

**A STUDY ON THE YOUTH ATTITUDES TOWARD
PURCHASE GREEN PRODUCTS IN MALAYSIA AND
SINGAPORE**

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LIST OF ABBREVIATIONS

ANOVA	Analysis Of Variance
SSPS	Statistical Package for Social Science

PREFACE

The research illustrated in this thesis was carried out at Malaysia and Singapore. This research project is covered under the subject UKMZ 3016 Research Project, which is a compulsory subject needed to be done for students of Bachelor of International Business in order to complete their degree studies. The research title for this thesis is “A Study on youth attitudes toward purchase green products in Malaysia and Singapore”.

The main purpose of this research project is to investigate the variables that affect youth attitudes toward purchase green products in Malaysia and Singapore. Throughout this research project, there are a total of five variables has been identified which are Attitudes toward Green Purchases, Perceived Consumer Effectiveness, Health Consciousness, Attitude Toward the Environment and Social Influence.

In highly competitive business environment, the economic imperative is growing and the environment issue also expanded due to failed in maintains the use of natural resources. Besides, the issues (such as green house effect, air pollution, landslide and etc) also growing faster because people possessed less awareness and deny environmental issues in Malaysia and Singapore. As such, it is important to understand youth attitudes toward purchase green product in a government and marketing context. Hence, this study serves the purpose of discovering the variables that could influence youth attitudes toward purchase green products in Malaysia and Singapore.

ABSTRACT

The aim of this research is to examine youth attitudes towards intention to purchase green product. In today's society whereby technology is rapidly growing day by day, it is one of the main causes towards the changes in the environment. Nevertheless, these changes in the environment may be positively or negatively affected. It is the role of people to have the right mindset in order to keep the environment healthy. Thus, this survey is conducted to find out the factors affecting consumers' attitude in purchasing green products. To zoom in further, this research will be targeted on youth, with age ranging from 17 to 25. Therefore, there are five independent variables that had been identified in this research project to understand the factors that could affect youth consumer attitude toward intention to purchase green products. This includes attitudes toward the green purchase, perceived consumer effectiveness, health consciousness, attitudes toward the environment, and social influence.

Primary data was collected for this research proposes. Primary data were collected through questionnaire in order to investigate our research objective. 300 sets of questionnaire were distributed to the respondents. The collected data were then complied by using the Software Package for Social Sciences (SPSS). The SPSS help to carry out the reliability test, descriptive analysis, multiple linear regression and Pearson correlation analysis.

Consequently, this study carries out to determine the significance of contributing youth attitudes toward intention to purchase green products in Malaysia and Singapore.

CHAPTER 1: RESEARCH OVERVIEW

1.0 Introduction

This research proposes to identify the youths' purchase intention and attitude of green products in Malaysia and Singapore. The explicit details of green product and youth definition in Malaysia and Singapore will be discussed on research background. In this chapter, the main areas are focuses on research background, problem statement research questions, research objective , significance of the study, chapter layout and will be ended with summarize for this chapter.

1.1 Research Background

The green issue is concerned by communities throughout the world. Environmentally related issues such as air or water pollution, sound pollution, and the unexpected climate change the ozone layer's problem and its undesirable effect on environment are quite well informed to individuals. In the recent time, consumers concern toward environmental issues has becoming prominent where they realize that their purchase intention will be able to influence the environment. Desan (2009) stated that The Obama administration in the U.S. was reported to have spent USD150 billion in sustainability of environment investment plan of clean energy, hybrid cars and renewable power . As we know environmental threats are disturbing local governments and citizens, Asian region also taken the responsibility to sustain the environment through embracing the power of 'going-green' (Lee, 2008). For instance, Malaysia government has involved in promoting the going green conception through establish The Malaysian Green Technology Policy which is the nation's commitment

to the vision of a 'Green Malaysia' a reality. This policy serves to promote sustainable development and speed up the national economy by seeking to promote the right way for energy use. The quality life of Malaysian will be increased due to the increase of national economic development and maintain the integrity of environment. Other than that, the property sector also has seen the concern in environmental development which involved in the development of green buildings such as the Gtower and 1First Avenue. Not only that, recently the Hypermarket chains like Jusco and Carrefour have adopted the *No Plastic Bag Day* policy on Saturdays and Sunday in order to reduce the reliance on plastic. The corporate sector such as Sime Darby and Digi has joined in with campaigns such as *Plant a Tree Program* and *Mangrove-Saving Project* respectively.

As all the community started to concern about environmental issues, Singapore also has adopted many green campaigns to induce the citizen to sustain the environment. For instance, '3Rs' campaign has adopted by government for encourage the citizen reusing, reducing and recycling of domestic waste. (NEA 2007a) Singapore government cooperate with multimedia programme on learning and practicing the 3Rs, for ensure campaign message can transmit to the citizens especially pre-school children. Others campaign such as "Bring your own bag day" aimed to encourage the Singaporean shoppers to bring their own, or get the reusable shopping bags when their purchasing the goods at supermarket or hypermarket. (NEA 2007b)

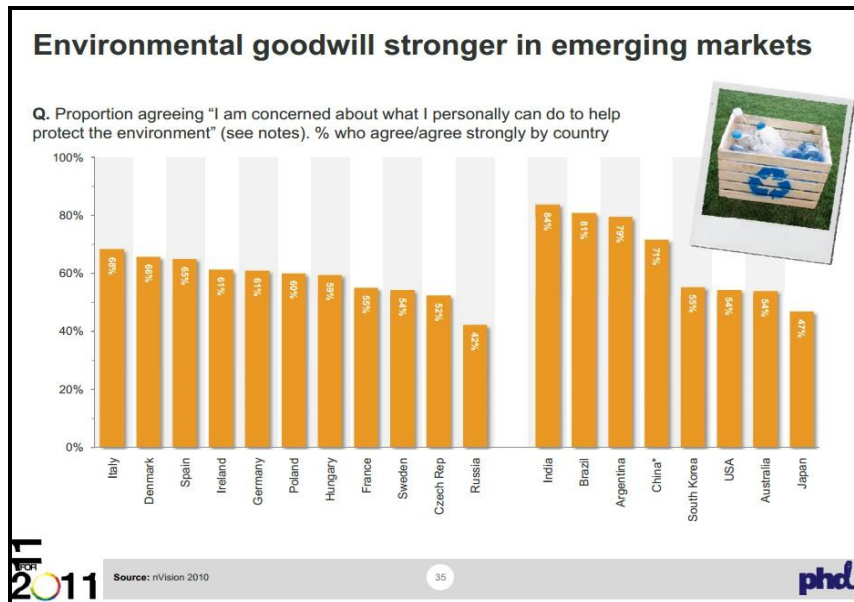


Figure 1.1 Sources: Vision research

Due to fast-growing economy in Asia, the purchasing power of Asia is increase compared to previous generation. (Li and Su, 2007) Review on Figure 1.1, research by nVision 2010 shows many countries have raised the environment awareness and they are willing to purchase the green product which has less harmful effect product against environment. There are numerous of research studies found that nowadays consumers are more concern and conscious about environmental impact of their consumption. One of the study by Dagnoli,1990,1991 ; Klein, 1990 showed that there are 60 to 90 percent of consumers were relate their purchases with environmental impact. Dagnoli 1991 also mentioned that green customers are more increased since more of the people are prefer to purchase environmental sound products as known as green product.

1.1.1 Green Products and Green Consumers

The research study of Nimse et al. (2007) defined green products as those that use recyclable materials, least wastage, and reduce the use of water and energy, and generate less toxic substances. In other words, green products which known as environmentally friendly or ecological products are bringing less harmful effect to human and environment with offer more long-term practical development opportunities from a social and economic perspective . Example of green products is alternative fuel vehicles and hybrids, Solar Photovoltaic, organic agricultures, green or organic personal care items and beauty products. (U.S Department of Commerce Economics and Statistics Administrations April, 2010) According to Takafumi, 2002, green products can offer direct and indirect value to consumers. Direct value means if the use of a green product leads to a reduction in capital or increase in safety for consumers. On the other hand, indirect value means although consumers cannot identify an immediate or direct benefit of using a green product, but they believe using such a product that protects the environment.

Soonthonsmai, 2007 shows Green consumers can be defined as people who are caring and paying attention in environmental issues. In green consumers' mind is full of environmental concern and issues, and think that they owned responsibility toward the environmental care. Further explain by Euromonitor, 2008, defined that green consumers are those who are always purchase the product which bringing the less impact to environment consistently. These consumers may focus on brand product which is eco-friendly packaging, corporate who practicing the fair trade or environmental practices such as The Body Shop and Starbucks, or buying organic products. Makower, 2007 found that green consumers are sometimes thought to be younger, better educated and more upscale than their non green counterparts. The study also shows that the greenest consumers are represent by the youth group which aged 17-25 year olds.

1.1.2 Youth

Youth has defined in the Longman Dictionary of Contemporary English as someone is young under a period of time and who is under teenager stage. Besides, youth stage is the moment in time when a people are no longer a child but still are young adolescence. In general terms, youth can be defined as the stage in the life cycle before adult life begins, it is classify by factors such as the average age at which young people complete education and expected to start playing adult roles in the community.

Based on thestar online news, 2011 also mentioned that only those aged 18 to 25 will be defined as youth under a new National Youth Policy. According to Youth and Sports Minister Datuk Seri Ahmad Shabery Cheek , the changing of youth proposal from current definition of “youth” was same with international standards which from those aged 18 to 40 years old to 18 to 25 years old. (Lim, 2011) On the other hands, The National Youth Council's of Singapore defined youth encompasses those between the ages of 15 and 30.

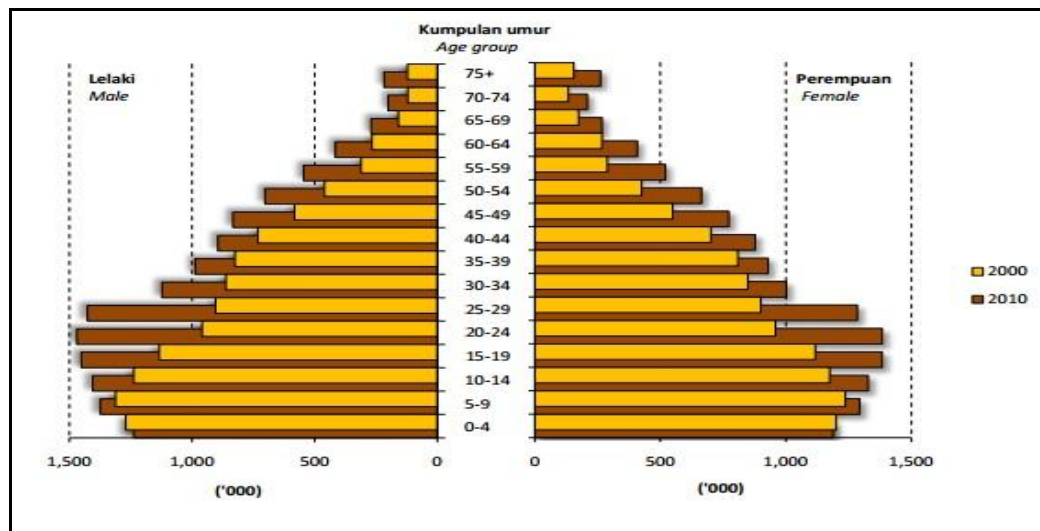


Figure 1.2 Sources: *Population Distribution and Basic Demographic Characteristics*
2010

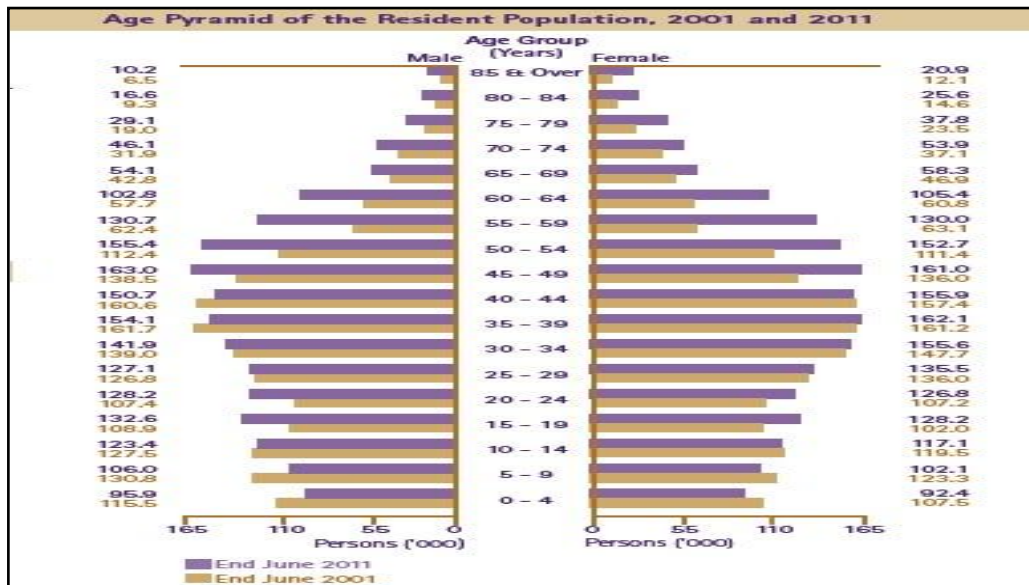


Figure 1.3 Sources: Department of Statistics Singapore 2012

Based on the Figure 1.2 and 1.3 shows the statistics youth population in Malaysia and Singapore. Figure 1.2 statistics reflect the increased on youth population approximately 1,400,000 persons from year 2001 to 2011. Besides, the statistics on Figure 1.3 also revealed that Singapore Youth Population is increased about 6,883,300 to 7,795,000 from year 2001 to 2011. These statistics reflect the important to raise the awareness of youth toward the environmental concern by encourage them to purchase green products.

1.2 Problem statement

The intention of this research is to establish the purposes for identify the purchase intention of youth consumer towards green products and also analyze whether and how the factors affect youths' attitude and behavior.

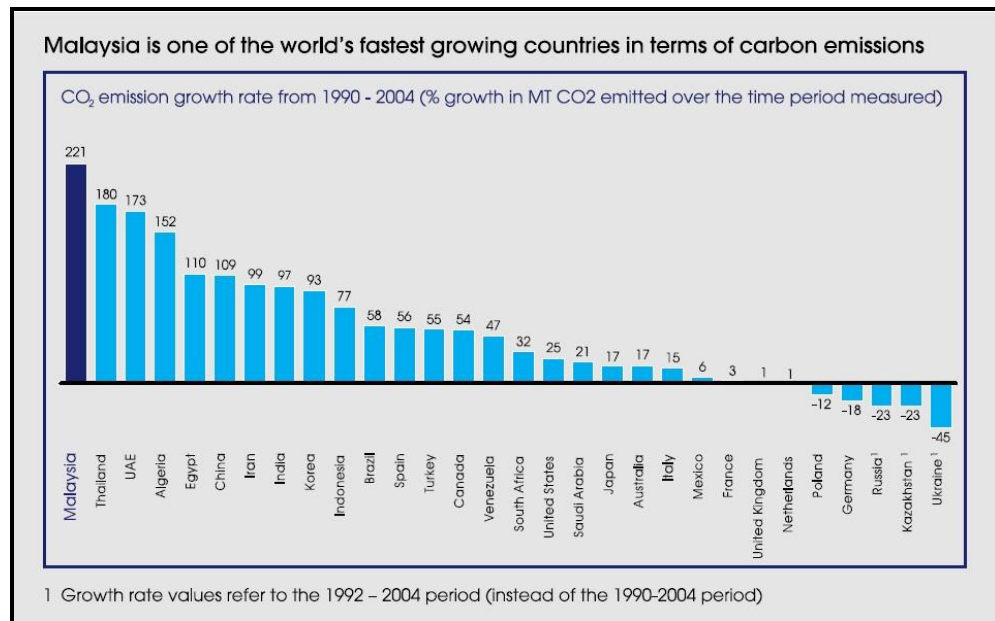


Figure 1.4

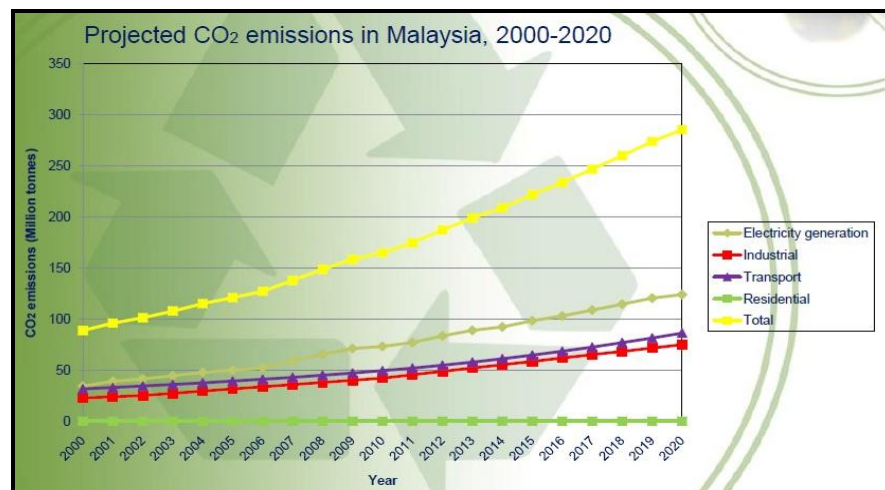


Figure 1.5

The figure 1.4 shows that Malaysia is one of the world's fastest growing countries in terms of carbon emissions and facing the increasing in energy consumption, thus the greenhouse gas (GHG) emission levels in Malaysia is growing drastically among others countries. Besides, figure 1.5 also shows the projected CO₂ emissions in Malaysia, the CO₂ tend to increasing from 2000 to 2020 years. In fact, the government must take into account in creating the awareness of environment concern to the public to reduce the greenhouse level. Besides, according to National Environment Agency (NEA) 2006, Singaporean is also facing the challenge of maintain the relationship between economic imperatives with the need to sustain the natural resources. In fact, 4.7 million of Singaporean had consumed about 2.5 billion annually with non recyclable plastic bag. Therefore, Singapore was stated as the least recycled country in the word according to Ministry of the Environment and Water Resources 2008. Although National Environment Agency survey found that there are 90 percent of youth are aware the environmental problems, however the study of Hoe, 2007 mentioned that youth seems like not falling interested to it. For instance, some campaign which adopted by the Singapore Government are not fully successful as the plan because unable to transmit the environment message to the citizens. Thus it is important to further study in the youth attitudes to purchase green products as both countries unable to promote the green activities successfully.

Lustigman (1994) also found younger people are more likely to purchase environmentally sensitive products. Mohd Rafi et al. (2003) research study found out the educated consumers in the East Coast of Peninsular Malaysia, possesses not or slightly awareness of green products. Moreover, the reaserch study by Alwitt & Berger's also found that 70% of consumers did not purchase for the green products or services although they has show their concern for the environment. Thus, Consumers' response to green products is not consistent (Yam and Chan, 1998). Which mean the researches in both countries are still inconclusive and infancy.

Although there are many research studies on green purchasing behaviour are done by Chan & Lau, 2000; Soonthonmai, 2001; Tanner & Kast, 2003; Kamal & Vinnie, 2007; Lee, 2008. However, most of the researches are less likely focusing on youth's groups. The research is focuses on youth because they possessed important environmental concerns and responsibilities. Youths become the main focuses target audience in the research because recently young people constitute a large part of the world's population, due to their longer life expectancy.

Consequently, different country have different point of view toward the green products idea thus they have different purchase intention. Meaning that the purchase intention and attitude of youths are vary depend on country. Therefore the research aimed to compare and contrast the youths' green purchase behavior and attitude between Malaysia and Singapore. Also, due to the limited previous studies in both countries, our research study aimed to take initiative to fill the gap between Malaysia and Singapore context. To ensure the awareness of environmental issues able to transmit to youths in both country in turn to drive the motivation on green purchase, it is important for government, and marketers to identify youths' purchase behavior and attitude towards green product.

1.3 Research Questions

- Is there any relationship between attitudes toward green purchase and intention to purchase green products?
- Is there any relationship between perceived consumer effectiveness and intention to purchase green products?
- Is there any relationship between health consciousness and intention to purchase green products?
- Is there any relationship between attitudes toward the environment and intention to purchase green products?
- Is there any relationship between social influence and intention to purchase green products?

1.4 Research Objective

1.4.1 The Aim of the Study

The main objective of this study is to identify factors influencing youths' attitude towards purchasing green products. It seeks to examine and understand whether factors such as attitudes toward green purchase, perceived consumer effectiveness, health consciousness, and attitudes toward the environment, social influence, green purchasing behavior, and purchasing intention will influence youth's intention to purchase green products.

1.4.2 Specific Objectives

- To examine the relationship between attitudes toward green purchase and intention to purchase green products.
- To examine the relationship between perceived consumer effectiveness and intention to purchase green products.
- To examine the relationship between health consciousness and intention to purchase green products.
- To examine the relationship between attitudes toward the environment and intention to purchase green products.
- To examine the relationship between social influence and intention to purchase green products.

1.5 Significance of the study

This study will to be significance and beneficial to business in terms of knowing the green market capabilities, especially the market targeted to green consumers. Precisely, it is anticipated that the current study contributes to the following parts:

- i. To support the business to better understanding the potential of the green market.
- ii. To assit business to well understanding the tendency of green purchasing.
- iii. To assist business to better understanding the buying behavior of green consumer.
- iv. How marketers to promote and increase awareness for youth consumers toward green products.

1.6 Chapter Layout

1.6.1 Chapter 1: Introduction

The first chapter discusses the research background, problem statement, research objectives, the aim of the study, research questions, hypotheses of the study, significance of study, chapter layout and the conclusion of chapter one. This chapter will provide overview of the study context.

1.6.2 Chapter 2: Literature Review

Chapter two provides a review of the literature related to the purpose of the study. This chapter provides the foundation for developing a good conceptual framework by reviewing relevant journals and articles to identify research issues which are done by other researchers. The conceptual framework is drawn to provide a clearer picture of the study.

1.6.3 Chapter 3: Methodology

Chapter three illustrates the research design of, methodology data collection, sampling design, the research instrument, constructs and measurement, data processing, data analysis and a conclusion.

1.7.4 Chapter 4: Data Analysis

The result and the interpretation of the analysis were presented in this chapter. Tables were used to assist the presentation of the result. This research is using SPSS software version 17 to collect the data analysis. Among the statistical analysis test which was applied are descriptive analysis, scale measurement and inferential analysis.

1.6.4 Chapter 5: Discussion and Conclusion

Chapter five provides reasons and clarification to the analysis of the interpretation. It consist of the summary of statistical analysis, discussion of major finding, conclusion of the research problem, implication of study and recommendation for future research objectives will also be present.

1.7 Conclusion

This research study tested the effects with several determinants on consumer purchase intention. The research overview provides the information about the starting of the research. In the next chapter, the variables will be discussed and the proposed conceptual framework will be illustrated followed by the relationships between variables and consumer purchase intention toward green products. The result or statement that done by the past researcher will also be provide and explain in the next chapter.

CHAPTER 2: LITERATURE REVIEW

2.0 Introduction

The chapter represents the literature review of green products' purchase intention and also attitudes toward green purchase, perceived consumer effectiveness, health consciousness, attitudes toward the environment and social influence. The literature purpose conducted is to further understand the term, definition, and the characteristics of the research topics. Furthermore, with adopted and modified conceptual framework that graphically summarized the stated hypotheses and the relationship between the independent variables and dependent variable as well. This section ends with hypotheses development.

2.1 Review of Literature

2.1.1 Green Purchase Intention

Intentions are assumed to capture the motivational factors that influence a behavior; they indicate that how much of an effort people are planning to exercise or how hard people are willing to trying to perform the behavior. (Ajzen 1991) In general, when people have the stronger intention to engage in a behavior, the more likely should be its performance. Thus, when customer has show the strong intention toward the green product, they more likely transcend to performance which perform the actual purchase.

Based on Dodds, Grewal, and Monroe (1991), when consumer are wishing to purchase a products are meant purchase intention. Also, some factors that will influence the attitude of consumer to a product will constitute to consumer purchase intention. Furthermore, the possibility of consumer to purchase a specific product can be measured by the purchase intention. Assume that when the purchase intention is higher, the willingness of consumer to purchase specific product is high also. (Dodds, et al., 1991; Schiffman & Kanuk, 2000).

Consumers around the world have become more environmentally aware recently, leading to a green revolution and demands to prevent further damage to the environment. It is important to understand green consumers' purchasing behavior and trends in order to predict why customers purchase for green products. In many past research studies, the theories like the Theory of Reasoned Action (TRA) (Ajzen & Fishbein, 1980) and Theory of Planned Behavior (TPB) (Ajzen, 1991) have been utilized by researcher.

2.1.1.1 Theory of Reasoned Actions

In studies of Ajzen and Fishbein, (1975), a critical factor to predict consumer behavior is purchase intention. The Theory of Reasoned Actions established by Ajzen and Fishbein, used to study human behaviour and develop appropriate interventions. This theory assumed that individuals are usually quite rational and able to perform systematic use of information available to them. "People consider the implications of their actions before they decide to engage or not engage in a given behaviour" (Ajzen and Fishbein, 1980).

Ajzen (1985, 1988), Ajzen and Fishbein (1980) explained Theory Reasoned of Actions is assuming that a person's intentions are function of a certain beliefs whereby these beliefs can influence the person's attitude toward the behavior. In

particular, his or her attitude towards performing a given behavior is related to his beliefs that performing the behavior will lead to a certain outcomes.

According to Ajzen (2005) indicated that a person forms an intention to engage in certain behaviour and this intention remains a behavioral disposition until, at the right time and opportunity, an attempt is made to transform the intention into action. Since organic foods is categorized as green products, so based on this TRA, the positive attitudes of customers toward the green products will able to drive the intentions of customer to purchase. Also Sparks and Shepherd (1992) found the theory of planned behavior models have been proven useful in explaining and predicting purchase behavior for organic products.

2.1.1.2 Theory of Planned Behavior

The theory of planned behavior is an extension of the theory of reasoned action (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975) which made necessary in dealing with behaviors over which people have incomplete volitional control based on the original model's limitations.

Based on Azjen research studies of TPB back in 1991 explained that high accuracy from attitudes toward the behavior, subjective norms, and perceived behavioral control able to predict the intentions to perform behaviors of different kinds; and these intentions, together with perceptions of behavioral control, account for considerable variance in actual behavior, which has shown on Figure 2.1.

Theory of Planned Behavior had also been used in numerous organic studies (Aertsens, et al., 2009; Arvola, et al., 2008; Tarkiainen&Sundqvist, 2005; VErmeir&Verbeke, 2006). Thus, this theory also can be used to predict the purchase

intention of green products since it has been used for many researchers to predict the organic studies.

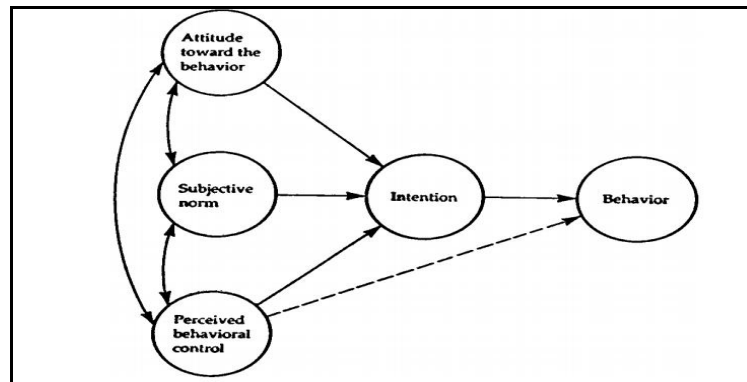


Figure 2.1

According to the MOE 2007, Green purchasing intention defined as intention to “selectively choosing products with less environmental impact when purchasing goods”, which mean green consumer tend to purchase green product to reduce the harmful of environment. Furthermore Nik Abdul Rashid (2009) explained that green purchase intention is conceptualized as the probability and willingness of a person which are prefer to purchase products that having eco-friendly features over other non green products in their purchase considerations.

Besides, Beckford et al., (2010) and Chan (2001) research studies that green purchase intention is a significant predictor of green purchase behavior, which means that purchase intention is positively affecting the probability of a customer decision that he will buy green products. Not only that, Chan (2001) also defines green purchase as a specific kind of eco-friendly behaviour that consumers perform to express their concern to environment.

However, based on Ohtomo and Hirose (2007) research mentioned that green consumer behaviour does not necessary show consumer intention to purchase green product. A person that appreciated and concerned about the environment does not necessarily behave in a green way in general, or purchase green product which known

as the value-action gap. Which mean, although the customer has shown the intention to purchase the green product, but they did not performing the actual performance.

2.1.2 Attitudes toward Green Purchase

Green purchase is described as the act of buying products that are environmentally beneficial from consumer's perception (Mainieri, Barnett, Valdero, Unipan, & Oskamp, 1997). In the same way, Chan (2001) defines green purchase as a specific kind of eco-friendly behavior that consumers perform to express their concern to environment. Consumers purchase green products to minimize harmful environmental impacts by protecting natural resources, reducing energy use and waste and improving health and safety.

A consumer's environmental attitudes and behavior have been recognized as a complex, yet vital concept to address the profile of the ecologically conscious consumer (Roberts and Bacon, 1997). There are several studies namely by Roberts (1996), Roberts and Bacon (1997) and Stern et al. (1993), have examined a collaboration of demographic and psychographic dimensions related with attitudes toward green purchase.

According to Straughan and Roberts (1999), colleges students based on ecologically conscious consumer behavior and declared that younger individual were likely to be more sensitive to environmental issues. The result of the study indicated that the demographic variables such as age and sex were significantly correlated with customers' attitude toward green purchase when considered individually; and that income lacks significance. However, Soonthonsmai (2001) stated that green purchase intention correlates positively with every age and income except for education. In fact, many studies have shown significant differences between men and women in

environmental attitudes (Brown and Harris, 1992; Tikka et al., 2001) with men having more negative attitudes towards the purchase green products compared to women (Eagly, 1987; Tikka et al., 2000). Women were more likely to buy green product because they believe the product was better for the environment (Mainieri et al., 1997).

As regards psychographic profile, in terms of personality and lifestyle aspects, regular green purchasers are generally driven by societal and individualistic values, such as: Universalism (the appreciation and safeguard of all people and of nature); Altruism (the generosity in relationships with others); Ecology (the harmony with the nature and with a sustainable future); Benevolence (the enhancement of the welfare of the people with whom one is in touch); and Spirituality (the unity with the natural world) (Dreezens et al. 2005; Krystallis et al. 2008; Zanolli and Naspetti 2002).

According to Amyx et al. (1994) and Van Liere & Dunlap (1981), the terms “importance” is most extensively examined and referred to in the green marketing literature. Amyx et al. (1994) describe perceived importance with respect to the environment, as the degree to which one expresses concern about ecological issues. In other words, importance is simply whether consumers view environmentally compatible behaviors as important to themselves or society as a whole.

Moreover, Peattie (2001) proposed a green purchase perception matrix and implies that “understanding environmental purchasing behavior is assisted by looking at the extent to which other things are not equal”. It means that instead of trying to understand the purchasers, researchers should understand the purchases. He recommended that green purchases for specific product may vary according to the purchaser’s degree of compromise involved and degree of confidence generated in the environmental benefits of a particular choice. The compromises include paying the premium price, travelling further to purchase a green product, and accepting a lower level of technical performance in exchange for improved eco-performance.

Peattie revealed that consumers' confidence and compromises are the most important influential factors on their green purchase action.

2.1.3 Perceived Consumer Effectiveness (PCE)

Similar to the concept of self-efficacy in social learning theory (Bandura, 1986), perceived consumer effectiveness refers to the extent to which individuals believe that his or her actions make a difference in solving a problem (Ellen et al., 1991). According to Bandura (1986), perceived consumer effectiveness captures the confidence that individuals express in their ability to plan and execute a specific course of action and to accomplish a task or solve a problem, and therefore it is directly related to self-esteem, locus of control and pro-social development. Typically, those individuals showing both high levels of confidence and of control in their abilities to execute and accomplish tasks are more likely to show tendencies toward participating in pro-social behavior, those behaviors that are intended to help or benefit an individual or group of people.

Researchers in the later stage have stated that the concept of perceived consumer effectiveness is related to the concept of internal locus of control (Joones, 2008) and the concept of perceived behavioral control (Ellen, et al., 1991). According to Rotter (1966), locus of control refers to one's belief in his or her abilities to control life events and an individual with an internal locus of control believes that outcomes are related to his or her behavior or personal investment such as time or effort. In term of environmental studies, Joones (2008) refers perceived consumer effectiveness as perceived confidence of an individual in solving the environmental problems with his or her effort exerted.

Ellen et al. (1991) and Vermeir and Verbeke (2007) demonstrate that Perceived Consumer Effectiveness is associated with the concept of perceived behavioral control proposed in Theory of Planned Behavior (Ajzen, 1991). It predicts consumer intention as well behavior directly. For instance, Ellen et al. had reported that Perceived Consumer Effectiveness was found significant to the purchase of green products, recycling, and contribution to environment groups. The result of their findings were consistent with the findings from Balderjahn (1988), who had reported a significant direct linkage between perceived consumer effectiveness and energy saving, and purchase of non-polluting products.

In Antil's view (1978) Perceived Consumer Effectiveness is the judgment of an individual about the way and the extent of the environmental effects of his or her behavior. If somebody feels that he or she can only control the consequences and performance of his or her own behavior, the intention toward behavior is going to be lower in spite of the social desirability of it.

Gupta and Ogden (2006) utilized Kinnear et al's (1974) original definition of Perceived Consumer Effectiveness in the development of a conceptual framework, where Perceived Consumer Effectiveness served as a moderator to explain the inconsistency between environmental attitudes and subsequent behaviors. Berger and Corbin (1992) explain the inconsistency between environmental attitudes and behavior in that an individual may feel concerned about an issue but also feel that they are unable to do anything to solve the issue through their own consumption activities.

However, according to Berger and Corbin (1992), attitude can be defined as an evaluation of an individual's beliefs or feeling about an issue, and Perceived Consumer Effectiveness refers to a self-evaluation in the context of the environmental issue, for instance, pollution abatement. It was found to have a direct and positive relationship with environmental attitudes (Kim and Choi 2003; 2005). It means that

people who have exhibited higher Perceived Consumer Effectiveness are likely to be more environmentally concerned than those who have lower Perceived Consumer Effectiveness.

In short, Perceived Consumer Effectiveness is related to people's knowledge and direct or indirect experiences. According to Brown (1979) and Thompson (1981), Perceived Consumer Effectiveness differs from person to person, because of the dissimilarity in individuals' personal knowledge and life experience; some people will believe that their actions have evolutionary results whereas others may have little confidence in their abilities to make any difference.

2.1.4 Health Consciousness

Health consciousness refers to the degree to which health concerns are integrated into a person's daily activities. According to (Becker et al. 1977), it defined that health consciousness assesses the readiness to undertake health actions. Health conscious consumers are aware and concerned about their wellness and are motivated to improve and/or maintain their health, and quality of life to prevent ill health by engaging in health behaviors and being self-conscious regarding health (Newsom et al. 2005; Kraft & Goodell, 1993; Plank & Gould. 1990; Gould. 1988). Beside this, consumers express an interest in issues relating food to health (Fagerli and Wandel, 1999; Rozin et., 1999) when they perceive food safety risks and lose confidence in quality of conventional foods.

In addition, healthiness has become an important determinant for food purchases and a parameter of quality for many consumers (Magnusson et al., 2001; Wandel and Bugge, 1997) Such individuals tend to be aware of and involves with nutrition and physical fitness (Kraft & Goodnell, 1993). Furthermore, public concern about health maintenance or health improvement is the main reason for buying organic

foods (Schifferstein and Oude Ophuis, 1998; Tregear et al., 1994). Many consumers believe that organically grown foods are safer and provide greater health benefits than conventional alternatives and have positive attitudes towards organic products (Beharrel and MacFie, 1991; Jolly et al., 1989). The great growth of Malaysian individual's income and fairly high increase in the population altered the customers preferred food choice to healthier and more nutritious food. Thus, people ask for a healthier, safer, environmentally friendly, hygienic, and high quality food (Abdual Rahim, 2009). Customers in Malaysia have little attention to the healthiness of their food and their effects on the environment bear more positive attitudes towards food that is green.

Moreover, health consciousness, which assesses the degree of readiness to undertake healthy actions (Oude Ophuis, 1989; Schifferstein and Oude Ophuis, 1998), is a broader construct to reflect a person's readiness to do something to his or her own health. It is believed that if an individual is ready to take measures to make him or her healthier, then his or her attitude toward organic foods should be more positive. Therefore, in addition to health concerns, increasing demand for organic produce is also related to the consumer's perceived consequences for a human's environmentally friendly behavior (Beharrel and MacFie, 1991; Schifferstein and Oude Ophuis, 1998; Williams and Hammit, 2001). Concerns for one's health and for the environment are the two most commonly stated motives for purchasing organic foods (Wandel and Bugge, 1997). Hence, Malaysia has some green stores that promote green food and green technology, products that are environmentally friendly and green services. These stores also give customers awareness regarding the green concept.

Additionally, the increasing number of studies reveals that a consumer's concern for health is the most commonly stated motive to choose organic foods (Magnusson et al., 2003; Schifferstein and Oude Ophuis, 1998; Tregear et al., 1994; Wandel and Bugge, 1997; Williams and Hammit, 2001). Therefore, it is reasonable to believe that a consumers' readiness to take healthy actions is an important determinant of

consumers' attitude toward organic foods. A higher degree of an individual's readiness to take healthy actions means a more positive attitude toward organic foods. In other words, the consumer's health consciousness influences the attitude toward organic foods.

On the other hand, health consciousness as an illustration of quality of life (Kraft and Goodell 1993) concerns the overt actions and behaviors of consumers and can be closely related to health motivation. The lifestyle factors have become important and are applied widely in describing how consumers make food decisions (Senauer et al., 1991). Within the narrower lifestyle perspective, health inequalities are mainly the results of people's choices and habits concerning health-beneficial and non-beneficial everyday behavior such as exercise habits, smoking and drinking behavior, dietary habits, and so on. In other words, lifestyle choices in which people differ are the main causes of health inequality (Manderbacka et al., 1999; Sacker et al., 2001). (Gil et al., 2000) mentioned that a healthy lifestyle emphasizes physical health-related activities such as natural food consumption, health care, and life equilibrium. It is believed that this healthy lifestyle construct is helpful to explore whether or not a consumer's attitude toward organic foods is mediated by one's lifestyle.

In a nutshell, consumers may have health consciousness and may be ready to do something good for their health and concern about their own health. The positive relationship between health consciousness and the intention to purchase organic food or product will be enhanced if consumers lead a healthy lifestyle.

2.1.5 Attitudes toward the Environment

As explained by Ajzen (1991), attitudes refer desirable and undesirable evaluations that people make of particular behaviors. Because attitudes affect intentions, the most desirable the attitude is, the greater the will and intention to carry out a particular behavior will be (Tarkiainen & Sundqvist, 2005) Based on the Allport (1935) defined attitude as:” A mental and neutral state if readiness, which exerts a directing, influence upon the individual’s response to all objects and situations with which it is related”. Environmental attitude is clearly defined by Nik Ramli (2009) as he puts it: “a learned predisposition to respond consistently favorable or unfavorable manner with respect to the environment” (Nik Ramli, 2009, p.134).

However, Schulz, Shriver, Tabanico and Khazian (2004) defined environmental attitude as “the collection of beliefs, affect, and behavioral intentions a person holds regarding environmentally related activities or issues”. As such, some of the environmental sociologists have referred to the attitudes towards the natural environment as “environmental concern” (Vining and Ebreo, 1992; Fransson and Garling, 1999; Dunlap and Jones, 2002). According to Schultz and Zelezny (2000), “attitudes of environmental concern are rooted in a person’s concept of self and the degree to which an individual perceives him or herself to be an integral part of the natural environment”. The term of environmental attitude and environmental concern have used interchangeably in many studies (Dunlap and Jones, 2002). However, some of the studies have differentiated them (Stern and Dietz, 1994; Schultz et al.,2004).

The quality of the environment depends critically on the level of knowledge, attitudes, values and practices of consumers (Mansaray and Abijoye, 1998). Attitudes are the most consistent explanatory factor in predicting consumers’ willingness to pay for green products (Chyong at al., 2006). This means that price is the main factor in preventing consumers from purchasing green products if they are pro-environment.

Honkanen et al. (2006) found that environmental and animal motives have strong influence on attitudes.

In addition, consumers' perceived level of self-involvement towards the protection of the environment may prevent them from engaging in environmentally friendly activities such as recycling (Wiener and Sukhdial, 1990). Many people may have high ecological concern but have a feeling that the preservation of the environment is the prime responsibility of the government. According to Tanner and Kast (2003), green food purchases strongly facilitated by positive attitude of consumers towards environmental protection. If consumers have positive attitude towards environmental protection and if they translate this attitude into actual purchases of environmentally friendly products, degradation of the environment may lessen.

Furthermore, consumer's attitude has different elements. Tsen, Phang, Hasan, & Buncha (2006) stated that include beliefs, feelings, and behavioral intention toward some objects as the three elements of attitude. The components are highly interdependent and can influence how consumers react to an object. These predispositions are commonly referred as attitudes and beliefs (Ajzen and Fishbein 1980) and environmental concern is a strong attitude towards preserving the environment (Crosby et al., 1981). Likewise, these salient beliefs may be weakened and strengthened or replaced by a new belief; therefore they are subject to change. Ajzen (1985, 1988), Ajzen and Fishbein (1980) explained the link of attitude, intention and behavior which implies that people normally act in accordance with their intention. Thus, a positive attitude towards environmental protection may not necessarily lead a person to act to slow down environmental deterioration.

Moreover, Brehm and Kassin (1996) suggest that attitude will predict behavior when limited only to specific issues of the environment rather than when applied to a more general issue. They identified three psychological factors that influence the passion of individuals' attitude, their own results and self-interests, deeply held values such as

one's religion, and close friends, family and social groups. For example, when individuals determine that a lack of concern about environmental protection will negatively influences their family, their health or reduce the quality of their life, they act quickly with a greater sense of urgency (Brehm and Kassim, 1996).

Additionally, Loundsbury and Tournatzky (1977) as well as Seglma, Kriss, Darley, Fazio, Becker, and Pryor (1979) observe the strong linkage between attitude and behavior. However, other studies find no significant relationship between attitude towards environmental issues and purchase behavior. Balderjahn (1988), for example, develops a causal model but finds no significant relationship between these two variables. In the same way, Follows and Jobber (2000) establish a weak but significant relationship between environmental attitude and purchase of products with green attributes.

Besides this, Abdul Wahid and Abustan (2002) found that only 50 percent of young Malaysians show a willingness to change their attitude and behavior to help improve the environment. Abustan and Karwi (2000) also report that individuals, government, and industry, and finance are three equally important factors in the building of individual's positive attitude toward environmental protections. Besides that, according to Lee (2008) environmental attitude was not a strong determinant of young consumers' purchasing behavior in Hong Kong, as reflected from the survey result that it only ranked second last among other variables. Cleveland *et al.* (2005) also had found a low relation between environmental friendly attitudes and green behavior.

Consequently, Krause (1993), in his research found that consumers were becoming more concerned about their everyday habits and the impact on the environment. However, many companies started to be more pay attention responsive in addressing pollution and waste disposal by developing environmental friendly packaging and putting in numerous efforts to keep in-step with the environmental movement.

2.1.6 Social influence

Social influence which the information provided by people can have a big impact on consumers. The social dynamic in which individual associate with other people by presenting similar qualities is identified as homophile (Ryan, 2001). It can be meant as situations that a person shares the same thoughts, beliefs and values as the person that he or she is communicating with.

Another study conducted by Feick et al., (2003) suggests social network and product involvement are co-related. Commonly, young consumers are greatly influenced by their social network that they maintain (e.g. family, friends, coworker, etc.). Initially, they collect information from their social network and in the end they will decide about their brand choice.

To further explain social influence definition, Kalafatis *et al.* (1999) explained social norm is whether an action should or should not be performed by a respondent in a referent's point of view. For instances, the referents could be friends, neighbors not for profit or for profit organizations, teachers, parents and etc.

Besides that, Ajzen 1991 explained the second predictor for purchase intention is a social factor termed subjective norm; it refers to the perceived social pressure to perform or not to perform the behavior. For example, for smoking issue, (1) subjective norms from peer group include thoughts such as, "Most of my friends smoke,"; (2) subjective norms from family include thoughts such as, "All my family smoke, and it seems natural to start smoking,"; and (3) subjective norms from society or culture include thoughts such as, "Everyone is against smoking," and "We just assume everyone is a nonsmoker. Thus, when we are based on purchasing green products issue, people will tend to purchase green products when their friend, family or social media encourage for green purchase.

In addition, another influencer which able to bring huge impact on purchases intention is social media. A survey has been conducted by Ad-logy Research (Business Wire, 2009) which to study online, traditional and social media influence on buying decisions. The survey has found that social media and online media have significant impact on their purchase intention. For instance social networking; google, facebook, twitter, flickr, youtube , etc. can influence the purchase intention of people to purchase for green products.

2.2 Conceptual Framework

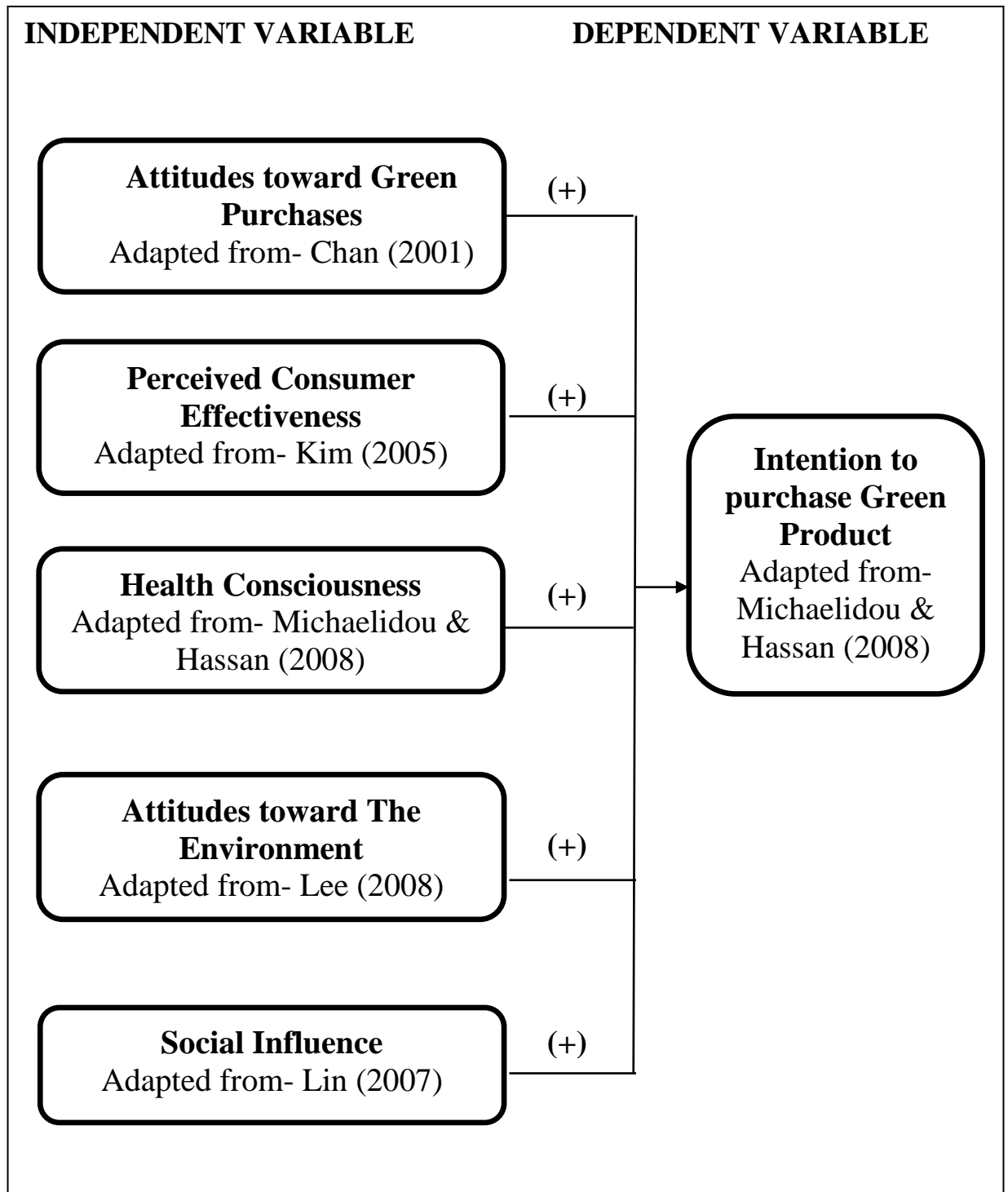


Figure 2.2: Youth Attitude toward Green Purchase

The figure above showed the proposed conceptual framework that serve as the foundation for the research project. The purpose of this research is to study the relationship among the independent variables and dependent variable. In this framework, there has five variables are classified as independent variable which are attitudes toward green purchase, perceived consumer effectiveness, health consciousness, attitudes toward the environment, and social influence. At the same time, there is one dependent variable which is intention to purchase green product.

2.3 Hypotheses Development

2.3.1 The relationship attitudes toward green purchase and intention to buy green product

The theory of planned behavior (Ajzen, 1985; 1991) provides context in understanding the relationship between attitudes and intentions. Ajzen (1991) noted that the “importance of attitude, subjective norm, and perceived behavioral control in the prediction of intention is expected to vary across behaviors and situations” (p.188). In another word means that attitudes toward green purchase and intention to buy green product are highly related.

Previous studies (Amyx et al., 1994; Kinnear et al., 1974; McCarty and Shrum, 1994) have established an apparent correlation between favorable attitudes towards green products and positive purchase decisions. Equally, negative attitudes will put off consumers, resulting in a non-purchase decision (McCarty and Shrum, 1994).

Bagozzi, Baumgartner, and Yi (1989) suggested that, “for attitudes to cause behavior, one must decide or intend to perform the behavior” (p.36), thereby introducing the

mediating relationship of intentions. Sparks and Shepherd (1992) reviewed attitude toward green purchase and found that attitudes were correlated significantly with intentions to buy green product.

In addition to beliefs or cognition, consumers are emotionally involved with green attitude (Chan 1999). Consumers associate negative affect with not protecting the environment, which enhances attitudes toward green purchase and intentions to pay more for environmentally safe products (Chan 2001; Lee and Holden 1999). Hartmann and Ibanez (2006) have also identified the emotional benefits of green purchasing attitude; people feel good about themselves when they pay more for green products.

In short, the more positive of individual belief caused by an object attitude, the more positive of individual' attitude toward the object, and vice versa (Fisbein & Ajzen, 1975). An evaluation will impact on judging attitude given by an individual to every impact or to every result obtained by an individual. When either performing or not performing a certain behavior, this evaluation or this judging can be either beneficial or harmful. The higher of attitude score toward green product, the higher of buying intention of green product.

Thus, the hypothesis is put forwarded:

H1: There is a positive relationship between attitude toward green purchase and intention to purchase green product.

2.3.2 The relationship between perceived customer effectiveness and intention to buy green product

Lee and Holden (1999) explain that perceived consumer effectiveness is a significant predictor of a variety of ecologically conscious and pro-environmental consumer behaviors, such as using biodegradable and energy-saving products and engaging in recycling. It is also a significant predictor of green buying behaviors, including the purchase of sustainable products (Vermeir and Verbeke 2006), organic food (Verhoef 2005), and green products (Kim and Choi 2005). Consumers who have high perceived consumer effectiveness therefore should have less ambivalent attitudes toward buying green products, because they believe that they are able to make a difference.

Perceived behavioral control refers to the degree of control that an individual perceives over performing the behavior (Chen, 2007; Kang et al., 2006). Thus, those who perceive a higher degree of personal control tend to have stronger behavioral intention to engage in a certain behavior (Ajzen, 1991) such as purchase green product. In particular, when people believe they have more resources such as time, money, and skills their perceptions of control are high and hence their behavioral intentions increase. As a result, it is assumed that intention to buy green products is higher when consumers perceive more control over buying these products.

Lai (2000) has reported that citizens in Hong Kong have attained more environmental knowledge and thus they are really aware of the environmental problems. However, their perceived environmental responsibilities were generally weak (Lai, 2000) has also identified that the consumers are looking for better policies to solve the environmental problem and yet they are reluctant to get themselves engaged with those policies. Additionally, the study done by Lee (2008) among Hong Kong's young consumers revealed that the perceived environmental responsibility factor was found to be important predictor of intention toward purchase green product.

Perceived effectiveness of environmental behavior is related to a person's perception that if each individual's involves himself in pro-environmental behaviors, he would contribute a lot to the environment. This perception might be true and this factor was the fifth predictor of green purchasing behavior among young consumers in Hong Kong (Lee, 2008). Lee (2008) further stressed the perception that one's action could make a difference is another important factor in influencing teenager consumers' decision to buy green products or not.

Moreover, depending on behaviors and situations, perceived consumer effectiveness is a changing phenomenon. In other words, different reflections can be observed in various situations (Kim and Choi, 2005). If a consumer believes that an environmental problem can be solved by a specific behavior, such as distilling aluminum packages for recycling, that belief on this issue may change the consumer's behavior. Therefore high perceived consumer effectiveness is necessary to evoke consumers to translate their positive attitudes into actual purchase (Ellen et al., 1991; Berger and Corbin, 1992; Lee and Holden, 1999).

H2: There is a positive relationship between perceived customer effectiveness and intention to purchase green product.

2.3.3 The relationship between health consciousness and intention to purchase green products

Throughout the research, there have several journals that discuss about the relationship between health consciousness and intention to purchase green product. In the journal which wrote by Magnusson et al. (2003), it said that health to be the stronger predictor of attitudes and purchase intention toward organic foods compared to environmental motives. By explained by Schifferstein & Oude Ophuis, 1998, it

indicated that health to be the major motive for purchasing organic food and shaping attitudes, however, Tarkianen and Sundqvist (2005) stated that health as a predictor of attitudes towards organic foods.

In addition, the organic purchasing motives should be attributed to some kind of environmental, quality or health consciousness, and exploratory food buying behavior, as well as to specific product attributes such as nutrition, value, taste, freshness, and price (Tregear et al., 1994; Grunert and Juhl, 1995; Davis et al., 1995; Roddy et al., 1996; Reicks et al, 1997; Zanolli, 1998; Zotos et al., 1999; Worner and Meier-Ploeger, 1999; Chryssochoidis, 2000; Browne et al., 2000) The matter of increased health care through proper nutrition is a key factor influencing the consumption choice. More critical findings in Hutchins and Greenhalg (1997) research, the majority of their sample which is 93 percent stated that they buy organic products for health reasons and/or because they are more nutritional for the children.

According to Henson (1996) claims that willing to pay is the theoretically valid measure of the value consumers attach to improvements of food safety. This journal also stated that among the factors that affect willing to pay for reductions in the risk of food poisoning are the personal experiences of food poisoning; attitudes toward food poisoning; perceived control over the risk of food poisoning; and individual characteristics. Thus, consumers concern their health and purchase the organic food in order to avoid the risk of food poisoning. Moreover, health consciousness had been found to foresee attitude, intention and purchase of organic foods (Magnusson et al. 2003; 2001) since organic produce buyers are aware that food intake affect their health, they appreciate healthy and natural foods and are willing to switch foods to improve their health (Schifferstein & Oude Ophuis, 1998).

Thus, we hypothesis that,

H3: There is a positive relationship between health consciousness and intention to purchase green products.

2.3.4 The relationships between attitudes toward the environment and intention to purchase green products

According to Follows and Jobber (2000) if consumers believe that the consequences of their consumption will have a significant effect on the environment, they may purchase environmentally-friendly products. Suchard and Polonski (1991) stated that consumers show their concern about the environment through behaviors such as ethical consumptions, leading to buying only green products and checking product packaging materials. Besides this, in a study conducted in West Germany, Balderjahn (1988) found that a positive attitude toward ecologically-conscious living resulted in ecologically responsible purchasing and using of nonpolluting products, including the use of the automobiles. It also prompted consumers to publicly show environmental concern by signing ecologically relevant petitions and supporting or joining an antipollution organization.

Furthermore, a study of Gupta, S. & Ogden, T. D., (2009), stated that the willingness of consumers to pay higher for a product for a product that is green, and the concern of the consumer regarding pollution and recycling, is to make up his attitude and create the consumers “Green Buying Behavior”. Bang et al. (2000) confirm that consumers who are more concerned about the environmental issues, express more willingness to pay higher prices for renewable energy than those who are less concerned while Kim and Choi (2005) stated that it is much possible that people who are highly concerned about environmental issues will purchase environmentally friendly products than those who are less concerned. Many studies are also based on the assumption that the degree of environment concern has a direct and strong influence on people’s behavior with regard to recycling and environmentally friendly product purchase. (Bamberg, 2003)

Moreover, a survey taken by The Roper Organization found that the average consumer would pay as much as 6.6 percent more for an environmentally safe

product (Wasik, 1992). As indicated in the research of Prothero, 1990; Rice, Wongtada and Leelakulthanit, 1993) stated that British, Canadian and Thai consumers claim they would pay more for environmentally friendly products. As explained by Staff (2011), a number of people purchase organic food for environment reasons, because organic farming procedures are developed to help the environment and reduce pollution, and protect the quality of earth. Besides, Squires et al. (2001) also discovered that consumers who have positive attitude regarding the environment are more likely to make more buys of organic products compared to those who yield negative views.

In addition, marketers have researched recycling issues in an effort at understanding consumer motivations underlying the purchase of environmentally friendly products and service (Bagozzi and Dabholkar 1994), exploiting the relationship between general psychological constructs and environmental behavior (Biswas et al. 2000; Dietz, et al.1998) On the other hand, two studies measured intention as the subjective probability to perform a specific behavior and found significant relationship between intention and environmental voting behavior (Gill et al., 1986) and tin recycling behavior (Kok and Siero, 1985). (Dahad et al., 1995) found that perceived effort was strongly related to the intent to recycle. Therefore, the effects of attitudes on behavior will be mediated by intention.

Thus, we hypothesis that,

H4: There is a positive relationship between attitudes toward the environment and intention to purchase green products.

2.3.5 The relationship between social influences positive related toward intention to purchase green products

Besides, social influence has long been recognized as an important force in determining an individual's consumption behaviors. (Mangleburg, Doney, and Bristol 2004) (De Leon and Fuqua 1995; Schults 1999) research studies found that the impact of social influences on our behaviors may be at a more conscious level. Recently research studies on consumer's green consumption behaviors suggest that behaviors are shaped by social influence. For instances individuals use less heating fuel and recycle more if they are informed of neighbors; relative performance.

Baker and Ozaki (2008) research studies shows social norms (social influence) are important in driving ecologically responsible behavior. According to their study, Baker and Ozaki declare that social norm has a powerful link to environmental friendly behavior which it able to drive the people buying the green products. Also Lee (2008) found out that peer influence was the most important factor for Hong Kong's adolescents' green purchasing behavior compare to other factors. Not only that, the Kalafatis *et al.* (1999) research studies further concluded that social norm has a direct and significant effect on intention. Follow the research studies by (Nabsiah Abdul Wahid , Elham Rahbar and Tan Shwu Shyan, 2011) , the social influence is found to be the highest predictor of green purchase behavior of Penang green volunteers in the terms of ranking based on the study.

In terms of parental influence toward people especially young consumer to purchase for green products has imposed some significant impact. Parental influence is seen as a socialization factor in adolescent stage. The study on (Chaplin & John, 2010, p. 176) shows the consumption behavior of a parent, their attitudes and their intentions to buy product strongly influence the consumption pattern of young adolescent people, meaning that children always benchmark on the purchase behavior of their parents and tend to purchase the specific product same as their parents do. (Palmer,1999, p.

199) study found that family influence can inspire young people in shaping their behavior toward environmental awareness.

Besides, peer influence also shaped a purchase intention of customer towards green products. Based on the research studies of (Ryan, 2001, p. 1145), people may become affected with their peers' beliefs and behaviors in their development stage, especially in young adolescent stages. A study has been conducted in china based study among children information seeking sources shows, they value friends ranked as third most important influential factor (McNeal & Ji, 1999, p. 356) among other socializing factors. Thus, people especially for young customer always get influence to purchase specific products. For instance, young customer may choose to purchase for green when their friends has purchase for green also.

Furthermore, the mass media influence also shaped the purchasing intention of customer on green products. According to (Moschis & Churchill, 1979) studies, found that young peoples' purchase decisions are also influenced by mass media and customer which are young adolescents are normally become more interested to gather information from a variety of communication sources. The study on (Atwater et al., 1985, pp. 396,397) found that consumers can gather information about environmental issues through mass media which include TV, magazine, radio, and newspapers. Hence, the hypothesis will be;

H5: There is a positive relationship between social influence and intention to purchase green products.

2.4 Conclusion

As conclusion, this chapter discussed on the literature review, discussion on the relevant theory, followed by a proposed conceptual framework, and lastly is development of hypotheses. After review the literature review, the following chapter will be focused on the research methodology which will describe the way to carry out the research.

CHAPTER 3: METHODOLOGY

3.0 Introduction

This chapter explains methodology used to collect the data which the method will be used to explain and answer the hypotheses and research questions. First is the design of the research and follow by the methods of data collection. After that, the research will be carried out in terms of construct of measurement; a pilot testing will be cover in this section, and follow by research instrument, and sampling design. The method of data processing and analysis will be discussed at the end of this chapter. The aims of this chapter are to ensure that appropriate research procedures were followed. By doing so, it can help the readers to better understand and evaluate the result of the research.

3.1 Research Design

Research design is a framework or blueprint for conducting the marketing research project and details the procedures necessary for solving the marketing research problem. According to Ghauri, Grønhaug and Kristianslund (1995), research design is the overall plan for connecting the conceptual research problems to the pertinent empirical research. Thus, appropriate research has been used to avoid error in collecting relevant data.

3.1.1 Quantitative Research

This study aims to examine the factors that influence youth attitudes toward green purchase in Malaysia and Singapore. Quantitative research is the numerical representation and manipulation of observations for the purpose of describing and explaining the phenomena that those observations reflect (Sukamolson, n.d). Therefore, it is suitable to use in this research which enables generalization on the results from the sample to the population interest. In addition, the findings of quantitative research can be treated as conclusive and be used to recommend a final course of action (Malhorta and Peterson, 2006).

3.1.2 Causal Research

This study used a causal research design. Causal research explores the effect of one thing or the effect of one variable on another (DJS Research Ltd, 2009). A causal explanation exists when there is a correlation between an independent variable and a dependent variable. In terms of nature causality, two variables are related if certain values of one variable produce the values of another variable. And when the values of one variable produce the values of the other variable, the relationship is a causal relationship (Lawrence, 2009). In this study, the independent variables are attitudes toward green purchase, perceived consumer effectiveness, health consciousness, attitudes towards the environment, and social influence while the dependent variable is intention to purchase green products.

3.2 Data Collection Method

According to this research study, primary and secondary data are types of information that had been collected. Primary data use to test hypothesis and its collection method is from survey data collection. Secondary data is used to construct the hypothesis while journals through internet were collected to support research study.

3.2.1 Primary Data

Primary data is the data that has been collected from first hand-experience. Hence, it is more reliable, authentic and objective in data collection (Gulnazahmad, 2011). Burns et al. (2006) mentioned that primary data refers to the information that was developed or gathered by the researchers specifically for the research project at hand. The purpose of the questionnaire is to generalize from a sample to a population to make inferences about the characteristics of the population.

Popular ways to collect primary data include surveys, interviews, observations and focus groups, which can show the direct relationship between customers and their attitude. In this study, a self-administrated survey will be used to gather primary data. The attitudes of youth towards green purchase can be identified through this questionnaire.

3.3 Sampling Design

Sampling is the process of using small number of items or part of a larger population to make conclusion about the whole population (Zikmund, 2003). Sampling design is ultimate for researchers to collect accurate information from the right people, right time and right location for research questions. Sampling process comprises of five steps that define target population, determine sampling frame and sampling location, select appropriate sampling technique, determine sampling size and execute sampling process (“Sampling in Marketing,” n.d .)

3.3.1 Target Population

Target population is an entire group of people, events or things of interest that need to be investigated and surveyed in a research. The process should begin with targeting the appropriate target population, thus, the respondents of this research will be Malaysia’s and Singapore’s youth who are between 17 to 25 years old. The reason for targeting on this segment in this study is because younger people are likely to purchase environmentally sensitive products. Moreover, youth nowadays are knowledgeable and concerned about the environment (Lawrence, 1992). Furthermore, this group of people represents the potential consumer that have an interest on purchasing green products which they think will minimize harmful of environment. This can help to analyze the intention influencing them in purchase green products more accurately.

3.3.2 Sampling Frame and Sampling Location

According to Hair et al. (2006), sampling frame is the list of all eligible sampling units. However, it is not adopted in this research as sampling frame is not relevant to the non-probability sampling techniques that have been used in this research.

Sampling location is chosen to distribute some universities in Malaysia such as Universiti Tunku Abdul Rahman (UTAR), University College Sedaya International (UCSI), Universiti Putra Malaysia (UPM) and Universiti Kebangsaan Malaysia (UKM). Those respondents had been chosen is because of many students there are among 17 to 25 years old. However, some of the questionnaires had been distributed to respondent through Internet due to far instance and inconvenient.

3.3.3 Sampling Elements

The target respondents for our study were youth consumer which ages between 17 years to 25 years and those have intention and experiences on purchased the green products. The sampling elements for the study included demographic information such as gender, age, education level, marital status, occupation and monthly income or pocket money.

3.3.4 Sampling Technique

Based on Zikmund, 2003, the process of sampling involved any procedure by using a small numbers of items or parts of the whole population to make conclusion

regarding the whole population. In this research study, the sampling unit was collected by using non probability sampling to conduct the survey.

Non probability sampling is sampling technique in which units of the sample are selected on the basis of personal judgment or convenience; the probability of any particular member of the population being chosen is unknown.

On selecting the sampling unit, the convenience sampling which is one of the non probability sampling is used to conduct the survey. The convenience sampling refers to sampling by obtaining people or units that are conveniently available. The research is using this sampling which can reduce the consuming of time and cost.

Another sampling is used on this research study is judgment sampling which falls under non probability sampling. This sampling is used when an experienced individual selects the sample based on personal judgment about some appropriate characteristic of the sample member.

3.3.5 Sampling Size

Roscoe (1975) suggested that the rule of thumb of selecting appropriate sample size is at least 30 and below 500. This sample size can maintain the sample error at an acceptable level. In this research, 300 questionnaires were distributed in Malaysia and Singapore; it matches the rule of thumb in determining sample size level. Besides that, a total of 30 copies of pre-test sample have been distributed and carried out before conducting formal survey to ensure the correctness and quality of the survey questionnaire.

3.4 Research Instrument

Self administrated questionnaire has been used in this research to get the primary data. The questions of the questionnaire are developed based on the literature review that has been done in chapter 2. Questionnaire is used in this study because it can collect the data in a short period of time.

3.4.1 Questionnaire Design

The questionnaire is design in English language as it is an appropriate language to communicate with the respondents. In this questionnaire, both closed-ended and open-ended questions were used. Closed-ended questionnaire is easier for the respondents to complete the questionnaire whereas open-ended questions require a response with more depth and lengthier response.

As the layout of the questionnaire, a brief introduction and purpose of conducting this research are attached at cover page. The questionnaire was divided into two parts: section A was social demographic profile and general information, section B was construct measurement.

In section A, the first part is social demographic profile, the questions were asked about respondent's gender, nationality, race, age, number of family members, income or allowance, level of education and occupation. It helps to identify the profiles of the younger people along the survey easily. For the second part, the general questions will be asked. It consisted of eight questions such as "Have you purchased any green products before?", "Please list down any green products that you have heard of, seen, or used before.", "How likely are you to buy green products in the future?" and so on.

In section B, construct measurement of study about 5 independent variables (attitudes toward green purchase, perceived consumer effectiveness, health consciousness, attitudes toward environment, and social influence) on the dependent variable (intention to purchase green products) are tested to examine the relationship among them. The respondents are requested to answer questions related to each variable in order to obtain information needed by using the six-point Likert Scale. The example of six-point Likert Scale are such as 1= Strongly Disagree, 2= Disagree, 3=Slightly Disagree, 4= Slightly Agree, 5= Agree, 6= Strongly Agree.

Lastly, the 300 questionnaires were distributed to the target respondents. To increase the validity and reliability of the information gathered, the respondents are asked on their willingness to participate in the questionnaire prior to the questionnaire.

3.4.2 Pilot Test

A pilot test of questionnaire is conducted before going through the actual survey. The purpose of pilot test is to ensure that there is no mistake or error in the questionnaire. On the other hand, pilot testing provides the opportunities for the researchers to find out and remedies a wide range of the potential problems that will occur in preparing the questionnaire and correct it before the actual questionnaire is conducted (Pratt, 2008).

This research study was conducted with a pilot test of 30 respondents before the actual questionnaire was distributed. The 30 sets of questionnaire were distributed on 10 September 2012, which consumed 5 days to collect the data back for the pilot testing stage. After collect the questionnaire, the respondents had given some respond and feedback such as typing error, grammar mistake and ambiguous terms. All these

errors and mistakes can be minimized to enhance the accuracy and quality of the questionnaire.

In a nutshell, the reliability test was conducted using Statistical Package for Social Science version 17 program. Cronbach's Alpha was used to examine the internal reliability of the pilot test. According to Malhotra (2002), reliability was considered weak when alpha coefficient was lower than 0.6. If the alpha coefficient scores in the range of 0.6 to 0.8, it is considered as being moderately strong. Lastly, if the alpha coefficient was in the range of 0.8 to 1.0, it is considered very strong.

3.5 Constructs Measurement

3.5.1 Origins of Construct

The sources of the construct measurements used in this research project are adapted from few literatures.

Table 3.1 Origins of Construct

Constructs/ Variable	Sources
Attitudes toward Green Purchases	Chan (2001)
Perceived Consumer Effectiveness	Kim (2005)
Health Consciousness	Michaelidou & Hassan (2008)
Attitudes toward Environment	Lee (2008)
Social Influence	Lin (2007)
Intention to purchase Green Product	Michaelidou & Hassan (2008)

Source: Developed for the research

Table 3.2 Attitudes toward Green Purchase

Construct	Measurement Items
Attitudes toward Green Purchase	1. I like the idea of purchasing green.
	2. Purchasing green is a good idea.
	3. I have a/an attitude toward purchasing a green version of a product.

Table 3.3 Perceived Consumer Effectiveness

Construct	Measurement Items
Perceived Consumer Effectiveness	1. Each person's behavior can have a positive effect on society by signing a petition in support of promoting the environment.
	2. I feel I can help solve natural resource problem by conserving water and energy
	3. I can protect the environment by buying products that are friendly to the environment.
	4. There is not much that I can do about the environment.
	5. I feel capable of helping solve the environment problems.

Table 3.4 Health Consciousness

Construct	Measurement Items
Health Consciousness	1. I reflect about my health a lot.
	2. I'm very self-conscious about my health.
	3. I'm alert to changes in my health.
	4. I'm usually aware of my health.
	5. I take responsibility for the state of my health.
	6. I'm aware of the state of my health as I go through the day.

Table 3.5 Attitudes toward the Environment

Construct	Measurement Items
Attitudes toward the Environment	1. It is essential to promote green living in my country.
	2. More environmental protection works are needed in my country.
	3. It is very important to raise environmental awareness among the people in my country.
	4. Environmental protection works are simply a waste of money and resources.
	5. Environmental protection issues are none of my business.
	6. I think environmental protection is meaningless.
	7. It is unwise for my country to spend a vast amount of money on promoting environmental protection.

Table 3.6 Social Influence

Construct	Measurement Items
Social Influence	1. People who influence my behavior would encourage me to buy green products.
	2. People who are important to me would encourage me to buy green products.
	3. My family thinks that I should purchase green products.
	4. My friends think that I should purchase green products.
	5. I have read/ seen news reports which say that purchasing green products contributes to a good environment.
	6. The popular press adopts a positive view towards using green products.
	7. Mass media reports have influenced me to try green products.

Table 3.7 Purchase Intention

Construct	Measurement Items
Purchase Intention	1. I intend to purchase green products in the near future.
	2. I plan to buy green products in the future.
	3. The probability that I will buy green products is high.
	4. I may buy green products when it is appropriate.

3.5.2 Primary Scale of Measurement

A questionnaire is set of question which used to collect data from respondents. It is relevant to the extent that all information collected addresses a research question that will help the decision maker address the current business problem.

In this research study, our questionnaire is divided into two major sections: Section A which included two parts (Demographic Profile and General Information) and Section B (Construct Measurement) which include nominal scale, interval scale, and ratio scale.

3.5.2.1 Nominal Scales

According to Zikmund 2003, nominal scales represent the most elementary level of measurement in which values are assigned to an object for identification or classification purposes only.

Stevens, 2008 explained nominal scale represents the most unrestricted assignment of numerals whereas the numerals are used only as labels or type numbers, and words or letters would serve as well. There are two types of nominal assignments are sometimes distinguished, as illustrated (a) by the 'numbering' of football players for the identification of the individuals, and (b) by the 'numbering' of types or classes, where each member of a class is assigned the same numeral.

The nominal scale is used in Section a part 1 of questionnaire for most of the demographic profiles of respondents. For instance “Gender:” Male or Female.

3.5.2.2 Interval Scales

In terms of interval scales, it includes both nominal and ordinal properties, but that also capture information about difference in quantities of a concept from one observation to the next (Zikmund , 2003).

In addition, (Malhorta et al., 2006) explained that interval scale refers to a scale in which the numbers are used to rank objects such that numerically equal distances on the scale represent equal distances in the characteristic being measured. Also, it allows comparing the differences between objects. The difference between 1 and 2 is the same as the differences between 2 and 3.

The questionnaire for this study provides 6 alternatives which are “Strongly Agree”, “Agree”, “Slightly Agree”, “Slightly Disagree”, “Disagree”, and “Strongly Disagree” on Section B to analyses the degree of agreement or disagreement on the dependent variable (Green Purchase Intention), and independent variables (Attitudes toward Green Purchase, Perceived Consumer Effectiveness, Health Consciousness, Attitudes toward the Environment, and Social Influence.)

3.5.2.3 Ratio Scales

Zikmund, 2003 mentioned ratio scales represent the highest form of measurement in that they have all the properties of interval scales with the additional attribute of representing absolute quantities; characterized by a meaningful absolute zero.

The ratio scales is the scale of number itself-cardinal number-the scale we use when we count such things as eggs, pennies, and apples (Stevens, 2008).

In the questionnaire has given the question under ratio scales such as “What is your monthly allowance or gross income per month”. Or “Please state your age”.

3.6 Data Processing

Data processing is guided by the preliminary plan of the data analysis that was formulated in the research design phase. There are five steps to process raw data into a form that suitable for analysis. The five data processes in data processing are data checking, data editing, data coding, data transcribing, and data cleaning.

3.6.1 Questionnaire Checking

According to Malhorta (2006), the initial step in questionnaire checking involves checking for completeness and interviewing quality. These data were checked when the questionnaires for pilot test that distributed out to respondents are returned. Therefore, any error or problem can be detected on the earlier stage and will make correction as conducted in real surveys.

3.6.2 Data Editing

Editing is the review of the questionnaires with the objective of increasing accuracy and precision. It consists of the process of screening questionnaires to identify illegible, incomplete, inconsistent, or ambiguous responses to enhance accuracy and precision of questionnaires (Malthorta et al., 2006). Data editing used to monitor the questionnaire to prevent the incompleteness and inconsistency from the responses. Missing value is being treated as incomplete responses and will be rejected. Respondents who have forgotten to fill in the answer will request to answer it to prevent missing value on this survey.

3.6.3 Data Coding

In this phrase, data coding is the assignment of a code, usually a number, to each possible response to each question.(Malthotra, Hall, Shaw and Oppenheim, 2002) . In the current research, the unsatisfactory responses were discarded. It is said that if the pre-set sample size is large and the unsatisfactory responses may be discarded (Malthorta, 2002). Researchers will assign numbers for all category scales used in questionnaires. For example, in section A, Malaysian is allocated as 1 and Singaporean as 2. This is to make it data entry easier. Meanwhile in section B of the questionnaire, researcher used 6-point Likert scales to described with anchors of (1) ‘strongly disagree’ to (6) strongly agree’ to give respondents choose their answer.

3.6.4 Data transcribing

The next step is transcribing data that is transferring the coded data from the questionnaire or coding sheet onto disks or directly into computer by keypunching (Malhorta, 2006). The data is read by optical scanning. After the data is scanned, it is sent by computer memory and turns into the transcribed data. In this research project, the Statistical project of Social Science (SPSS) software will be used to run the data once all the data that get from the questionnaires are transcribed into the computer.

3.6.5 Data cleaning

According to Malhorta et al. (2006), data cleaning includes consistency checks and treatment of missing responses. Data cleaning is the last step of the data processing. This step is used for consistency checking whether there is an out of range data, logically inconsistent, or has extreme value. To sustain the consistency of the data, the SPSS software package used in the data was programmed to identify out-of-range values and reveal the respondent codes that required checking.

3.7 Data Analysis

According to Sekaran (2003), the objectives of data analysis are getting a feel for the data (descriptive analysis), testing the goodness of the data (scale measurement) and testing the hypotheses develop for the research (inferential analysis)'. 300 sets of questionnaire were distributed to the respondents. After the data was being collected

from the field, data was converted into information by using the SPSS. The data was being analyzed by using descriptive analysis, reliability test and inferential analysis.

3.7.1. Descriptive Analysis

According to Robert and Richard (2008), statistical techniques which are used to describe data are referred to as descriptive statistics which summarize sets of numerical data. Descriptive statistics will be instrumental in helping to interpret and understand the sample data and provide the first step in the data analysis (Aaker et al., 2007). Descriptive statistics includes frequencies, measures of central tendency (mean, median, and mode), and measure of dispersion (range, standard deviation, and coefficient of variation).

3.7.1.1 Frequency distribution

According to Frederick and Larry (2009), frequency distribution is an organized tabulation of the number of individuals located in each category on the scale of measurement. The purpose of frequency is to demonstrate the values like the numbers and percentages for the different categories of a single categorical variable. Its measurement is only one categorical variable, which is nominal or ordinal scale. (Zikmund, 2003). After all, a frequency division for a variable would generate a table of frequency counts, percentages, and cumulative percentages for all the values allied with that variable (Malhorta et al., 2006).

3.7.1.2 Descriptive statistic

A descriptive statistic is a tool used by researcher to summarize the frequency table. Sometimes a frequency table may provide information that is too detailed and therefore, researcher has to put in effort in order to summarize the information. In this research, descriptive statistics have been measured on the independent variables which consist of attitudes toward green purchase, perceived consumer effectiveness, attitudes toward the environment, health consciousness, and social influence. Result will be show in mean and ranked in position of 1 to 6. The highest result in Mean would determine that respondents are more likely to agree into particular variable towards intention to purchase green products.

3.7.2 .1 Reliability Test

According to Malthotra (2006), reliability test is used to decide the stability and consistency with which the research instrument measures the construct. Furthermore, the relationship between individual items in the scale also can be determined significantly. The higher degree of association between the scores derived through this repeated measurement, the more reliable the scale. The scale items in the research were assessed using Cronbach's Alpha, which is calculated by averaging the coefficient that the result from all possible combinations of split halves. As Malhotra (2006) stated, the coefficient varies from 0 to 1, and value of 0.6 or less generally signifies unsatisfactory internal consistency reliability.

3.7.3 Inferential Analysis

According to Burns and Bush (2006, p.426), inferential analysis is use to generate conclusion about the population's characteristic based on information contain in the data matrix provided by the sample.

3.7.3.1 Pearson's Correlation Analysis

Pearson's correlation coefficient was used in this research study in order to measure the strength of a linear relationship between two variables. The correlation coefficient is ranges from -1.00 to 1.00, with 0 representing absolutely no systematic association between two variables, and -1.00 or 1.00 representing a perfect link between two variables (Hair, Bush & Ortinau, 2006). In addition, Pearson's correlation analysis method is chosen because the correlation can be compared without regarding to the amount of variation exhibited by each variable separately.

3.7.3.2 Multiple Regressions

Multiple regressions analysis is an extension of simple linear regression analysis, which allows for the simultaneous investigation of the effect of the effect of two or more independent variables on a single interval-scaled dependent variable (Zikmund, 2003) Multiple regression use to examine the influences of several metric independent variables on one metric dependent variable (Hair et al, 2006).

According to Ken (2009), multiple regression analysis, the dependent variable, Y, is sometimes referred to as the response variable. The partial regression coefficient of

an independent variable, B, represents the increase that will occur in the value of Y from a one-unit increase in that independent variable if all other variables are held constant.

The multiple regression equation is:

$$Y = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5X_5 + \dots + b_kX_k$$

Equation:

$$\mathbf{YAATPGP} = a + b_1 \text{ITPGP} + b_2 \text{ATGP} + b_3 \text{PCE} + b_4 \text{HC} + b_5 \text{ATTE} + b_6 \text{SI}$$

Whereby,

ITPGP = Intention to purchase green product

ATGP = Attitudes towards green purchases

PCE = Perceived consumer effectiveness

HC = Health consciousness

ATTE = Attitudes towards the environment

SI = Social influence

3.8 Conclusion

Overall, chapter three described the method that used to carry out the research and collect data. Convenient and judgment sampling is used to select the respondents for the 300 questionnaires given out. SSPS software will be used to analyze the data. The following chapter will provide a detailed analysis and interpretation of the result that have been analyzed.

CHAPTER 4: DATA ANALYSIS

4.0 Introduction

In chapter 4, the results of the questionnaires surveyed respondent data will be analyzed. The results of the survey are based on SPSS 17.0 software. On the other hand, this chapter covered few parts such as descriptive analysis, descriptive statistic, scale measurement and inferential analysis (Pearson Correlation, Multiple Regression, and Linear Regression).

4.1 Descriptive Analysis

4.1.1 Respondent Demographic Profile

In this study, the demographic profile of the respondents has been identified in Section A of the questionnaire. There are a total eight of questions asked under the respondents' demographic section which included gender, race, age, and nationality, level of education, number of family member, occupation and monthly income level.

Table 4.1: Frequency Table: Demographic Profile of Malaysia

Category	Frequency (N)	Percentage (%)
Gender		
Male	61	40.7%
Female	89	59.3%
Race		
Chinese	107	71.3%
Indian	19	12.7%
Malay	24	16.0%
Age Group		
17 to 19	16	10.7%
20 to 22	84	56.0%
23 to 25	50	33.3%
No. of Family Members		
Below 2	3	2.0%
2-3	16	10.7%
4-5	85	56.7%
6-7	40	26.7%
Above 7	6	4.0%
Salary / Allowance		
Below RM500	60	40.0%
RM501-RM1000	39	26.0%
RM1001-RM1500	10	6.7%

RM1501-RM2000	14	9.3%
RM2001-RM2500	14	9.3%
Above RM2500	13	8.7%
Education Level		
High School	24	16.0%
Diploma	30	20.0%
Degree	85	56.7%
Master's	9	6.0%
Professional-Certificate	1	0.7%
Doctorate	1	0.7%
Employment		
Homemaker	0	0%
Student	98	65.3%
Technical	7	4.7%
Administrative	12	8.0%
Self-employed	12	8.0%
Managerial	8	5.3%
Professional	12	8.0%
Other	1	0.7%

Table 4.1.1: Frequency Table: Demographic Profile of Singapore)

Category	Frequency (N)	Percentage (%)
Gender		
Male	64	42.7%
Female	86	57.3%
Race		
Chinese	102	68%
Indian	21	14%
Malay	27	18%
Age Group		
17 to 19	38	25.3%
20 to 22	55	36.7%
23 to 25	57	38.0%
No. of Family Members		
2-3	42	28.0%
4-5	98	65.3%
6-7	10	6.7%
Salary / Allowance		
Below SGD 800	76	50.7%
SGD 801-1300	14	9.3%
SGD 1301-1800	19	12.7%
SGD 1801-2300	16	10.7%
Above SGD 2300	25	16.6%

Education Level		
High School	17	11.3%
Diploma	76	50.7%
Degree	45	30.0%
Master's	10	6.7%
Professional-Certificate	2	1.3%
Employment		
Homemaker	1	0.7%
Student	76	50.7%
Technical	24	16.0%
Administrative	27	18.0%
Self-employed	1	0.7%
Managerial	7	4.7%
Professional	11	7.3%
Other	3	2.0%

Figure 4.1: Gender (Malaysia)

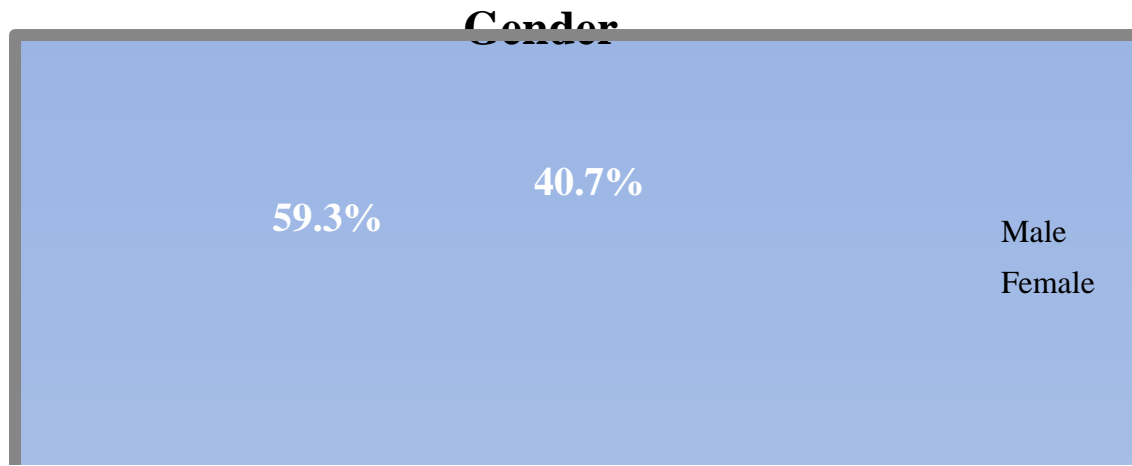


Figure 4.1 and Table 4.1 show the gender of the Malaysian respondents who participated in this survey. Out of 150 respondents, the majority respondents are female that are 89 respondents and it represents 59.3% of the total respondents. While there are only 40.7% male participated in the survey which equates to 61 respondents.

Figure 4.1.1: Gender (Singapore)

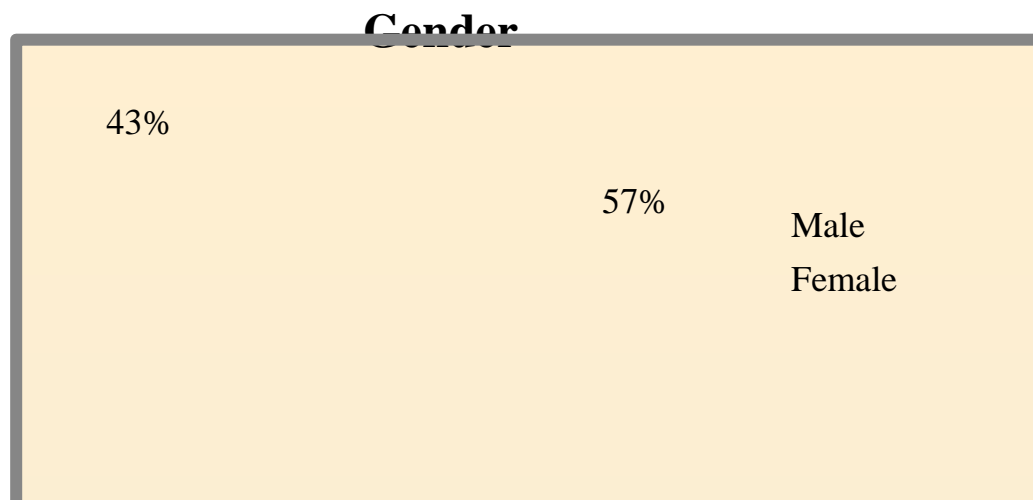
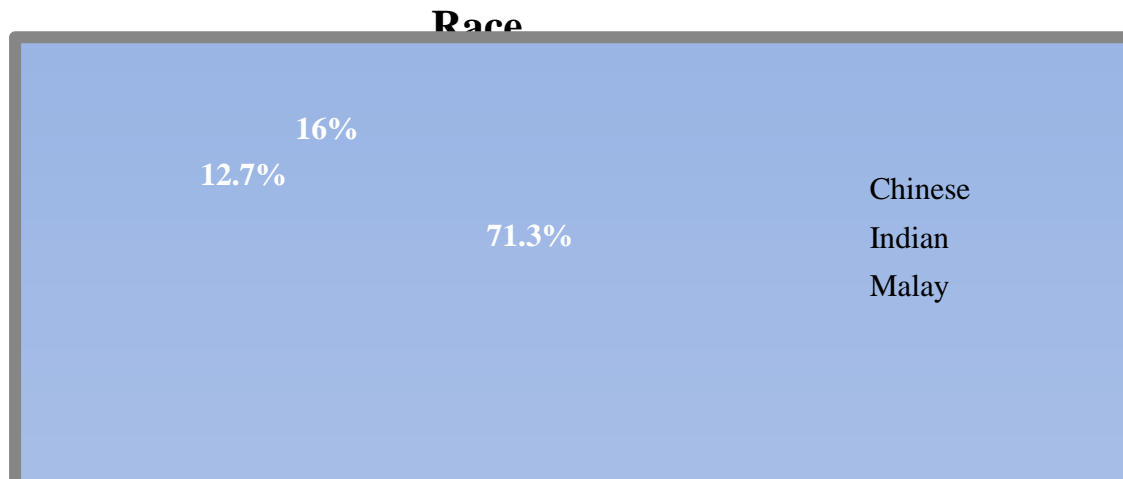


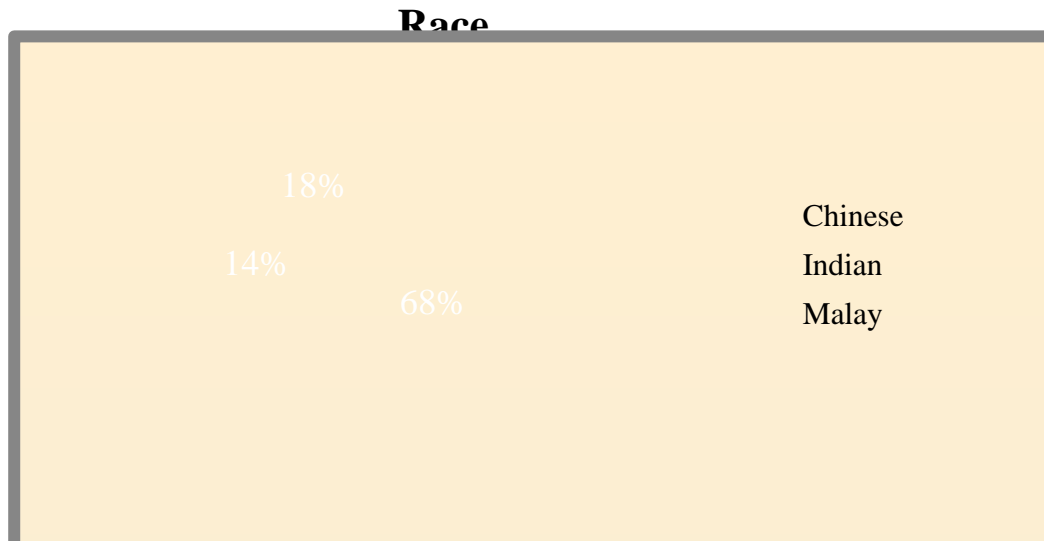
Figure 4.1.1 and Table 4.1.1 shows the gender of the Singaporean respondents who participated in this survey. Out of 150 respondents, the majority respondents are female that are 86 respondents and it represents 57.3% of the total respondents. While there are only 42.7% male participated in the survey which equates to 64 respondents.

Figure 4.2: Race (Malaysia)



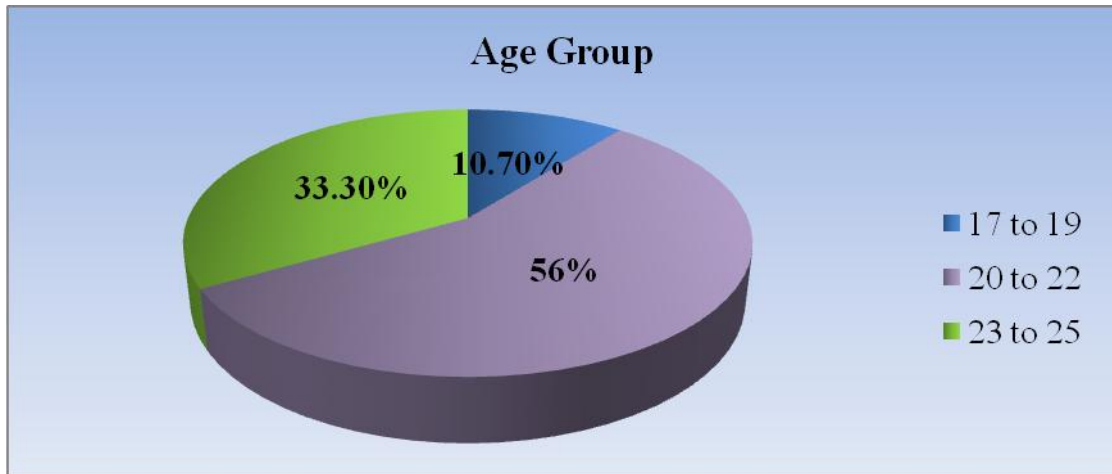
According to the Figure 4.2 and Table 4.1, there was 71.3% of the total Malaysia respondents were Chinese. 16% of the respondents were Malay and respectively 12.7% of the respondents were Indian and other race.

Figure 4.2.1: Race (Singapore)



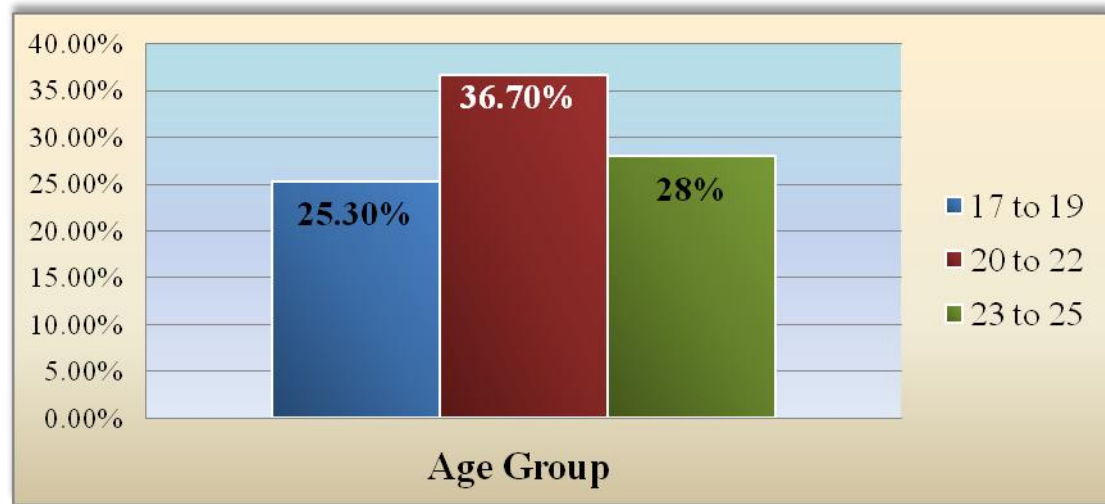
According to the Figure 4.2.1 and Table 4.1.1, there were 68% of the total Singapore respondents were Chinese. 27% of the respondents were Malay and respectively 14% of the respondents were Indian and other race.

Figure 4.3 Age Group (Malaysia)



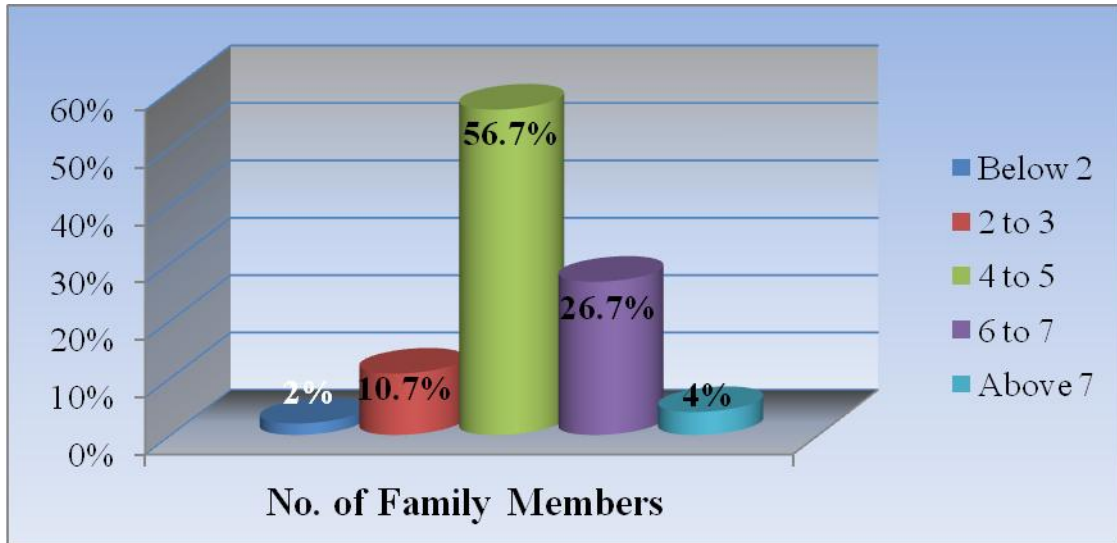
Based on the Figure 4.3 and Table 4.1, the majority of the Malaysia respondents were aged 20 to 22 years old, representing 56%. It followed by 33% of the respondents were aged 23 to 25 years old, and only 10.7% were aged 17 to 19 years old.

Figure 4.3.1 Age Group (Singapore)



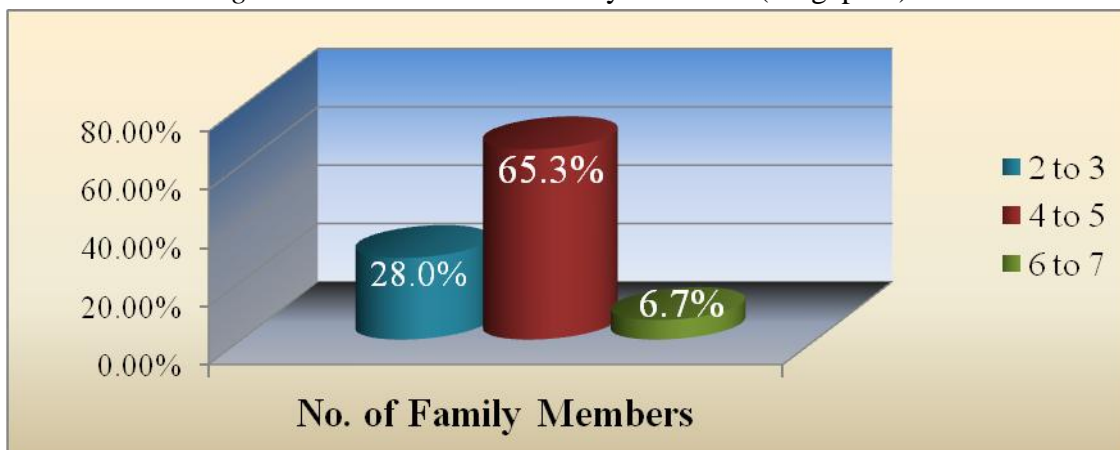
Based on the Figure 4.3.1 and Table 4.1.1, the majority of the Singapore respondents were aged 21 to 30 years old, representing 81%. It followed by 12% of the respondents were aged 20 years old and below, 5.5% were aged 31 to 40 years old and only 1.5% were aged 41 to 50 years old.

Figure 4.4 Numbers of Family Members (Malaysia)



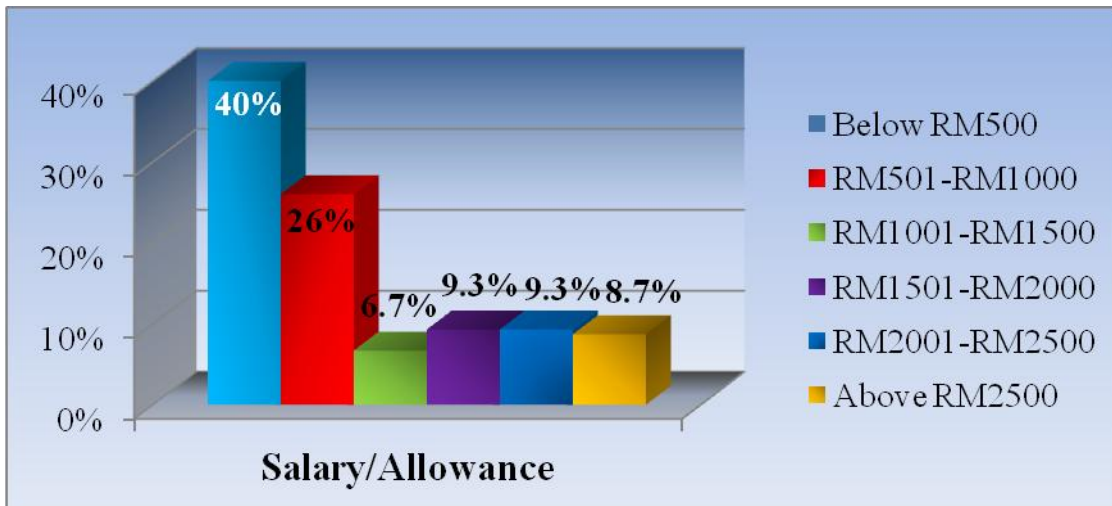
According to Figure 4.4 and Table 4.1, most of the Malaysia respondent's family members were 4 to 5 people, which is 56.7%. It followed by 26.7% of respondent's family members were 6 to 7 people, 4.0% of respondent's family member were above 7 people and lastly is 2.0% of respondent's family member were below 2 people.

Figure 4.4.1 Numbers of Family Members (Singapore)



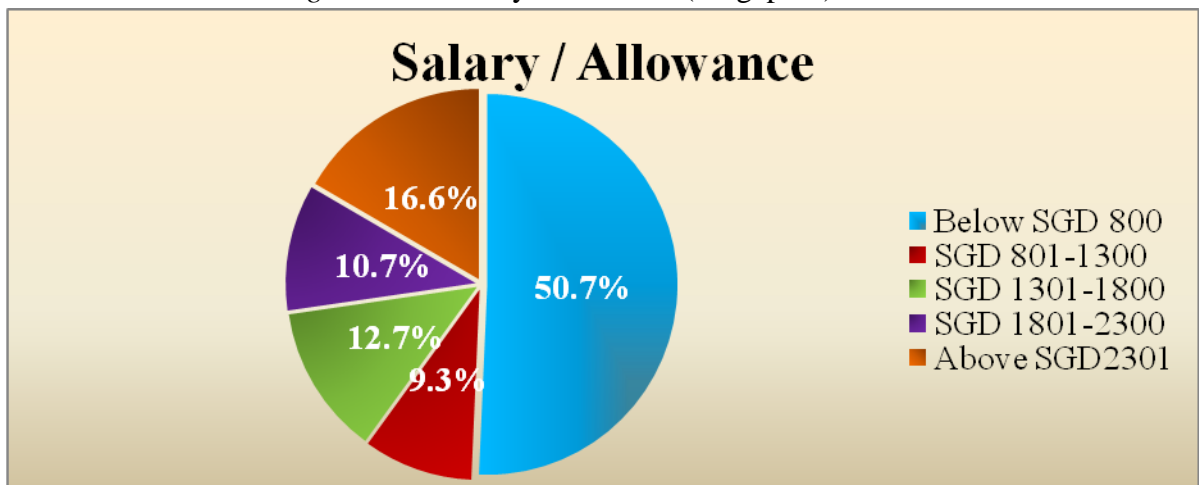
According to Figure 4.4.1 and Table 4.1.1, most of the Singapore respondent's family members were 4 to 5 people, which is 65.3%. It followed by 28% of respondent's family members were 2 to 3 people, and 6.7% of respondent's family member were 6 to 7 people.

Figure 4.5 Salary/Allowance (Malaysia)



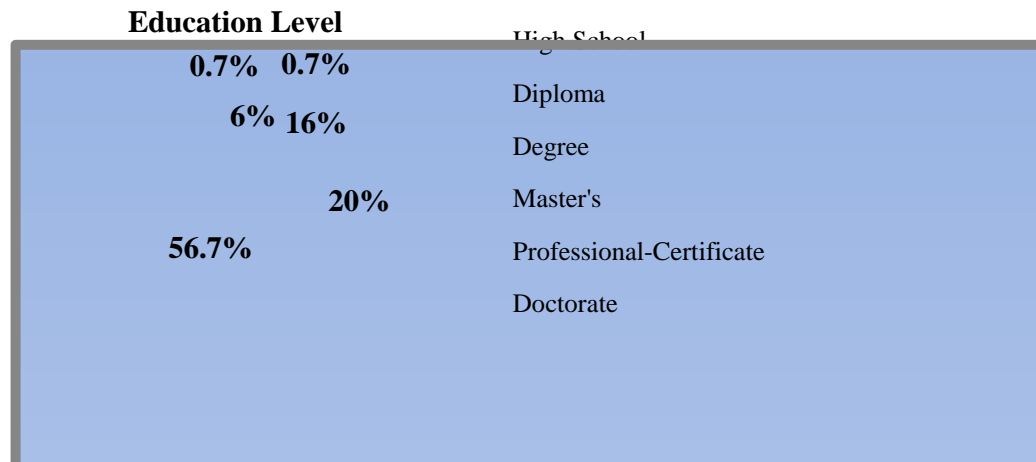
From Figure 4.5 and Table 4.1, the analysis shows that Malaysia respondents income level below RM 500 is 50.7%, RM501-RM1000 is 26.0%, both RM1501-RM2000 and RM2001-RM2500 are 9.3%, Above RM2500 are 8.7% and lastly is RM1001-RM1500, which is 6.7%.

Figure 4.5.1 Salary/Allowance (Singapore)



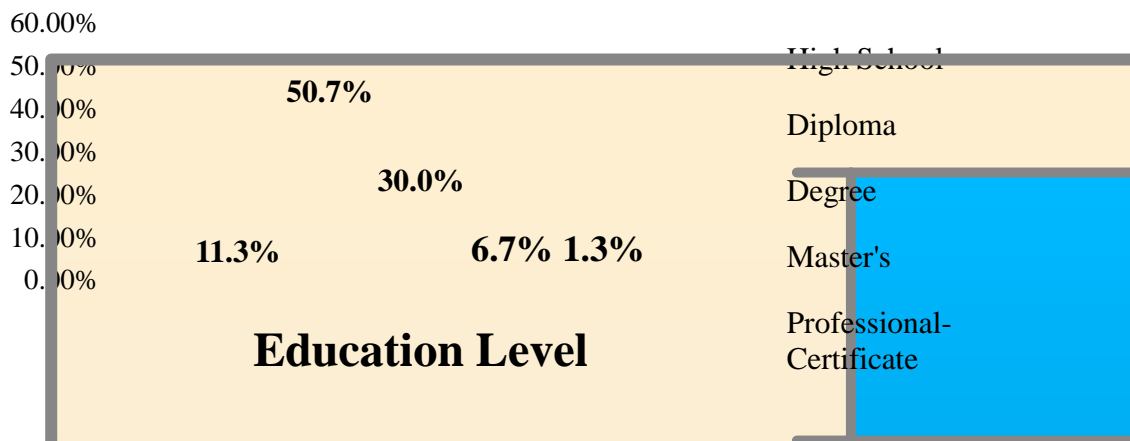
From Figure 4.5.1 and Table 4.1.1, the analysis shows that Singapore respondents income level below SGD 800 is 50.7%, SGD 801-1300 is 9.3%, SGD 1301-1800 is 12.7%, SGD 1801-2300 is 10.7% and above SGD 2300 is 16.6%.

Figure 4.6 Level of Education (Malaysia)



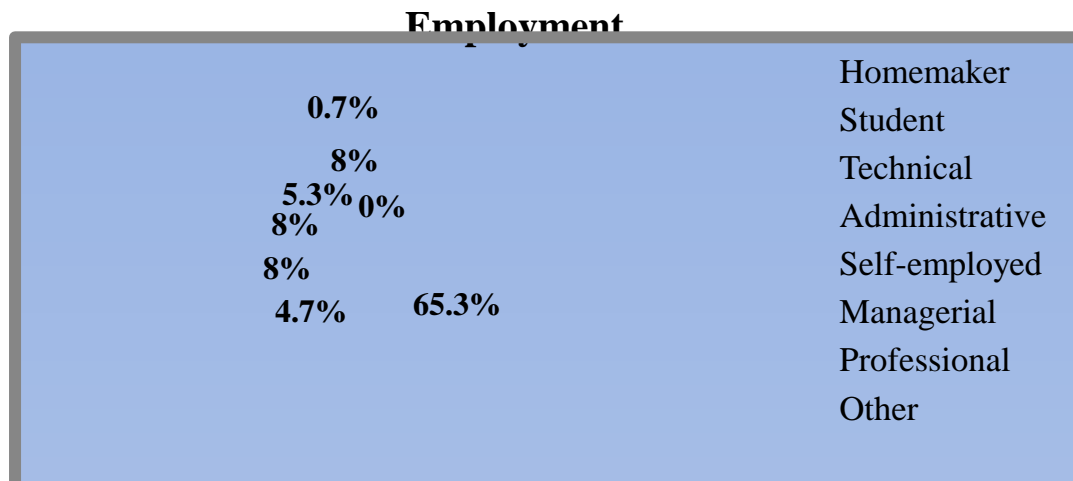
According to Figure 4.6 and Table 4.1, the results revealed that 56.7% of Malaysia respondent are degree holder. It followed by diploma holder which account for 20.0%. The respondents who are holding High School comprises of 16.0%. Meanwhile, respondents account for 6.0% fall into Master holder and lastly both professional-certificate and doctorate are 0.7%.

Figure 4.6.1 Level of Education



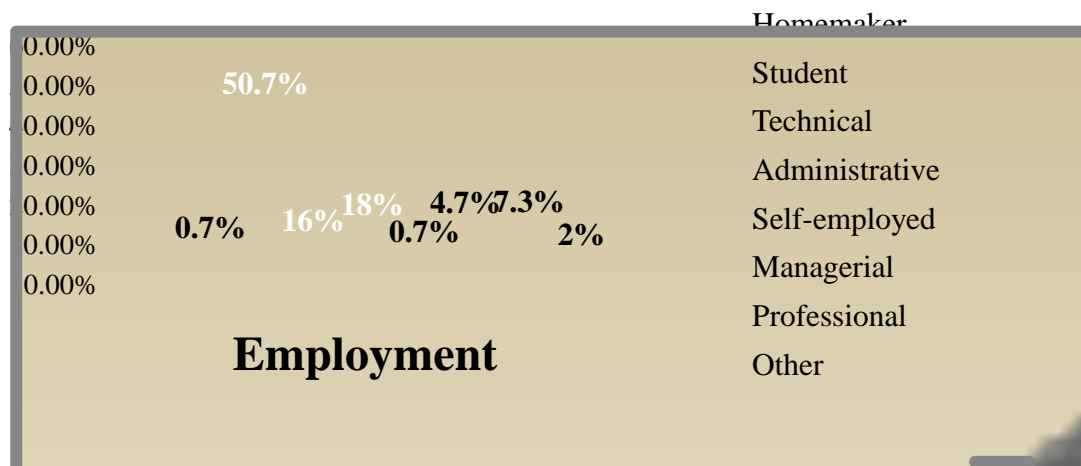
According to Figure 4.6.1 and Table 4.1.1, the results revealed that 50.7% of Singapore respondent are holding Diploma. It followed by Degree holder which account for 30%. The respondents who are holding High School comprises of 11.3%. Meanwhile, respondents account for 6.7% fall into Master holder and lastly there are only 1.3% of Professional- Certificate holders.

Figure 4.7 Employment (Malaysia)



Based on Figure 4.7, there are 65.3% of Malaysia respondent are student, which is the highest proportion among the 150 respondent. Moreover, respondents who are administrative, self-employed and professional consist of 8.0. It followed by managerial level which is 5.3%, technical 4.7%, and lastly are others, which is 0.7%.

Figure 4.7.1 Employment (Singapore)



Based on Figure 4.7, there are 50.7% of Singapore respondent are student, which is the highest proportion among the 150 respondent. Moreover, respondents who are Administrative level, consist of 18%. It follows by respondents at Technical level which is 16%, Professional 7.3%, others 2.0% and lastly both Homemaker and Self Employed are 0.7%.

4.1.2 Frequency Tables of General Information

Table 4.2: Frequency Tables for General Information

	Malaysia		Singapore	
	Frequency (N)	Percentage (%)	Frequency (N)	Percentage (%)
Please list down any green products that you have heard of, seen, or used before.				
Automobile	32	18.9%	38	17.4%
Household Products	52	30.8%	53	24.3%
Skin Care Products	11	6.5%	20	9.2%
Electronic Items	14	8.3%	31	14.2%
Food & Beverage	47	27.8%	58	26.7%
Accessories & Fashion	4	2.4%	12	5.5%
Other	1	0.6%	0	0%
Never heard of, or seen before	8	4.7%	6	2.8%
Have you purchased any green products before?				
Yes	71	47.3%	84	56.0%
No	79	52.7%	66	44.0%

A Study on The Youth Attitudes Toward Purchase
Green Products in Malaysia and Singapore

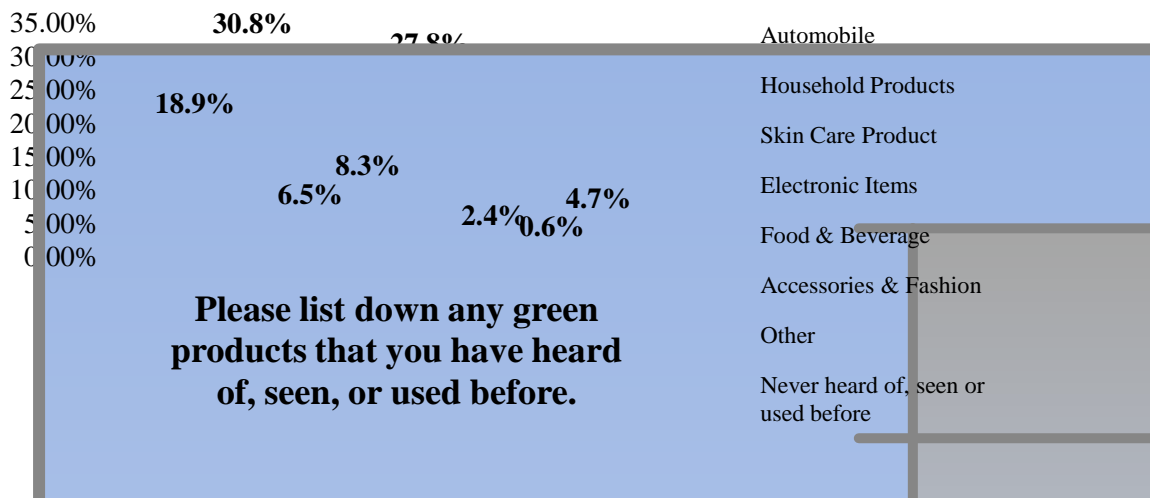
	Malaysia		Singapore	
	Frequency (N)	Percentage (%)	Frequency (N)	Percentage (%)
If your answer is “Yes”, please state what green products you have purchased before.				
Automobile	4	5.9%	1	1.1%
Household Products	24	35.3%	40	42.6%
Skin Care Products	8	11.8%	16	17.0%
Electronic Items	3	4.4%	4	4.3%
Food & Beverage	24	35.3%	26	27.7%
Accessories & Fashion	5	7.4%	7	7.4%
Whether you have or have not purchased any green products before, how likely are you to buy such products in the future?				
Definitely Will Not	0	0%	0	0%
Probably Will Not	3	2.0%	3	2.0%
Only if it is necessary with no other choices	53	35.3%	46	30.7%
Probably Will	70	46.7%	88	58.7%
Definitely Will	24	16.0%	13	8.7%

A Study on The Youth Attitudes Toward Purchase
Green Products in Malaysia and Singapore

	Malaysia		Singapore	
	Frequency (N)	Percentage (%)	Frequency (N)	Percentage (%)
How do you like the idea of purchasing green products?				
Extremely Dislike	0	0%	0	0%
Dislike	0	0%	1	0.7%
Neither Like or Dislike	42	28.0%	41	27.3%
Like	81	54.0%	73	48.7%
Extremely Like	27	18.0%	35	23.3%
Purchasing green products is a ____idea.				
Very bad	0	0%	0	0%
Bad	0	0%	0	0%
Neither Bad or Good	15	10.0%	31	20.7%
Good	92	61.3%	81	54.0%
Very Good	43	28.7%	38	25.3%

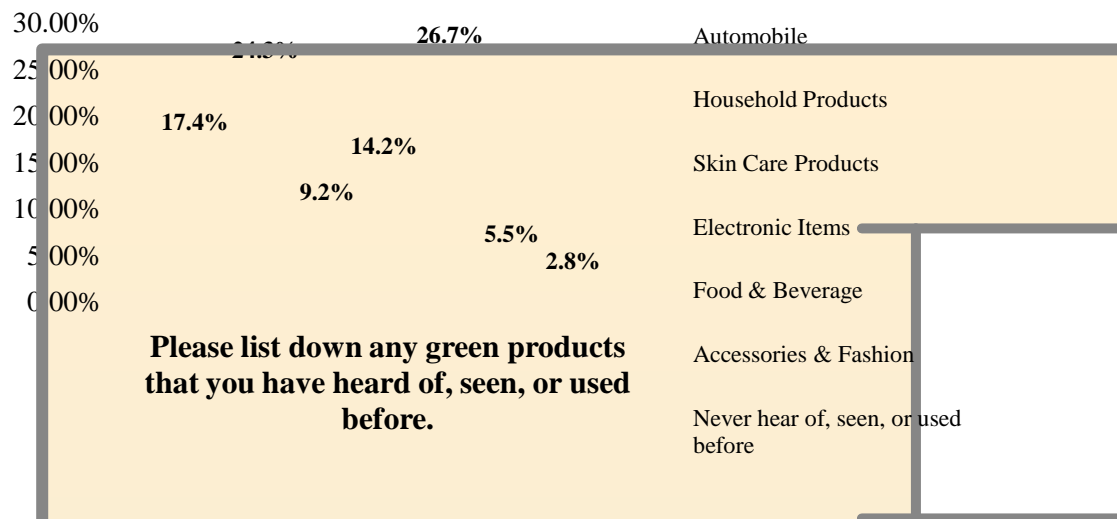
	Malaysia		Singapore	
	Frequency (N)	Percentage (%)	Frequency (N)	Percentage (%)
I have a/an _____ attitude towards purchasing green version of a product.				
Extremely Unfavorable	0	0%	0	0%
Unfavorable	3	2.0%	2	1.3%
Neutral	48	32.0%	44	29.3%
Favorable	70	46.7%	80	53.3%
Extremely Favorable	29	19.3%	24	16.0%
How much more are you willing to pay for green products in relation to non-green products? Please state your percentage maximum in terms of price willingness.				
0% -10%	41	27.3%	17	11.3%
20% - 30%	46	30.7%	55	36.7%
40% - 50%	32	21.3%	32	21.3%
60% - 70%	20	13.4%	25	16.7%
80% - 90%	9		19	12.6%
100%	2	1.3%	2	1.3%

Figure 4.8 Green products that have heard of, seen, or used before (Malaysia)



According to figure 4.8, it shows the most of the green products that Malaysia respondent had been heard, seen or used before are Household Products, which is 30.8%. It followed by Food & Beverage 27.8%, Automobile 18.9%, Electronic Items 8.3%, Skin Care Products 6.5%, Never heard of, seen and used before is 4.7%, and lastly is Other, which is 0.6%.

Figure 4.8.1 Green products that have heard of, seen, or used before (Singapore)



According to figure 4.8.1, it shows the most of the green products that Singapore respondent had been heard, seen or used before are Household Product, which is

42.6%. It followed by Food & Beverage 27.7%, Skin Care Product 17.0%, Accessories & Fashion 7.4%, Electronic Items 4.3%, and lastly is Automobile, which is 1.1%.

Figure 4.9 Green Products User (Malaysia)

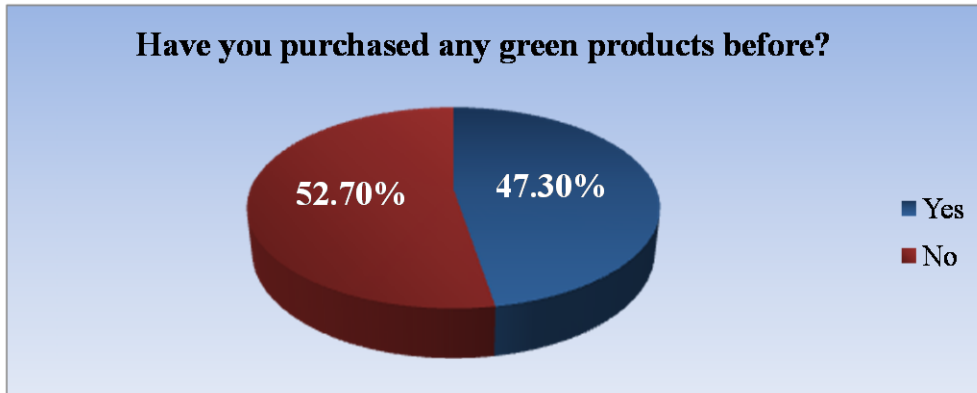


Figure 4.9 shows that there are 47.3% of Malaysia respondent have purchased green products before while the rest (52.7%) haven't purchased any green products before.

Figure 4.9.1 Green Products User (Singapore)

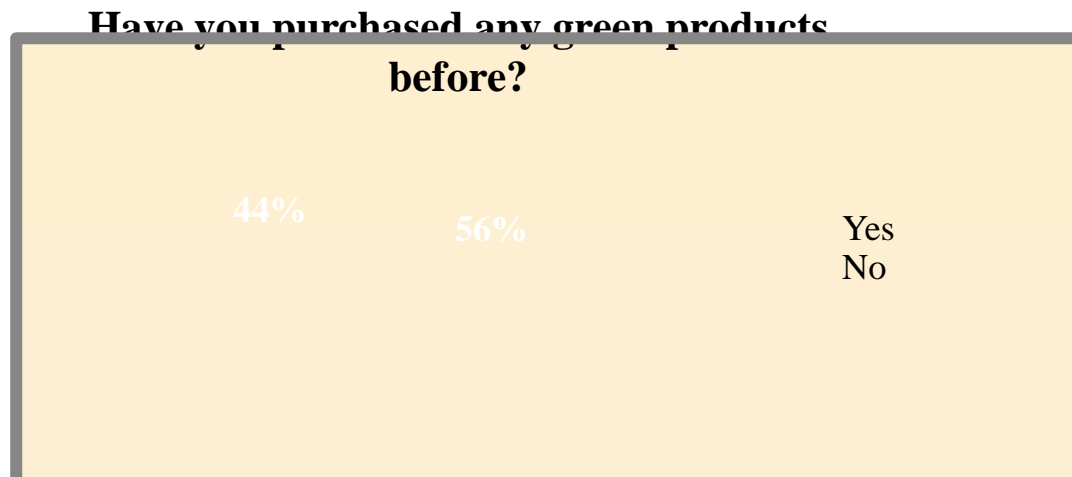
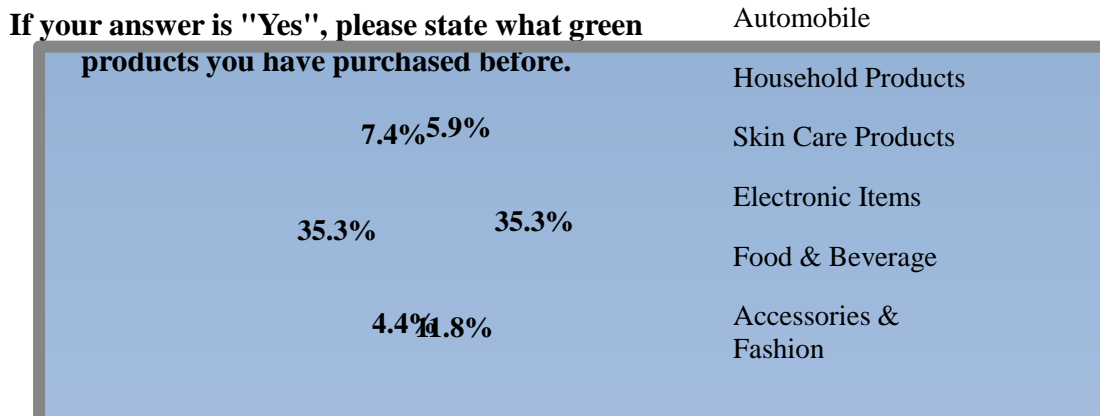


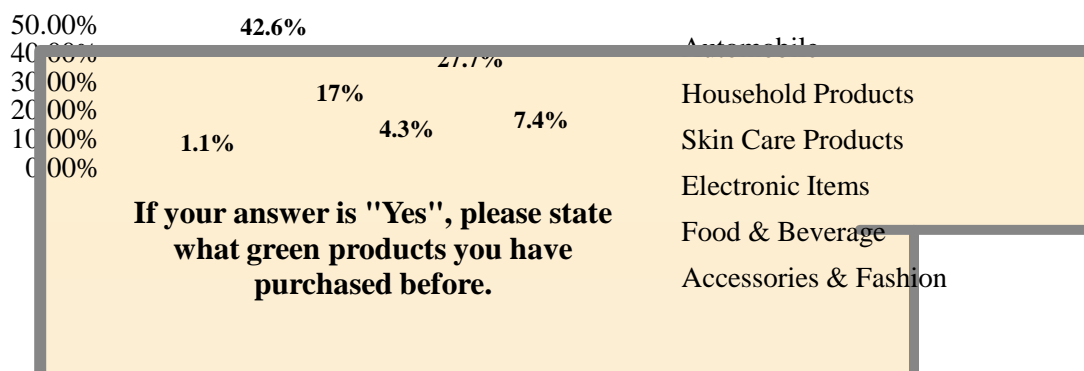
Figure 4.9.1 shows that there are 56% of Singapore respondent have purchased green products before while the rest (44%) haven't purchased any green products before.

Figure 4.10 Green Products that respondent purchased before (Malaysia)



Based on Figure 4.10, majority of the Malaysia respondents have purchased both Food & Beverage and Household Products before are represented by 35.3% of the sample size. Meanwhile, 11.8% of respondent have purchased Skin Care Products before. It followed by Accessories & Fashion 7.4%, Automobile 5.9%, and lastly is Electronic Items, which is 4.4%.

Figure 4.10.1 Green Products that respondent purchased before (Singapore)



Based on Figure 4.10.1, majority of the Singapore respondents have purchased Green/Eco Bag before which represented 34.5% of the sample size. Meanwhile, 29.8% of respondent have purchased Organic Food before. It followed by Personal Care Product 14.3%, Other such as Natural Gas and are Organic Fertilizers are 11.9%,

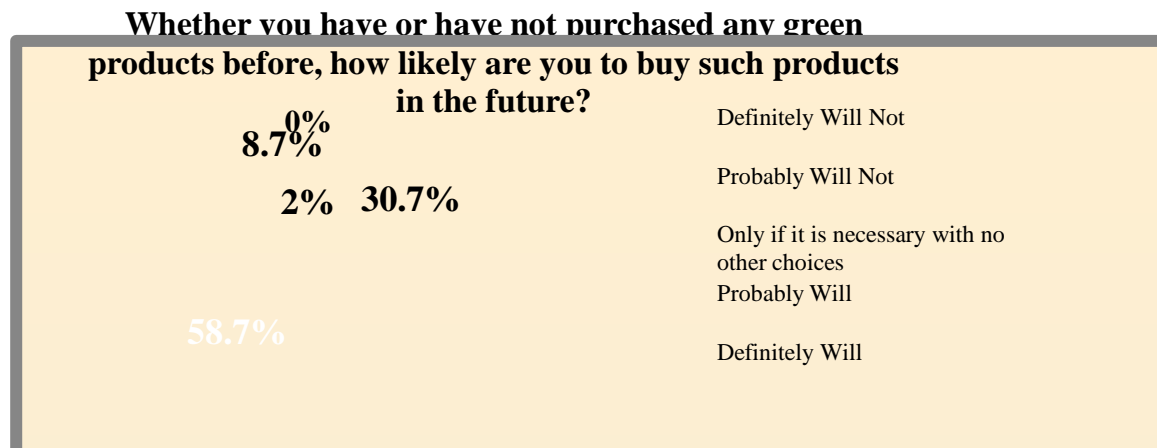
Home and Appliances or Electronic Items 6.0%, and Household Cleaner, which is 2.4%. Among all of the green products, respondent that purchased the least is Vehicle, which is 1.2% only.

Figure 4.11 Likeliness to purchase green products in the future (Malaysia)



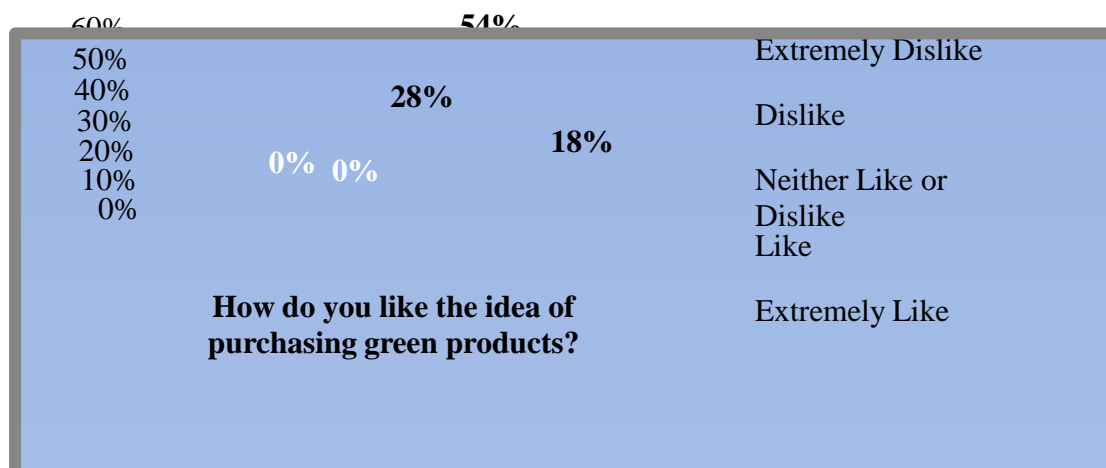
This survey is asking Malaysia respondent about whether they will purchase green products in the future. Based on Figure 4.11 and Table 4.2, there are 46.7% of respondent probably will purchase green products in the future. It followed by Only if it is necessary with no other choices 35.3%, Definitely Will 16.0% and lastly is Probably Will Not 2.0%. There is no respondent that definitely will not purchase green products.

Figure 4.11.1 Likeliness to purchase green products in the future (Singapore)



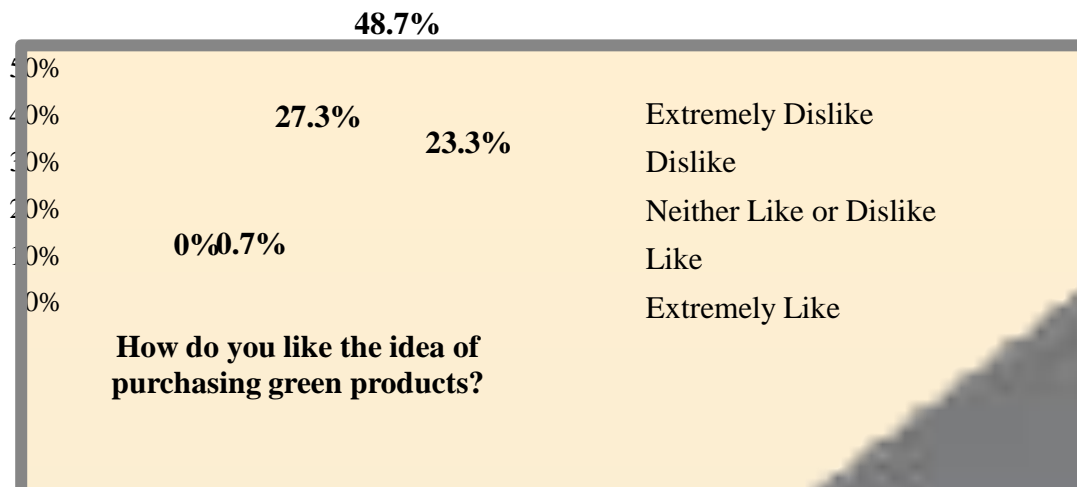
This survey is asking Singapore respondent about whether they will purchase green products in the future. Based on Figure 4.11.1, there are 58.7% of respondent probably will purchase green products in the future. It followed by “Only” if it is necessary with no other choices 30.7%, Definitely Will 8.7% and lastly is Probably Will Not 2.0%. There is no respondent that definitely will not purchase green products.

Figure 4.12 How do you like the idea of purchasing green products (Malaysia)



According to Figure 4.12 and Table 4.2, most of the Malaysia respondents like the idea of purchasing green products, which is 54.0%. It followed by Neither Like or Dislike 28.0%, Extremely Like 18.0%. There are no respondent that dislike or extremely dislike the idea of purchasing green product.

Figure 4.12.1 How do you like the idea of purchasing green products (Singapore)



According to Figure 4.12.1 and Table 4.2.1, most of the Singapore respondents like the idea of purchasing green products, which is 48.7%. It followed by Neither Like or Dislike 27.3%, Extremely Like 23.3%, and lastly there is only 0.7% of respondent dislike the idea of purchasing green product.

Figure 4.13 The idea of purchasing green products (Malaysia)

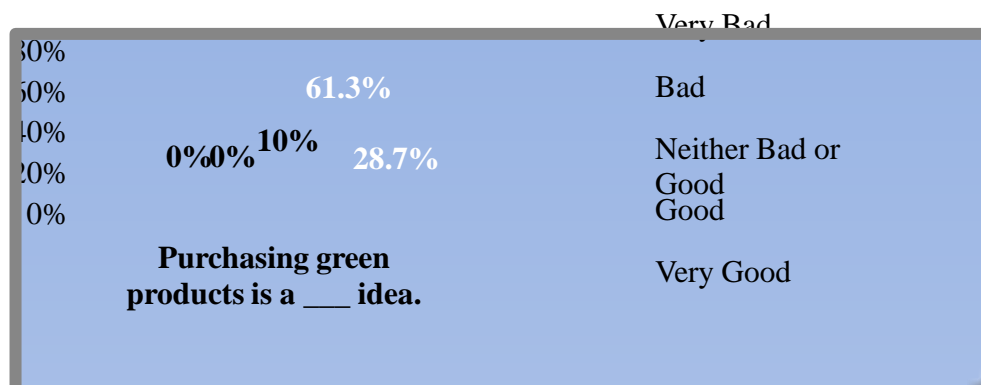


Figure 4.13 shows the result of Malaysia respondents' idea towards purchasing green products. There is 61.3% of respondent think that purchasing green product is a Good idea. It followed by 28.7% of respondents think that green purchasing is Very Good. Lastly is 10.0% of respondent think that the idea of purchasing green products is Neither Bad or Good. There are no respondent think that purchasing green product is a bad or very bad idea.

Figure 4.13.1 The idea of purchasing green products (Singapore)

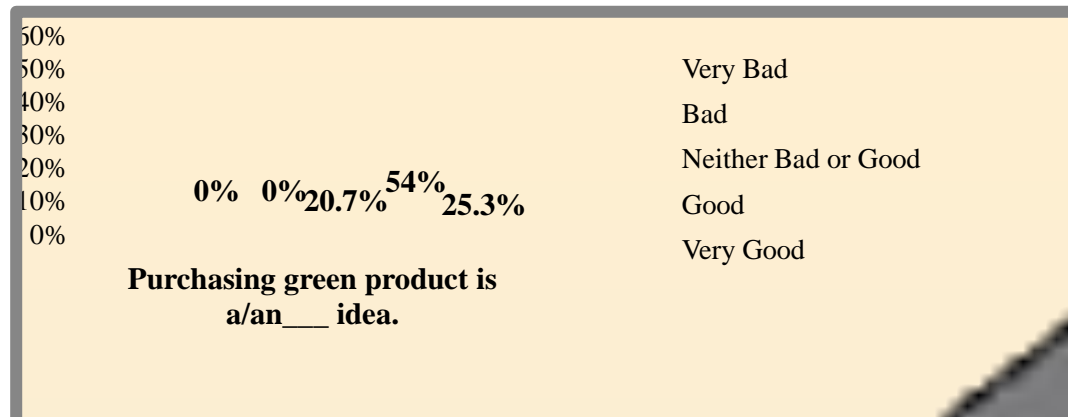
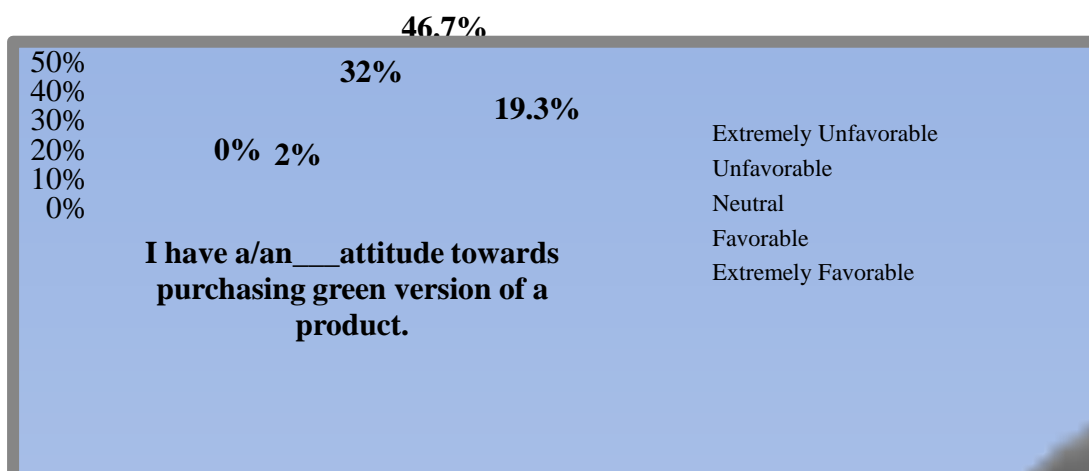


Figure 4.13.1 shows the result of Singapore respondents' idea towards purchasing green products. There is 54.0% of respondent think that purchasing green product is a Good idea. It followed by 25.3% of respondents think that green purchasing is Very Good. Lastly is 20.7% of respondent think that the idea of purchasing green products is Neither Bad or Good.

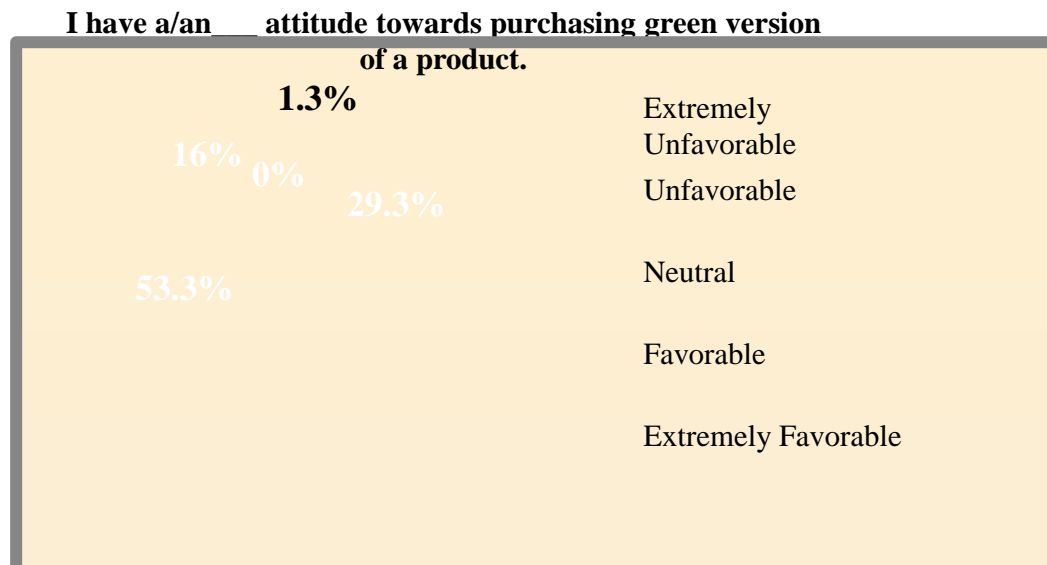
Figure 4.14 Attitudes towards purchasing green product (Malaysia)



According to figure 4.14, there are 46.7% of Malaysia respondent have a favorable attitude towards purchasing green product. It followed by Neutral attitude 32.0%,

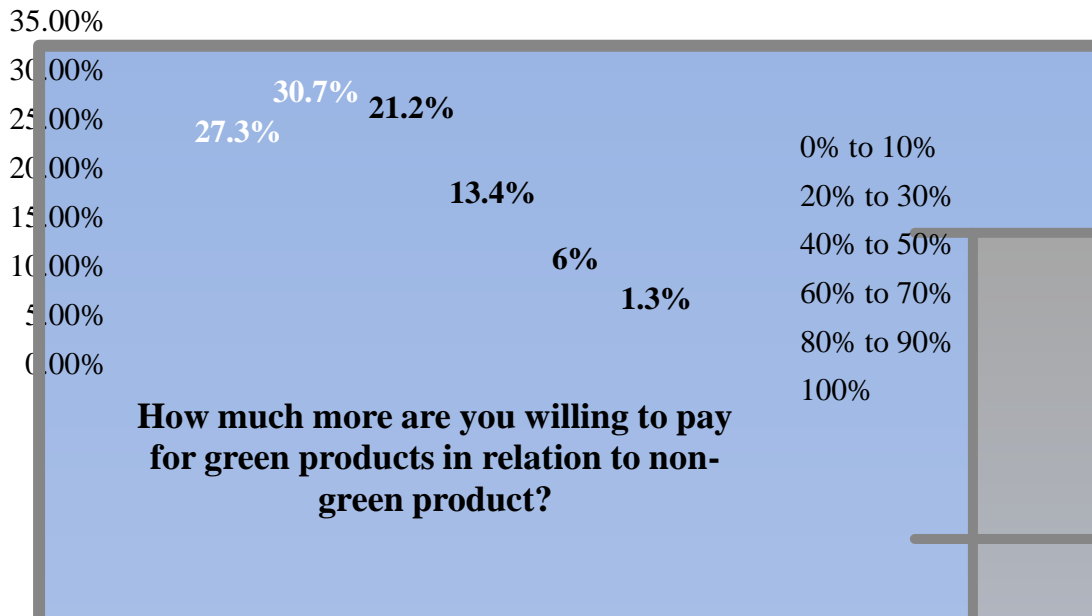
Extremely Favorable 19.3%, and the lowest is Unfavorable, 2.0%. There is no respondent that have extremely unfavorable attitude towards purchasing green product.

Figure 4.14.1 Attitudes towards purchasing green product (Singapore)



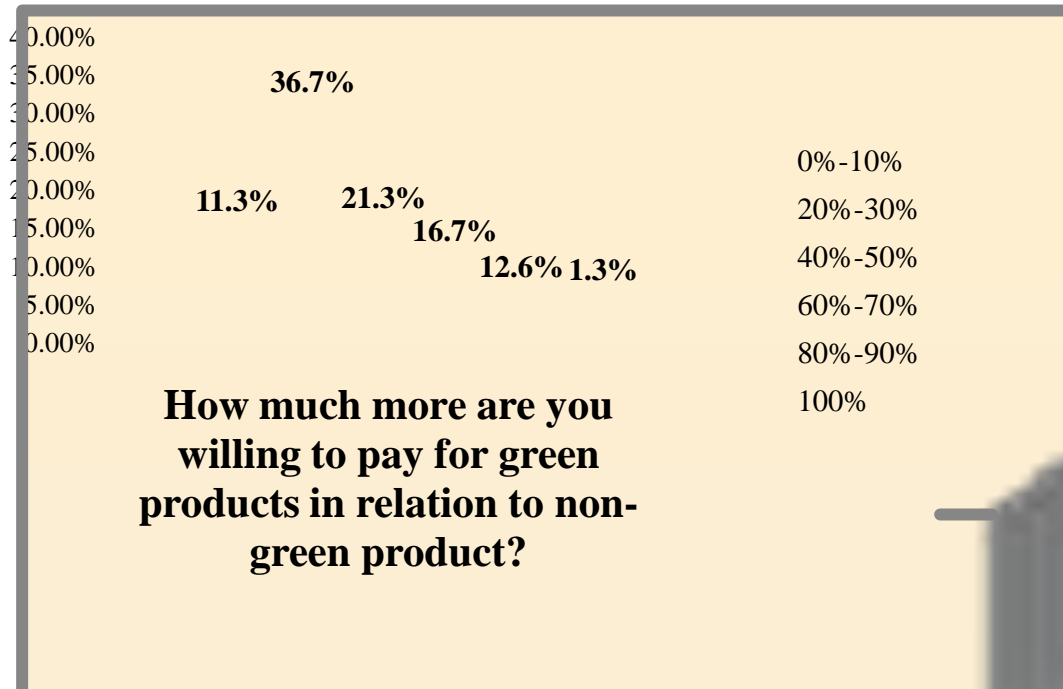
According to figure 4.14.1, there are 53.3% of Singapore respondent have a favorable attitude towards purchasing green product. It followed by Neutral attitude 29.3%, Extremely Favorable 16%, and the lowest is Unfavorable, 1.3%.

Figure 4.15 Price willingness to buy green product compare to non-green product
(Malaysia)



This survey question is asking respondents, assume that both green and non-green products have same quality, but the price for green product is higher, how many percentage that respondent are willing to pay for green product. According to Figure 4.15 and Table 4.2, there is 30.7% of Malaysia respondent are 20 % to 30% willing to pay for green product. It followed by 27.3% of respondent with 0% -10% willingness, 21.3% for 40% - 50%, 13.4% for 60% - 70%, 6.0% for 80% - 90%, and the fewest is 1.3% of respondent will absolutely purchase green product.

Figure 4.15.1 Price willingness to buy green product compare to non-green product
(Singapore)



This survey question is asking respondents, assume that both green and non-green products have same quality, but the price for green product is higher, how many percentage that respondent are willing to pay for green product. According to Figure 4.15.1 and Table 4.2.1, there are 36.7% of Singapore respondent are 20 % to 30% willing to pay for green product. It followed by 21.3% of respondent with 40% -50% willingness, 16.7% for 60%-70%, 12.6% for 80%-90%, 11.3% for 0%-10%, and the fewest is 1.3% of respondent will absolutely purchase green product.

4.1.3 Descriptive statistic

Table 4.3 Descriptive Statistic on Variables (Malaysia)

	N	Mean
Attitudes toward Green Purchase	150	4.8356
Perceived Consumer Effectiveness	150	4.6000
Health Conscious	150	4.5333
Attitudes toward The Environment	150	4.8143
Social Influence	150	3.9324

According to Table 4.3, attitudes toward green product have the highest mean of 4.8356 whereas social influence has the lowest mean of 3.9324. This means that, the majority of Malaysia respondents agreed that attitudes toward green products plays an important role in the purchase intention towards green products while social influence is less important for the respondents when comes to purchase intention towards green products.

Table 4.3.1 Descriptive Statistic on Variables (Singapore)

	N	Mean
Attitudes toward Green Purchase	150	4.6711
Perceived Consumer Effectiveness	150	4.4640
Health Conscious	150	4.4833
Attitudes toward The Environment	150	4.8210
Social Influence	150	4.0333

According to Table 4.3.1, attitudes toward the environment have the highest mean of 4.8210 whereas social influence has the lowest mean of 4.0333. This means that, the majority of Singapore respondents agreed that attitudes toward the environment plays an important role in the purchase intention towards green products while social influence is less important for the respondents when comes to purchase intention towards green products.

4.2 Scale Measurement

4.2.1 Reliability Test

Table 4.4 Reliability Test (Malaysia)

	Cronbach's Alpha
Attitudes toward Green Purchase	0.519
Perceived Consumer Effectiveness	0.550
Health Conscious	0.623
Attitudes toward The Environment	0.619
Social Influence	0.644
Intention to Purchase Green Products	0.540

Based on table 4.4, the results have revealed that the internal reliability of each construct has ranged from 0.519 to 0.644. Social Influence had the highest coefficient (0.644) while Attitude towards Green Products had the lowest coefficient (0.519). According to Malhotra (2002), the alpha coefficient below 0.6 portrays weak reliability of the variables. If the alpha coefficient ranges from 0.6 to 0.8, they are considered to be moderate strong. If the alpha coefficient is in the range of 0.8 to 1.0, they are considered to be very strong. Based on table 4.4, the range from the Cronbach's Alpha in this study is 0.633 – 0.766. For attitude towards green product, perceived consumer effective and purchase intention towards green product, it is at a weak level; while health consciousness, attitude towards the environment and social influence are at a moderate level.

Table 4.4.1 Reliability Test (Singapore)

	Cronbach's Alpha
Attitudes toward Green Purchase	0.859
Perceived Consumer Effectiveness	0.841
Health Conscious	0.856
Attitudes toward The Environment	0.872
Social Influence	0.889
Intention to Purchase Green Products	0.848

According to Malhotra (2002), the alpha coefficient below 0.6 shows weak reliability of the variables. If the alpha coefficient ranges from 0.6 to 0.8, they are considered to be moderate strong. If the alpha coefficient is in the range of 0.8 to 1.0, they are considered to be very strong. In this study, it illustrates the reliability of six variables. Cronbach's alpha was use to examine the internal reliability of the 35 items and used to measure the 5 constructs. Based on table 4.4.1, the results have revealed that the internal reliability of each construct has ranged from 0.841 to 0.889. Social Influence had the highest coefficient (0.889) while Perceived Consumer Effectiveness had the lowest coefficient (0.841).

4.3 Inferential Analysis

4.3.1 Pearson Correlation Analysis

Table 4.5 Pearson Correlation Analysis (Malaysia)

	Attitudes toward Green Purchase	Perceived Consumer Effectiveness	Health Conscious	Attitudes toward The Environment	Social Influence	Intention to Purchase Green Products
Attitudes toward Green Purchase	1 150	0.479** 0.000 150	0.186** 0.023 150	0.242** 0.003 150	0.261** 0.001 150	0.478** 0.000 150
Perceived Consumer Effectiveness		1 150	0.137 0.095 150	0.346** 0.000 150	0.055 0.500 150	0.523** 0.000 150
Health Conscious			1 150	0.081 0.327 150	0.186* 0.023 150	0.241** 0.003 150
Attitudes toward The Environment				1 150	0.106 0.197 150	0.158 0.053 150
Social Influence					1 150	0.146 0.074 150
Intention to Purchase Green Products						1 150

** Correlation is significant at the 0.01 level (2-tailed)

* Correlation is significant at the 0.05 level (2-tailed).

Based on Table 4.5, it has shown that the correlation matrix for the seven examined variables which were attitudes toward green product, perceived customer effectiveness, health consciousness, attitudes toward the environment, social influence, and purchase intention.

According to the table above, all the constructs did not exceed the value of 0.75. Hence, all the constructs were different and did not overlap with each other. Besides, there were positive correlations among all the constructs because none of the constructs had negative sign. In this study, attitudes toward green product has shown that $r=0.478$, significant at 0.01 level. Next, it was followed by perceived customer effectiveness with $r=0.523$, health consciousness with $r=0.241$, attitudes toward the environment with $r=0.158$, and social influence with $r=0.146$. All correlations were significant at 0.01 levels, except for attitudes toward the environment and social influence. This shows that attitudes toward green product, perceived customer effectiveness and health consciousness have a significant relationship with purchase intention. In the other hand, attitudes toward the environment and SI have no significant relation with purchase intention.

Table 4.5.1 Pearson Correlation Analysis (Singapore)

	Attitudes toward Green Purchase	Perceived Consumer Effectiveness	Health Conscious	Attitudes toward The Environ- ment	Social Influence	Intention to Purchase Green Products
Attitudes toward Green Purchase	1 150	0,705** 0.000 150	0.577** 0.000 150	0.520** 0.000 150	0.348** 0.000 150	0.689** 0.000 150
Perceived Consumer Effectiveness		1 150	0.640** 0.000 150	0.707** 0.000 150	0.477** 0.000 150	0.696** 0.000 150
Health Conscious			1 150	0.434** 0.000 150	0.597** 0.000 150	0.535** 0.000 150
Attitudes toward The Environment				1 150	0.357** 0.000 150	0.479** 0.000 150
Social Influence					1 150	0.479** 0.000 150
Intention to Purchase Green Products						1 150

** Correlation is significant at the 0.01 level (2-tailed)

* Correlation is significant at the 0.05 level (2-tailed).

Based on Table 4.5.1, it has shown that the correlation matrix for the seven examined variables which were attitudes toward green product, perceived customer effectiveness, health consciousness, attitudes toward the environment, social influence, and purchase intention.

According to the table above, all the constructs did not exceed the value of 0.75. Hence, all the constructs were different and did not overlap with each other. Besides, there were positive correlations among all the constructs because none of the constructs had negative sign. In this study, attitudes toward green product has shown positive relationship with $r=0.489$, significant at 0.01 level. Next, it was followed by perceived customer effectiveness with $r=0.696$, health consciousness with $r=0.646$, attitudes toward the environment with $r=0.535$, and social influence with $r=0.479$, all correlations were significant at 0.01 level. Thus, the result has shown that there is a significant relationship between independent variables (attitudes toward green product, perceived customer effectiveness, health consciousness, attitudes toward the environment, social influence) and dependent variables (purchase intention).

4.3.2 Multiple Regressions

Table 4.6 Model Summary (Malaysia)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.603a	.363	.341	.53786

- a. Predictors: (Constant), Social Influence, Perceived Consumer Effectiveness, Health Conscious, Attitudes toward The Environment, Attitudes toward Green Purchase

Based on the output of the Table 4.6, the value of adjusted R Square is 0.341. Hence, the changes of the young attitude towards green products were 34.1% which were influenced by the factors of attitudes toward green product, perceived consumer effectiveness, health consciousness, attitudes toward the environment and social influence. Furthermore, the other 65.9% of the model is explained by other factors which are able to influence the young attitudes toward green products.

Table 4.6.1 Model Summary (Singapore)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.787a	.619	.606	.47000

- a. Predictors: (Constant), Social Influence, Perceived Consumer Effectiveness, Health Conscious, Attitudes toward The Environment, Attitudes toward Green Purchase

Based on the output of the Table 4.6.1 above, the value of adjusted R Square is 0.606. Hence, the changes of the young attitude towards green products were 60.6% which were influenced by the factors of attitudes toward green product, perceived customer

effectiveness, health consciousness, attitudes toward the environment and social influence. Furthermore, the other 39.4% of the model is explained by other factors which are able to influence the young attitudes toward green products.

Table 4.7 ANOVA (Malaysia)

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	23.769	5	4.754	16.433	.000a
Residual	41.658	144	.289		
Total	65.427	149			

- a. Predictors: (Constant), Social Influence, Perceived Consumer Effectiveness, Health Conscious, Attitudes toward The Environment, Attitudes toward Green Purchase
- b. Dependent Variable: Intention to Purchase Green Products

Base on the ANOVA table, the F value proven to be significant at 16.433. The overall regression model with attitudes toward green product, perceived consumer effectiveness, health consciousness, attitudes toward the environment and social influence has work well in explaining the variation in purchase intention towards green products.

Table 4.7.1 ANOVA (Singapore)

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	51.733	5	10.347	46.838	.000a
Residual	31.810	144	.221		
Total	83.543	149			

- a. Predictors: (Constant), Social Influence, Perceived Consumer Effectiveness, Health Conscious, Attitudes toward The Environment, Attitudes toward Green Purchase

b. Dependent Variable: Intention to Purchase Green Products

Base on the ANOVA table, the F value proven to be significant at 46.838. The overall regression model with attitudes toward green product, perceived customer effectiveness, health consciousness, attitudes toward the environment and social influence has work well in explaining the variation in purchase intention towards green products.

Table 4.8: Coefficients Multiple Regression Analysis (Malaysia)

Model	Unstandardized Coefficients	Standardized Coefficients		t	Sig
	B	Std. Error	Beta		
1 (Constant)	.876	.475		1.843	.067
Attitudes toward green purchase	.266	.078	.269	3.404	.001
Perceived Consumer Effectiveness	.463	.093	.394	4.974	.000
Health Conscious	.117	.060	.135	1.962	.052
Attitudes toward the Environment	-.049	.061	-.058	-.810	.419
Social Influence	.027	.053	.035	.506	.613

a. Dependent Variable: Intention to purchase green products

$$Y \text{ ITPGP} = 0.876 + 0.266 b_1 + 0.463 b_2 + 0.117b_3+ (-0.49) b_4 + 0.27b_5$$

Based on the output in Table 4.8, the following equation is formed.

Intention to Purchase Green Product= 0.876 + 0.266 (Attitude towards Green Product) + 0.463 (Perceived consumer Effectiveness) + 0.117 (Health Consciousness) + (-0.049) (Attitudes towards the Environment) + 0.027 (Social Influence)

According to the equation above, regression coefficient of attitude towards green products is 0.266. It means that the purchase intention towards green products will increase 0.266 units when attitude towards green products increased 1 unit while others remain. Furthermore, the regression coefficient of perceived consumer effectiveness is 0.463. It means that purchase intention towards green products will increase 0.463 units when perceived consumer effectiveness increased 1 unit while others remain. In addition, regression coefficient of health consciousness is 0.117. It means that the purchase intention towards green products will increase 0.117 when health consciousness increased 1 unit while others remain. Besides that, regression coefficient of attitude towards the environment is (-0.049). It means that the purchase intention towards green products will decrease 0.049 when attitude towards the environment increased 1 unit while others remain. Lastly, the regression coefficient for social influence is 0.027. It means that the purchase intention towards green products will increase 0.027 units when social influence increased 1 unit while others remain. Among the five independent variables, perceived consumer effectiveness has the strongest influence on purchase intention towards green products where standardized beta equal to 0.394. Thus, attitude towards green products is the most important predictor of purchase intention towards green products and followed by attitudes towards green products 0.269, health consciousness 0.135, social influence 0.035, and lastly is attitude towards the environment, which is -0.058.

Table 4.8.1: Coefficients Multiple Regression Analysis (Singapore)

Model	Unstandardized Coefficients	Standardized Coefficients		t	Sig
	B	Std. Error	Beta		
1 (Constant)	-.204	.339		-.602	.548
Attitudes toward green purchase	.376	.080	.353	4.708	.000
Perceived Consumer Effectiveness	.233	.106	.208	2.197	.030
Health Conscious	.250	.089	.216	2.813	.006
Attitudes toward the Environment	.086	.085	.074	1.015	.312
Social Influence	.098	.062	.102	1.564	.120

a. Dependent Variable: Intention to purchase green products

Based on the output in Table.8.2, the following equation is formed.

Intention to Purchase Green Product= -0.204 + 0.376(Attitude towards Green Product) + 0.233(Perceived Customer Effectiveness) + 0.250(Health Consciousness) + 0.086(Attitudes towards the Environment) + .098(Social Influence)

According to the equation above, regression coefficient of attitude towards green products is 0.376. It means that the purchase intention towards green products will increase 0.376 units when attitude towards green products increased 1 unit while others remain. Furthermore, the regression coefficient of perceived customer effectiveness is 0.233. It means that purchase intention towards green products will increase 0.233 units when perceived customer effectiveness increased 1 unit while others remain. In addition, regression coefficient of health consciousness is 0.25. It means that the purchase intention towards green products will increase 0.25 when health consciousness increased 1 unit while others remain. Besides that, regression coefficient of attitude towards the environment is 0.86. It means that the purchase

intention towards green products will increase 0.86 when attitude towards the environment increased 1 unit while others remain. Lastly, the regression coefficient for social influence is 0.098. It means that the purchase intention towards green products will increase 0.098 units when social influence increased 1 unit while others remain. Among the five independent variables, attitude towards green products has the strongest influence on purchase intention towards green products where standardized beta equal to 0.353. Thus, attitude towards green products is the most important predictor of purchase intention towards green products and followed by health consciousness 0.216, perceived customer effectiveness 0.208, social influence 0.102, and lastly is attitude towards the environment, which is 0.074.

4.4 Conclusion

In this chapter, the descriptive analysis, scale measurement and inferential analysis which were used to analyze the outcome of the data collected and generated results for further discussion. The next chapter will provide a more detailed discussion of the major findings and conclusions of the study.

CHAPTER 5: DISCUSSION, CONCLUSION AND IMPLICATION

5.0 Introduction

In the previous chapter, the researchers have found results from the data collected. This chapter will discuss on the findings from previous chapter and it covers four parts which are the interpretation of results and hypothesis, limitation, recommendation and conclusion of the study.

5.1 Summary of Statistical Analysis

5.1.1 Descriptive Analysis

In the demographic profile, most of the respondents are female in both Malaysia and Singapore, which consists of 59.3% of respondents and 57.3% of 86 respondents respectively. The male consists of 40.7% of respondents in Malaysia whereas Singapore consists of 42.7% of respondents. Most of the Malaysia and Singapore respondents are Chinese which are 71.3% of respondents and 68% of respondents follow by Malay respondents 16% of respondents and 18% of respondents respectively. For India respondents, in Malaysia which consists of 12.7% respondents while Singapore which consists of 14% respondents. The composition of the nationality and the distribution of age groups which are categorized into three categories. The age groups of 17-19 years old respondents which consists 10.7% in Malaysia and 25.3% in Singapore. The age group of 20-22 years old in both Malaysia

and Singapore which consists of 56.0% and 36.7% respectively whilst the age group of 23-25 years old which consists of 33.5% and 38.0% respectively.

Analysis showed that number of family members in Malaysia which categorized into four groups. 2% of respondents is under group of below 2 members, 10.7% of respondents is under group of 2-3 members, 56.7% of respondents is under groups of 4-5 members, 26.7% of respondents is under groups of 6-7 members, and 4.0% of respondents is under group of above 7 members. Whereas the number of family members in Singapore which categorized in three groups. 28.0% of respondents is under group of 2-3 members, 65.3% of respondents is under group of 4-5 members, and 6.7% of respondents is under group of 6-7 members.

In addition, the Malaysia respondents' monthly income and allowance in the range of less than RM500 is 40%, RM 501-RM1000 is 26.%, RM1001-RM1500 is 6.7%, RM 1501-RM 2000 is 9.3%, RM 2001-RM 2500 is also 9.3 % and above RM 2500 is 8.7% while the Singapore respondent's monthly income and allowance in the range of less than SGD 800 is 50.7%, SGD800-SGD1300 is 9.3%, SGD1301-SGD1800 is 12.7%, SGD1801-SGD2300 is 10.7%, and above SGD2300 is 16.6%. In term of Malaysia education level, most of the respondents possess Degree which consists of 56.7%, 20.0% of respondents possess Diploma, 16% of respondents study High School, 6% of respondents possess Master's and only 0.7% of respondents possess Professional-Certificate and Doctorate. For the Singapore education level, most of respondents possesses Diploma which consists of 50.7%, 30.0% of respondents possess Degree, 11.3% of respondents study High School, 6.7% of respondents possesses Master's, 1.3% of respondents possess Professional-Certificate, and not any respondent possess Doctorate.

As for the general information, the green products categorized into different groups which are automobiles (hybrid car), household products (organic soap, recycle bag), skin care products (The Body Shop), electronic products (rechargeable battery, energy

saving air condition), food and beverage (organic fruit, organic tea), accessories and fashions (solar watch, green clothing) and others (organic fertilizer). Most of Malaysia respondents have heard of, seen, or used green products before which consist of 30.8% of household product, 27.8% of food and beverage, 18.9% of automobile, 8.3% of electronic product, 6.5% of skin care product, and 0.6% of others. 4.7% of respondents never heard of, seen and used the green products before. For the Singapore respondents, they have heard of, seen, or used green products which consist of 26.7% of food and beverage, 24.3% of household product, 17.4% of automobile, 14.2% of electronic product, 9.2% of skin care product, 5.5% of accessories and fashion and 2.8% of respondents never heard of, seen, and used before.

Furthermore, most of the respondents have purchase green products before in both Malaysia and Singapore, which consists of 47.3% and 56% respectively. Whilst 52.7% of Malaysian respondents and 44.0% of Singapore respondents have not purchase any green products before. The green products that Malaysia respondents purchased before which included 35.3% of household product, 35.3% of food and beverage, 11.8% of skin care product, 7.4% of accessories and fashion, 5.9% of automobile, and 4.4% of electronic products. Whereas, Singapore respondents purchased green products which included 42.6% of household product, 27.7% of food and beverage, 17.0% of skin cares product, 7.4% of accessories and fashion, 1.1% of automobile, and 4.3% of electronic products.

Moreover, most of respondents probably will purchase green products in the future for both Malaysia and Singapore which consist 46.7% and 58.7% respectively. 35.3% of Malaysia respondents purchase only if it is necessary with no other choices, and 16.0% of respondents definitely will purchase green products. But, 30.7% of Singapore respondents purchase only it is necessary with no other choices, and 8.7% of respondents definitely will purchase. 2% of both Malaysia and Singapore

respondents probably will not purchase green products. There were not any respondents chose definitely will not purchase categories in both countries.

Most of Malaysia and Singapore respondents like the ideas of purchasing green products, which have constitute of 81% and 54.0% respectively. 42% of Malaysia respondents chose neither like or dislike, and 27% of respondents extremely like the idea of purchase green products. But, 28% of Singapore respondents chose neither like or dislike categories, and 18% of respondents extremely like the idea of purchasing green products. There were not any both Malaysia and Singapore respondents chose dislike and extremely categories.

In Malaysia, 61.3% of respondents think that purchasing green products is a good idea, 28.7% of respondents think that is very good idea, and 10.0% of respondents think that is neither bad or good idea. Whilst, 54% of Singapore respondents think that purchasing green product is good idea, 25.3% of respondents think that is very good idea, and 20.7 of respondents think that is neither bad or good idea. There were not any both countries respondents think of bad and very bad idea of purchasing green products.

Malaysia respondents have different attitude toward purchasing green version of a products which included 46.7% of respondents have a favorable attitude, 32.0% of respondents have a neutral attitude, 19.3 of respondents have an extremely favorable attitude, and 2% of respondents have an unfavorable attitude. While, Singapore respondents have different attitude toward purchasing green version of a products which included consists of 53% of respondents have a favorable attitude, 29.3% of respondents have a neutral attitude, 16% of respondents have an extremely favorable attitude, and 1.3% of respondents have an unfavorable attitude. There were not any Malaysia and Singapore respondents have an extremely unfavorable and unfavorable attitude.

Other than that, the percentage maximum in terms of price willingness for Malaysia respondents in the range of 0%-10% is 46 respondents (30.7%), 20%-30% is 41 respondents (27.3%), 40%-50% is 32 respondents (21.3%), 60%-70% is 20 respondents (13.4%), 80%-90% is 9 respondents (6.0%) and 100% is 2 respondents (1.3%). For Singapore, the percentage maximum in term of price willingness which range in 0%-10% is 17 respondents (11.3%), 20%-30% is 55 respondents (36.7%), 40%-50% is 32 respondents (21.3%), 60%-70% is 25 respondents (16.7%), 80%-90% is 19 respondents (12.6%) and 100% is 2 respondents (1.3%).

5.1.2 Scale Measurement

The scale measurement is measured by using reliability test. The Cronbach's Alphas test is use to measure the reliabilities of each contrast. Based on the Malaysia result, the variable which has highest level of Cronbach's Alphas, is social influence (0.644) follow by health consciousness (0.623), attitude towards environment (0.619), perceived consumer effective (0.550) and purchase intention (0.540) . The lowest of Cronbach's Alphas is attitude toward green product, which is 0.519. Overall, the Cronbach's Alphas for three variables are more than 0.6 and others three variables is less than that. Therefore, it is still considered as moderate.

Whereas, accordingly the Singapore result, social influence has the highest level of Cronbach's Alphas which is 0.889, follow by attitude toward environment (0.872), attitude toward green product (0.859), health conscious (0.856) and purchase intention (0.848). Lastly the lowest level is perceived consumer effective which is 0.841. The Cronbach's Alphas for Singapore results is considered as high and strong because all of the variables are exceed 0.6

5.1.3 Inferential Analysis

5.1.3.1 Pearson Correlations Analysis

Pearson Correlation Analysis is used to measure the relationship between the independent variables (attitudes toward green purchase, perceived consumer effectiveness, health conscious, attitudes toward environment, and social influence) and the dependent variable (intention to purchase green products). According to the result that generated by Pearson Correlation Analysis, Malaysia have three variables are significant positive relationship with intention to purchase green products, which are attitudes toward green purchase (0.523), perceived consumer effectiveness (0.478) and health conscious (0.241).

On the other hand, Singapore result shows that all independent variables included attitudes toward green purchase, perceived consumer effectiveness, health conscious, attitudes toward the environment and social influence have significant positive relationship with intention toward green purchase. The highest correlation value in Singapore's result is between the attitudes toward green purchase and intention to purchase green product which is 0.698, whereas the lowest correlation value is between social influence and intention toward green purchase which is 0.479.

5.1.3.2 Multiple Regressions Analysis

Multiple regressions were done in previous chapter test the relation among independent variable against intention to purchase green products. Based on the result of regression, the value of adjusted R Square in Malaysia is 0.341, whereas Singapore is 0.606. This result implies that the changes of youth attitudes toward green products were 34.1% and 60.6% respectively, which influenced by the variables of attitudes

toward green purchase, perceived consumer effectiveness, health conscious, attitudes toward the environment and social influences.

According to result in Malaysia, perceived consumer effectiveness shows to have the strongest influence on consumer intention to purchase green products with beta 0.394, which means that the level of intention to purchase green products will increase 0.394 units when attitude toward green purchase increased 1 unit while others remain. The least influence on the intention to purchase green products is attitudes toward the environment with beta of -0.058, where level of intention to purchase green products will decrease 0.058 units when attitude toward the environment increased 1 unit while others remain.

In contract, Singapore result showed that attitudes toward green purchase is the strongest influence on intention to purchase green products with beta 0.353 while the least influence on consumer intention to purchase green products is attitudes toward the environment with beta of 0.074. The second stronger influence is health conscious with beta of 0.216, followed by perceived consumer effectiveness with beta of 0.208 and social influence with beta 0.102.

The H_0 is rejected and accepted the H_1 with the p value is less than 0.05 significant levels in the analysis of intention to purchase green products. According to the result, both Malaysia and Singapore share a similar finding, which attitudes toward the environment and social influence are no significant effect on the intention to purchase green products because the p values are more then 0.05. The only different between Malaysia and Singapore result is health conscious are no significant to intention to purchase green products in Malaysia, but significant in Singapore.

In Pearson correlation analysis, Malaysia has a significant relationship between health conscious and intention to purchase green products, while Singapore have all significant relationship with all the variables. However, in multiple regression models,

the variables of health conscious, attitudes toward the environment and social influence seems to have lost its significance. This is because individually, the variables of health conscious has a significant compared with intention to purchase green products in Malaysia, while Singapore result have showed all independent variables are individually significant with dependent variable. However, when multiple regression analysis has been used, the variables of health conscious, attitudes toward the environment, and social influence last its significance level when comparing with other variables. Therefore, the variables of health conscious, attitudes toward the environment and social influence have lost its significant value when other variables are being put into the picture.

5.2 Discussions on Major Findings

Table 5.1: Summary of Research Question, Hypothesis and Result

Research Question	Hypothesis	Malaysian		Singapore	
		Result	Supported	Result	Supported
Is there any relationship between attitudes toward green purchase and intention to purchase green products?	H1: There is a positive relationship between attitudes toward green purchase and intention to purchase green products.	r=0.478 (p<0.05) p=0.001	Yes	r=0.698 (p<0.05) p=0.000	Yes
Is there any relationship between perceived consumer effectiveness and intention to purchase green products?	H2: There is a positive relationship between perceived consumer effectiveness and intention to purchase green products.	r=0.523 (p<0.05) p=0.000	Yes	r=0.696 (p<0.05) p=0.030	Yes
Is there any relationship between health consciousness and intention to purchase green products?	H3: There is a positive relationship between health consciousness and intention to purchase green products.	r=0.241 (p<0.05) p=0.052	No	r=0.646 (p<0.05) p=0.006	Yes
Is there any relationship between attitudes toward the environment and intention to purchase green products?	H4: There is a positive relationship between attitudes toward the environment and intention to purchase green products.	r=0.158 (p<0.05) p=0.419	No	r=0.535 (p<0.05) p=0.312	No
Is there any relationship between social influence and intention to purchase green products?	H5: There is a positive relationship between social influence and intention to purchase green products.	r=0.146 (p<0.05) p=0.613	No	r=0.479 (p<0.05) p=0.120	No

Source: Developed for the research

5.2.1 Hypothesis 1

H₀: There is no a relationship between attitudes toward green purchase and intention to purchase green products.

H₁: There is a positive relationship between attitude toward green purchase and intention to purchase green products.

Based on the result shown, the relationship between attitudes toward green purchase and intention to purchase green products is significant. This current finding is consistent with the outcome of Schlegelmilch et. al (1996), which they found that attitudinal component was observed to be the most important predictor of green purchasing decision. Meanwhile, Leonidao et. al (2010) reported that certain cultural, political and ethical factors are responsible for the adoption of customer's attitudes toward green purchase, whether when specifically making personal purchasing decision (inward) or when broadly considering issues relating to society (outward). In inward attitudes toward green purchase will stimulate intention to purchase green products, and outward attitudes toward green purchase will lead to general pro-environmental actions. Hence, the current study suggests that there is a significant relationship between attitudes toward green purchase and intention to purchase green products in both Malaysia's and Singapore's young consumers. Attitudes toward green purchase can directly be a determinant for intention to purchase green products or indirectly can be a mediator to mediate the relationship between other factors with intention to purchase green products.

5.2.2 Hypothesis 2

H₀: There is no a relationship between perceived consumer effectiveness and intention to purchase green products.

H₁: There is a positive relationship between perceived consumer effectiveness and intention to purchase green products.

Based on the table 5.1, the result shown that, there is significant between perceived consumer effectiveness and intention to purchase green products. This is consistent with the discussion in the literature review section. Perceived consumer effectiveness was distinguished from other variables such as environment attitude. It means that respondents who were engaged in buying green products do so because they believed that their actions or efforts of purchasing such products were able to help minimize the environment from further deterioration. Besides this, this is also consistent with previous findings that perceived consumer effectiveness can be used as a strong predictor on pro-environmental behavior (Ellen et al., 1991; Berger and Corbin, 1992; Roberts, 1996; Straughan and Roberts, 1999; Lee and Holden, 1000; Kim, 2002; Kim and Choi, 2003; 2005). However, most importantly, besides acting as a predictor, several researchers have also confirmed its moderating roles between attitude and behavior (Berger and Corbin, 1992; Kim, 2003; Gupta and Ogden, 2006; Laskova, 2007). However, the moderating role of perceived consumer effectiveness was not tested in this research.

5.2.3 Hypothesis 3

H₀: There is no a relationship between health consciousness and intention to purchase green products.

H₁: There is a positive relationship between health consciousness and intention to purchase green products.

Based on the result of Malaysia, it has shown that health consciousness is not significant towards the intention to purchase green products. The result is consistent from previous studies by Bruno & Scholderer (2001), they indicated that health consciousness to be least important motive shaping attitudes towards organic produce in relation to ethical self-identify and food safety concern.

From the result of Singapore, there is a significant relationship between health consciousness and intention to purchase green products. The result also consistent from previous finding by Chryssohoidis and Krystallis (2005) stated that the most important motives behind the purchase of organic products are healthiness and better taste of the organic food. Besides, according to Padel and Foster (2005) express that consumer buy organic food product because they perceive them to be better for their health. So, consumers think that organic products as a pure source of nutrients, less harmful, free from pesticides, which is good for health as well. Organic food had made consumer to be more care about their own health and their family as well. This also was match with the result whereby health consciousness is the stronger factor that influence purchase intention.

5.2.4 Hypothesis 4

H₀: There is no a relationship between attitudes toward the environment and intention to purchase green products.

H₁: There is a positive relationship between attitudes toward the environment and intention to purchase green products.

The results of Malaysia and Singapore, it has shown that attitudes toward the environment are not significant toward intention to purchase green products. Hence, the results of both Malaysia and Singapore are consistent by Lee (2008), environmental attitude was not a strong determinant of young consumers' purchasing behavior in Hong Kong. Additionally, the results also are consistent by Cleveland et al. (2005); found a low relation between environmental friendly attitudes and green behaviors. However, Diamantopoulos et al. (1994) found that weak but significant relationship between broad measures of environmental attitudes and the purchase of green products. Therefore, there do not have strong evidence in the relationship between attitudes toward the environment and intention to purchase green products.

5.2.5 Hypothesis 5

H₀: There is no a relationship between social influence and intention to purchase green products.

H₁: There is a positive relationship between social influence and intention to purchase green products.

Based on the results of Malaysia and Singapore has shown that social influence are not significant toward intention to purchase green products. The result is consistence with the previous study by Irawan, R and Darmayanti, D (2012) which explained that in general, social influence has positive relationship with green purchasing behavior, but did not have significant effect toward it. However, research studies by Wahid, N.A , Rahbar.E and Tan (2011), mentioned that highest predictor of green purchase behavior of Penang green volunteers is the social influence. Also Kalafatis et al. (1999) research studies also indicated that social norm has a direct and significant effect on purchase intention. Thus, our research study for social influence is still inconclusive. The reasons of inconsistency may due to different target of age group, the cultural distance or different research variable and methods. Therefore this variable can develop more in future study.

5.3 Implication of Study

5.3.1 Managerial of Implications

Based on the research results shows that attitude toward green purchase has significant relationship which is $p= 0.001$ and $p= 0.000$ to purchase green products in both Malaysia and Singapore respectively. Attitudes toward green purchase identified as a significant to green purchase intention by the research study of Hartmann and Ibanez (2006). The study is mentioned that consumers' green purchase intention always linked with emotional benefits, such as people will feel better and comfort when they purchase more of green products. The study by Fisbein & Ajzen (1975) also support that when there is a positive of individual belief will cause more positive attitude of the individual toward the particular thing. Chan (2001) study identify attitudes toward green purchase as the consumer is like the green purchase idea, and percept the idea is a good idea and possesses the green purchase attitudes.

Hence, the government and marketers can focus on creating the perception for youth consumers as green purchase is a good idea for them. Since both countries are facing the environmental issues, thus it is important to raise the awareness of youth's group. Government should creating more campaign or educate them throughout the advertising which able to influence the consumer perception toward green purchase .In terms of marketers, they should shows out the company is practicing the ethical business and involved in many Corporate Social Responsibility in promoting the green purchase is a good idea. Besides, government can partner with company to invest more efforts on green marketing to raise green purchasing attitudes of consumers.

Subsequently, the perceived consumer effectiveness in this research possessed there is a significant relationship between both countries also. The results shows the

Malaysia is $p = 0.000$ and Singapore shows $p = 0.030$. Joones (2008) explained that Perceived Consumer Effectiveness means individual has the confidence that he or she able to solving the environmental issues when purchasing the green. Consumers would choose to make actual purchase for green product when they have posting high perceived consumer effectiveness (Ellen et al., 1991; Berger and Corbin, 1992; Lee and Holden, 1999). Kim (2005) explained the perceived consumer effectiveness as green consumers are able to help in solving the environmental problem and there is a responsibility for them to protect and support or promote the green purchase.

Therefore, both countries' government should assign the environment issues for youths and let them understand protecting the environment is a part of their responsibilities. The benefits and implications of green purchase should always insert to youth mindset in turns to drive up their intention and translate to actual purchase because they feel that they can reduce the pollutions and help to sustain the natural resources. Besides, for marketers, they need have to understand the youth group purchase intention is influenced significantly by the perceived consumer effectiveness to ensure that they are adopting the right advertising and promotions activities. According to (Chan, 2001; Fitzgerald, 1993; Porter and Van der Linde, 1995a) mentioned when organization are practicing the environmental responsiveness able to remain the positions in competitions but also increase market share for organizations. Thus marketers should adopt some innovative advertising tools and also create a green slogan to attract the green consumers.

Lastly, the health consciousness has showed significant relationship between intention of purchase green product in Singapore only which is $p = 0.006$. The study of Becker et al. (1977) defined that health consciousness evaluate the willingness for a people to carry out the health actions. Meaning that health conscious people concern about their healthy and they will take actions to solve the health problems once they found out. Magnusson et al. (2003) found out health conscious consumer is more motivated to purchase organic foods for health purpose compared to environmental

motives. Based on the Michaelidou & Hassan (2008) study explained that health conscious people always alert and aware he or she health day by day and taken the responsibility to take care their health changes.

Singapore Government can adopt some policy on education to foster the youth consumer to solve the environment issue to prevent health harmful. The government also may show the huge impact that may bring disaster for the health of youth group. Health conscious consumers are likely to purchase organic food to make sure there is least chemical impact on their body. Thus, government also can encourage the green industry to manufacture different type of organic food to provide more choice for Singaporean. On the other hands, the government can partner with marketers to design innovative green package and different way to promote and attract the consumers, as we know people are always affected by the aesthetic of the products. The creative on package design always can drive people purchase motivation.

5.4 Limitations of the study

Throughout the progress of conducting this study, there are several limitations that have been identified and important to be pointed out in order for the researchers to learn and acknowledge.

The first limitation in this study is geographic bias also contributes as a limitation to the research. Researchers only distribute survey question to Malaysia and Singapore youth. Every country has own different culture. So, respondent may have different attitude toward intention to purchase green products. Besides, researches just focus on youth which age group is between 17 years old to 25 years old. Due to different age group may have different perception towards green product, hence they will have different attitudes towards green product. For example, since youth have more knowledge about environmental protection, therefore they will more likely to purchase green product.

Secondly, although the definition and examples of green product have been provided in survey question, but respondent still misunderstand the meaning of green product with recycle product. Based on one of the open ended question in the survey, which is asking about the green product that respondent have been used before, some respondents answered the question by newspaper, tin and bottle. If respondent misunderstand that green product is same with recycle product, all of the answer maybe not accurate in this study.

Thirdly, for Malaysia respondent, the sample consists of Chinese ethnic group, which is not the representative of the whole Malaysian population. Based on the frequency analysis in the research project, 71.3% (Table 4.1) of the respondents are Chinese. This result may not be representative enough as in Malaysia, the largest ethnic group is Malay but only 16.0% of data was collected is from Malays.

Lastly, time constraint is also one of the limitations for this survey. The time used to conduct this research is merely short. This research just depends solely on online survey instead of using different research method. Due to time constraint, there are only five variables have been identified throughout this research. It is believed that if there is more time to conduct this research, the outcome of this research would be better.

5.5 Recommendations

Recommendation 1: Expand amount of sample size

To conduct a more accuracy and reliable data and result, future research need to expand the amount of the representative sample size, specifically more than 150 questionnaires in both Malaysia and Singapore. Besides, the time frame of conducting survey should be extended in order to for the researchers to get sufficient time to distribute and collect from large number of respondents. Additionally, it is recommended that the future research need to equally conduct among all races and age, as well as equally distribute around the country regions in to gain more comprehensive finding.

Recommendation 2: Increase environmental education

Environmental education is important to young generations. It refers to organize efforts to teach about how natural environments function and particularly how human beings can manage their behavior and ecosystem in order to live sustainably. Activities on environmental education are considered extracurricular activities and such as given serious attention by many schools. This is caused by a lack of understanding of the wide and complex concepts in environmental education that

cover not only extracurricular activities but also every aspect within the education system. Since this young generation has been well educated, therefore environmental education may be included in the syllabus. It is also stated by Coddington (1993) that the seeds that are sown under the right approach to environmental marketing are the seeds of environmental education. Cultivating a habit takes time. If consumers are taught when they are small, it can motivate their concern towards environment and subsequently become green consumers.

Recommendation 3: Advertise through online social network

Nowadays, online social network like Facebook and Twitter have become popular and even a “must have” account for youth to get connected with their friends. Marketer should use more online social network for advertising and promoting green or environment friendly products. As Jupiter Research (2007) found that online social network users were three times more likely to trust peer’s opinions over advertising when making purchase decision. In short, green purchasing intention, and user review on green products and environmental issues maybe port in the social network in order to gain publicity. Furthermore, it can increase environmental awareness and environmental concern among users of social network as well.

Recommendation 5: Look for Eco-labels

Lastly, we recommend that consumers must look for Eco-labels when making a green purchase. The Eco-label is standardized by ISO 14024 and recognized around the world. As the finding found in the study, some companies do not follow environment regulations or ridiculously take advantage of green movement to increase sale, thus it is important to ensure that the products purchased is truly green. Eco-label is one of the most useful tools to avoid green-washing. Look for products that have been certified by a qualified and independent third-party such as Eco-Logo or Green Seal. Both Eco-Logo and Green Seal develop standards for environmental-based process that considers multiple environmental issues throughout a product’s lifecycle.

5.6 Suggestion for further study

There are several methods to further improve the limitation of this research. First of all, one of the ways that could be done is by conducting research of the online survey do not only target on youth, but also can extending the survey to people in all the age group such as the baby boomers as well as the Generation X. Each of this age group might have different attitudes and perception toward the green products.

Another aspect that can be looked into for future research may need to be carried out that is not limited to specific geographical area to investigate this research. This can be done by conducting the research throughout the non-Asian countries such as United Kingdom, and United States of America. This is because non-Asian countries have different cultures, mindsets, and perceptions compare with Asian countries. Therefore, their attitudes toward intention to purchase green products would be definitely difference.

Furthermore, this research should also conduct the survey into different ethnic group in Malaysia market, which mean that not only focus on Chinese ethnic group, but also include all other races like Malays, Indians, and minor ethnicity groups for example to provide a generalization for the entire Malaysia market. By doing this, the result can be more accurate by incorporating youth from different states, and cultural backgrounds in the future.

5.7 Conclusion

In conclusion, “Going green” has become a slogan and being discussed by people from all walks of life. The current study shows that the key to raise green purchasing intention among young adults lies on five factors, which are concern of attitudes toward green purchase, perceived consumer effectiveness, health consciousness, attitudes toward the environmental and social influence. Regarding current people lifestyle, organic foods is paid much attention because of many problems such as diseases and green environment. Therefore, marketers must practice market segmentation in order for them to be successful in this competitive business world.

Based on the results, the study shows that young consumers have quite positive intention of purchasing green products. Green marketers can consider this group of consumers as one of their potential target markets. Overall, the research project has met its objectives to test the relationship between attitudes toward green purchase, perceived consumer effectiveness, health consciousness, attitudes toward the environment, and social influence that relating to the youth attitude towards purchase green products in Malaysia and Singapore.

It cannot be denied that the young consumers’ intentions to purchase green products play an important role especially in environmentally friendly industries in order to improve their existing business that will also benefit the customers. Rather than that, the green products can also reduce the harm, to the environment, human, and animals. Besides, this study has included several limitations that haven faced by the researchers. Nevertheless, these limitations have been supported by recommendations in order to enhance the environmental friendly industry as whole in the future. Hence, it also definitely helps to create youth awareness for the green product and environmental consciousness.

REFERENCES

- Abdul, Rahim. H. (2009). Consumers' intention and factors affecting green food consumptions, Master Dissertation, University Putra Malaysia.
- Abdul Wahid, N., and Abustan, I., (2002), "Environmental concern: between consumers' awareness and willingness for attitude change", Realizing Agenda21: International Conference on Environmental Management: Universiti Kebangsaan Malaysia, Bangi, Selangor. pp. 579-590.
- Abdul Wahid, N., Abustan, I., and Karwi, A. B. (2000), "Environmental concern: how do young Malaysian fare?", Advances in international business. Hong kong SAR, PRC China, Oliver H. M. YAU, City University of Hong Kong, pp. 482-494.
- Aertsens, J., Verbeke, W., Mondelaers, K., & Van Huylenbroeck, G. (2009). Personal Determinants of Organic food Consumption: a review. *British Food Journal*, 111(10), 1140-1167.
- Ajzen, I. *Attitudes, personality, and behavior*. Milton-Keynes, England: Open University Press & Chicago, IL: Dorsey Press. 1988.
- Ajzen, I. & Fishbein, M. (1975). *Belief, Attitude, Intention and Behavior: An Introduction to Theory and Research*. Retrieved on August 3, 2012, from <http://www.uky.edu/~drlane/capstone/health/reson.html>.
- Ajzen, I. (1991). *The theory of planned behavior*. Organizational Behavior and Human Decision Processes, 50, 179-211.
- Ajzen, I, Fishbein, M. (1980), *Understanding Attitudes and Predicting Social Behaviour*, Prentice-Hall, Englewood Cliffs, NJ: Prentice-Hall.
- Ajzen, I., & Fishbein, M. (1980). *Understanding attitudes and predicting social behavior*. (Vol. 278): New Jersey: Prentice-Hall.

- Ajzen, I. From intentions to actions: *a theory of planned behavior*. in Kuhl, J. and Beckmann, J. (Eds). *Action-Conrol: From Cognition to Behaviour*. Springer Verlag, Heidelberg. 1985, pp. 11-39.
- Allport, G.W. (1935). *Attitudes. In a handbook of social psychology*. Worcester, MA: Clark University Press
- Amyx. D.A., DeJong, P.E., Lin, Chakraborty, G. and Wiener, J.L. (1994), "Influencers of purchase intentions for ecologically safe products: an exploratory study", in Park, C.W. *et al. (Eds). AMA Winter Educators' Conference Proceedings, American Marketing Association*. Chicago, IL, Vol.5, pp.341-7.
- Antil, John H. (1978): Socially Responsible Consumers: Profile and Implications for Public Policy - *Journal of Macro-marketing*, 4 (Fall), 18-39.
- .Arul Chib, Han Joo Chiew, Chitraveni Kumar, Lim Geok Choon & Komathi Ale (2009): [minus]plastic: influencing pro-environmental attitudes among Singaporean youth, *Environmental Education Research*, 15:6, 679-696
- Athanasios Krytallis and George Chryssohoidis (2005). Consumers' willingness to pay for organic food Factor that affect it and variation per organic product type. *British Food Journal*. Vol. 107, No.5, 320-343.
- Atwater, T., Salwen, M. B., & Anderson, R. B. (1985). Media Agenda-Setting With Environmental Issues. *Journalism Quarterly*, 62(2), 393-397.
- Bagozzi, Richard P., Johann Baumgartner, and Youjae Yi. (1989). "An Investigation into the Role of Intentions as Mediators of the Attitude-Behavior Relationship." *Journal of Economic Psychology*, Vol. 10, h. 35-62.
- Bagozzi, Richard P. and Pratibha A. Dabholkar (1994), "Consumer Recycling Goals and Their Effect on Decisions to Recycle: a mean-end chain analysis." *Psychology and Marketing*, 11 (July/August), 313-40.

- Balderjahn, I. (1988) "Personality variables and environmental attitudes as predictors of ecologically responsible consumption patterns", *Journal of Business Research*, Vol. 17, pp. 51-56.
- Bamberg, S. (2003). How does environmental concern influence specific environmentally related behavior? a new answer to an old question. *Journal of Environmental Psychology*, 23, 21-32.
- Bandura, Albert (1986), *Social Foundations of Thoughts and Action: A Social Cognition Theory*, Englewood Cliffs, NJ: Prentice-Hall.
- Bang, H., Ellinger, A.E., Hadjimarcou, J. & Traichal, P.A. (2000). Consumer concern, knowledge, belief, and attitude toward renewable energy: an application of the reasoned action theory. *Psychology and Marketing*, 17. 6-26.
- Becker, M. H., Maiman, L. A., Kirscht, J. P., Haefner, D. P., & Drachman, R. H. (1977) The health belief model and prediction of dietary compliance: a field experiment. *Journal of Health and Social Behaviour*, **18**, 348-366.
- Beckford, C. L., Jacobs, C., Williams, N., and Nahdee, R. (2010), "Aboriginal Environmental Wisdom, Stewardship, and Sustainability: Lessons From the Walpole Island First Nations, Ontario, Canada", *The journal of environmental education*, Vol, 41 No. 4, pp. 239–248.
- Beharrel, B. and MacFie, J.H. (1991), "Consumer attitudes to organic foods", *British Food Journal*, Vol. 93 No. 2, pp. 25-30.
- Berger, I.E., & Corbin, R.M. (1992). Perceived consumer effectiveness and faith in others as moderators of environmentally responsible behaviors. *Journal of Public Policy & Marketing*, 11 (2), 79-100.
- Biswas, A., Licata, J.W., McKee, D., Pullig, C. and Daughtrigde C. (2000), "The Recycling Cycle: an empirical examination of consumer waste recycling and recycling shopping behaviors," *Journal of Public Policy and Marketing*, 19, Spring, pp. 93-105.

- Brehm S.S., Kassin S.M., (1996), social psychology (3rd ed.) Boston: Houghton Mafflin Company.
- Brown, G. and Haris, C. (1992). The US forest service: Toward the new resource management paradigm? *Society and Natural Resources*, 5, 231-245.
- Brown, Irvine, Jr. (1979), "Learned Helplessness through Modeling: Self-Efficacy and Social Comparison Processes," in Choice and Perceived Control, Lawrence C. Perlmutter and Richard A. Monty, eds., New York: John Wiley & Sons.
- Browne, A.W., Harris, P.J.G., Hofny-Collins, A.H., Pasiecznic, N. and Wallace, R.R. (2000), "Organic production and ethical trade: definition, practice and links", Food Policy, Vol. 25, pp. 69-89.
- Brunso, K. & Scholderer, J. (2001) Consumer health consciousness and the organic food boom: fact or fiction. *Appetite*, 37, 130.
- Business Wire. (2009, Jun 30). Spas and Salons Need to Get Social: Younger Demographics Influenced by Social Media. *Business Wire*. New York.
- Chan, R.Y.K. (2001). Determinants of Chinese Consumers' Green Purchase Behaviour. *Psychology & Marketing*, 18 (4), 389-413. <http://dx.doi.org/10.1002/mar.1013>
- Chan, R. Y. K. (1999). Environmental attitudes and behavior of consumers in China: Survey findings and implications. *Journal of International Consumer Marketing*, 11, 25 – 52.
- Chan, R.Y.K, Yam, E., (2001). "Green movement in a newly industrializing area: a survey on the attitudes and behavior of the Hong Kong citizens," *Journal of Community and Applied Social Psychology*, Vol. 5, No.2, pp. 73-84.
- Chaplin, L. N., & John, D. R. (2010). Interpersonal influences on adolescent materialism: A new look at the role of parents and peers. *Journal of Consumer Psychology*, 20(2), 176-184.

- Chen, M.F. (2007), Consumer attitudes and purchase intentions in relation to organic foods in Taiwan: moderating effects of food-related personality traits, *Food Quality and Preference*, 18 (7), 1008-21.
- Chryssochoidis, G. (2000), "Repercussions of consumer confusion for late differentiated products", *European Journal of Marketing*, Vol. 34 No. 5/6, pp. 705-22.
- Chyong, H.T, Phang, G, Hasan, H. and Buncha, M.R. (2006). Going green: A study of consumers' willingness to pay for green products in Kota Kinabalu. *International Journal of Business and Society*, 7(2), 40-54.
- Cleveland, M., Kalamas, M., and Laroche, M. (2005), "Shapes of green: linking environmental locus of control and pro-environmental behaviors", *Journal of Consumer Marketing*, pp. 198-212.
- Coddington, W. (1993). *Environmental Marketing: Positive Strategies for Reaching the Green Consumer*. USA: McGraw-Hill.
- Crosby, Lawrence A., James D. Gill, and James R. Taylor. Consumer/Voter Behavior In The Passage of The Michigan Container Law. *Journal of Marketing*. 1981, 45 (Spring), 19-31.
- Dagnoli, J. (1990). Green buying takes root. *Advertising Age*, 61, 27.
- Dagnoli, J. (1991). Consciously green. *Advertising Age*, 62, 14.
- Dahab, D.J., Gentry, J.W. and Su, W. (1995), "New ways to reach non-recyclers: an extension of the model of reasoned action to recycling behaviours", in Kardes, F.R. and Sujan, M. (Eds), *Advances in Consumer Research*, Association for Consumer Research, Provo, UT, pp. 251-56.
- Davis, A., Titterington, A.J. and Cochrane, C. (1995), "Who buys organic food? A profile of the purchases of organic food in N.Ireland", *British Food Journal*, Vol. 97 No. 10, pp. 17-23.

- Desan J.N. (2009). The green market – opportunities, competencies, complexities. *CSR Asia*, 5, 40. Retrieved March 19, 2011, from: <http://www.standardusers.org>
- Diamantopoulos, A., Bohlen, G.M. and Schlegelmilch, B.B. (1994), “Predicting green purchasing decisions from measures of environmental consciousness: at two sample comparison”, Conference Proceedings Marketing Education Group, Coleraine, July, pp. 252-61.
- Dietz, T., Stern, P.C., and Guagnano, G. (1998), “Social Structural and Society Psychological Bases of Environmental Concern”, *Environmental and Behavior*, Vol. 30, July, 450-71.
- Dreezens E, Martjin C., Tenbult P, Kok G, de Vries NK. 2005. Food and values: an examination of values underlying attitudes toward genetically modified and organically grown food products. *Appetite* 44: 115-122.
- Dunlap, R.E., & Jones, R.E. (2002). Environmental Concern: Conceptual and Measurement Issues. In: R.E. Dunlap and W. Michelson, Editors, *Handbook of Environmental Sociology*. Greenwood Press, Westport, CT, pp. 482-524 (Chapter 15).
- Eagly, A.H. (1987). *Sex differences in social behavior: A social-role interpretation*. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Eleven global trends for 2011*. (2010). Retrieved July 12, 2012 , from Elven for 2011: http://www.phdww.com/PHD/media/Documents/11-for-11-PHD_1.pdf
- Elkington, H. and Makower. (1988). *The green consumers*. New York: Penguin Books.
- Ellen, P. S., J. L. Wiener, and C. Cobb-Walgren (1991), “The Role of Perceived Consumer Effectiveness in Motivating Environmentally Conscious Behaviors,” *Journal of Public Policy & Marketing*, 10 (Fall), 102-117.
- Fagerli, R.A. and Wandel, M. (1999), “Gender differences in opinions and practices with regard to a ‘healthy diet’”, *Appetite*, Vol. 32 No. 2, pp. 171-90.

- Feick, L., Coulter, R. A., & Price, L. L. (2003). Rethinking the Origins of Involvement and Brand Commitment: Insights from Postsocialist Central Europe. *Journal of Consumer Research*, 30(2), 151-169.
- Fishbein, M.A. and Ajzen, I. (1975), *Belief, Attitude, Intention and Behavior: An Introduction to Theory and Research*, Addison-Wesley, Reading, MA.
- Follows, S., Jobber, D., (2000), "Environmentally responsible purchase behavior: a test of a consumer
- Fransson, N., & Garling, G. (1999). Environmental Concern: Conceptual Definitions, Measurement Methods, and Research Findings. *Journal of environmental psychology*, 19. 369-382. <http://dx.doi.org/10.1006/jevp.1999.0141>
- Gil, J.D. Crosby, L.A. and Taylor, J.R. (1986), "Ecological concern, attitudes, and social norms in voting behaviour", *Public Opinion Quarterly*, Vol.50. pp. 537-54.
- Gil, J.M., Gracia, A. and Sanchez, M. (2000), "Market segmentation and willingness to pay for organic products in Spain", *International Food and Agribusiness Management Review*, Vol. 3 No. 2, pp. 207-26.
- Gould, S. J. (1988) Consumer attitudes toward health and health care: a differential perspective. *The Journal of Consumer Affairs*, **22** (1), 96-118.
- Grunert, C.S. and Juhl, J.H. (1995), "Values, environmental attitudes and buying of organic foods", *Journal of Economic Psychology*, Vol. 16, pp.36-62.
- Grunert, S.C., and Grunert, K.G., (1993), "What's green about green consumers besides their environmental concern?", in Chias, J. and Sureda, Marketing for the New Europe: Dealing with Complexity, Proceedings of the 22nd Annual Conference of the European Marketing Academy. Vol. 2, pp. 1611-1613.
- Gupta. S., & Ogden, D. (2009). To Buy or Not to Buy-A social dilemma perspective on green buying. *Journal of Consumer Marketing*, 26(6), 376-391.

- Gupta, S., & Ogden, D.T. (2006). The attitude-behavior gap in environmental consumerism. *APUBEF Proceedings*, Fall, 199-206.
- Grunert, C.S. and Juhl, J.H. (1995), "Values, environmental attitudes and buying of organic foods", *Journal of Economic Psychology*, Vol. 16, pp.36-62.
- Hartmann, P., & Ibanez, V. A. (2006). Green Value Added. *Marketing Intelligence & Planning*, 24(7), 673-680. <http://dx.doi.org/10.1108/02634500610711842>
- Henson, S. (1996), "Consumer willingness to pay for reductions in the risk of food poisoning in the Uk", *Journal of Agricultural Economics*, Vol. 47, pp. 403-20.
- Hines, J.M., Hungerford, H.R. and Tomera, A.N., (1987), "Analysis and synthesis of research on responsible environmental behavior: a meta-analysis", *Journal of Environmental Education*, Vol. 18, pp. 1-8.
- Honkanen, P., Verplanken, B., & Olsen S. O. (2006) Ethical values and motives driving organic food choice. *Journal of Consumer Behaviour*, 5 (5), 420-431.
- Hutchins, R.K. and Greenhalg, L.A. (1997), "Organic Confusion: Sustaining Competitive Advantage", *British Food Journal*, Vol. 99 No. 9, pp. 336-8.
- Irawan , R and Darmayanti , D. (2012). The Influence Factors of Green Purchasing Behavior: A Study of University Students on Jakarta. *School of Marketing, Bina Nusantara University- International* , 8.
- Jolly, D., Schutz, H., Diez-Knauf, K. and Johal, J. (1989), "Organic foods: consumer attitudes and use," *Food Technology*, Vol. 43 No. 11, pp. 61-6.
- Joonas, K., 2008. Environmentally friendly products: Factors affecting search for information. *AIMS International Journal of Management*, 2(3): 165-176.
- Josephine Pickett-Baker, Ritsuko Ozaki, (2008) "Pro-environmental products: marketing influence on consumer purchase decision", *Journal of Consumer Marketing*, Vol. 25 Iss: 5, pp.281 – 293

- Kalafatis, S.P., M. Pollard, R. East and M.H. Tsogas, 1999. Green marketing and Ajzen's theory of planned behaviour : A cross-market examination. *J. Consumer Market.*, 16: 441-460
- Kang, H., Hahn, M., Fortin, D.R., Hyun, Y.J. and Eom, Y. (2006), "Effects of perceived behavioral control on the consumer usage intention of e-coupons", *Psychology & Marketing*, Vol. 23 No. 10, pp. 841-64.
- Kim, Y. and S. Choi, 2003. Antecedents of pro-environmental behaviours: An examination of cultural values, self-efficacy, and environmental attitudes." Paper presented at the annual meeting of the International Communication Association., Online from http://www.allacademic.com/meta/p111527_index.html
- Kim, Y. and S. M. Choi (2005), "Antecedents of Green Purchase Behavior: An Examination of Collectivism, Environmental Concern, and PCE," *Advances in Consumer Research*, 32, 592-599.
- Kinner, T.C., Taylor, J.R., & Ahmed, S.A. (1974). Ecologically Concerned Consumers: Who are they? *Journal of Marketing*, 11, 20-24.
- Klien, E. (1990). The selling of green. *D&B Reports*, 38, 30-31.
- Kok, G. and Siero, S. (1985), "Tin recycling: awareness, comprehension, attitude, intention and behaviour", *Journal of Economic Psychology*, Vol. 6, pp.157-73.
- Kraft, F. B., & Goodell, P. W. (1993) Identifying the health conscious consumer. *Journal of Health Care Marketing*, 13 (3), 18-25.
- Krause, D. (1993). Environmental consciousness: An empirical study. *Journal of Environment and Behavior*, 25(1), 126-42.
- Krystallis, A., Fotopoulos, C. & Zotos, G. (2006) Organic consumers profile and their willingness to pay (wtp) for selected organic food products in Greece. *Journal of International Consumer Marketing*, 19 (1), 87-97.

- Kumar, U. K. (n.d.). *Energy Efficiency & Renewable Energy for Green Communities*. Retrieved June 06, 2012, from MATRIX ENERGY SERVICE: <http://www.cyberview.com.my/iGREET/Matrix-Energy-Sdn-Bhd.pdf>
- Lai, O.K., 2000. Greening of Hong Kong: Forms of Manifestation of Environmental Movements. In: The Dynamics of Social Movement in Hong Kong, Chiu, S.W.K. and T.L. Lui (Eds.). Hong Kong University Press, Hong Kong, pp: 259-296.
- Laroche, M., Bergeron, J., & Barbaro-Forleo, G. (2001). Targeting consumers who are willing to pay more for environmentally friendly products. *Journal of Consumer Marketing*, 18, 503-520.
- Lee, J. A. and S. J. S. Holden (1999), "Understanding the Determinants of Environmentally Conscious Behavior," *Psychology & Marketing*, 16 (August), 373-392.
- Lee, K., 2008. Opportunities for green marketing: Young consumers. *Market. Intell. Plann.*, 26: 573-586.
- Li, JJ and Su.C 2007."How face influences consumption: a comparative study of American and Chinese consumers", *International Journal of Market Research*", vol. 49, no.2 pp.237-56.
- Lim, W. (2011, Nov 17). *Only those aged 18 to 25 defined as youth*. Retrieved Oct 2012, from thestar online: <http://thestar.com.my/news/story.asp?file=%2F2011%2F11%2F17%2Fnation%2F9918718&sec=nation>
- Loundsbury, J.W., Tournatsky, L.G., (1977), "A scale for assessing attitudes toward environmental quality", *Journal of Social Psychology*, Vol.101, pp. 299-305.
- Lustigman, A. (1994). SGB environmental consumer survey. *Sporting Good Business*, 27, 4, pp. 53-54

- Magnusson, M. K., Avrola, A., Hursti Koivisto U. K., Aberg, L., & Sjoden, P. O. (2003) Choice of organic foods is related to perceived consequences for human health and to environmentally friendly behaviour. *Appetite*, 40, 109-117.
- Magnusson, M. K., Avrola, A., Hursti Koivisto U. K., Aberg, L., & Sjoden, P. O. (2001) Attitudes towards organic foods among Swedish consumers. *British Food Journal*, 103(3), 209-226.
- Mainieri, T., Barnett, E., Valdero, T., Unipan, J., and Oskamp, S. (1997). Green buying: The influence of environmental concern on consumer behavior. *Journal of Social Psychology*, 137, 189-204.
- Manderbacka, K., Lundberg, O. and Martikainen, P. (1999), "Do risk factors and health behaviors contribute to self-ratings of health?", *Social Science and Medicine*, Vol.48 No. 12, pp. 1713-20.
- Mansaray, A. and Abijoye, J.O. (1998). Environmental knowledge, attitudes and behavior in Dutch secondary school, *Journal of Environmental Education*, 30(2), 4-11.
- McCarty, J.A. and Shrum, L.J. (1994), "The recycling of solid wastes: personal values, value orientations, and attitudes about recycling as antecedents of recycling behavior", *Journal of Business Research*, Vol.30, No.1, pp.53-62.
- McNeal, J. U., & Ji, M. F. (1999). Chinese children as consumers: an analysis of their new product information sources. *Journal of Consumer Marketing*, 16(4), 345-365.
- Measuring The Green Economy*. (2010, April). Retrieved May 10, 2012, from U.S. Department of Commerce Economics and Statistics Administration: www.leportailbio.com Online store
- Michaelidou, N., & Hassan, L.M. (2008). The role of health consciousness, food safety concern and ethical identity on attitudes and intentions towards organic food. *International Journal of Consumer Studies*, 32(1), 163-170.

- Miller, K. (2005). *Communications Theories: Perspectives, Processes, and Contexts*. New York: McGraw-Hill
- Ministry of the Environment and Water Resources. 2008. *Solid waste management*. <http://app.mewr.gov.sg/web/Contents/Contents.aspx?ContId=680>.
- Mohd Rafi Yaacob, Razali S. Hameed and Nik Rozhan Nik Ismail (2003b). Perceptions of educated consumers on environmentally friendly products in the East Coast of Peninsular Malaysia. *Malaysian Journal of Consumer and Family Economics*. 6, 42-49.
- Moschis, G. P., & Churchill, G. A. (1979). An analysis of the adolescent consumer. *The Journal of Marketing*, 43(3), 40-48.
- Nabsiah Abdul Wahid , Elham Rahbar and Tan Shwu Shyan. (2011). Factors Influencing the Green Purchase Behavior of Penang Environmental Volunteers. *International Business Management* 5 (1) , 38-49.
- National Environment Agency. 2006. *Awareness of environmental issues among students yet to be translated into actions*. <http://app.nea.gov.sg/cms/htdocs/article.asp?pid=2799>.
- National Environment Agency. 2007a. *Recycling day 2007*. http://app2.nea.gov.sg/news_detail.aspx?sid=20081013871809649787.
- National Environment Agency. 2007b. *5th bring your own bag day (BYOBD) on 1 Aug 07*. <http://app.nea.gov.sg/cms/htdocs/article.asp?pid=2927>.
- Newsom, J. T., McFarland, B. H., Kaplan, M. S., Huguet, N., & Zani, B. (2005) The health consciousness myth: implications of the near independence of major health behaviours in the North American population. *Social Science & Medicine*, **60**, 433-437.
- Nik Ramli Nik Rashid (2009). Awareness of Eco-Label in Malaysia's Green Marketing Initiative. *International Journal of Business and Management*. 4(8), 132-141.

- Nimse, P., Vijayan, A., Kumar, A. and Varadarajan, C., (2007). A review of green product database. *Environmental Progress*. Vol. 26. Iss. 2.
- Oude Ophuis, P.A.M. (1989), "Measuring health orientation and health consciousness as determinants of food choice behavior: development and implementation of various attitudinal scales", in Avlonitis, G.J., Papavasiliou, N.K. and Kouremenos, A.G. (Eds), *Marketing Thought and Practice in the 1990s, EMAC XVIII*, Athens School of Economics and Business, Athens, pp. 1723-5.
- Padel, S. & Foster, C. (2005) Exploring the gap between attitudes and behaviour: understanding why consumers buy or do not buy organic food. *British Food Journal*, **107** (8), 606-626
- Palmer, J. A., Suggate, J., Robottom, I., & Hart, P. (1999). Significant life experiences and formative influences on the development of adults' environmental awareness in the UK, Australia and Canada. *Environmental Education Research*, 5(2), 181- 200.
- Peattie, K. (2001). Golden Goose or Wild Goose? The Hunt for the Green Consumer. *Business Strategy and the Environment*, 10, 187-199. <http://dx.doi.org/10.1002/bse.292>
- Plank, R. E., & Gould, S. J. (1990) Health consciousness, scientific orientation and wellness; an examination of the determinants of wellness attitudes and behaviours. *Health Marketing Quarterly*, **7** (3-4), 65-83.
- (2012). *Population Distribution and Basic Demographic Characteristics*. Putrajaya: Department of Statistics, Malaysia.
- Prothero, A. (1990). Green consumerism and the societal marketing concept: Marketing strategies for the 1990s. *Journal of Marketing Management*, 6, 87-103.
- Rashid, N. A. (2009). Awareness of Eco-label in Malaysia's Green Marketing Initiative. *International Journal of Business and Management* , 133.

- Reicks, M., Splett, P. and Fishman, A. (1997), "Shelf labeling of organic foods: effects on customer perceptions and sales", *Working Paper 97-03*, The Retail Food Industry Center, University of Minnesota, St Paul, MN.
- Rice, G., Wongtada, N., & Leelakulthanit, O. (1996). An investigation of self-efficacy and environmentally concerned behaviour of Thai consumers. *Journal of International Consumer Marketing*, 9, 1-19.
- Roberts, J.A. and D. R. Bacon (1997), "Exploring the Subtle Relationships between Environmental Concern and Ecologically Conscious Behavior," *Journal of Business Research*, 40 (1), 79-89.
- Roberts, J. (1996) "Green consumers in the 1990s: Profile and implications for advertising," *Journal of Business Research*, Vol. 36, No.2, pp. 217-231.
- Roddy, G., Cowan, C.A. and Hutchinson, G. (1996), "Consumer attitudes and behaviour to organic foods in Ireland", *Journal of International Consumer Marketing*, Vol. 9 No.2, pp. 41-63.
- Rotter, J.B., 1966. Generalized expectancies for internal vs. external control of reinforcement. *Psychological Monographs*, 80: 1-28.
- Rozin, P., Fischler, C., Imada, S., Sarubin, A. and Wrzesniewski, A. (1999), "Attitudes to food and the role of food in life in the USA, Japan, Flemish Belgium and France: possible implications for the diet-health debate", *Appetite*, Vol. 33 No. 2, pp. 163-80.
- Ryan, A.M 2001," The peer group as a context for the development of young adolescent motivation and achievement', *Child Development*", vol.72, no. 6, pp. 1135-50
- Sacker, A., Bartley, M., Firth, D. and Fitzpatrick, R. (2001), "Dimensions of social Inequality in the health of women in England: occupational, material and behavioral pathways", *Social Science and Medicine*, Vol. 52 No. 5, pp. 761-81.

- Schifferstein, H.N.J. and Oude Ophuis, P.A.M. (1998), "Health-related determinants of organic foods consumption in The Netherlands", *Food Quality and Preference*, Vol. 9 No. 3, pp. 119-33.
- Schultz, P.W. and Zeleny, L.C. (2000). Promoting environmentalism. *The Journal of Social Issues*, 56, 443-457.
- Seligman, C.M., Kriss, M., Darley, J.M., Fazio, R.H., Becker, L.J., Pryor, J.B., (1979), "Predicting summer energy consumption from householders' attitudes", *Journal of Applied Psychology*, Vol. 1, pp. 70-90.
- Senauer, B., Asp, E. and Kinsey, J. (1991), *Food Trends and the Changing Consumer*, Eagan Press, St Paul, MA.
- Shamdasani, P., Chon-Lin, G. and Richmond, D. (1993). Exploring green consumers in an oriental culture: Role of personal and marketing mix. *Advances in consumer research*, 20, 488-493.
- Shepherd, R., Magnusson, M., & Sjöden, P.O. (2005). Determinants of Consumer Behavior Related to Organic Foods. *A Journal of the Human Environment*, 34(4), 352-359.
- Soonthonsmai, V. (2007). Environmental or green marketing as global competitive edge: Concept, synthesis, and implication. *EABR (Business) and ETLC (Teaching) Conference Proceeding, Venice, Italy*
- Soonthonsmai, V. (2001). *Predicting intention and behavior to purchase environmentally sound or green products among Thai consumers: An application of the Theory of Reasoned Action*, Unpublished Doctor of Philosophy, Nova Southeastern University.
- Sparks, P., & Shepherd, R. (1992) Self identity and the theory of planned behaviour: assessing the role of identification with green consumerism. *Social Psychology Quarterly*, 55 (4), 388-399.

- Squires, L., Juric, B., & Cornwell, T. (2001). Level of market development and intensity of organic food consumption: cross-cultural study of Danish and New Zealand consumers. *Journal of Consumer Marketing*, 31(4), 349-356.
- Statistics - Elderly, Youth and Gender Profile*. (2012, Nov 09). Retrieved Nov 13, 2012, from Department of Statistics Singapore : <http://www.singstat.gov.sg/stats/themes/people/elderyouthgender.html>
- Stern, P. C., T. Dietz, L. Kalof (1993), "Values Orientations, Gender, and Environmental Concern," *Environment and Behavior*, 25 (May), 322-348.
- Stern, P.C. and Dietz, T. (1994). The value basis of environmental concern. *Journal of Social Issues*, 50, 65-84.
- Straughan, R.D. and Robberts, J.A. (1999). Environmental segmentation alternatives: A look at green consumer behavior in the new millennium. *Journal of Consumer Marketing*, 16(6), 558-75.
- Suchard, H.T., Polonski, M.J., (1991), "A theory of environmental buyer behavior and its validity: the environmental action-behavior model," in Gilly, M.C. (Eds), AMA Summer Educators' Conference Proceedings, American Marketing Association, Chicago, IL. Vol. 2, pp. 187-201.
- Takafumi, I., (2002). Green-product brand strategy in Japanese manufacturing and construction industries. Fujitsu Research Institute. Tokyo. Japan.
- Tanner, C. and Kast, S.W. (2003). Promoting sustainable consumption: Determinants of green purchases by Swiss consumers. *Psychology & Marketing*, 20(10), 883-902.
- Tarkiainen, A. and Sundqvist, S. (2009). Product involvement in organic food consumption: Does ideology meet practice? *Psychology and Marketing*, 26, 844-863.
- Tarkiainen, A., & Sundqvist, S. (2005). Subjective norms, attitudes and intentions of Finnish consumers in buying organic food. *British Food Journal*, 107(11), 808-822.

- Thompson, Suzanne C. (1981). "Will It Hurt Less If I Can Control It? A Complex Answer to a Simple Question," in *Advances in Consumer Research*, Vol. 9, Andrew Mitchell, ed., 306-312.
- Tikka, P., Kuitunen, M. and Tynys, S. (2000). Effects of educational background on students' attitudes, activity levels, and knowledge concerning the environment. *Journal of Environmental Education*, 31, 12-19.
- Tregear, A., Dent, J.B. and McGregor, M.J. (1994), "The demand for organically-grown produce", *British Food Journal*, Vol. 96 No. 4, pp. 21-5.
- Tsen, C.H., Phang, G., Hasan, H., Buncha, M.R., (2006), "Going green: a study of consumers' willingness to pay for green products in Kota KinaBalu", *International Journal of Business and Society*, Vol.7, pp. 40-54.
- Van Liere, K.D. and Dunlap, R.E. (1981). "The social bases of environmental concern: a review of hypotheses, explanations and empirical evidence". *Public Opinion Quarterly*, Vol.44, pp. 181-97.
- Verhoef, P. C. (2005), "Explaining Purchases of Organic Meat by Dutch Consumers," *European Review of Agricultural Economics*, 32 (2), 245-267.
- Vermeir, I. and W. Verbeke (2006), "Sustainable Food Consumption among Young Adults in Belgium: Theory of Planned Behavior and Role of Confidence and Values," *Ecological Economics*, 64, 542-553.
- Vermeir, I. & Verbeke, W. (2006). Sustainable Food Consumption: Exploring The Consumer Attitude – Behaviour Gap. *Journal of Agricultural and Environmental Ethics*, 19(2), 169-194.
- Vining, J., & Ebreo, A. (1992). Predicting Recycling Behaviour from Global and Specific Environmental attitudes and Changes in Recycling Opportunities. *Journal of Applied Social Psychology*, 22, 1580-1607. <http://dx.doi.org/10.1111/j.1559-1816.1992.tb01758.x>
- Wandel, M., & Bugge, A. (1997) Environmental concern in consumer evaluation of food quality. *Food Quality and Preference*, 8 (1), 19-26.

- Wasik, J.F. (1996). *Green marketing and management: A global perspective*. Cambridge, Mass: Blackwell Publishers Inc.
- Wasik, J.F (1992). Green marketing: Market is confusing, but patience will pay off. *Marketing News*, 26, 6-17.
- Wiener, J.L. and Sukhdial, A. (1990). Recycling of solid waste: Directions for future research, In A. Parasuraman et al. (Eds.). *AMA Summer Educators' Conference Proceedings, American Marketing Association (1: 389-392)*. Chicago:IL.
- Williams, P.R.D. and Hammit, J.K. (2001), "Perceived risks of conventional and organic produce: pesticides, pathogens, and natural toxins", *Risk Analysis*, Vol. 21 No. 2, pp. 319-30. Wandel, M. and Bugge, A. (1997), "Environmental concern in consumer evaluation of food quality", *Food Quality and Preference*, Vol. 8 No. 1, pp. 19-26.
- Worner, F. and Meier-Ploeger, A. (1999), "What the consumer says", *Ecology and Farming*, Vol. 20, January-April, pp. 14-15.
- Yam-Tang, E.P.Y., Chan, R.Y.K., (1998), "Purchasing behaviors and perceptions of environmentally harmful products", *Marketing Intelligence and Planning*, Vol. 16, No. 6, pp. 356-362.
- Zanoli R, Naspetti S. 2002. Consumer motivation in purchasing organic food: a MEC approach. *British Food Journal* 104: 643-653
- Zanoli, R. (1998), "The economics and policy of organic farming: the state of the art", *4th ENOF Workshop Proceedings*, Edinburgh, 25-6 June, pp. 57-68.
- Zotos, Y., Ziamou, P. and Tsakiridou, E. (1999), "Marketing organically produced food products in Greece", *Greener Management International*, Vol. 25, Spring, pp. 91-104.

APPENDICES



UNIVERSITI TUNKU ABDUL RAHMAN

Faculty of Accountancy and Management

BACHELOR OF INTERNATIONAL BUSINESS (HONS)

FINAL YEAR PROJECT

TITLE OF RESEARCH:

**A Study on the youth attitude toward purchase green products in
Malaysia and Singapore**

Survey Questionnaire

Dear respondents,

We are undergraduate students of Bachelor of International Business (Hons), from Universiti Tunku Abdul Rahman (UTAR). The purpose of this survey is to find out youth's attitudes toward purchase green products in Malaysia and Singapore. Your answers will be kept **PRIVATE** and **CONFIDENTIAL** and will be used solely for academic study purpose. Please answer ALL questions in ALL sections. Completion of this form will take you approximately 10 to 15 minutes.

Thank you for your cooperation.

Group Members:

Name:	ID number:	E-mail:
Francis Wong V.N	10 UKB 01764	klcpwy@hotmail.com
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Part One: Socio-Demographic Profile

This part contains demographic questions for categorization purpose only. For each of the questions given below, please fill in the blank or tick (✓) the most appropriate option that best describes you.

1. Gender: ☐ Male ☐ Female
2. Nationality: ☐ Malaysian ☐ Singaporean
3. Race: ☐ Chinese ☐ Indian ☐ Malay
☐ Others (Please specify): _____
4. Please state your age: _____ years old.
5. Please state the number of family members currently staying in the same household.
_____ members staying in the same household.
6. What is your monthly gross income or allowance per month?
RM_____ per month
7. Which of the following best describes your highest level of education?
☐ Primary School ☐ Diploma ☐ Master's ☐ Doctorate
☐ High School ☐ Degree ☐ Professional-Certificate
8. Which of the following best describes your employment?
☐ Homemaker ☐ Self-employed
☐ Student ☐ Managerial
☐ Technical ☐ Professional
☐ Administrative ☐ Others (Please specify): _____
9. Green products are environmentally-friendly products that have less of an impact on the environment or are less detrimental to human health. Please list down any green products that you have heard of, seen, or used before.

10. Have you purchased any green products before?

☐

Yes

☐

No

11. If your answer is “Yes,” please state what green products you have purchased before.

12. Whether you have or have not purchased any green products before, how likely are you to buy such products in the future?

☐

1= Definitely Will Not

☐

4= Probably Will

☐

2= Probably Will Not

☐

5= Definitely Will

☐

3= Only if it is necessary with no other choices

13. How do you like the idea of purchasing green products?

☐

1= Extremely Dislike

☐

4= Like

☐

2= Dislike

☐

5= Extremely Like

☐

3= Neither Like or Dislike

14. Purchasing green products is a _____ (please refer to scale below) _____ idea.

☐

1= Very Bad

☐

4= Good

☐

2= Bad

☐

5= Very Good

☐

3= Neither Bad or Good

15. I have a/an _____ (please refer to scale below) _____ attitude towards purchasing green version of a product.

☐

1= Extremely Unfavorable

☐

4= Favorable

☐

2= Unfavorable

☐

5= Extremely Favorable

☐

3= Neutral

16. How much more are you willing to pay for green products in relation to non-green products? Please state your percentage maximum in terms of price willingness.

0	1	2	3	4	5	6	7	8	9	10
0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
	More	More	More	More	More	More	More	More	More	More

Part Two:

The following statements relate to your perception and judgment towards the environmental issues and green purchasing. Please indicate the degree to which you agree or disagree with each of the following statements:

Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
1	2	3	4	5	6

1. Attitudes toward Green Purchase

Q1. I like the idea of purchasing green.	1	2	3	4	5	6
Q2. Purchasing green is a good idea.	1	2	3	4	5	6
Q3. I have a/an attitude toward purchasing a green version of a product.	1	2	3	4	5	6

2. Perceived Consumer Effectiveness

Q1. Each person's behavior can have a positive effect on society by signing a petition in support of promoting the environment.	1	2	3	4	5	6
Q2. I feel I can help solve natural resource problem by conserving water and energy	1	2	3	4	5	6
Q3. I can protect the environment by buying products that are friendly to the environment.	1	2	3	4	5	6
Q4. There is not much that I can do about the environment.	1	2	3	4	5	6
Q5. I feel capable of helping solve the environment problems.	1	2	3	4	5	6

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Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
1	2	3	4	5	6

3. Health Consciousness

Q1. I reflect about my health a lot.	1	2	3	4	5	6
Q2. I'm very self-conscious about my health.	1	2	3	4	5	6
Q3. I'm alert to changes in my health.	1	2	3	4	5	6
Q4. I'm usually aware of my health.	1	2	3	4	5	6
Q5. I take responsibility for the state of my health.	1	2	3	4	5	6
Q6. I'm aware of the state of my health as I go through the day.	1	2	3	4	5	6

4. Attitudes toward the Environment

Q1. It is essential to promote green living in my country.	1	2	3	4	5	6
Q2. More environmental protection works are needed in my country.	1	2	3	4	5	6
Q3. It is very important to raise environmental awareness among the people in my country.	1	2	3	4	5	6
Q4. Environmental protection works are simply a waste of money and resources.	1	2	3	4	5	6
Q5. Environmental protection issues are none of my business.	1	2	3	4	5	6
Q6. I think environmental protection is meaningless.	1	2	3	4	5	6
Q7. It is unwise for my country to spend a vast amount of money on promoting environmental protection.	1	2	3	4	5	6

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Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
1	2	3	4	5	6

5. Social Influence

Q1.	People who influence my behavior would encourage me to buy green products.	1	2	3	4	5	6
Q2.	People who are important to me would encourage me to buy green products.	1	2	3	4	5	6
Q3.	My family thinks that I should purchase green products.	1	2	3	4	5	6
Q4.	My friends think that I should purchase green products.	1	2	3	4	5	6
Q5.	I have read/ seen news reports which say that purchasing green products contributes to a good environment.	1	2	3	4	5	6
Q6.	The popular press adopts a positive view towards using green products.	1	2	3	4	5	6
Q7.	Mass media reports have influenced me to try green products.	1	2	3	4	5	6

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Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
1	2	3	4	5	6

6. Purchase Intention

Q1.	I intend to purchase green products in the near future.	1	2	3	4	5	6
Q2.	I plan to buy green products in the future.	1	2	3	4	5	6
Q3.	The probability that I will buy green products is high.	1	2	3	4	5	6
Q4.	I may buy green products when it is appropriate.	1	2	3	4	5	6

All the information is treated as “Private and Confidential”.

Thank you very much for your participation in this survey.

Your time and opinions are deeply appreciated.

SPSS Output: Respondent Demographic Profile (Malaysia)

Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	89	59.3	59.3	59.3
	Male	61	40.7	40.7	100.0
	Total	150	100.0	100.0	

Race

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Chinese	107	71.3	71.3	71.3
	Indian	19	12.7	12.7	84.0
	Malay	24	16.0	16.0	100.0
	Total	150	100.0	100.0	

Please state your age:

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	11	7.3	7.3	7.3
	2	5	3.3	3.3	10.7
	3	12	8.0	8.0	18.7
	4	27	18.0	18.0	36.7
	5	45	30.0	30.0	66.7
	6	22	14.7	14.7	81.3
	7	10	6.7	6.7	88.0
	8	18	12.0	12.0	100.0
	Total	150	100.0	100.0	

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Please state the number of family members currently staying in the same household.Â

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	2	1.3	1.3	1.3
	1	1	.7	.7	2.0
	2	3	2.0	2.0	4.0
	3	13	8.7	8.7	12.7
	4	40	26.7	26.7	39.3
	5	45	30.0	30.0	69.3
	6	30	20.0	20.0	89.3
	7	10	6.7	6.7	96.0
	8	5	3.3	3.3	99.3
	10	1	.7	.7	100.0
Total		150	100.0	100.0	

Which of the following best describes your highest level of education?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	High school	24	16.0	16.0	16.0
	Diploma	30	20.0	20.0	36.0
	Degree	85	56.7	56.7	92.7
	Master's	9	6.0	6.0	98.7
	Professional-Certificate	1	.7	.7	99.3
	Doctorate	1	.7	.7	100.0
	Total	150	100.0	100.0	

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Which of the following best describes your employment?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Student	98	65.3	65.3	65.3
	Technical	7	4.7	4.7	70.0
	Administrative	12	8.0	8.0	78.0
	Self-employed	12	8.0	8.0	86.0
	Managerial	8	5.3	5.3	91.3
	Professional	12	8.0	8.0	99.3
	Other	1	.7	.7	100.0
	Total	150	100.0	100.0	

SPSS Output: Respondent General Information (Malaysia)

Frequency Table

Have you purchased any green products before?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	71	47.3	47.3	47.3
	No	79	52.7	52.7	100.0
	Total	150	100.0	100.0	

Whether you have or have not purchased any green products before, how likely are you to buy such products in the future?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Probably Will Not	3	2.0	2.0	2.0
	Only if it is necessary with no other choices	53	35.3	35.3	37.3
	Probably Will	70	46.7	46.7	84.0
	Definitely Will	24	16.0	16.0	100.0
	Total	150	100.0	100.0	

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How do you like the idea of purchasing green products?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Neither Like or Dislike	42	28.0	28.0	28.0
	Like	81	54.0	54.0	82.0
	Extremely Like	27	18.0	18.0	100.0
	Total	150	100.0	100.0	

Purchasing green products is a _____ idea.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Neither Bad or Good	15	10.0	10.0	10.0
	Good	92	61.3	61.3	71.3
	Very Good	43	28.7	28.7	100.0
	Total	150	100.0	100.0	

I have a/an ____ attitude towards purchasing green version of a product.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Unfavorable	3	2.0	2.0	2.0
	Neutral	48	32.0	32.0	34.0
	Favorable	70	46.7	46.7	80.7
	Extremely Favorable	29	19.3	19.3	100.0
	Total	150	100.0	100.0	

How much more are you willing to pay for green products in relation to non-green products?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	2	1.3	1.3	1.3
	10% More	39	26.0	26.0	27.3
	20% More	18	12.0	12.0	39.3
	30% More	28	18.7	18.7	58.0
	40% More	11	7.3	7.3	65.3
	50% More	21	14.0	14.0	79.3
	60% More	10	6.7	6.7	86.0
	70% More	10	6.7	6.7	92.7
	80% More	8	5.3	5.3	98.0
	90% More	1	.7	.7	98.7
	100% More	2	1.3	1.3	100.0
	Total	150	100.0	100.0	

SPSS Output: Reliability Test (Malaysia)

Reliability

Item-Total Statistics

	Cronbach's Alpha
ATGP	.519
PCE	.550
HC	.623
ATTE	.619
SI	.644
PI	.540

SPSS Output: Pearson's Correlation Analysis (Malaysia)

Correlations

		Correlations					
		ATGP	PCE	HC	ATTE	SI	PI
ATGP	Pearson Correlation	1	.479**	.186*	.242**	.261**	.478**
	Sig. (2-tailed)		.000	.023	.003	.001	.000
	N	150	150	150	150	150	150
PCE	Pearson Correlation	.479**	1	.137	.346**	.055	.523**
	Sig. (2-tailed)	.000		.095	.000	.500	.000
	N	150	150	150	150	150	150
HC	Pearson Correlation	.186*	.137	1	.081	.186*	.241**
	Sig. (2-tailed)	.023	.095		.327	.023	.003
	N	150	150	150	150	150	150
ATTE	Pearson Correlation	.242**	.346**	.081	1	.106	.158
	Sig. (2-tailed)	.003	.000	.327		.197	.053
	N	150	150	150	150	150	150
SI	Pearson Correlation	.261**	.055	.186*	.106	1	.146
	Sig. (2-tailed)	.001	.500	.023	.197		.074
	N	150	150	150	150	150	150
PI	Pearson Correlation	.478**	.523**	.241**	.158	.146	1
	Sig. (2-tailed)	.000	.000	.003	.053	.074	
	N	150	150	150	150	150	150

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

SPSS Output: Multiple Regressions Analysis (Malaysia)

Regression

Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	SI, PCE, HC, ATTE, ATGP ^a		. Enter

a. All requested variables entered.

b. Dependent Variable: PI

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.603 ^a	.363	.341	.53786

a. Predictors: (Constant), SI, PCE, HC, ATTE, ATGP

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	23.769	5	4.754	16.433	.000 ^a
	Residual	41.658	144	.289		
	Total	65.427	149			

a. Predictors: (Constant), SI, PCE, HC, ATTE, ATGP

b. Dependent Variable: PI

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Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.876	.475		1.843	.067
	ATGP	.266	.078	.269	3.404	.001
	PCE	.463	.093	.394	4.974	.000
	HC	.117	.060	.135	1.962	.052
	ATTE	-.049	.061	-.058	-.810	.419
	SI	.027	.053	.035	.506	.613

a. Dependent Variable: PI

SPSS Output: Respondent Demographic Profile (Singapore)

Frequency Table

Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	86	57.3	57.3	57.3
	Male	64	42.7	42.7	100.0
	Total	150	100.0	100.0	

Race

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Chinese	102	68.0	68.0	68.0
	Indian	21	14.0	14.0	82.0
	Malay	27	18.0	18.0	100.0
	Total	150	100.0	100.0	

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**Please state the number of family members currently staying in the same
household.**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	6	4.0	4.0	4.0
	3	36	24.0	24.0	28.0
	4	61	40.7	40.7	68.7
	5	37	24.7	24.7	93.3
	6	9	6.0	6.0	99.3
	7	1	.7	.7	100.0
	Total	150	100.0	100.0	

Which of the following best describes your highest level of education?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	High school	17	11.3	11.3	11.3
	Diploma	76	50.7	50.7	62.0
	Degree	45	30.0	30.0	92.0
	Master's	10	6.7	6.7	98.7
	Professional-Certificate	2	1.3	1.3	100.0
	Total	150	100.0	100.0	

A Study on The Youth Attitudes Toward Purchase
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Which of the following best describes your employment?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Homemaker	1	.7	.7	.7
	Student	76	50.7	50.7	51.3
	Technical	24	16.0	16.0	67.3
	Administrative	27	18.0	18.0	85.3
	Self-employed	1	.7	.7	86.0
	Managerial	7	4.7	4.7	90.7
	Professional	11	7.3	7.3	98.0
	Other	3	2.0	2.0	100.0
	Total	150	100.0	100.0	

Which of the following best describes your employment? [Other]

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		147	98.0	98.0	98.0
	NSmen	1	.7	.7	98.7
	sales ex	1	.7	.7	99.3
	SALES EX	1	.7	.7	100.0
	Total	150	100.0	100.0	

SPSS Output: Respondent General Information (Singapore)

Frequencies

Have you purchased any green products before?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	84	56.0	56.0	56.0
	No	66	44.0	44.0	100.0
	Total	150	100.0	100.0	

**Whether you have or have not purchased any green products before, how likely are you to buy
such products in the future?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Probably Will Not	3	2.0	2.0	2.0
	Only if it is necessary with no other choices	46	30.7	30.7	32.7
	Probably Will	88	58.7	58.7	91.3
	Definitely Will	13	8.7	8.7	100.0
	Total	150	100.0	100.0	

How do you like the idea of purchasing green products?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Dislike	1	.7	.7	.7
	Neither Like or Dislike	41	27.3	27.3	28.0
	Like	73	48.7	48.7	76.7
	Extremely Like	35	23.3	23.3	100.0
	Total	150	100.0	100.0	

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Purchasing green products is a _____ idea.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Neither Bad or Good	31	20.7	20.7	20.7
	Good	81	54.0	54.0	74.7
	Very Good	38	25.3	25.3	100.0
	Total	150	100.0	100.0	

I have a/an ____ attitude towards purchasing green version of a product.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Unfavorable	2	1.3	1.3	1.3
	Neutral	44	29.3	29.3	30.7
	Favorable	80	53.3	53.3	84.0
	Extremely Favorable	24	16.0	16.0	100.0
	Total	150	100.0	100.0	

How much more are you willing to pay for green products in relation to non-green products? Please state your percentage maximum in terms of price willingness.

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 0	6	4.0	4.0	4.0
10% More	11	7.3	7.3	11.3
20% More	27	18.0	18.0	29.3
30% More	28	18.7	18.7	48.0
40% More	17	11.3	11.3	59.3
50% More	15	10.0	10.0	69.3
60% More	16	10.7	10.7	80.0
70% More	9	6.0	6.0	86.0
80% More	14	9.3	9.3	95.3
90% More	5	3.3	3.3	98.7
100% More	2	1.3	1.3	100.0
Total	150	100.0	100.0	

SPSS Output: Reliability Test (Singapore)

Reliability

Item-Total Statistics

	Cronbach's Alpha
ATGP	.859
PCE	.841
HC	.856
ATTE	.872
SI	.889
PI	.848

SPSS Output: Pearson's Correlation Analysis (Singapore)

Correlations

		Correlations					
		ATGP	PCE	HC	ATTE	SI	PI
ATGP	Pearson Correlation	1	.705**	.577**	.520**	.348**	.698**
	Sig. (2-tailed)		.000	.000	.000	.000	.000
	N	150	150	150	150	150	150
PCE	Pearson Correlation	.705**	1	.640**	.707**	.477**	.696**
	Sig. (2-tailed)	.000		.000	.000	.000	.000
	N	150	150	150	150	150	150
HC	Pearson Correlation	.577**	.640**	1	.434**	.597**	.646**
	Sig. (2-tailed)	.000	.000		.000	.000	.000
	N	150	150	150	150	150	150
ATTE	Pearson Correlation	.520**	.707**	.434**	1	.357**	.535**
	Sig. (2-tailed)	.000	.000	.000		.000	.000
	N	150	150	150	150	150	150
SI	Pearson Correlation	.348**	.477**	.597**	.357**	1	.479**
	Sig. (2-tailed)	.000	.000	.000	.000		.000
	N	150	150	150	150	150	150
PI	Pearson Correlation	.698**	.696**	.646**	.535**	.479**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	
	N	150	150	150	150	150	150

** . Correlation is significant at the 0.01 level (2-tailed).

SPSS Output: Multiple Regressions Analysis (Singapore)

Regression

Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	SI, ATGP, ATTE, HC, PCE ^a		. Enter

a. All requested variables entered.

b. Dependent Variable: PI

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.787 ^a	.619	.606	.47000

a. Predictors: (Constant), SI, ATGP, ATTE, HC, PCE

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	51.733	5	10.347	46.838	.000 ^a
	Residual	31.810	144	.221		
	Total	83.543	149			

a. Predictors: (Constant), SI, ATGP, ATTE, HC, PCE

b. Dependent Variable: PI

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Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.204	.339		-.602	.548
	ATGP	.376	.080	.353	4.708	.000
	PCE	.233	.106	.208	2.197	.030
	HC	.250	.089	.216	2.813	.006
	ATTE	.086	.085	.074	1.015	.312
	SI	.098	.062	.102	1.564	.120

a. Dependent Variable: PI