particularly different from many aspects comparing to the Baby Boomers or Generation X (Pesquera, 2005). The GenY are seen to be a group of extremely diverse, technologically savvy and educated individuals (Lu et al., 2013). Besides, they are also been described as mature, sophisticated and structured (Syrett & Lammiman, 2003). Most importantly, their way of thinking and attitude are different with the previous generation (Kanchanapibul et al., 2014).

Various studies have shown that GenY consumers are the most environmentally conscious (Vermillion & Peart, 2010). According to Jang et al. (2011) the GenY consumers have the strongest opinions on environmental issues among all generational

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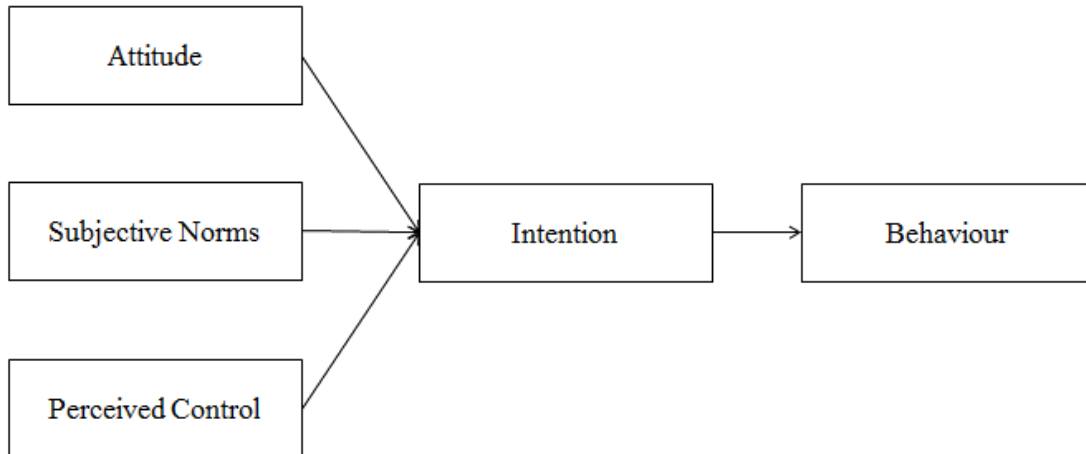
groups. In addition, they are more supportive to firms who are socially responsible (Furlow, 2011). The GenY is a powerful and large consumer segment (Bhaduri & Ha – Brookshire, 2011). Complementing with significant impact on purchase decisions of their acquaintances (Yoon et al., 2011) and sizeable purchasing power, the GenY group has become the target customer for many businesses (Parment, 2013).

According to Mostafa (2007) purchasing environmentally friendly products means consuming products that bring benefits to the environment; sensitive to the environment or recyclable. Although it seems that more consumers are becoming more concern to the environment, but there are also recent researches that show the reasons which limit the growth of green products' industry (Chyong et al., 2006; Borin, Cerf & Krishnan, 2011). Hence, it is very important to investigate the purchase behaviour among the GenY consumers after purchase intention is tested, since Ajzen and Fishbein (1975) reported the significance of intentions in determining behaviour in most of the common class of models. When consumers have intention to purchase environmentally friendly products, then the tendency for them to perform such behaviour will be higher.

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## 2.2 Review of Relevant Theoretical Models

Figure 2.1: Theory of Planned Behaviour



Adapted from: Ajzen, I. (1991). The theory of planned behaviour. *Organizational Behaviour and the Human Decision Process*, 50, 179 – 211.

The TPB model can be considered as the evolution of the theory of reasoned action (TRA) with the same purpose of examining consumer’s behaviour (Ajzen & Fishbein, 1980). Compared to TRA, “perceived control” is added into the TPB model as a factor of intention (Ajzen & Madden, 1986). TPB explains that individuals will perform a behaviour if they think it will deliver positive results (favourable attitudes), able to gain social approval (subjective norms) and owning greater control in conducting the behaviour (perceived control). In term of environmental related topics, consumer attitudes simply mean green consumerism (Albayrak et al., 2013). Favourable attitudes, subjective norms and perceived control will influence intention, which is seen to be the only direct psychological factor of a behaviour.

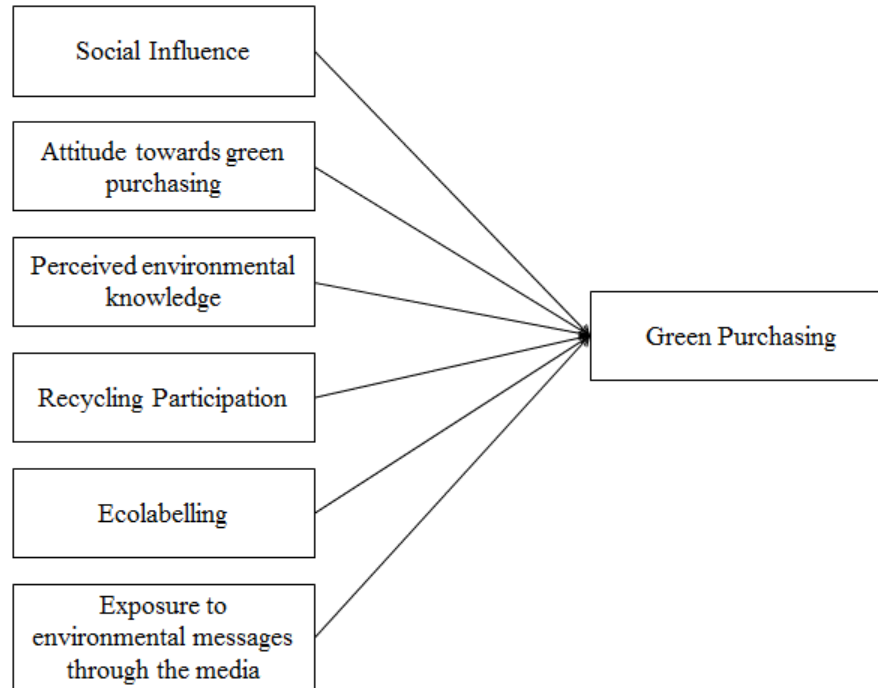
The TPB has the history of being used to test on various types of behavioural intentions and actions, for instance leisure participation (Ajzen & Driver, 1991), unethical behaviours (Man, 1998), sexual behaviours (Wilson et al., 1992) and environmentally friendly behaviours (Vermeir & Verbeke, 2006; Kim & Chung, 2011). By the way,



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Ajzen (1991) also stated that TPB is flexible to add in additional predictors as long justifications can be provided.

Figure 2.2: Predictors of Young Consumer’s Green Purchase Behaviour



Adapted from: Joshi, Y. & Rahman, Z. (2016). Predictors of young consumer’s green purchase behaviour. *Management of Environmental Quality: An International Journal*, 27 (4), 452 – 472.

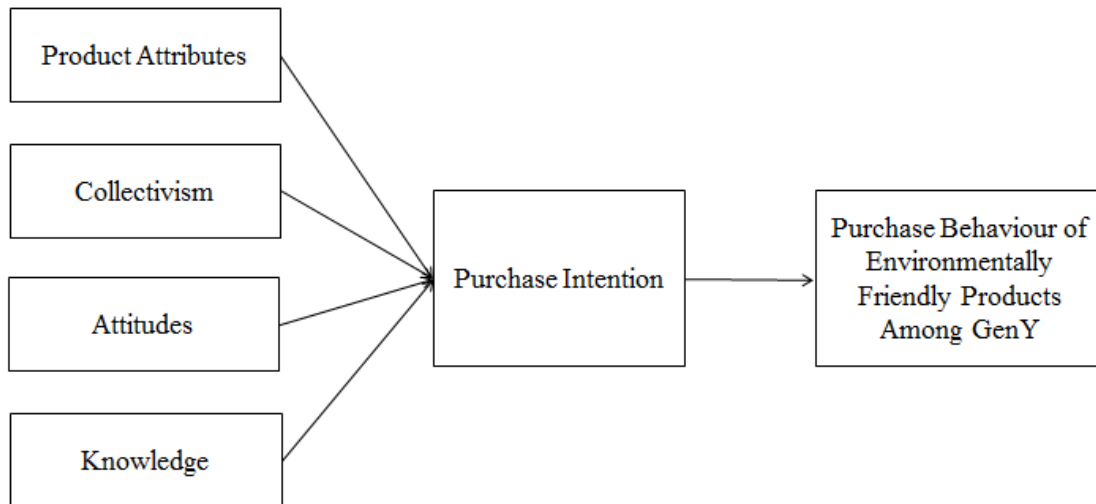
The model as illustrated in Figure 2.2 was proposed by Joshi and Rahman (2016) with the purpose of determining the factors that are able to investigate green purchase behaviour among young educated consumers in Delhi, India. The proposed model is influenced by the new approach provided by Phipps et al. (2013) in understanding consumer’s sustainable behaviour by combining the theory of reciprocal determinism with social cognitive theory (SCT). The strength of the model is its ability to predict a consumer’s future green behaviour by looking from three main perspectives, which are the consumers’ personal factors, their current sustainable behaviour and sociocultural environment.

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It is found that the prediction power of the factors mentioned in descending order is social influence, attitude towards green purchase, perceived environmental knowledge, recycling participation, ecolabelling and exposure to environmental messages through the media. Despite this research contributes a lot to the body of knowledge as it is the first research to integrate the theory of reciprocal determinism and “exposure to environmental message through the media” in predicting green behaviour, however the article overlooked in defining “young consumers”.

### 2.3 Proposed Research Framework

Figure 2.3: Proposed Research Framework



The proposed conceptual framework is adapted from the theoretical models presented as shown in Figure 2.1 and 2.2.

The independent variables in the framework are product attributes, collectivism, attitudes and knowledge. The four independent variables are also known as the factors to the dependent variable, which is purchasing behaviour of environmentally friendly products among GenY consumers in Malaysia. These four factors are chosen to build the research framework because they are proven to have positive significant relationship by most researches and scholars in general. Besides, purchase intention will be tested as a mediating role.

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Any case, some of the factors do have contradict results, such as “knowledge” mentioned by Laroche et al. (2001) and Lee (2009) on “attitudes”. Therefore, this research aims to contribute in confirming the relationship between the four independent variables chosen and the purchasing behaviour of environmentally friendly products in the context of GenY consumers in Malaysia, where purchasing intention serves as a mediating role.

## **2.4 Hypotheses Development**

**H1:** There is a positive relationship between the product attributes towards GenY’s purchase intention of environmentally friendly products in Malaysia.

According to Azzone and Bertele (1994) consumers will consider the environmental compatibility of the products when making their purchases. In addition, Chatterjee (2009) mentioned that consumers will tend to purchase eco – friendly products as they are able to generate higher level of environmental effect. Furthermore, Barber (2010) also stated that environmentally packaging has also become a concern to consumers in making their purchasing decisions. Rashid (2009) found that of eco – labelling can enhance customers’ environmental knowledge, which eventually creating favourable customers’ purchasing intension as well.

Since the GenY group is seen as educated individuals (Lu et al., 2013) mature (Syrett & Lammiman, 2003) and most environmentally conscious (Vermillion & Peart, 2010) therefore product attributes are predicted to have positive significant relationship with GenY’s willingness to purchase environmentally products, as this group of consumers will look at the environmental attributes and their understanding on the products. Besides, consumers will also tend to purchase environmentally friendly products if they perceive the value of the products to be higher (Akbar et al., 2014). Last but not least, Xu et al. (2018) discovered that perceived quality is positively related to purchasing environmentally friendly products.

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**H2:** There is a positive relationship between collectivism towards GenY's purchase intention of environmentally friendly products in Malaysia.

Values will influence an individual's behaviours (McCarty & Shrum 1994). Besides, Hoyer and MacInnis (2004) examined that consumers' values are factors to be considered while making investigation on the influences on purchasing decisions. Collectivism is the value that will be tested, since Laroche et al. (2001) proposed that collectivism will influence consumers' behaviours. Environmental values play a major role in environmentally friendly behaviours (Pickett - Baker & Ozaki, 2008). Any case, Lee (2017) mentioned that collectivism has been proven to affect various types of social behaviours. Meanwhile, Carrillat et al. (2009) found that value perceptions are essential in testing purchase intentions.

**H3:** There is a positive relationship between attitudes towards GenY's purchase intention of environmentally friendly products in Malaysia.

As strong attitude is expected to cause consumers to perform ecologically, therefore it is expected that attitudes will have positive relationship purchasing intention of environmentally friendly products (Barber et al., 2009; Xu et al., 2019). The more positive an attitude is hold by a consumer, then the stronger the intention to perform certain behaviour (Akbar et al., 2014). Kotchen and Reiling (2000) supported the positive correlation between environmental attitudes and environmental behaviours.

When the consumers have closer involvement with the environment, the tendency to use environmentally friendly products is higher (Laroche et. al., 2001; Paco et al., 2009). Azjen and Fishbein (1980) stated that an individual's attitude affects their behavioural intention, which means environmental attitude is a crucial predictor of a consumer's purchasing intention of environmentally friendly products, further supported by Yadav and Pathak (2016) as well as Prakash and Pathak (2017). Balderjahn (1988) and Tanner and Kast (2003) also discussed that consumers' positive attitudes towards the environment will cause them to purchase environmentally friendly products.

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Furthermore, Krarup and Russell (2005) stated that strong attitude on social issues can forecast a person's willingness to purchase environmentally friendly products. In addition to this, Jaganath (2016) found that environmental attitude has a positive influence among young consumers' green purchasing behaviour. Last but not least, Kim and Chung (2011) concluded that abundant of studies are supporting the positive relationship between attitude and green purchasing behaviour in different cultural contexts such as United States, European and Asia.

**H4:** There is a positive relationship between knowledge towards GenY's purchase intention of environmentally friendly products in Malaysia.

Knowledge is expected to have positive significant relationship with purchase intention of environmentally products because it is believed that purchase behaviour is interconnected with consumer's knowledge of environmental issues (Peattie, 1995; Akbar et al., 2014). Wang et al. (2014) found that environmental knowledge has positive relationship with purchasing intention of environmentally friendly products. Meanwhile, D'Souza et al. (2007) stated that knowledgeable consumers on environmental issues tend to buy green products, as consumers' knowledge concerning environmental issues has been identified as an important predictor of environmentally friendly behaviour (Chan, 1999; Maichum et al., 2016). D'Souza et al. (2006) also mentioned environmentally knowledgeable consumers will be more aware with environmental issues, and thus cultivate a positive attitude towards environmentally friendly products. They may even willing to pay for a premium price for environmentally friendly products also (Amyx et al., 1994).

**H5:** There is a positive relationship between purchase intention and purchase behaviour of environmentally friendly products among GenY in Malaysia.

Based on Ajzen and Fishbein (1975) intention is the subjective possibility to perform certain behaviour, which is also the driving factor in a decision-making process. It is the central factor in the TPB to perform a specific behaviour, and also control the

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motivational factors in performing certain behaviour. In other words, intention is also the indications that show how much effort people are willing to put, or how hard people are willing to try in order to perform certain behaviour. Hence, an actual behaviour is more likely to be performed when the intention is stronger (Ajzen, 1991).

According to the discussions in section 2.15 on various definitions of purchase intention (Ajzen & Fishbein, 1975; Grewal et al., 1998; Shao et al., 2004; Nik Abdul et al., 2009; Chen & Chang, 2012; Chen & Lee, 2015) and findings of study (Berkman & Gilson, 1978; Chandon et al., 2005; Lee et al., 2011; Ko et al., 2013), it can be predicted that purchase intention is positively related purchase behaviour of environmentally friendly products. In addition to the characteristics of the GenY which is more environmental conscious, all this information contributed to the formation of the fifth hypothesis, as there are ample of supports to expect positive significant relationship between purchase intention and purchase behaviour of environmentally friendly products among GenY in Malaysia.

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## **CHAPTER 3**

### **RESEARCH METHODOLOGY**

#### **3.0 Introduction**

The third chapter contains the techniques which the researcher used to obtain and analyse the data including research design, data collection methods, sampling design, research instrument, construct measurement, data processing and data analysis.

#### **3.1 Research Design**

Research design is viewed as a master plan that explains all the methods in obtaining and analysing the data (Zikmund, 2003). Basically, it is seen as the foundation in conducting a research. There are three types of research designs, which are causal research, descriptive research and exploratory research. The purpose of causal research is to determine the causal – effect relationships among variables, whereas exploratory research describes the nature of certain issues (Zikmund, 2003). Meanwhile, Hair et al. (2009) defined descriptive research as the numerical data collected to answer the research questions.

Both descriptive research and causal – effect research were used by the researcher. The researcher used descriptive research to examine the demographic profiles of the respondents and answer the research questions. For causal – effect relationship, it is

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important to prove the cause and effect relationship between the independent variables with the mediator, the mediator with the dependent variable, and lastly the independent variables with the dependent variable directly.

## **3.2 Data Collection Methods**

### **3.2.1 Primary Data**

Primary data is the fresh data collected for solving a specific problem (Malhotra, 2010). It is known as unformatted data also, as they are directly collected through contacts with the research samples in order to solve some specific problems. Researchers prefer primary data for their research because they are more relevant to the problem, specific, and up – to - date (Onkvisit & Shaw, 2004).

Primary data can be collected from individuals, focus groups, panels and unobtrusive methods (Sekaran, 2003). For this research, the researchers did survey with individuals by distributing questionnaires to the appropriate respondents.

### **3.2.2 Secondary Data**

Secondary data is the data collected from previous researches, which ultimately can be obtained by accessing the internal and external records of published sources (Zikmund, 2003; Sekaran, 2003). Secondary data was used in forming the literature review and theoretical framework. The sources were mainly from online databases which including Emerald, JSTOR, Proquest, and search engines especially Google. In addition, text books and conference papers were crucial sources of secondary data for this research also.



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### **3.3 Sampling Design**

Zikmund (2003) defined sampling process as the procedure of using a smaller number of items to conclude an entire population. A sampling design was applied to identify the suitable target respondents to participate in the survey, and the prerequisite was to decide the demographic profiles of the research sample which comprised target population, sampling location, sampling frame, sampling elements, sampling size and sampling techniques.

#### **3.3.1 Target Population**

Population is referred to the whole set of individuals of interest, meanwhile a sample means the small number of people within the larger population (Weiers, 2008). The GenY consumers who are residing in Malaysia are considered the population in this research.

#### **3.3.2 Sampling Frame and Location Limit**

A sampling frame means the elements within a population (Malhotra, 2010). The questionnaires were distributed to 300 persons at Selangor and Kuala Lumpur. Selangor and Kuala Lumpur were chosen to distribute the questionnaires because based on the information by the Department of Statistics Malaysia as per year 2018 forth quarter as shown in Appendix, Selangor had the most population among all states in Malaysia, whereas Kuala Lumpur was the densest state according to the Department of Statistics Malaysia as per year 2010. Therefore, the researcher assumed that responds obtained from these two states will be able to represent the whole Malaysia. By the way, questionnaires were also distributed through the Internet to reach respondents residing in other states.

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### **3.3.3 Sampling Elements**

The sampling element is also a very important aspect in a research (Malhotra, 2010). The sampling elements in this research are GenY individuals that have stable income stream, able to make decision on their purchasing behaviour and then justify it. According to Rahbar and Wahid (2011) this group of people are familiar in making purchase decisions.

### **3.3.4 Sampling Techniques**

Sampling techniques will affect the results in a research, hence they need to be selected carefully. There are two kinds of sampling methods, which are probability sampling and the non-probability sampling (Weiers, 2008). Their main difference is whether every individual have an equal chance in participating the survey. Probability method is inappropriate in this research because it is not possible for every respondent in this country to have an equal opportunity to participate in the survey. Hence, non – probability method was used instead. Besides, it is used due to its simplicity in obtaining the information rapidly, more convenient and inexpensive (Malhotra et al., 2006).

The types of non-probability sampling include snowball sampling, convenience sampling, judgement sampling and quota sampling. The researcher used judgmental sampling and snowball sampling for this research. The purpose of using judgmental sampling was because it enabled the researcher to select the suitable respondents. Besides, snowball sampling method was also used as it increases the speed of attaining the targeted numbers of respondents since the respondents will pass the survey form to other persons they know.

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### **3.3.5 Sampling Size**

The sample size was set to 300 respondents in this research. According to Hair et al. (1998) the number of respondents is sufficient if the estimated parameter ratio is 15:1 to 20:1. Since this research has 4 independent variables and the numbers of questionnaire distributed was 300, then the ratio was 75:1. As such, 300 copies of questionnaires were sufficient. More questionnaires were distributed compared with the numbers of sufficient questionnaires by the standard ratio. In fact, Malhortra et al. (2006) also stated that the result will be more accurate when the sample size is bigger. Besides, Bagozzi & Yi (2012) also mentioned that a sample size can be accepted as long it was more than 100, or 200 if possible.

### **3.4 Research Instrument**

Research instrument means the survey research method serving as the foundation of a research, and typically associate itself with both descriptive and causal research. A survey is defined a set of questions targeting at a particular group of people (McIntyre, 2005). Generally, there are four types of survey methods, which are person – administered survey, online survey, telephone administrated survey and self – administrated survey.

The people – administered survey involves trained interviewers asking the respondents questions and record the answers given (Hair et al., 2009), and the methods including executive interviews, in – home interviews, mall – intercept interviews and purchase – intercept interviews. Online survey is a survey that conducted through fax, internet and electronic mail while telephone administrated survey is conducted through the phone. Next, the self – administrated survey is a survey that the questionnaires a completed by the respondents themselves (Zikmund, 2003). In this research, self – administrated survey and online survey were applied.

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There are two types of survey questions, which are open – ended and close - ended questions. Open – ended questions are the questions that allow the respondents to provide their own answers, while close – ended questions are questions that provided multiple options for the respondents to choose their answers (McIntyre, 2005). The researcher applied close – ended question in this research. The close – ended questions were rated with the Statistical Package for Social Science (SPSS) version 24.0 program.

The researcher separated the questionnaire into four parts, which were section A, B, C and D. Section A is asking the respondents' demographic profiles which are gender, age, marital status, education level and personal monthly income. For section B, the questions are related to independent variables, while questions in section C are related to mediator. Last but not least, questions in section D are related to dependent variable.

Pilot study, or also known as pre - testing was also conducted in order to verify the preliminary findings, as the pilot study can help to improve any ambiguities in the questionnaires to enhance the reliability of the final result (Radhakrishna, 2007). The questionnaire draft was distributed to 30 persons for them to read and answer so that error found in the questionnaire can be corrected.

### **3.5 Construct Measurement**

William (2006) defined the level of measurement as the relationship among values that are assigned to the attributes of certain variables. Thus, it is crucial to understand the level of measurement to interpret the data from the variables. According to Weiers (2008) the assignment of numerical value to a variable is a process of measurement. Zikmund (2003) defined a scale as any series of items organised gradually according to a magnitude or value to represent the quantitative value of an item, a person, or a place in the spectrum. There is a total of four scales, which are nominal scale, ordinal scale, interval scale and ratio scale (Weiers, 2008). Nominal scale and interval scales are applied in the building of the questionnaire.

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For Section A which consists of demographic related questions, nominal scale was applied. For Section B, C and D that consist of independent variables, mediator and dependent variables related questions, interval scale was applied. The researcher used “5 – Likert Scale” measurement in the questionnaire. The value 1 and 2 means strongly disagree and disagree respectively, value 3 means neutral, whereas value 4 and 5 means agree and strongly agree respectively. The questions were all adopted from past researches by different authors as shown in the Table 3.1.

Table 3.1: Origin of Constructs in the Questionnaires

<b>Section A</b>		
<b>Information</b>	<b>Items</b>	<b>Adapted/Adopted from</b>
Demographic Profile	5	Self-developed
<b>Section B</b>		
<b>Independent Variables</b>	<b>Items</b>	<b>Adapted/Adopted from</b>
Product Attributes	4	Lee (2009) Pickett – Baker & Ozaki (2008)
Collectivism	5	Cheah & Phau (2011) Yam – Tang & Chan (1998)
Attitudes	4	Chen & Deng (2016)
Knowledge	6	Joshi & Rahman (2016) Lee (2017)
<b>Mediator</b>	<b>Items</b>	<b>Adapted/Adopted from</b>
Purchase Intention	5	Chen & Deng (2016) Lee (2017)
<b>Dependent Variable</b>	<b>Items</b>	<b>Adapted/Adopted from</b>
Purchase behaviour of environmentally friendly products among GenY	4	Joshi & Rahman (2016) Kumar & Ghodeswar (2015)
<b>Total</b>	33	

**Source:** Developed for Research

### 3.6 Data Processing

In this stage, data will be converted into a form that the computer is able to process, which involves questionnaire checking, data editing, data coding, data transcribing and data cleaning. Data obtained from the survey will be converted into quantitative information.

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### **3.6.1 Questionnaire Checking**

Questionnaire checking is needed is to check the quality of the questionnaire. After the questionnaire was completed, the comprehensiveness of the questionnaire was evaluated by doing pilot study in determining the errors in the questionnaire for improvements.

### **3.6.2 Data Editing**

In data editing, raw data was checked to determine whether mistakes were done by respondents. Questionnaires that were not properly completed such as existence of missing data were rejected to maintain the quality of analysis.

### **3.6.3 Data Coding**

The coding process makes the data entry process into the SPSS system more convenient as numerical values will be assigned to each individual response for all the questions within the questionnaire. In the first part of the questionnaire, the gender “male” was coded with 1.0 while ‘female’ was coded with 2.0. The same was done to the other four variables as well which are age, marital status, level of education and personal monthly income. For Part B, Part C and Part D, the option “strongly disagree” was coded 1.0, “disagree” was coded 2.0, “neutral” was coded 3, “agree” was coded 4 and “strongly agree” was coded 5.

### **3.6.4 Data Transcription**

Data transcription involved transferring the coded data from the questionnaires directly into the computer. Data collected from the questionnaires was keyed into the SPSS software in order to interpret the results.

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### **3.6.5 Data Cleaning**

Data Cleaning is done after information was transferred into the computer, which involved the checking of the consistency of the completed questionnaires. Despite a consistency check was done in the beginning at the editing stage, the inspection at this stage is more trustworthy because it was done by the computer. In other words, data cleaning is an utter check of the completed questionnaires to confirm their consistency including missing answers' treatment.

### **3.7 Data Analysis**

The analysis stage involves certain procedures performed by the researcher in order to convert all the data collected into meaningful format (Zikmund, 2003). Data evaluation using logical and analytical reasoning were involved in this stage. Data analysis was done in order to produce information that is able to contribute in addressing the research questions. SPSS version 24.0 was used to code the data that was derived from the completed questionnaire. After the researcher conducted all the relevant analyses, eventually the result desired from the research will be obtained.

#### **3.7.1 Descriptive Analysis**

Descriptive analysis is considered as the initial stage of the data analysis process, as it transforms raw data into a more understandable form (Zikmund, 2003). Descriptive analysis is applied to examine the similarity of the basic characteristics of the current data with the previous data by other researchers (Heppner & Heppner, 2004). The characteristics mentioned consist of standard deviations, means, skewness of data and percentages. The information is then summarized, categorized, rearranged so that they can go through other forms of analysis. After all the analyses were done, the information obtained was presented in a form of table. In this research, frequency analysis and central tendency analysis were done.



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### **3.7.1.1 Frequency Analysis**

Frequency analysis shows the rate of recurrence of all variables (Zikmund, 2003). The frequency analysis data was reported in percentage forms, and the analysis summarized all the demographic information of the respondents, independent variables, mediator and dependent variable in table form. The highest and lowest values of each item in every part were being presented.

### **3.7.1.2 Central Tendency Analysis**

The highest and lowest mean for each variable will be studied in this research. Mean can be considered as a very common measure of central tendency since it is a simple arithmetic average of statistical data that just add all the values and divide the total number of items in a set (Zikmund, 2003). Hence, the mean of every item in the questionnaire was studied.

## **3.7.2 Scale Measurement**

### **3.7.2.1 Reliability Analysis**

Zikmund (2003) defined reliability as the extent of consistency and the degree of a measurement is free from errors. The internal consistency reliability indicates the homogeneity of the items under measurements in reflecting the constructs being utilized. Meanwhile, Sekaran (2003) mentioned that the homogeneity can be tested through Cronbach's alpha. The purpose of examining the internal consistency is to find out whether the measurements used in a particular study are reliable compared to the previous studies (Heppner & Heppner, 2004). When the reliability coefficient is closer to the value of 1.0, then the result will be more reliable and vice versa, especially when the results are more than 0.6. Furthermore, Sekaran (2003) added that if the data has the value between 0.7 to 0.8, then the reliability is acceptable, and the measurement is good if the value goes beyond 0.8.

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### **3.7.3 Inferential Analysis**

The researcher used inferential analysis to investigate whether the hypotheses formed were true and then drew conclusion. In this research, the inferential analyses used are validity analysis, linear regression analysis and mediation analysis.

#### **3.7.3.1 Validity Analysis**

The review of inter – correlations among variables as an option to spot the potential errors and unusual variable correlations in the data set was found by Heppner and Heppner (2004). The Pearson Correlation analysis was applied in order to determine the strength of a linear relationship between two variables (Hair et al., 2009). The range of correlation coefficient that can be gained from the Pearson Correlation is between -1.00 to 1.00 units, which measuring the relationships between the variables by indicating positive or negative relationships (Hair et al., 2009). If the correlation is between -1.0 to -0.7 units and +1.0 to +0.7 units, then it represents the relationship between variables is strong while if the units are between -0.7 to -0.3 and +0.7 to +0.3, then the relationship is weak (Simon, 2008). If the result is between – 0.3 to +0.3 units, then there are little or no relationships. The test will be done at 0.05 significant levels, and the hypothesis will be supported if the significant value, p, obtained is less than 0.01.

#### **3.7.3.2 Linear Regression Analysis**

The researcher applied linear regression analysis to examine the linear relationship between the independent variables, mediator and the dependent variable. Both simple linear regression analysis and multiple linear regressions analysis were applied. For simple linear regression analysis, the relationship of only one independent variable will be tested with the dependent variable. The simple linear regression formula that was applied to calculate the relationship between the dependent variable and independent variable is as below:

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$$Y = a + bx$$

For multiple linear regressions analysis, it allows the investigation of the effect between two or more independent variables and a single dependent variable simultaneously. The general formula for multiple regression formula is as below:

$$Y = a + b_1x_1 + b_2x_2 + b_3x_3 + \dots + b_nx_n, \text{ where}$$

“Y” stands for the dependent variable; “a” stands for the constant while “b” stands for the weight of the data. From the formula, the positive symbol in “b” value indicates a positive relationship between the dependent variables and independent variables, and vice versa.

### **3.7.3.3 Mediation Analysis**

Mediation analysis examines the impact of the mediator on the relationship between one or more independent variables and the dependent variable. When a variable carries certain influence of an independent variable to a dependent variable, then it can be considered as a mediator. In this research, the researcher used a mechanism developed by Hayes (2012) named as PROCESS to perform the mediation analysis. PROCESS is a computational procedure which can be used for SPSS in implementing mediation or moderation analysis as well as their combination in an integrated conditional process model, for instance mediated moderation and moderated mediation. It can be downloaded for free from <http://www.afhayes.com/> along with documentation. The PROCESS command needs to be added into SPSS in order to be available for use.

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## **CHAPTER 4**

### **DATA ANALYSIS**

#### **4.0 Introduction**

This chapter includes the findings of this research which mainly consists of three main parts, which are descriptive analysis, scale measurement and inferential analysis. Descriptive analysis describes the respondents' demographic data, whereas scale measurement is performed via reliability test. Last but not least, inferential analysis consists of validity test, linear regression analysis and mediation analysis. All the analyses are presented in the table form.

#### **4.1 Descriptive Analysis**

##### **4.1.1 Frequency Analysis**

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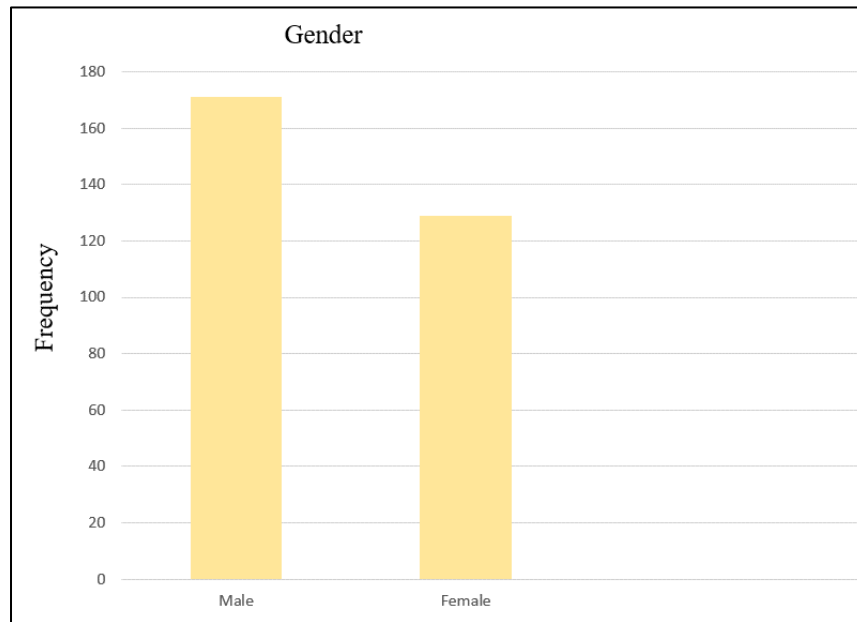
#### 4.1.1.1 Gender

Table 4.1: Respondents' characteristics (Gender)

		<b>Gender</b>			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	171	57.0	57.0	57.0
	Female	129	43.0	43.0	100.0
	Total	300	100.0	100.0	

**Source:** Developed for Research

Figure 4.1: Bar Chart of Respondents' Gender



**Source:** Developed for Research

Table 4.1 and Figure 4.1 show the gender of the respondents. Majority of the respondents are male, which consist of 57% among 300 respondents, which are 171

respondents. Meanwhile, there are total of 129 respondents are female, which is consists of 43% from the total number of samples.

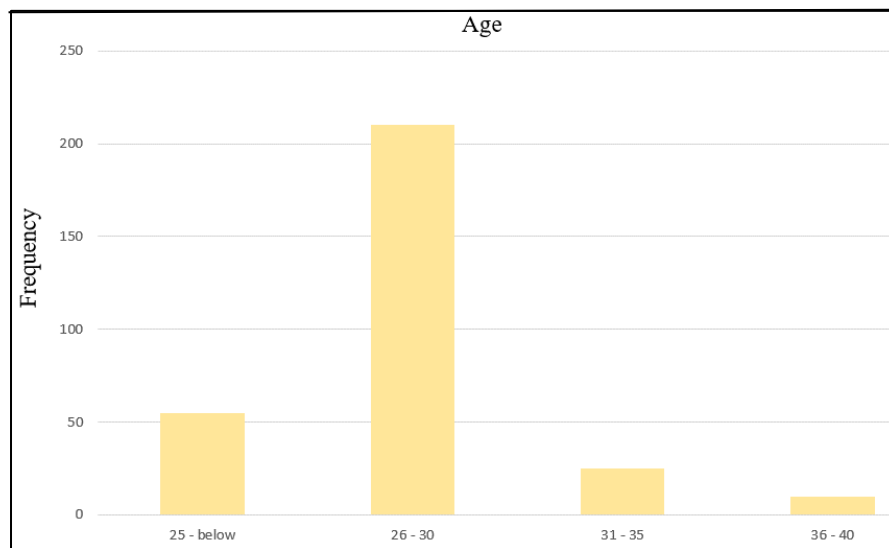
#### 4.1.1.2 Age

Table 4.2: Respondents' characteristics (Age)

		<b>Age</b>			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	25 and below	55	18.3	18.3	18.3
	26 – 30	210	70.0	70.0	88.3
	31 – 35	25	8.3	8.3	96.7
	36 – 40	10	3.3	3.3	100.0
	Total	300	100.0	100.0	

**Source:** Developed for Research

Figure 4.2: Bar Chart of Respondents' Age



**Source:** Developed for Research

For age, majority of the respondents are from 26 – 30 years old, which consists of 210 respondents, also a total of 70%. It is followed by respondents that are 25 years old and below, which consists of 55 respondents, which is a total of 18.3% from the overall respondents. 25 respondents, which are also 8.3% of them are 31 – 35 years old. Lastly, the age group of 36 – 40 years old has the least respondents, which is 10 persons or 3.3% from the overall respondents.

#### 4.1.1.3 Marital Status

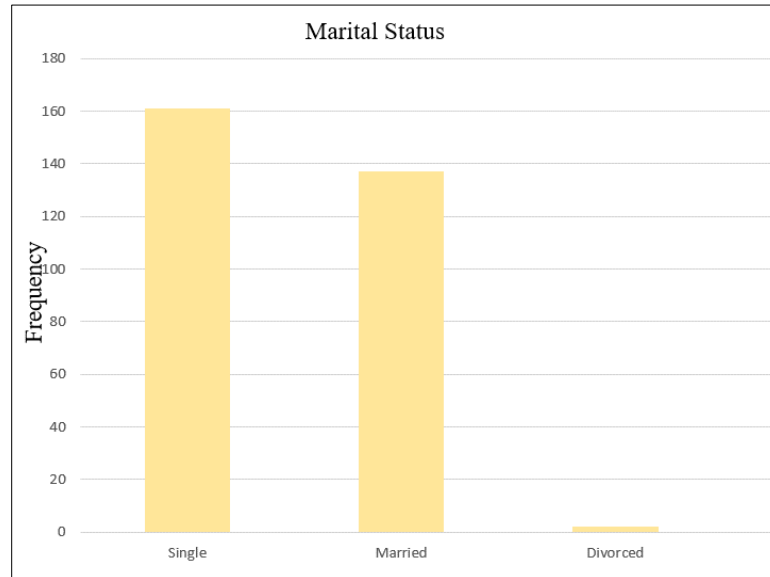
Table 4.3: Respondents’ characteristics (Marital Status)

		<b>Marital Status</b>			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Single	161	53.7	53.7	53.7
	Married	137	45.7	45.7	99.3
	Divorced	2	0.7	0.7	100.0
	Total	300	100.0	100.0	

**Source:** Developed for Research

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Figure 4.3: Bar Chart of Respondents' Marital Status



**Source:** Developed for Research

Based on Table 4.3 and Figure 4.3, it is found that 161 respondents among 300 respondents, which are also 53.7% are single. On the other hand, 45.7% of respondents which are also 137 respondents are married. It is followed by respondents that are divorced, which only consisting of 0.7% or 2 respondents.



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#### 4.1.1.4 Education Level

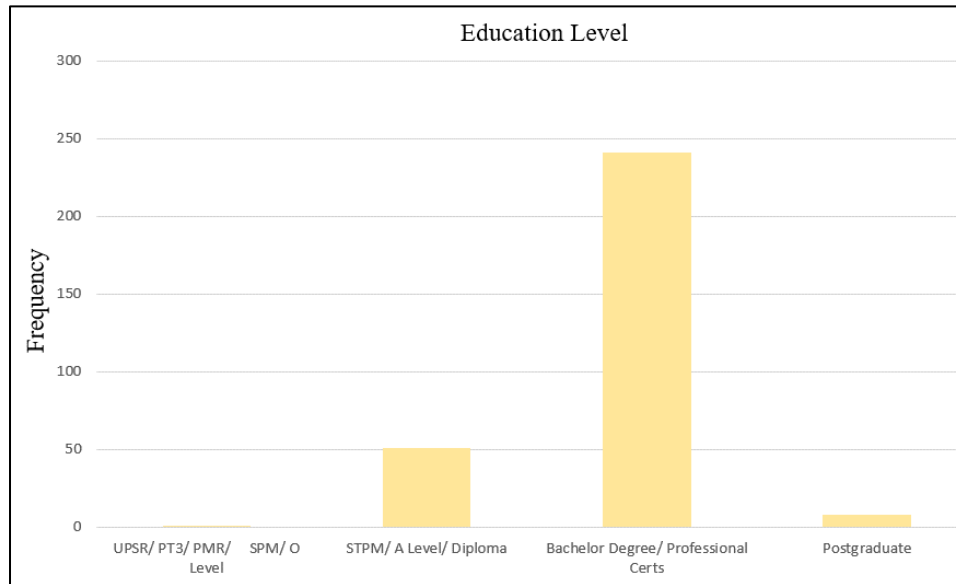
Table 4.4: Respondents' characteristics (Education Level)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	UPSR/ PT3/ PMR/ SPM/ O Level STPM/ A Level/ Diploma Bachelor Degree/ Professional Certs Postgraduate Total	1 50 241 8 300	0.3 16.7 80.3 2.7 100.0	0.3 16.7 80.3 2.7 100.0	0.3 17.0 97.3 100.0

**Source:** Developed for Research

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**Figure 4.4: Bar Chart of Respondents' Education Level**



**Source:** Developed for Research

Majority of the respondents are bachelor degree or professional certificate holders, which is a total of 241 respondents, which consists of 80.3% of the total sample size. Next, it is followed by STPM, A Level or Diploma holder, which consists of a total of 16.7% or equivalent to 50 respondents. It is followed by postgraduate holder respondents, which consists of 8 respondents, or 2.7% among the total sample size. Lastly, there is only 1 respondent, or 0.3% of the total sample size which only has the qualification of UPSR, PT3, PMR, SPM or O Level.

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#### 4.1.1.5 Personal Monthly Income Level

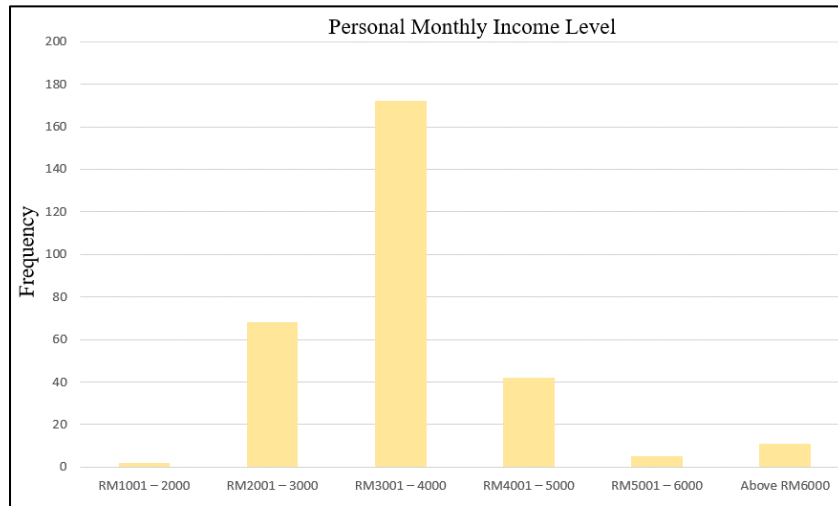
Table 4.5: Respondents' characteristics (Personal Monthly Income Level)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	RM1001 – 2000	2	0.7	0.7	0.7
	RM2001 – 3000	68	22.7	22.7	23.3
	RM3001 – 4000	172	57.3	57.3	80.7
	RM4001 – 5000	42	14.0	14.0	94.7
	RM5001 – 6000	5	1.7	1.7	96.3
	Above RM6000	11	3.7	3.7	
	Total	300	100.0	100.0	100.0

**Source:** Developed for Research

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**Figure 4.5: Bar Chart of Respondents' Education Level**



**Source:** Developed for Research

Table 4.5 and Figure 4.5 show the majority of the respondents has a personal monthly income level of between RM 3001 – RM4000, which consists of 172 respondents, a total of 57.3%. It is followed by respondents that earn between RM 2001 – RM 3000, which consist of 22.7%, which are 68 respondents. For respondents that earn between RM 4001 to RM 5000, it consists of 14%, which are 42 respondents. Income levels that have the least respondents are above RM6000, RM 5001 – RM 6000 and RM 1001 – RM2000, which respectively consist of 11 respondents, 5 respondents and 2 respondents, or also equivalent to 3.7%, 1.7% and 0.7%.

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## 4.1.2 Central Tendencies Measurement of Constructs

### 4.1.2.1 Product Attributes

Table 4.6: Central Tendency of Product Attributes

Statement	SD	D	N	A	SA	Mean	Rank
I buy product that is labelled as environmentally safe.	0.7	4.3	12.3	59.3	23.3	4.00	1
When I buy a product, I will search for the certified environmentally friendly safe stamp.	15.3	15.3	26.7	36.3	6.3	3.03	4
Environmentally friendly products function better than non - environmentally friendly products.	7.3	10.3	21.7	43.7	17.0	3.53	3
I buy products which their packaging includes environmentally friendly elements (e.g. recycled or recyclable packaging).	4.3	8.0	12.3	55.3	20.0	3.79	2

**Source:** Developed for Research

SD – Strongly Disagree

D – Disagree

N – Neutral

A – Agree

SA – Strongly Agree

Table 4.6 shows the mean value, percentage of responses and ranking for each of the question under the same independent variable, which is “product attributes”.

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For the first item “I buy product that is labelled as environmentally safe”, 0.7% of respondents strongly disagree that they buy products that are labelled environmentally friendly. 4.3% of respondents disagree that they buy products that are labeled as environmentally friendly products. Besides, 12.3% of respondents choose neutral for this item. However, 59.3% of respondents and 23.3% of respondents agree and strongly agree that they buy products that are labeled as environmentally friendly products, respectively.

For the second item “when I buy a product, I will search for the certified environmentally friendly safe stamp”, 15.3% of respondents strongly disagree that they will search for the certified environmentally friendly safe stamp before making a purchase. 15.3% of respondents also disagree that they will search for the certified environmentally friendly safe stamp. Besides, 26.7% of respondents choose neutral for this item. However, 36.3% of respondents and 6.3% of respondents agree and strongly agree that they will search for the certified environmentally friendly safe stamp before making a purchase, respectively.

For the third item “environmentally friendly products function better than non - environmentally friendly products”, 7.3% of respondents strongly disagree that environmentally friendly products function better than non - environmentally friendly products. 10.3% of respondents choose disagree for this item whereas 21.7% of respondents choose neutral. However, 43.7% of respondents and 17% of respondents agree and strongly agree that environmentally friendly products function better than non - environmentally friendly products, respectively.

For the forth item “I buy products which their packaging includes environmentally friendly elements”, 4.3% of respondents strongly disagree that they buy products which their packaging includes environmentally friendly elements. 8.0% of respondents also disagree that they buy products which their packaging includes environmentally friendly elements. Besides, 12.3% of respondents choose neutral for this item. However, 55.3% of respondents and 20% of respondents agree and strongly agree that they buy

products which their packaging includes environmentally friendly elements, respectively.

From the table, it shows that the item “I buy product(s) that are labelled as environmentally safe” with the mean of 4.0 is ranked in the first place. It is then followed by the item “I buy products which their packaging includes environmentally friendly elements” with the mean of 3.79 in the second rank. For the item “environmentally friendly products function better than non - environmentally friendly products”, it has the mean of 3.53 and is placed at the third rank. Lastly, for the item “when I buy a product, I will search for the certified environmentally friendly safe stamp”, it has the mean of 3.03 and is ranked at the last place.

#### 4.1.2.2 Collectivism

Table 4.7: Central Tendency of Collectivism

Statement	SD	D	N	A	SA	Mean	Rank
I am cooperative while participating in group activities.	0.0	1.0	3.7	60.7	34.7	4.29	1
I work hard for the goals of my group.	1.0	0.7	2.3	60.7	35.3	4.29	1
I am ready to help others in the group.	1.0	0.7	3.3	58.7	36.3	4.29	1
The wellbeing of the members within my group is important to me.	0.7	2.3	4.3	57.0	35.7	4.25	2
I enjoy spending time and sharing things within my group.	1.0	1.3	5.7	56.7	35.3	4.24	3

**Source:** Developed for Research

SD – Strongly Disagree

D – Disagree

N – Neutral

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A – Agree

SA – Strongly Agree

Table 4.7 shows the mean value, percentage of responses and ranking for each of the question under the same independent variable, which is “collectivism”.

For the first item “I am cooperative while participating in group activities”, 1% of respondents disagree that they are cooperative while participating in group activities. Besides, 3.7% of respondents choose neutral for this item. However, 60.7% of respondents and 34.7% of respondents agree and strongly agree that they are cooperative while participating in group activities.

For the second item “I work hard for the goals of my group”, 1% of respondents strongly disagree that they will work hard for the goals of their group. 0.7% of respondents also disagree that they will work hard for the goals of their group. Besides, 2.3% of respondents choose neutral for this item. However, 60.7% of respondents and 35.3% of respondents agree and strongly agree that they will work hard for the goals of their group, respectively.

For the third item “I am ready to help others in the group”, 1% of respondents strongly disagree that they are ready to help others in the group. 0.7% of respondents choose disagree for this item whereas 3.3% of respondents choose neutral. However, 58.7% of respondents and 36.3% of respondents agree and strongly agree that they are ready to help others in the group, respectively.

For the fourth item “the wellbeing of the members within my group is important to me”, 0.7% of respondents strongly disagree that the wellbeing of the members within their group is important to them. 2.3% of respondents also disagree with this item. Besides, 4.3% of respondents choose neutral for this item. However, 57% of respondents and



35.7% of respondents agree and strongly agree that the wellbeing of the members within their group is important to them, respectively.

For the fifth item “I enjoy spending time and sharing things within my group”, 1% of respondents strongly disagree that they enjoy spending time and sharing things within their group. 1.3% of respondents also disagree with this item. Besides, 5.7% of respondents choose neutral for this item. However, 56.7% of respondents and 35.3% of respondents agree and strongly agree that they enjoying spending time and sharing things within their group, respectively.

From the table, it shows that there are three items are placed together in the first rank since all of them have the same mean, which is 4.29. The three items are “I am cooperative while participating in group activities”, “I work hard for the goals of my group” and “I am ready to help others in the group”. It is followed by the item “the wellbeing of the members within my group is important to me.” with the mean of 4.25. Last but not least, the item “I enjoy spending time and sharing things within my group” is placed at the last rank, with the man of 4.24.

#### 4.1.2.3 Attitudes

Table 4.8: Central Tendency of Attitudes

Statement	SD	D	N	A	SA	Mean	Rank
Green purchase will give more benefits compared to non – green purchase.	0.0	2.3	2.3	66.0	29.3	4.22	1
Purchasing environmentally friendly products will make me happy.	2.7	5.0	17.0	54.0	21.3	3.86	2
When purchasing a product, I will consider how it will affect the environment.	5.0	9.7	10.0	54.7	20.7	3.76	3
I am willing to spend slightly more for an environmentally friendly product.	16.3	13.7	22.3	31.0	16.7	3.18	4

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**Source:** Developed for Research

SD – Strongly Disagree

D – Disagree

N – Neutral

A – Agree

SA – Strongly Agree

Table 4.8 shows the mean value, percentage of responses and ranking for each of the question under the same independent variable, which is “attitudes”.

For the first item “green purchase will give more benefits compared to non – green purchase”, 2.3% of respondents disagree that green purchase will give more benefits compared to non – green purchase. Besides, 2.3% of the respondents choose neutral for this item. However, 66% of respondents and 29.3% of respondents agree and strongly agree that green purchase will give more benefits compared to non – green purchase, respectively.

For the second item “purchasing environmentally friendly products will make me happy”, 2.7% of respondents strongly disagree that purchasing environmentally friendly products will make them happy. 5% of respondents also disagree that purchasing environmentally friendly products will make them happy. Besides, 17% of respondents choose neutral for this item. However, 54% of respondents and 21.3% of respondents agree and strongly agree that purchasing environmentally friendly products will make them happy, respectively.

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For the third item “when purchasing a product, I will consider how it will affect the environment”, 5% of respondents strongly disagree that they will consider how certain product will affect the environment when they make their purchase. 9.7% of respondents choose disagree for this item whereas 10% of respondents choose neutral. However, 54.7% of respondents and 20.7% of respondents agree and strongly agree that they will consider how certain product will affect the environment when they make their purchase, respectively.

For the fourth item “I am willing to spend slightly more for an environmentally friendly product”, 16.3% of respondents strongly disagree that they are willing to spend slightly more for an environmentally friendly product. 13.7% of respondents also disagree that are willing to spend slightly more for an environmentally friendly product. Besides, 22.3% of respondents choose neutral for this item. However, 31% of respondents and 16.7% of respondents agree and strongly agree that they are willing to spend slightly more for an environmentally friendly product, respectively.

From the table, it shows that the item “green purchase will give more benefits compared to non – green purchase” with the mean of 4.22 is ranked in the first place. It is then followed by the item “purchasing environmentally friendly products will make me happy” with the mean of 3.86 in the second rank. For the item “when purchasing a product, I will consider how it will affect the environment”, it has the mean of 3.76 and is placed at the third rank. Lastly, for the item “I am willing to spend slightly more for an environmentally friendly product”, it has the mean of 3.18 and is ranked at the last place.

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#### 4.1.2.4 Knowledge

Table 4.9: Central Tendency of Knowledge

Statement	SD	D	N	A	SA	Mean	Rank
I know how to preserve and not causing damages to the environment.	0.0	0.3	3.0	50.0	46.7	4.43	2
I know plastic bags take many years to decompose, hence causing pollution to the environment.	0.0	0.3	2.0	49.7	48.0	4.45	1
I know the causes and effects of global warming.	0.0	1.0	4.3	48.7	46.0	4.40	3
I know more about recycling than others.	0.0	1.3	5.0	51.7	42.0	4.34	6
I know how to choose products that can cause lesser damage to the environment.	0.0	1.0	6.0	50.3	42.7	4.35	5
I understand the environmental symbols and phrases on the product packaging.	0.0	0.7	4.7	50.7	44.0	4.38	4

**Source:** Developed for Research

SD – Strongly Disagree

D – Disagree

N – Neutral

A – Agree

SA – Strongly Agree

Table 4.9 shows the mean value, percentage of responses and ranking for each of the question under the same independent variable, which is “knowledge”. For this

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independent variable, none of the respondent has chosen strongly disagree for all the items.

For the first item “I know how to preserve and not causing damages to the environment”, 0.3% of respondents disagree that they know how to preserve and not causing damages to the environment. Besides, 3% of the respondents also choose neutral for this item. However, 50% of respondents and 46.7% of respondents agree and strongly agree that they know how to preserve and not causing damages to the environment, respectively.

For the second item “I know plastic bags take many years to decompose, hence causing pollution to the environment”, 0.3% of respondents disagree that they know plastic bags take many years to decompose and eventually will pollute the environment. 2% of respondents choose neutral for this item. However, 49.7% of respondents and 48% of respondents agree and strongly agree that they know plastic bags take many years to decompose and eventually will pollution to the environment, respectively.

For the third item “I know the causes and effects of global warming”, 1% of respondents disagree that they know the causes and effects of global warming. There are 4.3% of respondents choose neutral. However, 48.7% of respondents and 46% of respondents agree and strongly agree that they know the causes and effects of global warming, respectively.

For the forth item “I know more about recycling than others”, 1.3% of respondents disagree that they know more about recycling than others. Besides, 5% of respondents choose neutral for this item. However, 51.7% of respondents and 42% of respondents agree and strongly agree that they know more about recycling than others, respectively.

For the fifth item “I know how to choose products that can cause lesser damage to the environment”, 1% of respondents disagree that they know how to choose products that can cause lesser damage to the environment. Furthermore, 6% of respondents choose neutral for this item. However, 50.3% of respondents and 42.7% of respondents agree

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and strongly agree that they know how to choose products that can cause lesser damage to the environment, respectively.

For the sixth item “I understand the environmental symbols and phrases on the product packaging”, 0.7% of respondents disagree that they understand the environmental symbols and phrases on the product packaging. Besides, 4.7% of respondents choose neutral for this item. On the other hand, 50.7% of respondents and 44% of respondents agree and strongly agree that they understand the environmental symbols and phrases on the product packaging, respectively.

From the table, it shows that the item “I know plastic bags take many years to decompose, hence causing pollution to the environment” with the mean of 4.45 is ranked in the first place. It is then followed by the item “I know how to preserve and not causing damages to the environment” with the mean of 4.43 in the second rank. For the item “I know the causes and effects of global warming”, it has the mean of 4.40 and is placed at the third rank. After that, the item “I understand the environmental symbols and phrases on the product packaging” gets the fourth rank with the mean of 4.38. Next, the item “I know how to choose products that can cause lesser damage to the environment” gets the fifth rank with the mean of 4.35. Lastly, for the item “I know more about recycling than others”, it has the mean of 4.34 and is ranked at the last place.

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#### 4.1.2.5 Purchase Intention

Table 4.10: Central Tendency of Purchase Intention

Statement	SD	D	N	A	SA	Mean	Rank
I will consider purchasing environmentally friendly products for sure.	1.3	1.0	6.0	59.0	32.7	4.21	1
I will prioritize environmentally friendly products during shopping.	1.3	5.7	12.3	50.0	30.7	4.03	3
I feel like purchasing environmentally friendly products.	2.0	3.3	14.3	51.0	29.3	4.02	4
The possibility of choosing environmentally friendly product in my next purchase is very high.	1.7	2.7	15.0	49.7	31.0	4.06	2
I will recommend an environmentally friendly product to people around me.	2.3	2.0	22.0	43.7	30.0	3.97	5

**Source:** Developed for Research

SD – Strongly Disagree

D – Disagree

N – Neutral

A – Agree

SA – Strongly Agree

Table 4.10 shows the mean value, percentage of responses and ranking for each of the question under the mediator, which is “purchase intention”.

For the first item “I will consider purchasing environmentally friendly products for sure”, 1.3% of respondents strongly disagree that they will consider purchasing

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environmentally friendly products. Besides, 1% of the respondents choose disagree for this item, whereas 6% of respondents choose neutral. However, 59% of respondents and 32.7% of respondents agree and strongly agree that they will consider purchasing environmentally friendly products, respectively.

For the second item “I will prioritize environmentally friendly products during shopping”, 1.3% of respondents strongly disagree that they will prioritize environmentally friendly products during shopping. 5.7% of respondents also disagree that they will prioritize environmentally friendly products during shopping. Besides, 12.3% of respondents choose neutral for this item. However, 50% of respondents and 30.7% of respondents agree and strongly agree that they will prioritize environmentally friendly products during shopping, respectively.

For the third item “I feel like purchasing environmentally friendly products”, 2% of respondents strongly disagree that they feel like purchasing environmentally friendly products. 3.3% of respondents choose disagree for this item whereas 14.3% of respondents choose neutral. However, 51% of respondents and 29.3% of respondents agree and strongly agree that they feel like purchasing environmentally friendly products, respectively.

For the fourth item “the possibility of choosing environmentally friendly product in my next purchase is very high”, 1.7% of respondents strongly disagree that the possibility of choosing environmentally friendly products in their next purchase is very high. 2.7% of respondents also disagree with this item. Besides, 15% of respondents choose neutral for this item. However, 49.7% of respondents and 31% of respondents agree and strongly agree that the possibility of choosing environmentally friendly products in their next purchase is very high, respectively.

For the fifth item “I will recommend an environmentally friendly product to people around me”, 2.3% of respondents strongly disagree that they will recommend an environmentally friendly product to people around them. 2% of respondents also

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disagree with this item. Besides, 22% of respondents choose neutral for this item. However, 43.7% of respondents and 30% of respondents agree and strongly agree that they will recommend an environmentally friendly product to people around them, respectively.

From the table, it shows that the item “I will consider purchasing environmentally friendly products for sure” with the mean of 4.21 is ranked in the first place. It is followed by the item “the possibility of choosing environmentally friendly product in my next purchase is very high” with the mean of 4.06 in the second rank. For the item “I will prioritize environmentally friendly products during shopping”, it has the mean of 4.03 and is placed at the third rank. After that, the item “I feel like purchasing environmentally friendly products” gets the fourth rank with the mean of 4.02. Lastly, for the item “I will recommend an environmentally friendly product to people around me”, it has the mean of 3.97 and is ranked at the last place.

#### 4.1.2.6 Purchase Behaviour of Environmentally Friendly Products among GenY

Table 4.11: Central Tendency of Purchase Behaviour of Environmentally Friendly Products among GenY

Statement	SD	D	N	A	SA	Mean	Rank
I tell myself which products are environmentally harmful and don't buy them anymore.	1.3	4.3	13.3	37.7	43.3	4.17	1
I pay more attention to environmentally friendly products when shopping.	1.7	10.0	6.3	40.3	41.7	4.10	4
I am more frequently deliberately purchase products which have a lower environmental impact.	2.0	6.7	9.3	41.7	40.3	4.12	3
I choose to purchase products that are environmentally friendly.	1.7	5.0	10.0	43.0	40.3	4.15	2

**Source:** Developed for Research

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SD – Strongly Disagree

D – Disagree

N – Neutral

A – Agree

SA – Strongly Agree

Table 4.11 shows the mean value and percentage of responses as well as ranking for each of the question under the mediator, which is “purchase behaviour of environmentally friendly products among GenY”.

For the first item “I tell myself which products are environmentally harmful and don’t buy them anymore”, 1.3% of respondents strongly disagree that they tell themselves which products are environmentally harmful and don’t buy them anymore. Besides, 4.3% of the respondents choose disagree for this item, whereas 13.3% of respondents choose neutral. However, 37.7% of respondents and 43.3% of respondents agree and strongly agree that they tell themselves which products are environmentally harmful and don’t buy them anymore, respectively.

For the second item “I pay more attention to environmentally friendly products when shopping”, 1.7% of respondents strongly disagree that they pay more attention to environmentally friendly products when shopping. 10% of respondents also disagree that they pay more attention to environmentally friendly products when shopping. Besides, 6.3% of respondents choose neutral for this item. However, 40.3% of respondents and 41.7% of respondents agree and strongly agree that they pay more attention to environmentally friendly products when shopping, respectively.

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For the third item “I am more frequently deliberately purchase products which have a lower environmental impact”, 2% of respondents choose strongly disagree that they are more frequently deliberately purchase products which have a lower environmental impact. There are 6.7% of respondents disagree for this item whereas 9.3% of respondents choose neutral. However, 41.7% of respondents and 40.3% of respondents agree and strongly agree that they are more frequently deliberately purchase products which have a lower environmental impact, respectively.

For the fourth item “I choose to purchase products that are environmentally friendly”, 1.7% of respondents strongly disagree that they choose to purchase products that are environmentally friendly. 5% of respondents also disagree with this item. Besides, 10% of respondents choose neutral for this item. However, 43% of respondents and 40.3% of respondents agree and strongly agree that they choose to purchase products that are environmentally friendly, respectively.

From the table, it shows that the item “I tell myself which products are environmentally harmful and don’t buy them anymore” with the mean of 4.17 is ranked in the first place. It is then followed by the item “I choose to purchase products that are environmentally friendly” with the mean of 4.15 in the second rank. For the item “I am more frequently deliberately purchase products which have a lower environmental impact”, it has the mean of 4.12 and is placed at the third rank. Lastly, for the item “I pay more attention to environmentally friendly products when shopping”, it has the mean of 4.10 and is ranked at the last place.

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## 4.2 Scale Measurement

Table 4.12 Internal Reliability Analysis

No.	Construct	Cronbach's Alpha	Number of Items
1	Product Attributes	0.862	4
2	Collectivism	0.946	5
3	Attitudes	0.885	4
4	Knowledge	0.974	6
5	Purchase Intention	0.968	5
6	Purchase Behaviour of Environmentally Friendly Products Among GenY	0.986	4

**Source:** Developed for the research

Based on Table 4.12, all the value of Cronbach's Alpha for each construct is more than 0.8, which means the reliability is good as mentioned by Sekaran (2003). The dependent variable "purchase behaviour of environmentally friendly products among GenY" has the highest alpha value of 0.986 with 4 items. The second highest alpha value is 0.974 from the independent variable "knowledge" measured by 6 items. It is then followed by the mediator "purchase intention" with the alpha value of 0.968 measured by 5 items. Next, the independent variable "collectivism" has the alpha value of 0.946 with 5 items. Last but not least, it is followed by the independent variables "attitudes" and "product attributes" with the alpha value of 0.885 and 0.862 respectively, both measured by 4 items.

## 4.3 Inferential Analysis

### 4.3.1 Pearson Correlation Analysis

Table 4.13 Correlation matrix for purchase behaviour of environmentally friendly products among generation Y (GenY) in Malaysia

		PAT	CT	AT	KT	PIT	PBGT
PAT	Pearson Correlation	1	.548**	.802**	.383**	.710**	.745**
	Sig. (2-tailed)		.000	.000	.000	.000	.000
	N	300	300	300	300	300	300
CT	Pearson Correlation	.548**	1	.663**	.396**	.641**	.641**
	Sig. (2-tailed)	.000		.000	.000	.000	.000
	N	300	300	300	300	300	300
AT	Pearson Correlation	.802**	.663**	1	.505**	.835**	.825**
	Sig. (2-tailed)	.000	.000		.000	.000	.000
	N	300	300	300	300	300	300
KT	Pearson Correlation	.383**	.396**	.505**	1	.540**	.566**
	Sig. (2-tailed)	.000	.000	.000		.000	.000
	N	300	300	300	300	300	300
PIT	Pearson Correlation	.710**	.641**	.835**	.540**	1	.898**
	Sig. (2-tailed)	.000	.000	.000	.000		.000
	N	300	300	300	300	300	300
PBGT	Pearson Correlation	.745**	.641**	.825**	.566**	.898**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	
	N	300	300	300	300	300	300

**Source:** Developed for the research

#### 4.3.1.1 Test of Significance

**H1:** There is a positive relationship between product attributes towards GenY's purchase intention of environmentally friendly products in Malaysia.

Based on Table 4.13, the correlation between product attributes and GenY's purchase intention of environmentally friendly products is at  $r = 0.710$  ( $p < 0.05$ ). It shows that

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product attributes have positive significant relationship with GenY's purchase intention of environmentally friendly products. Thus, H1 is supported.

**H2:** There is a positive relationship between collectivism towards GenY's purchase intention of environmentally friendly products in Malaysia.

According to Table 4.13, it shows the correlation between collectivism and GenY's purchase intention of environmentally friendly products is at  $r = 0.641$  ( $p < 0.05$ ). It shows that collectivism has positive significant relationship with GenY's purchase intention of environmentally friendly products. Hence, H2 is supported.

**H3:** There is a positive relationship between attitudes towards GenY's purchase intention of environmentally friendly products in Malaysia.

Based on Table 4.13, it shows the correlation between attitudes and GenY's purchase intention of environmentally friendly products is at  $r = 0.835$  ( $p < 0.05$ ). It shows that attitudes have positive significant relationship with GenY's purchase intention of environmentally friendly products. Hence, H3 is supported.

**H4:** There is a positive relationship between knowledge towards GenY's purchase intention of environmentally friendly products in Malaysia.

According to Table 4.13, it shows the correlation between knowledge and GenY's purchase intention of environmentally friendly products is at  $r = 0.540$  ( $p < 0.05$ ). It shows that knowledge has positive significant relationship with GenY's purchase intention of environmentally friendly products. Hence, H4 is supported.

**H5:** There is a positive relationship between purchase intention and purchase behaviour of environmentally friendly products among GenY in Malaysia.

Based on Table 4.13, it shows the correlation between purchase intention and purchase behaviour of environmentally friendly products among GenY in Malaysia is at  $r =$

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0.898 ( $p < 0.05$ ). It shows that there is a positive significant relationship between purchase intention and purchase behaviour of environmentally friendly products among GenY in Malaysia. Hence, H5 is supported.

#### 4.3.2 Linear – Regression: Multiple Linear Regression Analysis

##### 4.3.2.1 Relationship between Independent Variables and Mediator

Table 4.14 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.855 <sup>a</sup>	.731	.728	2.07254

a. Predictors: (Constant), KT, PAT,CT, AT

N = 300

**Source:** Developed for the research

Based on Table 4.14, the values are as below:

R = 0.855

R Square = 0.731

Adjusted R Square = 0.728

Both R and R – square shown in the above table are used to measure the association between all the variables. R – square shows the proportion of variation in the dependent variable that can be explained by the independent variables. If R – square is closer to 1, it means that it is perfectly related; otherwise the perfection of relationship will be lesser.

First of all, multiple regressions analysis is done on the independent variables and the mediator, which is purchase intention. From Table 4.14, the value of R – square is 0.731, which means that 73.1% of variation in purchase intention of environmentally friendly products among GenY can be explained by product attributes, collectivism, attitudes and knowledge. Besides, 26.9% of the variation in purchase intention of environmentally friendly products among GenY in Malaysia is explained by other unknown factors in the research.

Table 4.15 ANOVA

<b>ANOVA<sup>a</sup></b>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3448.196	4	862.049	200.690	.000 <sup>b</sup>
	Residual	1267.151	295	4.295		
	Total	4715.347	299			
a. Dependent Variable: PIT						
b. Predictors: (Constant), KT, PAT, CT, AT						

N = 300

**Source:** Developed for the research



Table 4.16 Multiple Linear Regressions

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.064	1.123		-.057	.955
	PAT	.134	.058	.117	2.307	.022
	CT	.182	.054	.137	3.377	.001
	AT	.662	.068	.574	9.741	.000
	KT	.175	.041	.150	4.279	.000

a. Dependent Variable: PIT

**Source:** Developed for the research

Table 4.15 shows the ANOVA table, which assesses the significance of the whole model. Since  $p < 0.05$ , therefore the model is significant. In other words, if one unit is changed in dependent variable, 0.731 units can be explained by all four independent variables.

After the multiple linear regressions analysis is completed, a formula that will show the relationship between independent variables and dependent variable will be formed based on the results obtained. Based on the Table 4.16, the beta for product attributes, collectivism, attitudes and knowledge are 0.134, 0.182, 0.662 and 0.175 respectively. It means that if there is one marginal increase in the independent variables, then the value of increment of dependent variable will depend on the beta value of the increased independent variables. From the table, “attitudes” has the highest beta and “product attributes” has the lowest beta. Since there is no independent variable with negative sign, it means there is no variable which has negative relationship with purchase intention. While the constant is -0.064, therefore the equation formed is:

$$Y = 0.134 X_1 + 0.182 X_2 + 0.662 X_3 + 0.175 X_4 - 0.064$$

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As “Y” is purchase intention of environmentally friendly products among GenY, “X1” is product attributes, “X2” is collectivism, “X3” is attitudes and “X4” is knowledge.

#### 4.3.2.2 Relationship between Independent Variables and Dependent Variables

Table 4.17 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.862 <sup>a</sup>	.743	.739	1.90419

a. Predictors: (Constant), KT, PAT,CT, AT

N = 300

**Source:** Developed for the research

Based on Table 4.17, the values are as below:

R = 0.862

R Square = 0.743

Adjusted R Square = 0.739

Next, multiple regression analysis is done on the independent variables and the dependent variable directly. From Table 4.17, the value of R – square is 0.743, which means that 74.3% of variation in purchase behaviour of environmentally friendly products among GenY can be explained by product attributes, collectivism, attitudes and knowledge. Besides, 25.7% of the variation in purchase behaviour of environmentally friendly products among GenY in Malaysia is explained by other unknown factors in the research.

Table 4.18 ANOVA

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3090.698	4	772.674	213.097	.000 <sup>b</sup>
	Residual	1069.649	295	3.626		
	Total	4160.347	299			
a. Dependent Variable: PBGT						
b. Predictors: (Constant), KT, PAT, CT, AT						

N = 300

**Source:** Developed for the research

Table 4.19 Multiple Linear Regressions

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-3.680	1.032		-3.567	.000
	PAT	.260	.053	.241	4.867	.000
	CT	.174	.049	.139	3.515	.001
	AT	.477	.062	.440	7.637	.000
	KT	.213	.037	.196	5.690	.000
a. Dependent Variable: PBGT						

**Source:** Developed for the research

According to the ANOVA table as shown in Table 4.18, the model is significant since  $p < 0.05$ .

After that, the beta for product attributes, collectivism, attitudes and knowledge are 0.260, 0.174, 0.477 and 0.213 respectively based on Table 4.19. From the table, “attitudes” has the highest beta and “collectivism” has the lowest beta. Since there is no independent variable with negative sign, it means there is no variable which has

negative relationship with purchase behaviour of environmentally friendly products among GenY. While the constant is -3.68, therefore the equation formed is:

$$Y = 0.260 X1 + 0.174 X2 + 0.477 X3 + 0.213 X4 - 3.68$$

As “Y” is purchase behaviour of environmentally friendly products among GenY, “X1” is product attributes, “X2” is collectivism, “X3” is attitudes and “X4” is knowledge.

### 4.3.3 Linear Regression – Simple Linear Regression Analysis

#### 4.3.3.1 Relationship between Mediator and Dependent Variable

Table 4.20 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.898 <sup>a</sup>	.806	.805	1.64642

a. Predictors: (Constant), PIT

N = 300

**Source:** Developed for the research

Simple regression analysis is done to test the strength of the linear relationship between the mediator and the dependent variable in this research. From Table 4.20, the value of R – square is 0.806, which means that 80.6% of variation in purchase behaviour of environmentally friendly products among GenY can be explained by purchase intention of environmentally friendly products among GenY. Besides, 19.4% of the variation in purchase behaviour of environmentally friendly products among GenY in Malaysia is explained by other unknown factors in the research.

Table 4.21 ANOVA

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3352.557	1	3352.557	1236.785	.000 <sup>b</sup>
	Residual	807.789	298	2.711		
	Total	4160.347	299			
a. Dependent Variable: PBGT						
b. Predictors: (Constant), PIT						

N = 300

**Source:** Developed for the research

Table 4.22 Simple Linear Regression

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.559	.496		-1.128	.260
	PIT	.843	.024	.898	35.168	.000
a. Dependent Variable: PBGT						

**Source:** Developed for the research

According to the ANOVA table as shown in Table 4.21, the model is significant since  $p < 0.05$ . The beta for purchase intention of environmentally friendly products among GenY is 0.843 based on Table 4.22. Since the constant is -0.559, therefore the equation formed is:

$$Y = 0.843 X_1 - 0.559$$

Where “Y” is purchase behaviour of environmentally friendly products among GenY, and “X1” is purchase intention.

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#### 4.3.4 Mediation Analysis

The mechanism of mediation analysis developed by Andrew Hayes (Hayes, 2012) named as PROCESS is performed in order to test the mediation effect of purchase intention of environmentally friendly products among GenY between all independent variables (product attributes, collectivism, attitudes and knowledge) and purchase behaviour of environmentally friendly products among GenY.

##### 4.3.4.1 Mediation Effect of Purchase Intention between Product Attributes and Purchase Behaviour of Environmentally Friendly Products among GenY

Table 4.23 Outcome Variable: Purchase Intention

Model Summary							
	R	R - Sq	MSE	F	df1	df2	P
	0.7099	0.5040	7.8490	302.7591	1.0000	298.0000	0.0000
Model							
	coeff	se	t	p	LLCI	ULCI	
Constant	8.5717	0.6924	12.3791	0.0000	7.2090	9.9344	
PAT	0.8166	0.0469	17.4000	0.0000	0.7242	0.9089	

**Source: Developed for the research**

Table 4.24 Outcome Variable: Purchase Behaviour of Environmentally Friendly Products among GenY in Malaysia

Model Summary							
	R	R - Sq	MSE	F	df1	df2	P
	0.9107	0.8294	2.3898	721.9385	2.0000	297.0000	0.0000
Model							
	coeff	se	t	p	LLCI	ULCI	
Constant	-0.9891	0.4702	-2.1038	0.0362	-1.9144	-0.0638	
PAT	0.2355	0.0368	6.4043	0.0000	0.1631	0.3078	
PIT	0.6979	0.0320	21.8330	0.0000	0.6350	0.7608	

**Source: Developed for the research**

Table 4.25 Total Effect Model: Purchase Behaviour of Environmentally Friendly Products among GenY in Malaysia

Model Summary							
	R	R - Sq	MSE	F	df1	df2	P
	0.7454	0.5556	6.2045	372.5385	1.0000	298.0000	0.0000
Model							
	coeff	se	t	p	LLCI	ULCI	
Constant	4.9929	0.6156	8.1102	0.0000	3.7813	6.2044	
PAT	0.8053	0.0417	19.3013	0.0000	0.7232	0.8874	

**Source: Developed for the research**

Table 4.26 Total, Direct and Indirect Effects of X on Y

Indirect effect(s) of X on Y				
	Effect	BootSE	BootLLCI	BootULCI
PIT	0.5699	0.0464	0.4799	0.6616

**Source: Developed for the research**

According to Table 4.23, “product attributes” has the coefficient of 0.8166, and it has a significant relationship with purchase intention since  $p < 0.05$ . On the other hand, Table 4.24 shows that purchase intention has a significant relationship with purchase behaviour of environmentally friendly products among GenY in Malaysia, with the coefficient of 0.6979 with  $p < 0.05$ .



Besides, there is also a significant relationship between “product attributes” with purchase behaviour of environmentally friendly products among GenY in Malaysia, with the coefficient of 0.8053, with  $p < 0.05$  based on Table 4.25. Despite of all the significant relationship with or without purchasing intention as the mediator, Table 4.26 shows that there will be a significant and stronger relationship with purchase intention as a mediator, since it has a value of 0.5699 which is between the lower limit confidence interval, 0.4799 and higher limit confidence interval, 0.6616.

#### 4.3.4.2 Mediation Effect of Purchase Intention between Collectivism and Purchase Behaviour of Environmentally Friendly Products among GenY

Table 4.27 Outcome Variable: Purchase Intention

Model Summary							
	R	R - Sq	MSE	F	df1	df2	P
	0.6413	0.4112	9.3163	208.1407	1.0000	298.0000	0.0000
Model							
	coeff	se	t	p	LLCI	ULCI	
Constant	2.1201	1.2715	1.6675	0.0965	-0.3821	4.6223	
CT	0.8509	0.0590	12.4271	0.0000	0.7348	0.9670	

**Source: Developed for the research**

Table 4.28 Outcome Variable: Purchase Behaviour of Environmentally Friendly Products among GenY in Malaysia

Model Summary							
	R	R - Sq	MSE	F	df1	df2	P
	0.9017	0.8131	2.6183	645.9664	2.0000	297.0000	0.0000
Model							
	coeff	se	t	p	LLCI	ULCI	
Constant	-2.1554	0.6772	-3.1829	0.0016	-3.4882	-0.88227	
CT	0.1383	0.0407	3.3932	0.0008	0.0581	0.2815	
PIT	0.7764	0.0307	25.2808	0.0000	0.7159	0.8368	

**Source: Developed for the research**

Table 4.29 Total Effect Model: Purchase Behaviour of Environmentally Friendly Products among GenY in Malaysia

Model Summary							
	R	R - Sq	MSE	F	df1	df2	P
	0.6410	0.4109	8.2250	207.8145	1.0000	298.0000	0.0000
Model							
	coeff	se	t	p	LLCI	ULCI	
Constant	-0.5094	1.1947	-0.4264	0.6701	-2.8605	1.8417	
CT	0.7989	0.0554	14.4158	0.0000	0.6898	0.9079	

**Source: Developed for the research**

Table 4.30 Total, Direct and Indirect Effects of X on Y

Indirect effect(s) of X on Y				
	Effect	BootSE	BootLLCI	BootULCI
PIT	0.6606	0.0566	0.5491	0.7698

**Source: Developed for the research**

According to Table 4.27, “collectivism” has the coefficient of 0.8509, and it has a significant relationship with purchase intention since  $p < 0.05$ . On the other hand, Table 4.28 shows that purchase intention has a significant relationship with purchase behaviour of environmentally friendly products among GenY in Malaysia, with the coefficient of 0.7764 with  $p < 0.05$ .

Besides, there is also a significant relationship between “collectivism” with purchase behaviour of environmentally friendly products among GenY in Malaysia, with the

coefficient of 0.7989, with  $p < 0.05$  based on Table 4.29. Despite of all the significant relationship with or without purchasing intention as the mediator, Table 4.30 shows that there will be a significant and stronger relationship with purchase intention as a mediator, since it has a value of 0.6606 which is between the lower limit confidence interval, 0.5491 and higher limit confidence interval, 0.7698.

#### 4.3.4.3 Mediation Effect of Purchase Intention between Attitudes and Purchase Behaviour of Environmentally Friendly Products among GenY

Table 4.31 Outcome Variable: Purchase Intention

Model Summary							
	R	R - Sq	MSE	F	df1	df2	P
	0.8347	0.6967	4.7987	684.6340	1/0000	298.0000	0.0000
Model							
	coeff	se	t	p	LLCI	ULCI	
Constant	5.8333	0.5667	10.2940	0.0000	4.7181	6.9485	
AT	0.9616	0.0368	26.1655	0.0000	0.8893	1.0340	

**Source: Developed for the research**

Table 4.32 Outcome Variable: Purchase Behaviour of Environmentally Friendly Products among GenY in Malaysia

Model Summary							
	R	R - Sq	MSE	F	df1	df2	P
	0.9081	0.8246	2.4564	698.3458	2.0000	297.0000	0.0000
Model							
	coeff	se	t	p	LLCI	ULCI	
Constant	-0.6485	0.4720	-1.3737	0.1706	-1.5774	0.2805	
AT	0.2695	0.0477	5.6439	0.0000	0.1755	0.3635	
PIT	0.6480	0.0414	15.6338	0.0000	0.5664	0.7295	

**Source: Developed for the research**

Table 4.33 Total Effect Model: Purchase Behaviour of Environmentally Friendly Products among GenY in Malaysia

Model Summary							
	R	R - Sq	MSE	F	df1	df2	P
	0.8248	0.6803	4.4628	634.2253	1.0000	298.0000	0.0000
Model							
	coeff	se	t	p	LLCI	ULCI	
Constant	3.1313	0.5465	5.7298	0.0000	2.0558	4.2067	
AT	0.8926	0.0354	25.1838	0.0000	0.8228	0.9623	

**Source: Developed for the research**

Table 4.34 Total, Direct and Indirect Effects of X on Y

Indirect effect(s) of X on Y				
	Effect	BootSE	BootLLCI	BootULCI
PIT	0.6231	0.0497	0.5260	0.7204

**Source: Developed for the research**

According to Table 4.31, “attitudes” has the coefficient of 0.9616, and it has a significant relationship with purchase intention of environmentally friendly products among GenY in Malaysia since  $p < 0.05$ . On the other hand, Table 4.32 shows that purchase intention has a significant relationship with purchase behaviour of

environmentally friendly products among GenY in Malaysia, with the coefficient of 0.6480 with  $p < 0.05$ .

Besides, there is also a significant relationship between “attitudes” with purchase behaviour of environmentally friendly products among GenY in Malaysia, with the coefficient of 0.8926, with  $p < 0.05$  based on Table 4.33. Despite of all the significant relationship with or without purchasing intention as the mediator, Table 4.34 shows that there will be a significant and stronger relationship with purchase intention as a mediator, since it has a value of 0.6231 which is between the lower limit confidence interval, 0.5260 and higher limit confidence interval, 0.7204.

#### **4.3.4.4 Mediation Effect of Purchase Intention between Knowledge and Purchase Behaviour of Environmentally Friendly Products among GenY**

Table 4.35 Outcome Variable: Purchase Intention

Model Summary							
	R	R - Sq	MSE	F	df1	df2	P
	0.5396	0.2912	11.2157	122.4231	1.0000	298.0000	0.0000
Model							
	coeff	se	t	p	LLCI	ULCI	
Constant	3.7879	1.5036	2.5191	0.0123	0.8288	6.7469	
KT	0.6261	0.0566	11.0645	0.0000	0.5148	0.7375	

**Source: Developed for the research**

Table 4.36 Outcome Variable: Purchase Behaviour of Environmentally Friendly Products among GenY in Malaysia

Model Summary							
	R	R - Sq	MSE	F	df1	df2	P
	0.9029	0.8152	2.5890	654.9572	2.0000	297.0000	0.0000
Model							
	coeff	se	t	p	LLCI	ULCI	
Constant	-2.6752	0.7301	-3.6642	0.0003	-4.1120	-1.2384	
KT	0.1251	0.0323	3.8736	0.0001	0.0615	0.1887	
PIT	0.7850	0.0278	28.2057	0.0000	0.7303	0.8398	

**Source: Developed for the research**



Table 4.37 Total Effect Model: Purchase Behaviour of Environmentally Friendly Products among GenY in Malaysia

Model Summary							
	R	R - Sq	MSE	F	df1	df2	P
	0.5658	0.3201	9.4922	140.2923	1.0000	298.0000	0.0000
Model							
	coeff	se	t	p	LLCI	ULCI	
Constant	0.2984	1.3833	0.2157	0.8293	-2.4238	3.0206	
KT	0.6166	0.0521	11.8445	0.0000	0.5142	0.7191	

**Source: Developed for the research**

Table 4.38 Total, Direct and Indirect Effects of X on Y

Indirect effect(s) of X on Y				
	Effect	BootSE	BootLLCI	BootULCI
PIT	0.4915	0.0544	0.3829	0.5960

**Source: Developed for the research**

According to Table 4.35, “knowledge” has the coefficient of 0.6261, and it has a significant relationship with purchase intention of environmentally friendly products among GenY in Malaysia since  $p < 0.05$ . On the other hand, Table 4.36 shows that purchase intention has a significant relationship with purchase behaviour of environmentally friendly products among GenY in Malaysia, with the coefficient of 0.7850 with  $p < 0.05$ .

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Besides, there is also a significant relationship between “knowledge” with purchase behaviour of environmentally friendly products among GenY in Malaysia, with the coefficient of 0.6166, with  $p < 0.05$  based on Table 4.37. Despite of all the significant relationship with or without purchasing intention as the mediator, Table 4.38 shows that there will be a significant and stronger relationship with purchase intention as a mediator, since it has a value of 0.4915 which is between the lower limit confidence interval, 0.3829 and higher limit confidence interval, 0.5960.

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## **CHAPTER 5**

### **DISCUSSION AND CONCLUSION**

#### **5.0 Introduction**

This chapter defines the outcome and conclude this research in overall. It begins with the summary of the previous statistical analyses, followed by the discussion of major findings. Next, the limitations of this research will be discussed. After that, theoretical implications, managerial implications and recommendations for future research will be discussed also. Last but not least, a conclusion that provides a brief summary of the study is made.

#### **5.1 Summary of Statistical Analysis**

##### **5.1.1 Descriptive Analysis**

The respondents' demographic profiles were examined according to gender, age, marital status, education level and personal monthly income level. From the result, 57% of the respondents are male and 43% of the respondents are female. Most of the respondents are between the ages of 26 – 30 years old (70%). Most of the respondents are single, which consist of 53.7%. For education level, 80.3% of the respondents own a bachelor degree of professional certificate, which means the respondents are quite

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highly educated since they have undergone tertiary education. Lastly, majority of the respondents are earning their personal monthly income in the range of RM 3,001 – RM 4,000 (57.3%).

The summary of central tendency analysis for all variables and mediator will be discussed as well. First of all, the mean range for “product attributes” is between 3.03 – 4.00. The item that ranks in the first place is “I buy product that are labelled as environmentally safe” while the item that ranks in the last place is “When I buy a product, I will search for the certified environmentally friendly safe stamp”. Secondly, the mean range for “collectivism” is between 4.24 – 4.29. There are three items that ranking in the first place, which are “I am cooperative while participating in group activities”, “I work hard for the goals of my group”, and “I am ready to help others in the group”; while the item that ranks in the last place is “I enjoy spending time and sharing things within my group”. Thirdly, the mean range for “attitudes” is 3.18 – 4.22. The item that ranks in the first place is “I am willing to spend slightly more for an environmentally friendly product” while the item that ranks in the last place is “Green purchase will give more benefits compared to non – green purchase”.

Next, the mean range for “knowledge” is 4.34 – 4.45. The item that ranks in the first place is “I know plastic bags take many years to decompose, hence causing pollution to the environment” while the item that ranks in the last place is “I know more about recycling than others”. For the mediator which is “purchase intention”, the mean range is 3.97 – 4.21. The item that ranks in the first place is “I will consider purchasing environmentally friendly products for sure” while the item that ranks in the last place is “I will recommend an environmentally friendly product to people around me”. Last but not least, the dependent variable “purchase behaviour of environmentally friendly products among GenY in Malaysia” has the mean range of 4.10 – 4.17. The item that ranks in the first place is “I tell myself which products are environmentally harmful and don’t buy them anymore” while the item that ranks in the last place is “I pay more attention to environmentally friendly products when shopping”.

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### **5.1.2 Scale Measurement**

The scale measurement was measured based on the reliability test and Cronbach's Alpha to examine the 28 items that were used to observe all the variables and mediator in the study. "Purchase behaviour of environmentally friendly products among GenY" has the highest Cronbach's alpha of 0.986, whereas "product attributes" has the lowest Cronbach's alpha which is 0.862. The results obtained are reliable since the values are between 0.8 and 1.0.

### **5.1.3 Inferential Analysis**

#### **5.1.3.1 Pearson's Correlation Analysis**

All the independent variables showing positive relationship and significance with the mediator since the correlation values are all positive and the significance values are 0.000. Besides, the mediator is also proven to have positive relationship and significance with the dependent variable, given the positive correlation value and significance value of 0.000.

#### **5.1.3.2 Multiple Linear Regression Analysis**

From the multiple linear regression analysis for the relationship between the independent variables and the mediator, the value of the R – Square is 0.731, which means 73.1% of variation in purchase intention can be explained by product attributes, collectivism, attitudes and knowledge. Furthermore, the ANOVA table shows that the whole regression model is significant with  $p < 0.05$ , while F value is 200.690.

Besides, the equation established in this study revealed the relationship between product attributes (+0.134), collectivism (+0.182), attitudes (+0.662) and knowledge (+0.175), whereby one unit of them increase will cause a marginal increase of 0.134,

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0.182, 0.662 and 0.175 respectively in purchase intention. From the result got from the analysis, the equation formed is:

$$Y = 0.134 X1 + 0.182 X2 + 0.662 X3 + 0.175 X4 - 0.064$$

As “Y” is purchase intention of environmentally friendly products among GenY, “X1” is product attributes, “X2” is collectivism, “X3” is attitudes and “X4” is knowledge.

In the meantime, the multiple linear regressions analysis for the relationship between the independent variables and the dependent variable, the value of the R – Square is 0.743, which means 74.3% of variation in purchase behaviour of environmentally friendly products among GenY can be explained by product attributes, collectivism, attitudes and knowledge. Furthermore, the ANOVA table shows that the whole regression model is significant with  $p < 0.05$ , while F value is 213.097.

Besides, the equation established in this study revealed the relationship between product attributes (+0.260), collectivism (+0.174), attitudes (+0.477) and knowledge (+0.213), whereby one unit of them increase will cause a marginal increase of 0.260, 0.174, 0.477 and 0.213 respectively in purchase behaviour of environmentally friendly products among GenY. From the result got from the analysis, the equation formed is:

$$Y = 0.260 X1 + 0.174 X2 + 0.477 X3 + 0.213 X4 - 3.68$$

As “Y” is behaviour of environmentally friendly products among GenY, “X1” is product attributes, “X2” is collectivism, “X3” is attitudes and “X4” is knowledge.

### **5.1.3.3 Simple Linear Regressions Analysis**

From the single linear regression analysis for the relationship between the mediator and the dependent variable, the value of the R – Square is 0.806, which means 80.6% of variation in purchase behaviour of environmentally friendly products among GenY can

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be explained by purchase intention. Furthermore, the ANOVA table shows that the whole regression model is significant with  $p < 0.05$ , while F value is 1236.785.

Besides, the equation established in this study revealed the relationship of purchase intention of environmentally friendly products among GenY (+0.843), whereby one unit of the mediator's increase will cause a marginal increase of 0.843 in purchase behaviour of environmentally friendly products among GenY. From the result got from the analysis, the equation formed is:

$$Y = 0.843 X1 - 0.559$$

As "Y" is purchase behaviour of environmentally friendly products among GenY, whereas "X1" is purchase intention.

#### **5.1.3.4 Mediation Analysis**

Based on the mediation analysis performed, it is found that every independent variable shows a significant and stronger relationship with purchase intention. In other words, it means that the influence of the mediator (purchase intention) is stronger than the direct influence of the independent variables (product attributes, collectivism, attitudes, knowledge).

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## 5.2 Discussion on Major Findings

Table 5.1: Results of the Hypotheses Testing

Hypotheses	Values Scored	Decision
H1: There is a positive relationship between product attributes towards GenY's purchase intention of environmentally friendly products in Malaysia.	$\beta = 0.134$ p-value = 0.022 < 0.05	Supported
H2: There is a positive relationship between collectivism towards GenY's purchase intention of environmentally friendly products in Malaysia.	$\beta = 0.182$ p-value = 0.001 < 0.05	Supported
H3: There is a positive relationship between attitudes towards GenY's purchase intention of environmentally friendly products in Malaysia.	$\beta = 0.662$ p-value = 0.000 < 0.05	Supported
H4: There is a positive relationship between knowledge towards GenY's purchase intention of environmentally friendly products in Malaysia.	$\beta = 0.175$ p-value = 0.000 < 0.05	Supported
H5: There is a positive relationship between purchase intention and purchase behaviour of environmentally friendly products among GenY in Malaysia.	$\beta = 0.843$ p-value = 0.000 < 0.05	Supported

**Source:** Developed for Research

All hypotheses are supported in this study, and the results are summarized as shown in Table 5.1.



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**H1: There is a positive relationship between product attributes towards GenY's purchase intention of environmentally friendly products in Malaysia.**

As predicted, GenY consumers tend to purchase environmentally friendly products because they are willing to look at the environmental attributes of the products they are going to purchase and understand them, since they are seen as educated individuals (Lu et al., 2013), mature (Syrett & Lammiman, 2003) and most environmentally conscious (Vermillion & Peart, 2010). Besides, the result is also supported by Azzone and Bertele (1994) mentioning consumers will consider the environmental compatibility of the products when make their purchases. Next, marketers have to pay attention to this variable and plan strategies based on findings by Rashid (2009) and Barber (2010) mentioning the importance of environmental packaging and eco – labelling. Last but not least, perceived value and product quality are crucial in determining consumers' purchase decisions for this variable, as mentioned by Chatterjee (2009), Akbar et al. (2014) and Xu et al., (2018).

**H2: There is a positive relationship between collectivism towards GenY's purchase intention of environmentally friendly products in Malaysia.**

Collectivism is proven to have positive relationship with GenY's purchase intention of environmentally friendly products in Malaysia. Laroche et al. (2001) supported this result by mentioning collectivism will influence consumers' behaviours. While Carrillat et al. (2009) found that value perceptions are essential in testing purchase intention, collectivism has been confirmed to affect various types of social behaviours (Lee, 2017). Since this is the case, environmental values owned by collectivists play a major role for them to perform environmentally friendly behaviours (Pickett - Baker & Ozaki, 2008) such as purchasing environmentally friendly products.

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**H3: There is a positive relationship between attitudes towards GenY's purchase intention of environmentally friendly products in Malaysia.**

Attitude was tested to have positive significant relationship with GenY's purchase intention of environmentally friendly products. In fact, it has the strongest effect among all independent variables. This result is supported by Barber et al. (2009), Xu et al. (2019) and Akbar et al. (2014) mentioning that attitude can lead to certain intentions in performing kind and thoughtful behaviours, such as purchasing environmentally friendly products. Furthermore, Jaganath (2016) supported that environmental attitude has a positive influence among young consumers' green purchasing behaviour. Azjen and Fishbein (1980), Yadav and Pathak (2016) as well as Prakash & Pathak (2017) also supported the result of this study, where they found that attitude will affect a person's behavioural intention, which means that environmental attitude is a crucial predictor of a consumer's purchasing intention of environmentally friendly products.

When there is an intention to purchase environmentally friendly products, then the intention may be converted into actual behaviour (Kotchen & Reiling, 2000; Balderjahn, 1988; Tanner and Kast, 2003). Consumers will tend to consume environmentally friendly products if they have favourable attitude towards environmentally friendly activities (Paco et al., 2009; Laroche et. al., 2001; Krarup & Russell, 2005). Even the price of an environmentally friendly product is higher, they may be willing to pay more (Chyong et al., 2006).

**H4: There is a positive relationship between knowledge towards GenY's purchase intention of environmentally friendly products in Malaysia.**

The researcher proved that knowledge has positive significant relationship with purchase intention of environmentally products, mainly supported by a few researchers including Peattie (1995), Akbar et al. (2014), Wang et al. (2014), D'Souza et al. (2007), Chan (1999), Vining & Ebreo (1990) and Maichum et al. (2016). The reason is because consumers who are knowledgeable about the environment, the causes of pollution and

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impacts on the environment will be more aware of environmental issues and hence positive attitude towards environmentally friendly products will be cultivated (D'Souza et al., 2006). When environmental knowledge will cultivate environmental attitude among consumers, then the chance for them to have the intention to purchase environmentally friendly products is higher.

**H5: There is a positive relationship between purchase intention and purchase behaviour of environmentally friendly products among GenY in Malaysia.**

The study proves that purchase intention has a significant positive relationship with purchase behaviour of environmentally friendly products, supported by TPB as mentioned by Ajzen & Fishbein (1975), further supported by findings of Berkman & Gilson (1978), Chandon et al. (2005), Lee et al. (2011) and Ko et al. (2013). Besides, this hypothesis is can be also supported by findings from Vermillion and Peart (2010) mentioning that GenY consumers are the most environmentally conscious. When they are more supportive to social causes and socially responsible companies as stated by Furlow (2011) then they will have more intention to purchase environmentally friendly products.

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## **5.3 Implications on the Study**

### **5.3.1 Theoretical Implications**

First and foremost, all four independent variables (product attributes, collectivism, attitudes and knowledge) are showing a significant and stronger relationship with purchase intention as a mediator, which is supported by the TPB mentioning that a behaviour can be predicted from its intention. This research contributes to the body of knowledge since its conceptual model was amended by the TPB model in order to investigate GenY consumers purchase behaviour of environmentally friendly products in Malaysia as a developing country, by providing empirical evidence meanwhile supported by past studies from various researchers. It is a very fresh attempt, as most of such studies are done in developed countries.

Besides, this research investigates the impact of several variables on environmentally friendly products purchase intention and behaviour which have significant theoretical implications. First of all, this research confirms the intention and behaviour to purchase environmentally friendly products requires an overall conscious evaluation of individual, social and environmental consequences related to a particular environmentally friendly product (Kumar & Ghodeswar, 2015). To be more precise, the conscious evaluation of individual portion is related to the factor of attitudes and knowledge, meanwhile the social evaluation is related to the factor of collectivism whereas the environmental evaluation is related to product attributes. Furthermore, this situation explains that the GenY consumers are looking satisfaction in terms of experience, functional and emotional in influencing their purchase intention and ultimately purchase behaviour, reflecting the relevance of environmentally friendly lifestyle with their consumption behaviours.

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Next, it is also believed that the result of this research is supported by the social cognitive theory. According to Bandura (1977) the social cognitive theory explains that human behaviour is dynamic, triadic and mutual interactions of individual factors, behaviour and the environment. As humans are both producers and products of the environment, hence a person's behaviour will influence the aspects of the environment they are exposed, and then the environment will change a person's behaviour (Bandura, 1977). In example, the information derived from the environment such as product knowledge is able to affect a purchase decision (Diamantopoulos et al., 2013) or vice versa, such as a collectivists personal behaviour will be influence by other collectivists as well, which is seen as the "environment".

### **5.3.2 Managerial Implications**

Marketing managers are able to benefit from this research to design more effective marketing strategies in promoting environmentally friendly products to GenY consumers in Malaysia, as this research and its theoretical basis hold an important implication for the growth of accepting environmentally friendly products in a developing country, which eventually will be converted into purchase intention then behaviour. According to most researchers, firms which go green are able to increase their market share, profitability and higher customer satisfaction. In this case, marketers are recommended to pay extra attention to the most important factor which influencing green purchase behaviour.

According to the study, attitudes were found to have the highest influence on both purchase intention and purchase behaviour of environmentally friendly products. First of all, the government and companies should put effort in enhancing GenY consumers green purchase attitudes. For instance, government and companies can cultivate the formation of social norms environmentally friendly consumption through actions such as offering subsidies to environmentally friendly products. Meanwhile, marketers should also develop a realistic pricing strategy to environmentally friendly products in order to make them common, instead of positioning them as superior products by

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implementing premium pricing strategy, taking advantage that consumers who appreciate green benefits may not see price as a purchase barrier. If most of the GenY consumers especially those unconcerned to the environment are not willing to pay higher price for environmentally friendly products, then the purchase decision will be unlikely. According to Bezawada and Pauwels (2013) decreasing prices is effective to encourage consumers to purchase environmentally friendly products.

For product attributes, creating a favourable product image by showing an environmentally friendly product's solid benefits towards the environment will influence the consumers to value and appreciate the product, and eventually leads to environmentally consumption patterns. Emphasis of benefits will be depending on the positioning of the products. Green elements of the products are to be emphasized also such as more environmentally friendly production process, environmentally friendly packaging materials and clear environmental information on the product packaging as part of the efforts to create an environmentally friendly product image. Lack of knowledge on the environmentally friendly product characteristics will cause reluctance in making purchases, thus firms should also emphasize on information such as authority certifications. In addition, firms should consistently innovate and produce new environmentally friendly products with better functions with lower costs, since the technological advancement is getting faster nowadays.

In collectivists' point of view, peer influence is crucial in making purchase decisions as group conformance will give confidence and reinforcement of commitments (Khare, 2015). Firms are advised to use advertising appeals depicting "peer influence" and "green self – identity" to promote environmentally friendly products. It is believed that green self – identity which comprises of environmental consciousness, environmental behaviour and attitudes are able to improve the consumers' social status by exhibiting commitment towards environmental causes. Eventually, such beliefs will be able to influence other collectivists to become potential consumers of environmentally friendly products. In addition, marketing managers can also stress more on messages on their

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environmentally friendly products that emphasize society welfare and warm relations as the virtue of green expenditure (Laroche et al., 2001).

For the factor “knowledge”, marketers can share environmental knowledge through promotions, campaigns and other environmental related initiatives in order to create more awareness of the environment among the public. However, some GenY may be insensitive to environmental messages if they are not environmentally friendly. Thus, companies may consider educating them by looking at regional and language diversity as well as problem of illiteracy in rural or semi – urban areas. It is important to convey the message that their contribution to the environment is significant despite it may look small. All communications need to be simple and straight to the point. Simple but informative campaigns providing environmental protection information to this type of consumers are able to encourage them to make environmental purchase decision.

Next, marketers can increase the purchase intention of environmentally friendly products by addressing both individual and environmental product consequences. Despite it is important to communicate the positive environmental consequences in order to change environmental attitudes, however it is also very crucial to emphasize on the product environmental consequences without generalizing its environmental consequences to stimulate consumers’ intention. One of the examples given by Follows and Jobber (2000) is a firm producing environmentally friendly paint should focus on the disposal issues and specific hazards on the toxic elements in their competitors instead of discussing the problems of waste management and global warming. Firms should implement a proactive standpoint that will enable them to develop products that can satisfy the consumers’ own satisfaction, at the same time providing long – term benefit to the society. Therefore, it is crucial to understand the salient unfavourable individual consequences and improve them to bring out consumers’ attitudinal change.

Last but not least, marketers can design related strategies in encouraging the consumers to share their consumption experiences with other potential buyers with the purpose of increase the confidence of consumers on purchasing environmentally friendly products.

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Social media sites and blogs are very useful for this purpose, given the GenY consumers are very technological savvy.

#### **5.4 Limitations of the Study**

There are some limitations which need to be taken into account for future researches. Firstly, the nature of cross – sectional study for this research can be considered as a limitation as mentioned by Laroche et al. (2001). When a study is done in a cross – sectional perspective instead of a longitudinal perspective, then the knowledge of the model studied will be constrained as the impact of the study and the result may differ based on the time frame – chosen, since cross – sectional study is just providing knowledge at a certain time frame (Laroche et al., 2001).

Secondly, this research is done with the assumption of environmentally friendly products in general without focusing on certain category or specific product. Hence, it will be a question whether this research will be applicable in every category or product. Besides, as this research is just focusing on Malaysia context only, its result may not be applicable in other countries. Further study is needed to examine the purchase behaviour of environmentally friendly products among GenY in the context of different products and countries.

Next, despite the TPB has been proven to be a suitable model in explaining behaviour in various perspectives, yet this research is based on self – reported and self – assessment behaviour, where individuals usually tend to overestimate their self – reported behaviour (Armitage & Conner, 2001). In other words, the results of behaviour in purchasing environmentally friendly products in the survey and the actual purchasing behaviour may vary. This can happen when consumers judge the environmental impact of certain products by their impact incorrectly. Assuming if consumers are willing to purchase an environmentally friendly product, but there is a possibility where their subjective evaluation may be deviated due to the complexity of the products in terms of origin, composition, diversity and differentiation. As a result, consumers will



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become confuse while making green purchase decisions, especially if there is no practical assistance given, for instance product packaging and label mentioning the product's green attributes (Moser, 2015).

Last but not least, there may be other factors that affect the purchase intention and purchase behaviour of environmentally friendly products other than “product attributes”, “collectivism”, “attitudes” and “knowledge”.

## **5.5 Recommendations for Future Research**

Firstly, future researchers can develop a similar study by focusing on a particular type or category of product, as it is believed that different type or category of environmentally friendly product may lead to different purchasing intention and behaviour. For example, Follows and Jobber (2000) recommended researchers to test purchasing intention behaviour for both high involvement products such as diapers and low involvement products which are purchased in a regular basis such as detergent and paper due to the influence of the consumers' value orientation stability over a certain period of time.

Besides, researchers can conduct similar studies in the context of different countries also. Researchers may focus on selecting countries which environmental awareness is low because it provides a comparison between environmentally friendly behaviour of self – proclaimed green and non – green consumers, which will help researchers to understand the reasons of non – green consumers for not buying environmentally friendly products. Cultural differences among various countries from the perspectives of habits, preferences and situational factors can be investigated.

Next, other potential factors should be explored in future studies, for instance the influence of discounts, advertising as well as effect of demographic variables such as income, gender, education level and marital status can be tested on purchase intention

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and purchase behaviour. External forces such as environmental laws by the government and international regulations can be examined also (Punyatoya, 2015).

Lastly, variables that have been tested before especially “knowledge” and “attitudes” can be considered to be tested as a moderating role to examine their influence as a mediator with either purchase intention, purchase behaviour or both. This will enable researchers to explore more explanatory and powerful frameworks.

## **5.6 Conclusion**

In a nutshell, this research has fulfilled its main objective in recognizing the relationship between product attributes, collectivism, attitudes and knowledge and purchase intention acting as a mediator, eventually with purchase behaviour of environmentally friendly products among GenY consumers in Malaysia. A few types of analyses were conducted, which are frequency analysis, reliability analysis, Pearson Correlation analysis, linear regression analysis and mediation analysis. As a result, it is found that all independent variables have positive relationship with purchase intention and purchase behaviour, and so do with between purchase intention and purchase behaviour. In fact, “attitude” has the strongest effect with purchase intention. Last but not least, this research also discussed about the implications and limitations, as well as providing some recommendations to future researchers that are interested in doing similar researches.

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## APPENDICES

### Appendix A: Sampling Frame and Location Limit

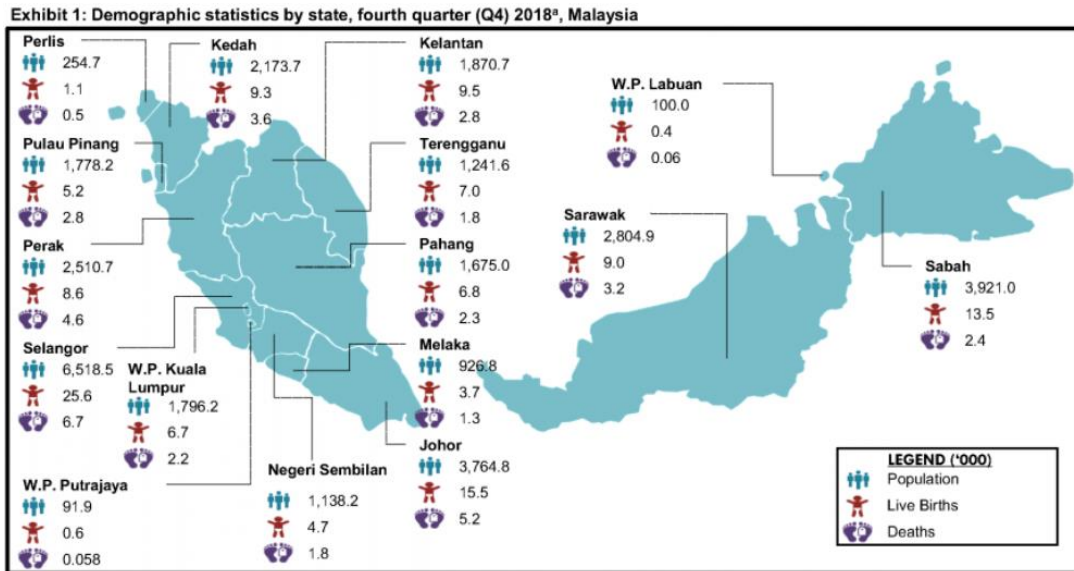


Chart 1: Demographic statistics by state, fourth quarter (Q4) 2018, Malaysia

**Source:** Department of Statistics Malaysia

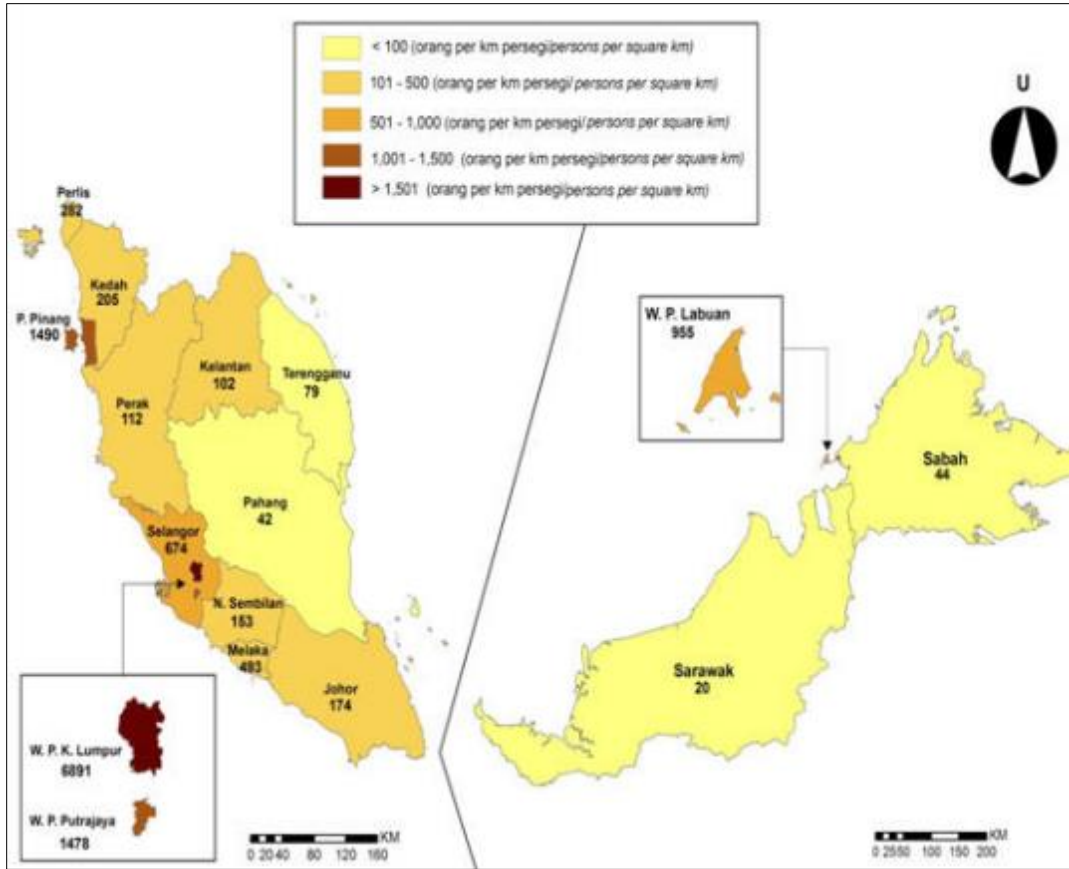


Chart 2: Population density by State, Malaysia, 2010.

**Source:** Department of Statistics Malaysia

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## Appendix B: Questionnaire



### UNIVERSITI TUNKU ABDUL RAHMAN

#### **Research Topic: Purchasing Behaviour of Environmentally Friendly Products Among Generation Y in Malaysia**

Dear Participant,

My name is Lim Leong Chye, a postgraduate student from Universiti Tunku Abdul Rahman (UTAR), Faculty of Accountancy and Management (FAM) majoring in Master of Business Administration. I'm studying a research project on "Purchasing Behaviour of Environmentally Friendly Products Among Generation Y in Malaysia". The main purpose of conducting this research project is to understand the factors affecting the purchase behaviour of environmentally friendly products among Generation Y in Malaysia, with purchase intention as the mediator.

This questionnaire will take approximately 10 - 15 minutes to complete, and it would be much appreciated if you can spare some time to complete this questionnaire. Please be informed that all information collected from this survey is solely for this research project only. All information collected will be kept confidential and no publications will contain information from which you may be identified.

Please do not hesitate to contact me if you have any question on this survey. My contact details are as listed below:

Contact number: 012-9439066

Email: megahlim2020@hotmail.com

Yours sincerely,

Lim Leong Chye

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The purpose of this survey is to understand the purchasing behaviour of environmentally friendly products among Generation Y consumers in Malaysia. Please answer all the questions to the best of your knowledge. There are no wrong responses to any of these statements.

Thank you for your participation.

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**Instructions:**

1. This questionnaire consists of **FOUR** (4) sections. Please answer **ALL** questions in **ALL** sections.
2. Completion of this form will take you approximately 10 to 15 minutes.
3. The content of this questionnaire will be kept **strictly confidential**.

**Section A: Demographic Profile**

*Please tick (√) according to the answers in the boxes that best represents you.*

QA1. Gender

Male

Female

QA2. Age:

25 years old and below

26 - 30 years old

31 - 35 years old

36 - 40 years old

QA3. Marital Status

Single

Divorced

Married

Widowed

QA4. Education Level

UPSR/ PT3/PMR/ SPM/O Level

STPM/A Level/ Diploma

Bachelor degree/ Professional Certificates (Example: ACCA)

Postgraduate (Example: Master, PhD)



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QA5. Personal Monthly Income Level

- Less than RM1000
- RM 1001- RM 2000
- RM 2001- RM 3000
- RM 3001 - RM 4000
- RM 4001- RM 5000
- RM 5001 – RM 6000
- Above RM 6000

## Section B: Independent Variables Related Questions

Please circle the most appropriate answer that represents your best interest from the statement. The selection band is range from 1 to 5, which 1 is strongly disagree while 5 is strongly agree.

[1 = Strongly Disagree; 2 = Disagree; 3 = Neutral; 4 = Agree; 5 = Strongly Agree]

No	Questions	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
<b>B1 Product Attributes (PA)</b>						
PA1	I buy product that is labelled as environmentally safe.	1	2	3	4	5
PA2	When I buy a product, I will search for the certified environmentally friendly safe stamp.	1	2	3	4	5
PA3	Environmentally friendly products function better than non - environmentally friendly products.	1	2	3	4	5
PA4	I buy products which their packaging includes environmentally friendly elements (e.g. recycled or recyclable packaging).	1	2	3	4	5

No	Questions	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
<b>B2 Collectivism (CV)</b>						
CV1	I am cooperative while participating in group activities.	1	2	3	4	5
CV2	I work hard for the goals of my group.	1	2	3	4	5
CV3	I am ready to help others in the group.	1	2	3	4	5
CV4	The wellbeing of the members within my group is important to me.	1	2	3	4	5
CV5	I enjoy spending time and sharing things within my group.	1	2	3	4	5

No	Questions	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
<b>B3</b>	<b>Attitudes (A)</b>					
A1	Green purchase will give more benefits compared to non – green purchase.	1	2	3	4	5
A2	Purchasing environmentally friendly products will make me happy.	1	2	3	4	5
A3	When purchasing a product, I will consider how it will affect the environment.	1	2	3	4	5
A4	I am willing to spend slightly more for an environmentally friendly product.	1	2	3	4	5

No	Questions	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
<b>B4</b>	<b>Knowledge (K)</b>					
K1	I know how to preserve and not causing damages to the environment.	1	2	3	4	5
K2	I know plastic bags take many years to decompose, hence causing pollution to the environment.	1	2	3	4	5
K3	I know the causes and effects of global warming.	1	2	3	4	5
K4	I know more about recycling than others.	1	2	3	4	5
K5	I know how to choose products that can cause lesser damage to the environment.	1	2	3	4	5
K6	I understand the environmental symbols and phrases on the product packaging.	1	2	3	4	5

### Section C: Mediator Related Questions

Please circle the most appropriate answer that represents your best interest from the statement. The selection band is range from 1 to 5, which 1 is strongly disagree while 5 is strongly agree.

[1 = Strongly Disagree; 2 = Disagree; 3 = Neutral; 4 = Agree; 5 = Strongly Agree]

No	Questions	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
<b>C1</b>	<b>Purchase Intention (PI)</b>					
PI1	I will consider purchasing environmentally friendly products for sure.	1	2	3	4	5
PI2	I will prioritize environmentally friendly products during shopping.	1	2	3	4	5
PI3	I feel like purchasing environmentally friendly products.	1	2	3	4	5
PI4	The possibility of choosing environmentally friendly product in my next purchase is very high.	1	2	3	4	5
PI5	I will recommend an environmentally friendly product to people around me.	1	2	3	4	5

### Section D: Dependent Variable Related Questions

Please circle the most appropriate answer that represents your best interest from the statement. The selection band is range from 1 to 5, which 1 is strongly disagree while 5 is strongly agree.

[1 = Strongly Disagree; 2 = Disagree; 3 = Neutral; 4 = Agree; 5 = Strongly Agree]

No	Questions	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
<b>D1</b>	<b>Purchase Behaviour of Environmentally Friendly Products Among GenY (PB)</b>					
PB1	I tell myself which products are environmentally harmful and don't buy them anymore.	1	2	3	4	5
PB2	I pay more attention to environmentally friendly products when shopping.	1	2	3	4	5
PB3	I am more frequently deliberately purchase products which have a lower environmental impact.	1	2	3	4	5
PB4	I choose to purchase products that are environmentally friendly.	1	2	3	4	5

**Thank You for Your Participation!**