ENVIRONMENTAL CONCERNS AND GREEN PURCHASE BEHAVIOR OF GENERATION Y CONSUMERS

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DECLARATION

We hereby declare that:

(1) This undergraduate research project is the end result of our own work and that due acknowledgement has been given in the references to ALL sources of information be they printed, electronic, or personal.

(2) No portion of this research project has been submitted in support of any application for any other degree or qualification of this or any other university, or other institutes of learning.

(3) Equal contribution has been made by each group member in completing the research project.

(4) The word count of this research report is 19,040.

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DEDICATION

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LIST OF ABBREVIATIONS

CnSR	Consumer Social Responsibility
CSR	Coporate Social Responsibility
NEP	New Environmental Paradigm
SPSS	Statistical Package for the Social Science Software Version 20
TPB	Theory of Planned Behavior
TRA	Theory of Reasoned Action
VBN	Value-Belief Norm

PREFACE

The tittle of this research study is "Environmental Concerns and Green Purchase Behavior of Generation Y Consumers". This research study is cover under the compulsory unit subject UKMZ 3016 Research Project for all the students pursuing the Bachelor of International Business in University Tunku Abdul Rahman upon the completion of the study.

In this 21st century, the global environmental issue is becoming a major concern for the consumers. With the affection of globalization, the global consumer purchasing behavior is moving toward a greener and more ecological direction. For instance, the upcoming purchasing power falls on the consumers from Generation Y and they had taken a big portion of the global population. Thus, it is important for business, marketers and government to understand the environmental concern and green purchase behavior of Generation Y for business opportunities, marketing strategic planning and also the government policy setting and modification.

As a result, research study is conducted to provide a further understanding on the environment and green purchase behavior of the Generation Y consumers nowadays. For this study, there are five independent variables being identified as factor that will affect the green purchase behavior of Generation Y. The variables are environmental concern, perceived environmental responsibility, attitudes towards the environment, environmental knowledge and awareness of environmental problem.

ABSTRACT

With the significant increase of seriousness of global warming, people are getting more attention of protecting and preserving the natural environment. The environmental concern of consumers towards the environment is increasing rapidly. This may influence consumer purchasing behavior to a greener perspective. This can be shown by the purchasing trend of consumers which moving towards buying green. Thus, it is important to investigate the factor affecting the green purchase behavior of consumers.

For this study, the aims to examine the perception of consumer on the environment and the impact on green purchase behavior. The independent variables that affect the green purchase behavior of consumers are environmental concern, perceived environmental responsibility, attitudes towards the environment, environmental knowledge and awareness of environmental problems.

Quantitative research and correlational research are used in the research design of this study. The target population of this research are Generation Y Consumers which born within year 1980 to 1995, between 19 to 34 years old as at year 2014. The sampling location of this study is a private university in Malaysia. Primary data is collected for this study by distributing 320 sets of questionnaire survey manually to the target respondents. The Statistical Package of the Social Science (SPSS) version 20 is used to analyze the data collected into reliability test, descriptive analysis and inferential analysis. Last but not least, the discussion of findings, implication, limitation of this study and recommendation for future research is made at the end of this study.

CHAPTER 1: RESEARCH OVERVIEW

1.0 Introduction

This study is conducted on the environmental concern and green purchase behavior of Generation Y consumers. This study is aim to determine the perceptions of Generation Y consumers on the environment and their effects on green purchase behavior. The organization of this chapter are research background, problem statement, research objectives, research questions, significance of the study, chapter layout and also a conclusion for the chapter.

1.1 Research Background

Environmentalism and Green Marketing

Environmentalism is a broad philosophy and social movement focus on a concern for the conservation and improvement of the environment. (Baig & Kahraman, 2010) However, according to Torsello (2012), the term of "environmentalism" is difficult to trace the common root of environmental thought. This is because environmentalism is uses in variety of ideologies about environment. For instance, environmentalism is to examine the relationship of man with ecological resources.

Torsello (2012) also mentioned that the term of environmentalism is evolved from time to time such as support general view of mankind living in harmony with nature but also enhance civil participation in decision-making and planning process in environmental resources. This shows that every individual has responsibilities toward environments.

Moreover, "Environmentalism" is perhaps one of the most global sociocultural trends impacting marketing which arise of the green marketing recently. Based

on Furlow and Knott (2009), the green marketing (Ottman, 1992, 1993; Peattie, 1993; Polonsky, 1994) was a deemed of trend in the early of 1990's but is also disappeared as fast as the scenes. Currently, due to more popular of environmentalism in the world and lead the sales of green product increased dramatically hence the emerging of green marketing. (Chen, 2010) On the other hand, Ottman (1993) and Peattie (1993) argued that conventional marketing is out dated while green marketing is more in. Thus, various researchers (Chen, 2010; Lu, Bock, & Joseph, 2013; Polonsky, 1994; Saxena & Khandelwal, 2010; Smith & Brower, 2012) have studies about green marketing. Besides, one of the recent strong international survey by BBC World News and Synovate, found 72% of the respondents were concerned about climate change and 61% had purchased green products (BBC World News, 2008).

Green Purchase Behavior

According to Rahbar and Abdul Wahid (2010), recently consumers around the world have become more environmentally aware. In addition, it has leaded the green revolution and demand which help to prevent the damage to the environment. However, by comparing to citizen of the western countries, the green living awareness among Malaysia's citizen is still at the infant stage. (Lee, Ling, Yeow & Hassan, 2014)

Based on the Our Green World (2008), the survey result shows that only 8% of Malaysian respondents have changed their behavior to benefit the environment. These shown that the green purchase behavior of Malaysia's consumer is not strong as compare to western countries.

Laroche, Bergeron, Barbaron-Forleo (2001) found that most of the consumers have realized their purchasing decision will direct impact to the ecological problem around the world. Besides, Malaysia government has put effort in

encourage Malaysian to perform green purchasing. (Nezakati, Hossienpour, & Hassan, 2014)

Practically, there is already has various type of environmentally friendly or green products which for different type of desired consumers. Hence, there are various studies (Akehurst, Afonso, & Gonçalves, 2012; Chan, 2001; Mainieri, Barnett, Valdero, Unipan & Oskamp, 1997; Rahbar & Abdul Wahid, 2011; Soonthonsmai, 2007) that are research on the green purchase behavior since the emerging of the various types of green or environmentally product in the market with the aim to study the consumer's behavior in green purchase. Green purchase behavior is one of the major concerns in these studies in order to ease in future implication.

Generation Y or Millennial

Generation Y or terms as Millennial (Howe & Strauss, 2000) or Echo Boomer (Lu et al., 2013) in these twenty first centuries. According to Lu et al. (2013), Millennial or Generation Y is the age group from 18-34 years old. In addition, few researches (Cennamo & Gardner, 2008; Lu et al., 2013; Sayers, 2007; Weingarten, 2009) have defined Generation Y as an group of people that born from the range of years 1980 to 2000. As for 2014, the age range is from 14 - 34. Furthermore, Generation Y is also defined as the group born ranges from year 1977-1995 which currently 19 years old to 37 years old. (Cambal & Vaskovicova, 2011; Múčka, 2007; Noble, Haytko & Phillips, 2009; Urbain, Gonzales & Gall-Ely, 2013) However, in this study, Generation Y defined in the range of 1980-1995 (Martin & Turley, 2004) which fall in the age range of 19-34 is adopted in this study due to this research is plan to focus more on students that will be near future power purchasers.

Based on the previous studies (Kim & Choi, 2005, Kim, Lee, & Hur, 2012; Lee, 2008, 2009) environment concern might have significant relationship with the green purchase behavior. Thus, this is also one of the objectives of

this research. Based on Baig and Kahraman (2010), attitude of university students toward environment and environmental problem is not significant to the protection of environmental conditions. However, there are few studies like (McKay, 2010; Smith & Brower, 2012; Smith, 2010) that support that the Generation Y and Millennial Generation's consumption of green products and help in reduces environment to become worsen. This can shows that the ideology of environmentalism that emphasized on the mankind not only living in harmony with nature but should execute their responsibility to protect the environment.

Besides, based on Grunert (1993) observation, he found that certain customer insisted on environmentally concern and this would shape their purchase behavior. It is supported by the Furlow and Knot (2009) research that young adults that socially conscious or environment concern will seek to buy "green" products which in others words is environmentally preferable products. Overall, there are few studies that show that green purchase behavior has relationship with environmental related variables like environmental concern, awareness of environmental problem, perceived environmental responsibility, environmental knowledge and attitude towards the environment. But whether the green purchase behavior of Generation Y in Malaysia is same as others country context or it would be totally different. Therefore, this research will help to determine the significant relationship on environment related variables with green purchase behavior of Malaysian's Generation Y.

1.2 Problem Statement

Global warming is no longer a term for everyone, it is actually happening on this era. It became a critical issue for every country. Plus global warming will be affected the average temperature of a country. By refer to appendix A, is showing that carbon emission of Malaysia was increasing rapidly in year 2003, and specific data which related to Malaysia mean temperature was slightly increased from year 2009 to 2013. These data could be interpreted as Malaysia is experiencing the

problem of global warming. As refer to Vaughan (1993), consumers are started to become more aware of those issues surrounding equitable trading. Moreover, Strong (1997) also mentioned equitable trading will be increased social concern towards environment and it will directly influence personal purchasing behavior.

Next, according to Nielsen's 2011 Global Online Environment and Sustainability Survey in 51 countries which studied more than 25,000 respondents, it indicated an upward trend for the concern of environmental issues. In the same report, it highlighted 90% of Malaysian's consumers are concern about the environmental issues, and about two-thirds of the consumers are intense to purchase products which are not harmful to our environment. Furthermore, the report shows 76% of consumers are willing to pay more for environmentally friendly products. (Nielsen Company, 2011) Hence, these data and information are hinting us which green purchase behavior and environmental concern are closely related in Malaysia.

Although there are many researches done on examine the environmental and green purchase behavior of consumers. However, they are less research focus on green purchasing behavior of Generation Y consumers. Precisely, there are few researches conducted on Generation Y green purchasing behavior as most of the Malaysian research are focus on all age group as concern. There are many available researches studies directed on green purchasing behavior of antecedents group which aged from 12 to 18 years old by Lee, 2008; Lee, Kim, Kim & Choi, 2014; Mostafa, 2006; Kim & Choi, 2005. Besides, there also many accessible researches studied based on examining the green purchase behavior of respondents from all age group and focus more on demographic characteristic of respondents such as studies from D' Souza, Taghian & Khosla, 2007; Diamantopoulosa, Schlegelmilchb, Sinkovicsd & Bohlen, 2003. This study is focuses on Generation Y consumers because they represent a big cluster of global population as they are the upcoming growth of near future spending power. In addition, they also more concern and aware on the environmental issues as well as environmental responsibilities.

Subsequently, different researcher has different preference and style in conducting research. Indeed, there are many different methods, kinds and combinations to carry out the research of consumer green purchasing behavior. Meaning that research study on green purchase behavior may vary and evolve into different style depend on the researcher. There are many researches used theory as a core foundation to examine the green purchase behavior, for instance, studies included theory such as TPB and Value-Belief-Norm Model (VBN) by Lee, 2008; van Birgelen, Semeijn, & Keicher, 2008. Nevertheless, this research is aimed to identify the environmental concern and its effect on green purchase behavior. The major perspective of this research is from the Generation Y consumers' viewpoint toward environmental concern and green purchase behavior. In addition to that, examine their willingness to pay extra for green products too. Despite, there is a limited research which study environmental perspective toward green purchase behavior and intention in Malaysia. Hence, in this research takes the initiative to fill up this gap by further examine the relationship between environmental concern and green purchase behavior among the specific respondent in Malaysia - Generation Y consumers.

1.3 Research Objectives

The research objectives are divided into 2 categories which are:

1.3.1 General Objective

The major objective of this study is to examine the relationship between environmental concern factors (environmental concern, perceived environmental responsibility, attitude towards the environment, environmental knowledge and awareness of environmental problem) and green purchase behavior of Generation Y consumers in Malaysia. Another objective of this study is to determine Malaysia's Generation Y consumer's willingness to purchase green products.

1.3.2 Specific Objective

1. To study the relationship between environmental concern and green purchase behavior.
2. To study the relationship between perceived environmental responsibility and green purchase behavior.
3. To study the relationship between attitude towards the environment and green purchase behavior.
4. To study the relationship between environmental knowledge and green purchase behavior.
5. To study the relationship between awareness of environmental problem and green purchase behavior.

1.4 Research Question

1. Is there any significant relationship between environmental concern and green purchase behavior?
2. Is there any significant relationship between perceived environmental responsibility and green purchase behavior?
3. Is there any significant relationship between attitude towards the environment and green purchase behavior?
4. Is there any significant relationship between environmental knowledge and green purchase behavior?
5. Is there any significant relationship between awareness of environmental problem and green purchase behavior?

1.5 Significant of the Study

This study is mainly to examine the perception of Generation Y consumers on the environment and their impacts on green purchase behavior. This study is anticipated that the current study contributes to the following areas:

1.5.1 Body of Knowledge

For general knowledge as well as academic purpose, this study act as an indication tool to facilitate the understanding on perception of Generation Y consumers on the environment, as information and data available in this area are still lacking. Moreover, this study also functions as educational tools for academicians to understand more on green purchase behavior of Generation Y consumers. Furthermore, this study also will be served as future references to researchers regarding to green purchase behavior of Generation Y consumers.

1.5.2 Managerial Perspective

This study supports the business with better understanding on green market environment opportunities and potentials. In addition, it also provides business with better information of environmental perception and impact on consumer's green purchase behavior. Precisely for the sustainable corporation, this study provides some insight for development of green business strategy integration.

Furthermore, it also enhances marketers with greater understanding on the consumer's green buying behavior. And hence, it will enable marketers promote and enhance environmental concern for Generation Y consumers by encourage green purchasing behavior. Moreover, this study contributes marketers green marketing strategy planning to differentiate and create products competitive advantages.

Subsequently, this study assists government in green policy setting and modification. Additionally, provide government with further insight and enhance green manufacturing policy in Malaysia as well as contribute government with wider knowledge and explanation on environment concern and intention of consumers to purchase green products.

1.6 Chapter Layout

1.6.1 Chapter 1: Research Overview

In this chapter, the overview of this study context will be discussed. The areas of discussion are research background, problem statement, research objectives, research questions, significance of the study and also the chapter layout.

1.6.2 Chapter 2: Literature Review

In this chapter, the findings by other researchers in the past related to this study field will be studied and reviewed. Theoretical foundation for this study will be built base on the review of relevant journals and articles to identify the topic value for searching. Besides, the important variables for this study which affect this study will be reviewed. The areas of discussion are review of the literature, review of relevant theoretical models, proposed theoretical framework and also hypothesis development.

1.6.3 Chapter 3: Methodology

In this chapter, the research method and techniques for this study will be identified. The areas of discussion are research design, data collection methods, sampling design, research instrument, measurement scales, data processing and data analysis.

1.6.4 Chapter 4: Data Analysis

In this chapter, findings and analysis of the results will be presented. The areas of analysis are descriptive analysis, scale measurement and inferential analysis. In this study, the Statistical Package for the Social Science software version 20 (SPSS) is used to assist the process of data analysis.

1.6.5 Chapter 5: Discussion, Conclusion and Implications

In this chapter, related discussion, conclusion and implication on this study will be identified. The summary of the statistical analysis, discussion of major findings, implications limitation of the study and the recommendations for future research is included in this chapter.

1.7 Conclusion

In conclusion, this study is about the perceptions of Malaysia's Generation Y consumers on the environment and their impacts on green purchase behavior. This chapter serves as a basic foundation for the whole study which starts from the research background to the chapter layout. It serves as a guideline to proceed to the next chapter which is the literature review related to the topic. In the next chapter, the theoretical framework will be identified, the variables will be discussed and the proposed framework will be illustrated.

CHAPTER 2: LITERATURE REVIEW

2.0 Introduction

In this chapter, the first part of this chapter is the discussion on the theoretical foundation that relevant to our study which is the Consumer Social Responsibility (CnSR). It is then followed by the definition of the independent variables and dependent variable of this study which are environmental concern, perceived environmental responsibility, attitude towards the environment, environmental knowledge, awareness of environmental problems and the green purchase behavior. The next section is the hypothesis development which includes literature review on the past study of other researchers and also the formation of the hypothesis for this study. The last part of this chapter will include a hypothesis list which gathers the entire hypothesis developed and also a conceptual framework which shows the relationship between the independent variables and dependent variable and then it will end with a conclusion of this chapter.

2.1 Theoretical Foundation

As mentioned in Chapter 1, ideologies of environmentalism point out that mankind should not only live harmony with the nature but also execute their responsibility to protect or enhance the environment. According to Yahya, Hashim, Mohamad, and Zuraidah (2013), the concern toward society and environmental issues increased rapidly. Due to globalization, most of the organization realized that they should focus more on public interest in order to compete effectively with each other. Therefore, this leads the current marketers and researchers look into "green" and focus on individual social responsibility. The research of Benabout and Tirolet (2010) claimed that currently most of the people are more willing to invest in socially responsible funds, consuming green products and so on. Hence, researchers (Caruana, 2007; Caruana & Chatzidakis, 2014; Devinney, Auger, Eckhardt, & Birtchnell, 2006) started to studies on CnSR.

2.1.1 Consumer Social Responsibility

There are various researches that defined CnSR differently. For instance, Caruana & Chatzidakis (2014) defined CnSR as "the application of instrumental, relational and moral logics by individual, group, corporate and institutional agents seeking to influence a broad range of consumer-oriented responsibilities." But Cooper-Martin and Holbrook (1993) defined that ethical concern of consumer will affect their decision making, purchasing and other consumption experiences which is different from Caruana and Chatzidakis (2014) research. Harrison, Newholm, and Shaw (2005), they defined CnSR as consumer will have spiritual, religious, political, environmental, social and other motive in choosing one products. Moreover Crane and Matter (2004) defined CnSR as consumer will based on their personal moral beliefs and values in order to has a conscious and deliberate decision in making certain consumption.

While in this study, CnSR is defined as conscious and deliberate choice to make certain consumption choices based on personal and moral beliefs that contain ethical and consumerism component that shows up in three ways, (1) expressed activity for certain purpose, (2) expressed through purchasing or non-purchasing behavior, and (3) expressed opinion in market research. (Devinney et al., 2006)

Based on Vogel (2005), CnSR is important force in Corporate Social Responsibility (CSR). In additional, Morrison and Bridwell, (2011) claimed that CnSR is the true CSR which the organization should focus more. Thus, it had raised the attention of researchers to look into CnSR. Besides, Tammelleo and Lombardi (2014) also argued that the emerging of CnSR is due to numerous act of individual may have only little harm toward the environment, but over the time it will create a significant social problem. This is another factor that arouses interest of various researchers (Caruana, 2007; Caruana & Chatzidakis, 2014; Deninney et al., 2006; Tammelleo & Lombardi, 2014) to studies about the CnSR. Furthermore, Caruana (2007) claimed that CnSR

conceptualize the socially consciousness consumer's as a rational, individual decision-maker and they will be motivated toward ethically augmented and eco-friendly products but there is still a limited view on this matter. Besides, Harrison et al., (2005) mentioned that the consumer responsibility is focus on consumer or citizens who are concern or care about what is the effect of their purchasing choice that will affect not only them but their surroundings. Furthermore, Caruana and Crane (2008) found that in most literature in CnSR area are premised the idea of consumer responsibility "is a meaningful, objectively identifiable and to some extend measurable quality possessed by individual." In addition, in the research of Caruana and Crane (2008) also mentioned that a lot of research effort has been expanded to identify the relationship between nature and the intensity of consumers' social or environmental awareness and concern. (Bhattacharya & Sen, 2004; Shaw & Shiu, 2003)

2.2 Definition

As for the following part, continued with definitions for the five independent variables (environmental concern, perceived environmental responsibility, attitude toward the environment, environmental knowledge and awareness of environment problem) as well as dependent variable (green purchase behavior) for this study. Every of the particular definition for the variables are discussed in detail and also provided together with a summary definition table for the ease of reading and understanding for readers.

2.2.1 Environmental Concern

According to Rehman and Dost (2013), the term 'environmental concern' is defined or change with the evolutionary phases of time by different researchers. For instance, Some researchers (Dunlap, Van Liere, Mertig & Jones, 2000; Hanson, 2013) have adopted Dunlap and Van Liere's New

Environmental Paradigm (NEP) scale which published in year 1978 as a measurement of environmental and the world view of ecological that showing the eco-consciousness and become a measurement of environmental concern which said to be reveal the pro-environmental orientation.

Moreover, as refer to table 2.1, there are many different version of definition for environment concern available in the field. In an overall, environment concern can define as the individual perceived belief, awareness, and attitude towards the environmental problems and consequences as well. Therefore, in this study, the "environmental concern" is define as "the degree to which people are aware of problems regarding the environment and support efforts to solve them and or indicate the willingness to contribute personally to their solution" (Dunlap & Jones, 2002). This definition also used by other researcher in their study which are Akehurst et al. (2012); Albayrak, Caber, Moutinho and Herstein (2011); Hu, Parsa and Self (2010).

Table 2.1: Definition Table for Environmental Concern

Variables	Authors	Definition
Environmental Concern	Gill, Crosby & Taylor (1986)	"a general or global attitude associated with an individual's behavioural intentions"
	Zimmer, Stafford & Stafford (1994)	"a general concept that can refer to feelings about many different green issues"
	Akehurst, Afonso & Gonçalves (2012); Albayrak, Caber, Moutinho & Herstein (2011); Dunlap & Jones (2002); Hu, Parsa & Self (2010)	"the degree to which people are aware of problems regarding the environment and support efforts to solve them and or indicate the willingness to contribute personally to their solution"
	Mat Said, Ahmadun, Hj Paim & Masud (2003)	"a belief, stance and the degree of concern an individual holds towards the environment."
	Kalafatis, Pollard, East, & Tsogas (1999)	"as the awakening and awareness of consumers in the fact that the environmental in danger and that natural resources are limited. "
	Hessami & Yousefi (2013)	"attitude towards environmental consequences. This attitude is influenced by direct personal experience, the experience of other people and media's news"

Source: Self-developed for this study

2.2.2 Perceived Environmental Responsibility

According to a study conducted by Kollmuss and Agyeman (2002), responsibility defined as shaped by people values and attitudes. Furthermore, responsibility will be influenced by people's internal locus of control. Hence, when people perceived they have the personal responsibility towards certain subjects, people tend to take actions which related to the subjects. (Latane & Darley, 1970)

Besides, as shown as table 2.2 below, there are 4 unlike definition for perceived environment responsibility. For a summary, perceived environment responsibility can understood as an individual's sense of responsibility towards environment lead to willing to pay for green products. Therefore, this study defined perceived environmental responsibility as those people are most inclined to make environmental driven purchase decision and willing to support and remain responsible for a sustainable future for environment. (Dagher & Itani, 2014; Laroche et al., 2001; Ottman, 1998)

Table 2.2: Definition Table for Perceived Environmental Responsibility

Variables	Authors	Definition
Perceived Environmental Responsibility	Stern (2000)	"Sense of environmental responsibility could guide individual environmental behaviour."
	Latan é(1981)	"Environmental responsibility should be related to environmental behaviour."
	Kim & Damhorst (1998)	"Environmental responsibility people would willing to purchase and pay more for green products."
	Dagher & Itani (2014); Laroche, Bergeron, & Barbaro-Forleo (2001); Ottman (1998)	"those people are most inclined to make environmental driven purchase decision and willing to support and remain responsible for a sustainable future for environment."

Source: Self-developed for this study.

2.2.3 Attitudes towards the Environment

Attitudes had defined in a study of Atkinson, Atkinson, Smith, Bem and Nolen-Hoeksema (1996) which stated that attitudes is social psychology as favorable or unfavorable evaluations reactions to particular objects, situations, people, or any others aspects of things from the world, and it could be predict and influence or even change people behavior.

Additionally, Table 2.3 below describes various definitions of attitudes towards environment. Generally, attitude towards environment can defined as a set of cognitive and affective or personal beliefs of a person, and this drive to the environment protection. However, in this study, attitudes towards environment is defined as cognitive judgment is closely related to environmental protection, it also will reflect personal ecological worldview of human relationship with the nature or environment. (Stern, 2000)

Table 2.3: Definition Table for Attitudes towards the Environment

Variables	Authors	Definition
Attitude towards Environment	Milfont & Duckitt (2010)	"a psychological tendency expressed by evaluating the natural environment with some degree of favour or disfavour."
	Allport (1935)	"a mental and neutral state of readiness, organised through experience, exerting a directive or dynamic influence on an individual's response to all objects and situations" with which it is related."
	Bamberg (2003)	"cognitive and affective evaluation of the object of environmental protection."
	Stern (2000)	"a cognitive judgment about environmental protection, with degrees of positive or negative evaluation. It reflects an individual's ecological worldview of humans' relationship with nature"
	Schultz, Shriver, Tabanico & Khazian (2004)	"the collection of beliefs, affect, and behavioral intentions a person holds regarding environmentally related activities or issues"
	Milfont & Duckitt (2004 ; 2006)	"the collection of beliefs, affects, and behavioral intentions held by someone regarding environmentally related activities"

Source: Self-developed for this study.

2.2.4 Environmental Knowledge

Knowledge can be defined as the information that store in a person's memory that will influence the interpretation and assessment way of consumer regarding the choices available. (Blackwell, Miniard & Engel, 2001) Kaplan's study (1991) (as cited in Hu et al., 2010; Chan, Hon, Chan, Okumus, 2014) mentioned that a decision making to an issue is influenced by the related knowledge acquired.

Furthermore, based on table 2.4, environmental knowledge can defined differently from numerous authors. Continued to that, environmental knowledge could be known as a person's ecology response according to their own knowledge and ability to identify the factual information of the environment. In this study, the term "environmental knowledge" is defined as "general knowledge of facts, concepts, and relationships concerning the natural environment and its major ecosystems" (Fryxell & Lo, 2003, p.45). This definition also adopted by others in their study such as Polonsky, Vocino, Grau, Grama and Ferdous (2012), Mostafa (2006, 2007a) and also Yusof, Bariam Singh and Abdul Razak. (2013)

Table 2.4: Definition Table for Environmental Knowledge

Variables	Authors	Definition
Environmental Knowledge / Eco-literacy	Laroche, Bergeron & Barbaro-Forleo (2001)	"respondent's ability to identify or define a number of ecological-related symbols, concepts and behaviors"
	Chan (1999)	"how much someone knows about the ecological issue, consumer's affect towards the environment is the individual's emotional level towards ecological issues"
	Fryxell & Lo (2003); Mostafa (2006, 2007a); Polonsky, Vocino, Grau, Grama & Ferdous (2012); Yusof, Bariam Singh & Abdul Razak (2013)	"general knowledge of facts, concepts, and relationships concerning the natural environment and its major ecosystems"
	Mostafa (2007b)	"one's knowledge about environment and key relationships leading to environmental impacts"

	Chan & Lau (2000)	"the amount of knowledge a person has regarding environmental issues"
	Arcury & Johnson (1987)	"factual information that individuals have about the environment, the ecology of the planet, and the influence of human actions on the environment/ecology"

Source: Self-developed for this study.

2.2.5 Awareness of Environmental Problem

Davenport and Beck (2001) defined awareness as a state in which a person who processes the vague and general information that acquired through their own sensory perceptions. Moreover, once a person is aware and attends to particular information by ascertaining its meaning, then awareness able to motivate that person to make sense of the vague information. (Roche & McConkey, 1990)

Likewise, there are many available definitions used by researchers to define awareness of environment problem as shown in table 2.5. In an generally, awareness of environment problem can describe as an individual who knowing the negative consequences of environmental issues that related to the natural environment and have the self-efficacy against these setbacks towards our environment. For purpose of this study, awareness of environmental problem is defined as knowing of the impact of human behavior on the environment. (Chan et al., 2014; Hessami & Yousefi, 2013; Kollmuss & Agyeman, 2002; Punyatoya, 2014)

Table 2.5: Definition Table for Awareness of Environmental Problem

Variables	**Authors**	**Definition**
Awareness of Environmental Problem	Follows & Jobber (2000)	"a person who remembers that in general the consequence of individual consumption or an effort to make use of the ability to buy can be a social problem."
	Asadoorian III (1999)	"the composite of values, knowledge and behavior related to the natural environment."
	Pushchak (1973)	"the popular, response to the threat to or deterioration of the natural- environment perceived."

	Chan, Hon, Chan & Okumus (2014); Hessami & Yousefi (2013); Kollmuss & Agyeman (2002); Punyatoya (2014)	"knowing of the impact of human behaviour on the environment."
	Karch (2002)	"beliefs, concerns and perceptions toward a particular environmental issue."
	Baptiste (2008)	"an ecologist who had grasped his/her self-efficacy against environmental pollution and how has a sense of responsibility with respect to future generations and the humanity in his/her use of resources."

Source: Self-developed for this study.

2.2.6 Green Purchase Behavior

Various terms are used by various researcher such as environmentally responsible purchase behavior (Follows & Jobber, 2000), green buying behavior (Kim, 2002; Kim & Choi, 2003; 2005), pro-environmental purchase behavior (Soutar, Ramaseshan, & Molster, 1994; Tilikidou, 2007)

Besides, according to table 2.6, various researchers defined consumer green purchase behavior differently. However, there is a similar meaning that refers to the individual effort to buy green products or environmentally-friendly products that benefited to environment in common. Hence, for this study, green purchase behavior which adopted from Mainieri et al. (1997) that defined as an action of an individual purchasing and consuming products which is beneficial to the environments.

Table 2.6: Definition Table for Green Purchase Behavior

Variables	Authors	Definition
Green Purchase Behavior	Chan (2001)	"Green purchase as a specific kind of eco-friendly behavior that consumers perform to express their concern to environment."
	Mostafa (2007a)	"Green/environmentally friendly buying behavior as the consumption of environmentally friendly products that are 'sensitive/responsive', 'recyclable/ conservable' and benevolent/ beficial' to the environment."

	Mainieri, Barnett, Valdero, Unipan & Oskamp (1997)	"an action of an individual purchasing and consuming products which is beneficial to the environments."
	Lee (2009)	"Consuming product that are environmentally beneficial, conservable and responding to environmental concern."
	Roberts (1996)	"Efforts to conserve energy and to avoid buying products with inappropriate packaging."
	Chan (1996)	"Purchasing standard sprays and beverages in recyclable containers."

Source: Self-developed for this study.

2.3 Hypothesis Formation

2.3.1 Environmental Concern and Green Purchase Behavior

According to Alwitt and Pitts (1996), the general environmental concern not only acts as a pointer to green consumption, it also being used as a measurement of the protection and important of the environment. Environmental concern of a person is found that it is related to one's values (Kim & Choi, 2005). Moreover, the environmental concern was found related with the three value orientations: (1) biospheric value orientation, (2) social altruistic value orientation and (3) egoistic or self-value orientation (Stern & Dietz, 1994; Stern, Dietz, & Kalof, 1993). For instance, the biospheric value orientation is founded as the most critical predictor for one's environmental attitude (Stern, Dietz, & Guagnano, 1995). In the study by Rehman & Dost (2013) mentioned that the environmental concern will affect the ecological behavior on consumer with attitudes, values, perceptions, behavior and emotional linkage. The value-attitude-behavior model (Homer & Khale, 1988) and TRA (Fishbein & Azjen, 1975) was cited by Hanson (2013) to support that value as antecedents, behavior as consequences of environmental concern.

Stern (2000) studied on the 3 value orientation of environmental concern and environmentalism shows a positive correlation between biospheric and altruistic with environmentalism. The study of Baldassare and Katz (1992) and

also SGuin, Pelletier and Hunsley (1998) (as cited in Mostafa, 2007a) mentioned that there is a significant impact between environmental concern and the motivation to alter the behavioral practice to reduce problem. Other than that, study of Laroche et al. (2001) and Ellen, Wiener and Cobb-Walgren (1991) concluded that there is a positive relationship between one's environmental concern and the environmentally friendly behavior. Stern et al. (1993) provide a result from the study which indicates that environmental concern was having a significant positive relationship to pro-environmental behavior and intention.

In addition, the result that environmental concern and green products purchasing intention of consumers are positively related is also found in the study of Mostafa (2006) which is related to green purchase intention. With the intention of green purchasing might lead to green purchasing behavior in future. According to Kim and Choi (2005) and Bang, Ellinger, Hadjimarcou and Traichal (2000), consumer who having strong environmental concern may interested in purchasing product that can reflect their concern and the study had shown a positive relationship between environmental concern and green purchase behavior.

Therefore, the following hypothesis is proposed:

H1: There is a significant positive relationship between environmental concern and green purchase behavior.

2.3.2 Perceived Environmental Responsibility and Green Purchase Behavior

In the early 1970s and 1980s, numbers of studies on environmental responsibility were conducted, yet there are limited of studies which seriously examine consumer's perceived environmental responsibility toward green purchase behavior. There are few numbers of studies (Hines, Hungerford, &

Tomera, 1987; Schwepker & Cornwell, 1991) which mentioned individual environmental attitude could influence personal environmentally responsible behavior. Hence, some researchers started to focus in examining consumer's perspective towards environmental responsibility. For instance, many researchers started to combine aspect between environmental responsibility and TRA to determine the personal values from consumers. (Yoon, Kyle, van Riper & Sutton, 2010; Niaura, 2013) Furthermore, Stern (2000) developed a concept of pro-environmental personal norms is closely linking to pro-environmental actions, by having pro-environmental behavior people will maintain a sense of environmental responsibility towards individuals environmental responsibility. In addition, few of the studies (Irawan & Darmayanti, 2012; Lee, 2009) started to examine the relationship of perceived environmental responsibility and green purchase behavior.

Kollmuss and Agyeman (2010) found that pro-environmental behaviors are closely link to personal responsibility, and when pro-environmental behaviors are aligned with individual prioritize, people will motivated to purchase green food or organic food. Besides, Nyborg, Howarth and Brekke (2006) found that when people are more environmental responsible, they are willing to purchase green substitutes. Moreover, another study conducted in Jakarta by Irawan and Darmayanti (2012) also argued that there is a significant positive relationship between perceived environmental responsibility and green purchase behavior. Moreover, another study conducted in Iran by Hessami & Yousefi (2013) shown that there is a significant positive relationship between individual ecological beliefs and green purchase behavior, while perceived environmental responsibility is categorized as one of the variable in individual ecological beliefs. Hence, this indicates there is a relationship between perceived environmental responsibility and green purchase behavior.

Therefore, the following hypothesis is proposed:

H2: There is a significant positive relationship between perceived environmental responsibility and green purchase behavior.

2.3.3 Attitude towards the Environmental and Green Purchase Behavior

Many studies in the past have specifically focused on environmental attitudes and others environmentally related behavior with different perspectives. In the study of Rokka and Uusitalo (2008), they examined the relationship between environmental attitude and environmental knowledge to indicate the better indicator of consumer's actual behavior rather than behavioral intentions. Mohai's studies (1990; 1992) had investigated the relationship of environmental attitude and political participation. Besides that, it also have many studies shown differ in gender will be having a different environmental attitude, those studies shown the differences between male and female in environmental attitudes and environmental attitude index. (Brown & Harris, 1992; Tikka, Kuitunen, & Tynys, 2000) Furthermore, few of the past studies had examined environmental attitude and green purchase behavior of consumers.

For instance, Mostafa (2009) investigated the relationship of environmental attitude and green purchase behavior from consumers. In Mostafa's study, he also predicted consumer's energy conservation and ecological purchase and use of green products. Furthermore, a study which conducted in Germany, Balderjahn (1988) claimed that an environmental attitude has a positive relationship with ecological buying behavior. In addition, there is a strong association between environmental attitude and ecological behavior. (Lynne & Rola, 1988) In the study of Beckford, Jacobs, Williams, and Nahdee (2010) and Cornelissen, Pandelaere, Warlop, and Dewitte (2008), their study found that environmental attitude has significant impact towards the green purchase behavior. Moreover, Mostafa (2009) also mentioned that environment attitude has a positive significant effect in act of purchase green products. Schlegelmilch, Diamantopoilos, and Bohlen (1994) also argued that environmental attitude has significant positive relationship with green purchase behavior than others variables.

Therefore, the following hypothesis is proposed:

H3: There is a significant and positive relationship between attitude towards the environment and green purchase behavior.

2.3.4 Environmental Knowledge and Green Purchase Behavior

According to Yusof et al. (2013), knowledge is emerged as an essential variable in conducting research relating to consumer behavior. The predictor of socially responsible consumer behavior which is not often being tested by researchers is the environmental knowledge (Chan, 1999; Yusof et al., 2013).One's environmental knowledge can be analyze by two major categories which is objective environmental knowledge and also subjective environmental knowledge based on the categories used in consumer knowledge. (Dodd, Laverie, Wilcox, & Duhan, 2005; Barber, Taylor, & Strick, 2009) Either one of the environment knowledge will be used in the analysis related to environmental knowledge based on the construct of analysis (Ellen, 1994).

Various of studies (Ellen, 1994; McFarlane & Boxall, 2003; Tilikidou, 2007) had shown that the objective environmental knowledge has a positive relationship towards environmental responsible behavior or green purchase behavior. Besides, a positive relationship between ecological knowledge and the environmentally responsible behavior is shown in the study of Kilkeary (1975) and Dispoto (1977). Similar result is shown in the study of Stern (1992) which mentioned that the amount of one's environmental knowledge about the environmental problems and solutions to deal with the problems affect the choices to participate in the environmental issues. The result also can be strengthening by many past researchers' study (Barber et al., 2009; Flamm, 2009; Mostafa, 2007b; Baker & Ozaki, 2008; Thøgersen, 2006) which conclude that if a consumer is familiar with the environmental problem, causes

and having a greater knowledge regarding the environment, the consumer will mostly perform an environmental responsible actions.

Environmental knowledge is claimed to have a relationship to intention of purchasing green product (Manrai, Manrai, Lascu, & Ryans, 1997) which may subsequently lead to green purchase behavior. In the study of Tilikidou (2007), Tilikidou found that the environmental knowledge of Greek consumer is positively related to their pro-environmental purchase behavior. The growth of individual's knowledge regarding of green products may cause an effect of environmental-friendly products purchase behavior (Rahbar & Abdul Wahid, 2010**)**. Furthermore, in the study of Amyx, DeJong, Lin, Chakraborty, and Wiener (1994) had found that the individual who highly and deeply knowledgeable regarding environment knowledge is more acceptable and willing to spend a more money towards the premium price that been charged for green products.

Therefore, the following hypothesis is proposed:

H4: There is a significant positive relationship between environmental knowledge and green purchase behavior.

2.3.5 Awareness of Environment Problem and Green Purchase Behavior

Environment awareness is frequently linked to environment education and education for sustainable development as the future state of our environment is majorly influenced by the students today. (Bourn, 2008; Zsóka, Szerényi, Széchy, & Kocsis, 2012) Moreover, the concept of "awareness" has been emphasized in environmental education literature as well as in research on environmental stewardship which aimed to increase the awareness and knowledge on the environmental issues, and thus lead to higher participation among community. (Fisman, 2005; Gupta, 2014; Strife, 2009) In addition,

there are other research (Sudarmadi, Suzuki, Kawada, Netti, Soemantri, & Tugaswati, 2001) that are using awareness, knowledge, attitude and perception to examined environmental problems as well as the level of environmental education. Precisely to identified the determinants of students' environmental awareness, Ajzen (1985) suggested that the most important dimensions of an individual's environmental awareness appear to be environmental knowledge, values, attitudes, willingness to act and actual behaviors. (Zsóka et al., 2012) Besides that, Kollmuss and Agyeman (2002) also illustrated that environmental awareness can be explained by two components: a cognitive, knowledge-based component and an affective, perception-based component in their research study.

Likewise, there are a number of arguments to support that consumer with environmental awareness will lead to higher willingness to green purchasing. For instance, Junaedi (2012) mentioned that green consumers have social awareness that leads them to be concerned with social-environmental and hence influenced their behavior. This makes them willing to pay higher prices for eco-friendly products that they identify them as high quality products because they feel that the condition of the present environment is facing serious problems that affect mankind all over the world. Besides, consumers make an effort to buy products that are less damaging to their environment and community due to they are aware of environmental issues, are adherent of their environment and society. (Panni, 2006)

Based on Aslan's study (2007) on students of Kafkas University which is supported that students are aware of green purchase and they will purchase products that are less harmful to the environment. Subsequently, students are paying more attention even after the purchasing over the information about purchased product, features of the purchased product , superfluous packaging or wrapping, as well as how waste abate after using the purchased product. (Aslan, 2007) According to the study done by Aracıoğlu and Tatlýdil on the local respondents in Ýzmir, Turkey, the result of the study showed a positive relationship as environmental pollution and awareness of environmental

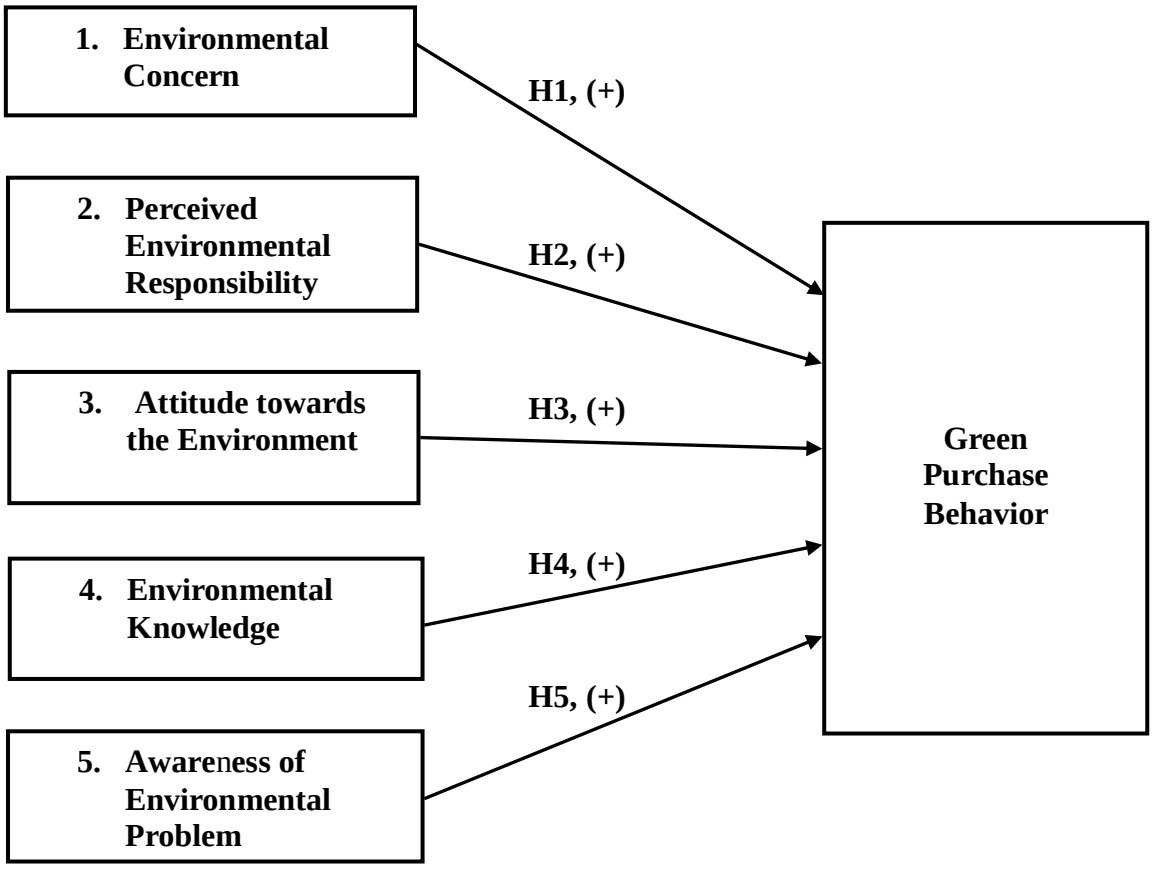
protection increase, this may affect the consumer buying behavior. (Aracıoğlu & Tatlıdil, 2009)

Therefore, the following hypothesis is proposed:

H5: There is a significant positive relationship between awareness of environmental problem and green purchase behavior.

2.4 Proposed Theoretical Framework

Figure 2.1: Proposed Theoretical Framework



Source: Self developed for this study.

2.5 Hypothesis List

H1: There is a significant positive relationship between environmental concern and green purchase behavior.

H2: There is a significant positive relationship between perceived environmental responsibility and green purchase behavior.

H3: There is a significant positive relationship between attitude towards the environment and green purchase behavior.

H4: There is a significant positive relationship between environmental knowledge and green purchase behavior.

H5: There is a significant positive relationship between awareness of environmental problem and green purchase behavior.

2.6 Conclusion

In conclusion, this chapter includes all study from the past research on the topic of this study. It contain of the theoretical foundation, definition of variables, hypothesis formation, hypothesis list and the proposed theoretical framework. In the next chapter will include methodology which is research design, data collection methods, sampling design, research instrument, construct measurement, data processing and data analysis.

CHAPTER 3: METHODOLOGY

3.0 Introduction

This chapter contain of eight essential parts of research methodology. There are research design, data collection, sampling design, research instrument, measurement scale, data processing, data analysis, and conclusion. Generally, in this chapter will be discussed about the target population that will be select for this study by justified the sufficient sample size that adopt in this study. Besides, method of data collection and others research instrument or measurement used also will be discuss and justify in this chapter.

3.1 Research Design

3.1.1 Quantitative Research

Quantitative research is defined as a research which involves numerical measurement and analysis (Zikmund, Babin, Carr, & Griffin, 2010). In addition, quantitative data is required for the statistical computation and hypothesis setting to examine the relationship between the independent variables and dependent variable. Thus in this study, the quantitative research was used to look into the relationship between environmental concern, perceived environmental responsibility, attitude towards the environment, environmental knowledge, awareness of environmental problem and green purchase behavior.

3.1.2 Correlational Research

According to Privitera (2013), the correlational research is a design that examines the relationship between two or more variables and how one variable will affect the others. The variables in a correlational research do not indicate the causation. This is because although the two variables are correlated, it does not prove that one of the variables is the cause of another. But if the variables are causally related, they will have a correlation relationship. In this study, correlational research design is used to identify the relationship between the dependent variable (green purchase behavior) and independent variables (environmental concern, perceived environmental responsibility, attitude towards the environment, environmental knowledge and awareness of environmental problem).

3.2 Data Collection Methods

3.2.1 Primary Data

Primary data is collected and developed by researchers through questionnaire survey, interview or direct observation from the target respondent. The only primary data instrument was collected in this study is through questionnaire survey. This is because questionnaire survey allowed this study to look into the relevant variables and fit into the research objectives. Hence, it will increase the reliability, accuracy and consistency of this study. Manually distribute the questionnaire is the only method that this study used to access to the targeted respondent.

3.2.2 Secondary Data

Secondary data is refer as those data that collected in the past for specific purposes from different sources such as online articles from online database, printed articles, printed journals and conferences paper. Most of the secondary data that used in this study were printed journals, printed articles and online articles or journals from online database such as Wiley Online, SAGE publication, Emerald Management Plus, EBSCO, Pro-quest and others. Besides that, researchers also used academic textbooks to have a better understanding of those jargons, theories of business research techniques and some basic concepts which related to this study.

There are two reasons for using secondary data. Major reason it is to fact finding and literature review which relevant to this study. Next, it is to develop a proper model which fit into this study, it is to assist researchers have a clearer picture and direction to conduct this research.

3.3 Sampling Design

3.3.1 Target Population

Target population is defined as "complete group of specific population elements relevant to the research project."(Zikmund, 2003, p. 373) According to Department of Statistic Malaysia (2014) and Central Intelligence Agency (2014), the Malaysia Generation Y's population is approximately around 1,000,000 people. Besides, nearly 60% of the Generation Y's population is still in tertiary education while others are in work force. Based on Institute of International Education (2014), the total count of all higher education students that include foreign exchange student in Malaysia's private institute is 541,629 students in year 2010.

Various researchers (Alch, 2000; Hood, 2012; Rowh, 2007) claimed that individual that born in the range of Generation Y is most educated, diverse and technology savvy. They also prefer lifelong learning and versatile with the technology compared to others generation like Generation X or Baby Boomer which is support the claim of Hood (2012). Nevertheless, the adaptability toward new product and services of Generation Y is high compared to other generations. (Jain & Pant, 2012) Besides that, some researches (California Green Solutions, 2007; Vermillion & Peart, 2010) found out that Generation Y possessed highest environment conscious and willingness to pay higher price for green products and services.

Therefore, the target population in this study is Generation Y private institute business faculty students. The business faculty student is chosen because they will be the near future potential purchaser. Another reason for only choosing business faculty students is to determine their green purchase behavior with their relevant amount of business knowledge.

3.3.2 Sampling Location

Sampling location is the place where this study is being carried out. For this study, the sampling location chosen is a one of the private university in Malaysia. The target respondents are business students selected from the business faculty.

3.3.3 Sampling Elements

Sampling elements is the unit from the target population that being selected as a sample representing the population. The sampling unit for this study is the Generation Y who pursuing tertiary education in the business faculty of Malaysia's private university. The sampling unit selected is only Chinese, born within year 1980 to 1995, fall in the age group of 19 to 34 as of year 2014. Furthermore, eligible respondents must be able to read and understand English language.

3.3.4 Sampling Technique

The two main sampling techniques are probability sampling and nonprobability sampling. Due to the constraint of absent of the complete students detail list, the nonprobability sampling technique was chosen for this study rather than the probability sampling. The nonprobability sampling is a sampling technique which the probability of the individual chosen for sampling from the target population is unknown.

The convenience sampling which is one of the sampling techniques from nonprobability sampling, and it was chosen for this study as this method is the most convenient accessible and low costing. The questionnaire survey will be distributed manually for student around the campus area such as the computer laboratory, lecture halls, tutorial classes, library, cafeteria and student study corner. Respondents are needed to be identified as a business school student prior to the distribution of questionnaire.

3.3.5 Sample Size

Table 3.1: Sample Size for a Given Population

N	***S***	***N***	***S***	***N***	***S***
10	10	220	140	1200	291
15	14	230	144	1300	297
20	19	240	148	1400	302
25	24	250	152	1500	306
30	28	260	155	1600	310
35	32	270	159	**1700**	**313**
40	36	280	162	**1800**	**317**
45	40	290	165	1900	320
50	44	300	169	2000	322
55	48	320	175	2200	327
60	52	340	181	2400	331
65	56	360	186	2600	335
70	59	380	191	2800	338
75	63	400	196	3000	341
80	66	420	201	3500	346
85	70	440	205	4000	351
90	73	460	210	4500	354
95	76	480	214	5000	357
100	80	500	217	6000	361
110	86	550	226	7000	364
120	92	600	234	8000	367
130	97	650	242	9000	368
140	103	700	248	10000	370
150	108	750	254	15000	375
160	113	800	260	20000	377
170	118	850	265	30000	379
180	123	900	269	40000	380
190	127	950	274	50000	381
200	132	1000	278	75000	382
210	136	1100	285	1000000	384

Note: *N* is population; *S* is sample size

Source: Sekaran, U. (2003). *Research method for business: A skill building approach (*4th ed.). New York: John Wiley & Sons, Inc.

Sample size is a number that used to represent the total target population. According to Sekaran (2003), the sample size decision is simplified by Krejcie & Morgan (1970) by creating the table 3.1 as guideline to determine the sample size.

The total number of students in the private university business faculty is 1,776 students. According to table 3.1, the sampling size for this study should be approximately around 313 to 317 respondents. Thus for this study, a total number of 320 sets of survey questionnaires are distributed to the target respondents. Other than that, 15 sets of survey questionnaire also being distributed as the pilot test prior to the actual survey distribution to ensure validity and reliability of the questionnaire.

3.4 Research Instrument

3.4.1 Questionnaires

Self-administrated questionnaire is referred as respondent complete the questionnaire survey on their own and without any interview appointment. The reasons of selecting self-administrated questionnaire as the instrument because it is convenient for respondent to answering the questionnaire itself, plus it is reduced the probability of interviewer bias. Besides that, it also able to reduce time consuming for the process of this study. Furthermore, due to this study is not funded by any party, by selecting this method it will be lower cost than having interviewing method to conduct this study. Hence, researchers decided to apply self-administrated questionnaire in this study.

3.4.2 Development of Questionnaires

English had selected as the only language that the questionnaire used on this study. This is because it is an international language around the world. Moreover, most of the private universities are using English as their one of the main language to communicate. Thus, it will easier to target respondents which are Generation Y private universities students to answer the questionnaire survey. Questionnaire will be start with a cover page; it will briefly introduce the main purpose of this study. Moreover, it also highlighted information and responses from respondent will be kept private and confidential to increase the response rate of this study. Next, questionnaire survey is consists two parts, Section A and Section B.

Section A, it will contained six questions in this part. The main purpose of this section is to collect general information from targeted respondent and enable researchers to further analyze the information whether are related to this study or not. General information such as gender, age, average monthly allowance, green purchase intention and willingness of paying for green products will be asked on this section. Objectives for Section B is to perform inferential analysis which to examine the relationship between the environment factors and green purchase. In this part it consisted thirty three of items, and it was divided according to the six constructs.

3.4.3 Pilot Test

Pilot test is a pretesting stage which use for evaluate how respondent from the target population respond to the questionnaire. Thus, pilot test was conducted to improve the design of questionnaire and identify those errors which researchers overlooked. Fifteen sets of questionnaires were sent to the private university students to pre-test those question items in the questionnaire and compute the data into SPSS. There are three main objectives for doing pilot testing for this study. Firstly, it is to test the respondent's comprehensibility.

Secondly, it is to record the time taken that respondent complete the questionnaire. Lastly, it is to collect feedback from respondent to enhance the questionnaire.

3.5 Measurement Scales

3.5.1 Nominal Scales

According to Sekaran and Bougie (2010), nominal scale categorizes objects or individuals into mutually exclusive and collective group that carry purposive value. In addition, nominal scale also enable researcher to assign particular subject to certain groups or categories. Thus, nominal scale commonly used to get some basic, categorical and gross information. (Sekaran & Bougie, 2010, p.141) Both Dichotomous scale and category scale are measurement scales for measure nominal scaled items.

Dichotomous Scale

Dichotomous scale used to measure items in question one of Section A. Two simple options are provided for question one to measure on gender of respondents (male or female).

Category Scale

In question four of Section A, there is seven green products category provided for respondents to tick and list out the green products they purchased before, which are vehicles, electrical appliances, daily household products, personal care products, organic and green foods, apparels as well as never bought any green products before.

3.5.2 Interval Scales

Interval scale is a higher level of measurement scales which have the properties of both nominal and ordinal scale. Interval scale refers to scales that capture information about differences in quantities of a concept form one observation to the next. (Zikmund, Babin, Carr, & Griffin, 2013, p.297) In other words, interval scale able indicates and measure the distance between any points on the scale. (Sekaran & Bougie, 2010, p.143)

Likert Scale

The Likert scale is used to examine the degree of agree or disagree with the statement or items in the questionnaire. Subsequently, five-point and seven-point Likert scale are commonly used by researchers nowadays. However, a six-point Likert scale is used to measure the items of dependent as well as independent variables in Section B of questionnaire for this study.

Six-point Likert scales consist of six options (1 = Strongly Disagree; 2 = Disagree; 3 = Slightly Disagree; 4 = Slightly Agree; 5= Agree; 6 = Strongly Agree) to measure six construct of this study. For this study, all items for dependent variable as well as independent variables are adopted and modified from the study done by Lee (2008).

Moreover in Section A of the questionnaire, question five that asked on green purchase intention in the future is tested with a five-point Likert scales anchored from (1) “Definitely Will Not” to (5) “Definitely Will”. The item is adopted from Barua & Islam (2011). Continued with question six, a ten-point Likert scale to examine the willingness to pay more for green products of each category ranged from (0) “0%” to (10) “100%”. This question is a self-developed question for this study.

3.6 Data Processing

3.6.1 Questionnaire Checking

Questionnaire checking is the first steps in data preparation processing. Moreover, it is a continuous process that starts once the first questionnaire is received back from respondents till the end. The purpose to implement this step is to increase the accuracy and precision of the questionnaire by checking the completeness and interviewing quality of questionnaires returned. In addition to that, incorporate proactive correction actions once detect problems in questionnaire as earlier as before too many surveys have been completed. (Malhotra & Peterson, 2009, p.451) In the pilot test of this study, researcher manages to collect some comments and feedbacks from respondents. Thus, correction of errors and improvement has been done before too many questionnaires have been distributed out to respondents.

3.6.2 Data Editing

Data editing is the second steps after the questionnaire checking is done. Data editing refer to the process of reviewing and screening the questionnaire and then scrutiny or prepare the data to be processing. And hence improve the precision and accuracy of the questionnaires. For the part that is incomplete or unsatisfactory responses in questionnaire, it is usually corrected through the checking process. For instance, editor may tempt to insert a plug value for the incomplete surveys as corrective action. Nevertheless, unsatisfactory responses usually handled by omitting and discarding them. Editors also can impute a missing value based on respondent's choice on other questions. (Malhotra & Peterson, 2009, p.452; Zikmund et al., 2013)

3.6.3 Data Coding

Data coding is the process of categorize and assigning a code for each response to represent a specific question. In this study, there are several different codes being assigned by researchers. The codes for the questionnaire are allocated before being distributed to respondents. (Malhotra & Peterson, 2009; Zikmund et al., 2013) It is advised to use a coding sheet first or creating a data file before transcribes data into computer; it is easier for editor to record all data in computer with a proper manner. In this study, "fixed field coding" technique is required to record the data for open-ended questions in Section A. For instance, question two is asked about the age of respondents, and a standard codes are assigned for a particular age likes, 19 years old coded as "19" in SPSS.

There are several situations which require data transformation during data coding steps. Precisely to this study, reverse coding technique is needed as some of the items in the questionnaire are negatively tone. (Sekaran & Bougie, 2010) In this study, question three under attitude towards the environment is a negatively tone question and editor required to inverse the choice of respondents in order to maintain consistency in the meaning of response. For instance, "I think environmental protection is meaningless" and respondent choose (6) "Strongly Agree" but editor need to code (1) "Strongly Disagree" into SPSS.

3.6.4 Data Transcribing

Data transcribing is the next steps once checking and editing of data is done. Data transcribing involves transferring the coded data from questionnaire or coding sheet into computer by keypunching. For this study, three operators are in-charged to key-in the data into SPSS. This is to reduce the administrative errors. Besides, the accuracy of data entered is the main concern of this data entry job in this data transcribing step. Furthermore, greater accuracy of data

entry can be achieve via computer technology nowadays such as, transcribe data by using optical scanning, computer sensory analysis and other research analysis application software such as CATI and CAPI. (Malhotra & Peterson, 2009, p.459)

3.6.5 Data Cleaning

Data cleaning is the last step of the whole data processing process. Data cleaning method is used to make consistency checks and treatment of missing responses. By implement this consistency check by using computer program, a more comprehensive and broad checking on the data can be done. (Malhotra & Peterson, 2009) Unreliable data such as out-of-range data, extreme value, and logically inconsistent data can be detected in this data cleaning step. Therefore, researcher should pay attention on these data and treat it with extra care in order to maintain the consistency and accuracy of the data for this study.

3.7 Data Analysis

SPSS was used in this study to analyze the 320 copies of data from respondent. Researchers also used Microsoft Word 2010 to tabulate the raw data for descriptive analysis purpose.

3.7.1 Descriptive Analysis

Descriptive analysis is to analyze those data which collected from target respondent, and describe it in a meaningful way. Furthermore, the main objectives of descriptive analysis are simplifying and describing the analyzing process in a simpler way. The main reason that researchers decided to use this descriptive analysis because researchers could interpret the data in a more

meaningful way and researchers intend to further analyze the result's Part A from the questionnaire survey to discuss whether these data are related to this study or not. Generally, there are two types of method to analyze the raw data. The types of the method adopted in this study which are measure of central tendency and measures of spread. In this study, researchers will be using various types of tabulated description, graphical description and also statistical description to interpret the data.

3.7.2 Reliability Test

Reliability test was applied in this study, this is because to find out the level of consistency. Internal consistency of a study is important due to its represented the questions survey whether is significant and related to this study or not. Cronbach Alpha and Coefficient Alpha usually is the scale measurement to test the reliability of this study. According to Sekaran (2003) the value of which close to "+1" it means it has a high internal consistency with that study. In addition, refer to Hair, Babin, Money and Samouel (2003) Cronbach's Alpla rule of thumb, when value of Cronbach Alpha is more than 0.7 then it is only considered as good of strength of association. Table 3.2 will further describe the others values result of Cronbach Coefficient Alpha values and the strength of association. Additionally, items used in this research should be re-inspected or recheck to ensure they measure different aspects of the concept if the Alpha Coefficient value greater than 0.95.

Table 3.2: Rules of Thumb about Cronbach's Alpha Coefficient Size

Alpha Coefficient Range	**Strength of Association**
< 0.6	Poor
0.6 to < 0.7	Moderate
0.7 to < 0.8	Good
0.8 to < 0.9	Very Good
0.9	Excellent

Source: Hair, J., Babin, B., Money, A. H., & Samouel, P. (2003). *Essential of business research methods.* United States, Leyh Publishing.

3.7.3 Inferential Analysis

Trochim (2006) defined inferential statistics as obtaining the raw data from the population and further analyze those data to examine what is the actual thought from them. Moreover, researchers might be using inferential analysis to make judgments and to examine the differences between the variables. (Trochim, 2006) The purpose of using inferential analysis in this study is to make the raw data to be more generalize from a sample to the population. Generally, Chi -Square, Multiple Linear Regression and confidence Interval are the examples for interpreting the inferential statistic. In this study, researchers will use Multiple Linear Regression and Pearson Correlation Coefficient to interpret the raw data.

Pearson Correlation to Coefficient

Pearson Correlation Coefficient is to measure two variables whether there are significant associations between the two variables, plus the two variables must be in metric scale. Pearson Correlation Coefficient ranging from "-1" to "+1" to examine the linear relationship between the variables. Value "-1" is represented as variables are perfect negative linear relationship, and value "+1" which means variables are having a perfect linear relationship. Value "0" is which mean there is no relationship between the variables. Generally, continuous dependent variable and continuous independent variable are measure by Pearson Correlation. Hence, this study will adopt Pearson Correlation to test the strength of relationship.

Multiple Regression Analysis

Refer to Zikmund (2003), Multiple Regressions is a statistical technique that test the significant relationship between independent variables and dependent variable. Furthermore, there is some condition where to use this technique to test the relationship. First, both of independent variables and dependent variables must be metric values. Yet, if one of the independent variables is not metric values, then it must be converting to metric values and its name as dummy variables. It is the simultaneous combination of multiple factors to access how and to what extent they affect a certain outcome. Multiple Regression analysis can used to identify whether the independent variables have impact on dependent variables.

3.8 Conclusion

In conclusion, this chapter included the overview of the research methodology for this study. The methodology is being described in detail in term of the appropriate research design, data collection method, sampling design for the respondent of this study, research instrument, construct measurement, data processing and data analysis. For the next chapter, the data and result collected from respondents for this study will be interpreted and analyze for the hypothesis testing and identify the relationship between variables through descriptive and inferential analysis.

CHAPTER 4: DATA ANALYSIS

4.0 Introduction

In this chapter, data collected by questionnaire distribute to respondents are gathered and analyzed using the SPSS. Figures and tables are used to present the patterns of the results and analyzes of the results from the data collected. Descriptive analysis, scale measurement and inferential analysis are used to analyze the data for this study.

4.1 Descriptive Analysis

4.1.1 General Information of the Respondents

Table 4.1 show the statistic result for general information of respondent data for this study. According to the table, items such as gender, age, green products ever purchased and willingness to pay more are those items with full valid respondent data and without any missing data. However, there are 15 incomplete respondent data for the item of monthly allowance and 5 missing data for green purchase intention out of 320 respondents in total.

Table 4.1: Statistics for General Information of the Respondent Data

Statistics

		Gender	Age	Monthly Allowance	Green Products Ever Purchased	Green Purchase Intention	Willingness to Pay More
N	**Valid**	320	320	305	320	315	320
	Missing	0	0	15	0	5	0

Source: Self developed for this study

Refer to the table 4.2 below, it shows 60% of respondents is female business school students while the remaining 40% is male. Besides that, the mean age for the 320 respondents is 20.93, which is approximately to age 21. In the table of age and monthly allowance showed that the youngest respondent on this study is age 19 and the eldest respondent is age 26. Next, the minimum monthly allowance that this study obtained from the particular respondent is RM50 and the maximum allowance is RM1, 500. Based on the overall allowance from 320 respondents, the mean for monthly allowance is RM542.59.

Table 4.2 Frequency Statistic of Respondent Characteristic

Gender

Gender	Frequency	Percentage
Male	128	40.0
Female	192	60.0
Total	320	100.0

Age and Monthly Allowance

	Minimum	Maximum	Mean	Standard Deviation
Age	19	26	20.93	1.133
Monthly Allowance (RM)	50	1500	542.59	292.162

Sources: Self developed for this study

Green Products Ever Purchased

The result was projected from 320 respondents. From the result projected, its shows that only very least amount of respondent were bought vehicles. The result shows that only 6.2% of respondents are purchase vehicles before. The remaining 93.8% of respondents are never bought before. Next it shows that there is a small group of respondents were bought electrical appliances before. Refer to the result it only had 19.7% respondents out of 320 were purchased electrical appliances before. Yet, the remaining 80.3% respondents did not purchase any electrical appliances.

Furthermore, daily household product it is showing there is least respondents purchase daily household product. From the result that projected, it is shows that only 15.6% respondents were purchased daily household product. While, the remaining 84.4% of respondents were not been purchase any daily household product.

Moreover, that is also a small partial of respondents which are contained 24.4% respondents out of 320 respondents were purchased personal care products in the previous time. And the remaining 75.6% of respondents were not purchase the personal care products. Results also showed that almost half of the respondents had bought organic & green foods in their previous time. Based on the table 4.2 shows that 40.3% respondents were bought organic & green goods and the remaining 59.7% respondent were not purchase any of organic & green foods.

Refer to the table 4.3, there are shows there are very few respondent which were purchased apparels before, it is only 5% respondent were purchased in their previous time and the others 95% were not purchase any apparels. Lastly, the result from the table shows that 65% of respondent were bought any green products; however there a 35% respondents were not bought green products.

Table 4.3: Frequency Statistics of Green Products Ever Purchased.

	Frequency (N)	**Percentage (%)**
(a) Vehicles		
1.Yes	20	6.2
2. No	300	93.8
(b) Electrical Appliances		
1.Yes	63	19.7
2. No	257	80.3
(**c) Daily Household Products**		
1.Yes	50	15.6
2. No	270	84.4
(d) Personal Care Products		
1.Yes	78	24.4
2. No	242	75.6
(e) Organic & Green Foods		
1.Yes	129	40.3
2. No	191	59.7
(f) Apparels		
1.Yes	16	5.0
2. No	304	95.0
(g) Never bought any green products before		
1.Yes (Never bought before)	112	35.0
2. No (Purchased before)	208	65.0

Sources: Self developed for this study

Green Purchase Intention

According to the table 4.4, the green purchase intention for Generation Y consumer is ranged from the lowest of 0.3% that consumers definitely will not purchase green product in future, to the highest percentage rate in which 63.2% of consumer probably will purchase green product in future. Additionally, the result of mean score for consumer likeliness to purchase green product in future is 3.79 (m=3.79).

Table 4.4: Frequency Statistics of Likely to Purchase Green Product in Future

Item	Frequency	Valid Percent	Cumulative Percent
Definitely will not	1	.3	.3
probably will not	7	2.2	2.5
Only if it is necessary with no other choice	79	25.1	27.6
Probably will	199	63.2	90.8
Definitely will	29	9.2	100.0
Total	315	100.0	
Mean	3.79		
Standard Deviation	0.645		

Sources: Self developed for this study

Willingness to Pay More – Vehicles

According to the Table 4.5 below, majority of the respondents willing to pay as 50% more when purchasing green vehicles or eco-friendly vehicles, as many as 19.4% out of total amount of 320 respondents for this study. Furthermore, average mean of willingness to pay more for vehicles is 46% (m=4.60).

Table 4.5: Frequency Statistics of Willingness to pay more for Vehicles

	Frequency	**Percent**	**Cumulative Percent**
0%	10	3.1	3.1
10% more	34	10.6	13.8
20% more	36	11.3	25.0
30% more	37	11.6	36.6
40% more	29	9.1	45.6
50% more	62	19.4	65.0
60% more	36	11.3	76.3
70% more	25	7.8	84.1
80% more	31	9.7	93.8
90% more	10	3.1	96.9
100% more	10	3.1	100.0
Total	320	100.0	
Mean	4.60		
Standard Deviation	2.547		

Source: Self developed for this study

Willingness to Pay More - Electrical Appliances

As refer to the Table 4.6, majority of the respondents willing to pay as 50% more when purchasing green electrical appliances, as many as 17.2% out of total amount of 320 respondents for this study. Furthermore, average mean of willingness to pay more for electrical appliances is 50.2% (m=5.02).

Table 4.6: Frequency Statistics of Willingness to Pay More for Electrical Appliances

	Frequency	**Percent**	**Cumulative Percent**
0%	7	2.2	2.2
10% more	23	7.2	9.4
20% more	36	11.3	20.6
30% more	35	10.9	31.6
40% more	23	7.2	38.8
50% more	55	17.2	55.9
60% more	38	11.9	67.8
70% more	42	13.1	80.9
80% more	39	12.2	93.1
90% more	14	4.4	97.5
100% more	8	2.5	100.0
Total	320	100.0	
Mean	5.02		
Standard Deviation	2.511		

Source: Self developed for this study

Willingness to Pay More - Daily Household Products

Table 4.7 below show that, majority of the respondents willing to pay as 50% more when purchasing green daily household products, as many as 15% out of total amount of 320 respondents for this study. Furthermore, average mean of willingness to pay more for daily household products is 49.3% (m=4.93).

Table 4.7: Frequency Statistics of Willingness to Pay More for Daily Household Products

	Frequency	**Percent**	**Cumulative Percent**
0%	10	3.1	3.1
10% more	25	7.8	10.9
20% more	41	12.8	23.8
30% more	27	8.4	32.2
40% more	25	7.8	40.0
50% more	48	15.0	55.0
60% more	41	12.8	67.8
70% more	46	14.4	82.2
80% more	38	11.9	94.1
90% more	13	4.1	98.1
100% more	6	1.9	100.0
Total	320	100.0	
Mean	4.93		
Standard Deviation	2.551		

Source: Self developed for this study

Willingness to Pay More - Personal Care Products

Based on the result in Table 4.8, majority of the respondents willing to pay as 70% more when purchasing green personal care products, as many as 14.4% out of total amount of 320 respondents for this study. Furthermore, average mean of willingness to pay more for personal care products is 53.3% (m=5.33).

Table 4.8: Frequency Statistics of Willingness to Pay More for Personal Care Products

	Frequency	**Percent**	**Cumulative Percent**
0%	8	2.5	2.5
10% more	22	6.9	9.4
20% more	34	10.6	20.0
30% more	33	10.3	30.3
40% more	25	7.8	38.1
50% more	41	12.8	50.9
60% more	30	9.4	60.3
70% more	46	14.4	74.7
80% more	36	11.3	85.9
90% more	30	9.4	95.3
100% more	15	4.7	100.0
Total	320	100.0	
Mean	5.33		
Standard Deviation	2.728		

Source: Self developed for this study

Willingness to Pay More - Organic & Green Foods

According to the Table 4.9, majority of the respondents willing to pay as 50% and 80% more when purchasing organic and green foods, as many as 15% for each percentage (50% & 80%) out of total amount of 320 respondents for this study. Furthermore, average mean of willingness to pay more for organic and green foods is 56.4% (m=5.64).

Table 4.9: Frequency Statistics of Willingness to Pay More for Organic & Green Foods

	Frequency	**Percent**	**Cumulative Percent**
0%	10	3.1	3.1
10% more	20	6.3	9.4
20% more	28	8.8	18.1
30% more	28	8.8	26.9
40% more	23	7.2	34.1
50% more	48	15.0	49.1
60% more	20	6.3	55.3
70% more	35	10.9	66.3
80% more	48	15.0	81.3
90% more	36	11.3	92.5
100% more	24	7.5	100.0
Total	320	100.0	
Mean	5.64		
Standard Deviation	2.851		

Source: Self developed for this study

Willingness to pay more – Apparels

As shown as in Table 4.10, majority of the respondents willing to pay as 50% more when purchasing green apparels, as many as 20% out of total amount of 320 respondents for this study. Furthermore, average mean of willingness to pay more for apparels is 40.9% (m=4.09)

Table 4.10: Frequency Statistics of Willingness to Pay More for Apparels

	Frequency	**Percent**	**Cumulative Percent**
0%	16	5.0	5.0
10% more	43	13.4	18.4
20% more	38	11.9	30.3
30% more	44	13.8	44.1
40% more	26	8.1	52.2
50% more	64	20.0	72.2
60% more	32	10.0	82.2
70% more	27	8.4	90.6
80% more	21	6.6	97.2
90% more	6	1.9	99.1
100% more	3	.9	100.0
Total	320	100.0	
Mean	4.09		
Standard Deviation	2.418		

Source: Self developed for this study

4.1.2 Central Tendencies Measurement of Constructs

In this part, central tendencies are measured to find out the mean score for six intervals scaled constructs. A total of 33 items with its mean value were obtained from SPSS output. All the constructs were tapped on a 6-point Likert scale with 1 representing "Strongly Disagree" and 6 representing "Strongly Agree".

Environmental Concern

Based on the table 4.11 below, the range of the mean is from the range 3.9094 to 4.7625. While the highest mean in the construct of environmental concern is 4.7625 which is the statement "I am worried about the worsening of the quality of our environment." On the other hand, the lower mean in the construct is the statement "I am emotionally involved in environmental protection issue in Malaysia." It has the mean of 3.9094.

Table 4.11: Central Tendencies Measurement of Constructs – Environmental Concern

Statement	Strongly Disagree	Moderately Disagree	Slightly Disagree	Slightly Agree	Moderately Agree	Strongly Agree	Mean	Standard Deviation
I am worried about the worsening of the quality of our environment.	0.3	1.6	1.9	35.9	38.4	21.9	4.7625	0.88871
My major concern is Malaysia's environment.	2.8	3.4	12.2	48.8	25.0	7.8	4.1312	1.03009
I am emotionally involved in environmental protection issue in Malaysia.	0.9	5.6	16.9	56.9	17.5	2.2	3.9094	0.85715

I often think about how the environmental quality in Malaysia can be improved.	1.3	4.4	15.9	47.2	22.2	9.1	4.1188	1.01012

Source: Self developed for this study

Perceived Environmental Responsibility

Based on the table 4.12 below, the range of the mean is from the range 3.9687 to 4.7000. While the highest mean in the construct of perceived environmental responsibility is 4.7000 which is the statement "I should be responsible for protecting our environment." On the other hand, the lower mean in the construct is the statement "I have taken responsibility for environmental protection since I was young." with the mean 3.9687.

Table 4.12: Central Tendencies Measurement of Constructs – Perceived Environmental Responsibility

Statement	Strongly Disagree	Moderately Disagree	Slightly Disagree	Slightly Agree	Moderately Agree	Strongly Agree	Mean	Standard Deviation
Environmental protection is the responsibility of the Malaysian government, not me.	3.8	6.3	9.4	30.3	28.8	21.6	4.3875	1.29860
Environmental protection is the responsibility of the environmental organizations, not me.	0.9	3.8	10.0	30.0	31.3	24.1	4.5906	1.12449
I should be responsible for protecting our environment	0.6	0.3	4.1	36.9	39.7	18.4	4.7000	0.86955

Environmental protection starts with me.	1.6	1.9	9.4	40.9	28.8	17.5	4.4594	1.04367
I think I have responsibility in protecting the environment in Malaysia.	0.6	0.9	4.4	35.9	40.6	17.5	4.6750	0.88915
I have taken responsibility for environmental protection since I was young.	2.2	4.1	19.7	48.1	20.6	5.3	3.9687	0.98847
I am willing to take up responsibility to protect the environment in Malaysia.	0.3	1.9	5.9	41.6	38.8	11.6	4.5125	0.86729

Source: Self developed for this study

Attitude towards the Environment

Based on the table 4.13 below, the range of the mean is from the range 4.6125 to 5.2031. While the highest mean in the construct of attitude towards the environment is 5.2031 which is the statement "I think environmental protection is meaningless." On the other hand, the lower mean in the construct is the statement "It is essential to promote green living in Malaysia." with the mean 4.6125.

Table 4.13: Central Tendencies Measurement of Constructs – Attitude towards the Environment

Statement	Strongly Disagree	Moderately Disagree	Slightly Disagree	Slightly Agree	Moderately Agree	Strongly Agree	Mean	Standard Deviation
Environmental protection works are simply a waste of money and resources.	0.9	1.9	5.3	19.4	37.8	34.7	4.9531	1.03587
Environmental protection issues are none of my business.	0.3	2.8	3.4	16.3	35.6	41.6	5.0875	1.00711
I think environmental protection is meaningless.	0.3	2.2	4.1	13.8	29.7	50.0	5.2031	1.00437
It is unwise for Malaysia to spend a vast amount of money on promoting environmental protection.	1.3	3.4	7.2	21.6	32.5	34.1	4.8281	1.15227
It is essential to promote green living in Malaysia.	1.6	4.1	7.8	26.6	38.1	21.9	4.6125	1.12530
I strongly agree that more environmental protection works are needed in Malaysia.	0.9	1.6	2.2	25.6	35.9	33.8	4.9531	0.98626
It is very important to raise environmental awareness among Malaysians.	0.6	1.6	3.4	20.3	40.0	34.1	4.9969	0.96164

Source: Self developed for this study

Environmental Knowledge

Based on the table 4.14 below, the range of the mean is from the range 3.6500 to 4.5406. While the highest mean in the construct of environmental knowledge is 4.5406 which is the statement "I can explain what is meant by recycling." On the other hand, the lower mean in the construct is the statement "I am very knowledgeable in knowing what to do to protect the environment." with the mean 3.6500.

Table 4.14: Central Tendencies Measurement of Constructs – Environment Knowledge

Statement	Strongly Disagree	Moderately Disagree	Slightly Disagree	Slightly Agree	Moderately Agree	Strongly Agree	Mean	Standard Deviation
I am very knowledgeable in knowing what to do to protect the environment.	0.6	9.1	28.4	49.4	11.6	0.9	3.6500	0.85793
I know what is meant by hybrid technology.	1.9	6.9	18.4	43.8	23.4	5.6	3.9688	1.04400
I know what is meant by renewable energy sources.	0.6	4.1	11.3	43.1	31.9	9.1	4.2875	0.96579
I can explain what is meant by recycling.	0.3	2.2	6.3	39.7	37.5	14.1	4.5406	0.90881
I can list a few types of action to protect the environment in our daily lives.	0.3	1.9	8.8	47.8	32.8	8.4	4.3625	0.85271
I often read to absorb more information about how to save the environment.	2.2	6.9	27.2	42.5	16.9	4.4	3.7813	1.02123

Source: Self developed for this study

Awareness of Environmental Problems

Based on the table 4.15 below, the range of the mean is from the range 4.5094 to 4.8281. While the highest mean in the construct of awareness of environmental problems is 4.8281 which is the statement "I am aware that Malaysia's environmental problems are affecting our health." On the other hand, the lower mean in the construct is the statement "I am aware that there is urgent need to tackle Malaysia's environmental problem." with the mean 4.5094.

Table 4.15: Central Tendencies Measurement of Constructs – Awareness of Environmental Problems

Statement	Strongly Disagree	Moderately Disagree	Slightly Disagree	Slightly Agree	Moderately Agree	Strongly Agree	Mean	Standard Deviation
I am aware that Malaysia's environmental problems are worsening.	0.6	0.3	7.2	43.1	34.4	14.4	4.5344	0.88105
I am aware that there is urgent need to tackle Malaysia's environmental problem.	0	1.6	7.5	42.5	35.3	13.1	4.5094	0.87094
I am aware that Malaysia's environmental problems are affecting our health.	0	0.6	6.6	28.4	38.1	26.3	4.8281	0.91581
I am aware that Malaysia's environmental problems are threatening the reputation of Malaysia.	0	0.9	10.0	37.8	35.0	16.3	4.5563	0.91142
I aware that Malaysia's environmental problems are serious.	0.3	1.3	7.2	31.3	37.8	22.2	4.7156	0.95202

Source: Self developed for this study

Green Purchase Behavior

Based on the table 4.16 below, the range of the mean is from the range 3.5344 to 4.8281. While the highest mean in the construct of green purchase behavior is 4.8281 which is the statement "I prefer green products over non-green products when their product qualities are similar." On the other hand, the lower mean in the construct is the statement "When I want to buy a product, I look at the ingredients label to see if it contains things that are environmentally damaging." with the mean 3.5344.

Table 4.16: Central Tendencies Measurement of Constructs – Green Purchase Behavior

Statement	Strongly Disagree	Moderately Disagree	Slightly Disagree	Slightly Agree	Moderately Agree	Strongly Agree	Mean	Standard Deviation
When I want to buy a product, I look at the ingredients label to see if it contains things that are environmentally damaging.	2.8	12.5	33.8	35.0	11.3	4.7	3.5344	1.08513
I prefer green products over non-green products when their product qualities are similar.	0.6	3.1	11.3	41.9	31.9	11.3	4.3500	0.97105
I buy green products even if they are more expensive than the non-green ones.	0.6	3.1	11.3	41.9	31.9	11.3	3.6469	1.04910
I choose to buy products that are environmentally-friendly.	0.6	3.4	9.7	50.0	28.1	8.1	4.2594	0.91225

Source: Self developed for this study

4.2 Scale Measurement

Table 4.17 represents the result of reliability from the Cronbach's Alpha test. A total of thirty three items included and six relevant constructs are inserted to analyst and measure the internal reliability of this study. According to Malhotra and Peterson (2009), items of each construct would consider as unsatisfactory internal-consistency reliability as the Cronbach's Alpha value score is less or equal to 0.60. In other words, Cronbach's Alpha value of any constructs that is close to or greater than 0.60 are acceptable as reliable. Therefore, the final result revealed that all the six constructs included in this study is accepted and appear to have considerable qualities as the internal reliabilities of each constructs is falls within the ranged of lowest (0.682) to highest (0.886). Additionally, construct of awareness of environmental problem score the highest coefficient reliability value (0.886) whereas environment concern (0.682) being the least among the six constructs.

Table 4.17: Reliability Test

Construct	Cronbach's Alpha	No. of Items	Ranking
Environment Concern	0.682	4	6
Perceived Environment Responsibility	0.828	7	3
Attitude towards the Environment	0.837	7	2
Environmental Knowledge	0.811	6	4
Awareness of Environmental Problem	0.886	5	1
Green Purchase Behavior	0.783	4	5

Source: Self developed for this study

4.3 Inferential Analysis

4.3.1 Pearson Correlation Test

Table 4.18: Correlation between Environmental Concern, Perceived Environmental Responsibility, Attitude towards the Environment, Environmental Knowledge, Awareness of Environmental Problems, and Green Purchase Behavior

Correlations

		AVEC	AVPER	AVATE	AVEK	AVAEP	AVGPB
AVEC	Pearson Correlation	1					
	Sig. (2-tailed)						
AVPER	Pearson Correlation	.490**	1				
	Sig. (2-tailed)	.000					
AVATE	Pearson Correlation	.413**	.530**	1			
	Sig. (2-tailed)	.000	.000				
AVEK	Pearson Correlation	.420**	.440**	.273**	1		
	Sig. (2-tailed)	.000	.000	.000			
AVAEP	Pearson Correlation	.492**	.469**	.487**	.492**	1	
	Sig. (2-tailed)	.000	.000	.000	.000		
AVGPB	Pearson Correlation	.440**	.386**	.162**	.466**	.344**	1
	Sig. (2-tailed)	.000	.000	.004	.000	.000	

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

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

N = 320

Source: Self developed for this study

AVEC = Environmental Concern

AVPER = Perceived Environmental Responsibility

AVATE = Attitude towards the Environment

AVEK = Environmental Knowledge

AVAEP = Awareness of Environmental Problems

AVGPB = Green Purchase Behavior

Based on table 4.18, it is the result of the Person Correlation Matrix which environmental concern, perceived environmental responsibility, attitude towards the environment, environmental knowledge, awareness of environmental problem are significantly positive correlated with green purchase behavior. Among these variables the strongest significant association with green purchase behavior is environmental knowledge with $r = 0.466$ at $p < 0.05$. Next strongest positive association is environmental concern with $r = 0.44$, $p < 0.05$. Lastly, the weakest association among the variables with green purchase behavior is attitude towards the environmental with $r = 0.162$ at $p < 0.05$.

4.3.2 Multiple Regression Analysis

Based on the table of 4.19, the coefficient of determination (R Square/ R^2) in model summary is 0.316 for the examined regression model. In other words, it is show that there is 31.6% of dependent variable (green purchase behavior) is explained by independent variables (environmental concern, perceived environmental responsibility, attitude towards the environment, environmental knowledge and awareness of environmental problems).

In addition, the F value in ANOVA table is aim to examine the overall statistical significance of the regression model. (Zikmund et al, pp570, 2010) In this research, the F value is 29.030 at the significant level of 0.05.

Furthermore, in the coefficient table can assists to examine which variable is most influential among the five independent variables. Based on the coefficients table it shows that the most influential predictor towards green purchase behavior is environmental knowledge which had highest beta value 0.287 among the other variables. Next, the least influential predictor is awareness of environmental problem which had lowest beta value 0.63 compared to others variable.

The unstandardized coefficient beta for constant is 0.77, environmental concern is 0.301, perceived environmental responsibility is 0.20, attitude towards the environment is -0.131, environmental knowledge is 0.332 and awareness of environmental problem is 0.066. Hence, the Multiple Regression equation is shown as below:

Green Purchase Behavior = 0.77 (constant) + 0.301 (Environmental Concern) + 0.20 (Perceived Environmental Responsibility) – 0.131 (Attitude towards the Environment) + 0.332 (Environmental Knowledge) + 0.066 (Awareness of Environmental Problem)

Table 4.19: Output of Multiple Regression Analysis

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.562[a]	.316	.305	.65325

a. Predictors: (Constant), AVAEP, AVPER, AVEK, AVEC, AVATE

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	61.941	5	12.388	29.030	.000[b]
	Residual	133.994	314	.427		
	Total	195.936	319			

a. Dependent Variable: AVGPB

b. Predictors: (Constant), AVAEP, AVPER, AVEK, AVEC, AVATE

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.770	.298		2.582	.010
	AVEC	.301	.067	.261	4.489	.000
	AVPER	.200	.067	.183	2.981	.003
	AVATE	-.131	.051	-.151	-2.580	.010
	AVEK	.332	.066	.287	5.061	.000
	AVAEP	.066	.064	.063	1.024	.307

a. Dependent Variable: AVGPB

Source: Self developed for this study

4.3.3 Hypothesis Testing

Table 4.20: Summary Result of Research Hypothesis

Hypothesis	Standardized Coefficients Beta	Significant Level	Result
H1: There is a significant positive relationship between environmental concern and green purchase behavior.	.261	.000	Supported
H2: There is a significant positive relationship between perceived environmental responsibility and green purchase behavior.	.183	.003	Supported

H3: There is a significant positive relationship between attitude towards the environment and green purchase behavior.	-.151	.010	Supported
H4: There is a significant positive relationship between environmental knowledge and green purchase behavior.	.287	.000	Supported
H5: There is a significant positive relationship between awareness of environmental problem and green purchase behavior.	.063	.307	Not Supported

Source: Self developed for this study

According to the table 4.20, the hypothesis of H1, H2, H3 and H4 are supported at significant 0.05 levels. However, the H5 is not supported based on the p-value is 0.307 which is greater than significant level of 0.05. Therefore, it is accept H0, reject H1 that is no significant positive relationship between awareness of environmental problem and green purchase behavior.

4.4 Conclusion

In conclusion, this chapter consists of data analysis for all the data collected from the questionnaire. The analysis used for this chapter are the descriptive analysis which is used to analyze the respondent demographic profile and central tendencies measurement of constructs, the scale measurement which provides the outcome of reliability analysis and last but not least the inferential analysis which used the Pearson Correlation Coefficient and Multiple Linear Regression to examine the relationship between variables. With the data and results obtained, the next chapter will include a summary of the statistical analysis, discussion of major findings, implications and limitations of the study and also recommendation for future research.

CHAPTER 5: DISCUSSION, CONCLUSION AND IMPLICATION

5.0 Introduction

In this chapter, discussion, implication and conclusion for this study will be made based on the data and results obtain from the previous chapter. In this chapter, the summary of statistical analysis will be made, followed by the discussion of major findings, managerial implications, limitation and recommendation for future research. An overall conclusion of this whole study will be made at the end of this chapter.

5.1 Summary of Statistical Analyses

5.1.1 Descriptive Analysis

General Information of Respondents

The demographic profile analysis shows that there are 192 female students and 128 male students participated in this study. The minimum age for respondents is 19 years old whereas the maximum age is 26 years old, and the mean age of the respondent for this study is 21 years old. The monthly allowance received by the respondents is having an average of RM542.59, with the minimum amount of RM50 and the maximum amount of RM1, 500.

Most of the respondents have purchased green product before. This group of people consists of 208 respondents. Among all the product categories, most of the respondents (129 respondents) purchased from the category of organic and green food before. They mostly purchased vegetables, followed by fruits and thirdly are oat in this category. The second category that respondents purchased before is the personal care product. 78 students had purchase green

personal care, and they mostly purchased skin care products, followed by facial cleanser and shampoo. For the third category that respondent purchased before is the green electrical appliances. 63 respondents had purchase green electrical appliances and generally they mostly buy LED light bulb, secondly is the air conditioner and thirdly is the refrigerator. Next category is green daily household product. Only 50 respondents had purchase green product of this category. The green products that most of the respondents purchased from this category are detergent, followed by recycling bag and the dish and floor cleanser. As for the vehicle category, only 20 respondents had make purchase of the green vehicle, and they mostly buy hybrid car, next is electronic bicycle (e-bike) and thirdly is the natural gas vehicle (NGV). Category with the least number of purchasing experienced by respondents is the green apparels. Only 16 respondents purchased before and the products that they mostly purchase are shirts and jerseys and the following by jeans.

For the green purchase intention of the respondents, result revealed that the average green purchase intention of 320 respondents for this study is scored with the mean of 3.7873, which can describe as they probably will buy green products in future.

The next part is examining the respondent's willingness to pay for the green product in relation to non-green products for the six green product categories of this study. For green vehicles, averagely respondents are willing to pay 46% (m=4.6000) more for green vehicles compare to fuel motorcars. For the electrical appliances, respondents are willing to pay 50.21% (m=5.0219) more for electrical appliances that are more environmental-friendly. As for the daily household product, respondents are agree to pay 49.28% (m=4.9281) more for the green daily household product. Next, for the personal care product, respondents are willing to pay 53.25% (m=5.3250) more when they purchase green personal care product care product. While for the organic and green food, respondents willing to purchase organic and green product that priced 56.4% (m=5.6406) more expensive than the non-green food. Lastly for the

apparels category, the respondents are willing to pay 40.87% (m=4.0875) more for the green apparels compare to non-green apparels.

Central Tendencies Measurement of Constructs

Overall, there are six construct in this study. The environment concern construct has the average mean of 4.2305 which show that target respondent is concern about the environment. However, it is still not crucial that lead changing in the current practice of target respondent's purchasing behavior. Next, the data collected in the construct of perceived environmental responsibility show that average mean score of 4.4705($\bar{x}$=4.4705). This indirectly picture out target respondent had realized about their responsibility toward the environment. However, most of the target respondent does not practice or taken their responsibility in environmental protection. On the other hand, the data collected for attitude towards environment which has the average mean, $\bar{x}$=4.9478 is demonstrates the attitude of target respondent toward the protection of the environment is favorable and hence also shows they support any green activities which will help protect or enhance the environment condition. In addition, the environment knowledge constructs with the average mean of 4.0984 projects that the target respondent do has some rough environment knowledge due they less take initiative to read about environment related information. Moreover, target responder is aware about the environmental problem in Malaysia via the data collected for the construct of awareness of environmental problem ($\bar{x}$=4.6288). By going through green purchase behavior construct, green purchase achieve an average mean of 3.9477, and this is still considering by target respondent however it still depend on certain factor like price.

5.1.2 Scale Measurement

According to the result of measuring the thirty three items for this study, all of the six construct are accepted as reliable. Furthermore, awareness of environmental problem is having the highest Cronbach's Alpha value which is 0.886. The second is the attitude towards the environment with the Cronbach's Alpha value of 0.837. Thirdly is the perceived environmental responsibility with Cronbach's Alpha value of 0.828 followed by the environmental knowledge with the Cronbach's Alpha value of 0.811 and the green purchase behavior with the Cronbach's Alpha value of 0.783. Environmental concern is having the lowest Cronbach's Alpha value which is 0.682.

5.1.3 Inferential Analysis

Pearson Correlation Test

The correlation value of this study significant at the level of 0.05, it shows a significant association between variables if the value is $p < 0.05$.As the result shows that all the constructs in this study is having a positive associations, this mean that for all variables the increase of one variable will lead to an increasing of another variable. For this study, the association between environmental knowledge and green purchase behavior is the strongest with the correlation value of 0.466. This means that the increasing in respondent's knowledge will lead to the largest increase in their green purchase behavior. Among the independent variables, the weakest association is occurred between attitude towards the environment and green purchase behavior with correlation value of 0.162

Multiple Regression Analysis

On this study it found that other external factors which not tested on this study might be affected to green purchase behavior. This can be explained by R Square on this study, R square on this study is 0.316. This means that only 31.6% of the variance of the green purchase behavior of the respondents can be explain by the five independent variables which is environmental concern, perceived environmental responsibility, attitude towards the environment, environmental knowledge and awareness of environmental problems. Then, the remaining 68.4% might be explained by others factors which not included on this study.

Next, the strongest predictor for green purchase behavior is the environmental knowledge (β=0.287) and the weakest predictor of the green purchase behavior is the awareness of environmental problem (β = 0.63).

The Multiple Regression equation is as follow:

Green Purchase Behavior = 0.77 (constant) + 0.301 (Environmental Concern) + 0.20 (Perceived Environmental Responsibility) – 0.131 (Attitude towards the Environment) + 0.332 (Environmental Knowledge) + 0.066 (Awareness of Environmental Problems)

The Multiple Regression equation above shows the effect of the independent variables towards the dependent variables. The equation shows that environmental concern is having a regression coefficient of 0.301. This indicates that the green purchase behavior of respondents will increase 0.301 units when the environmental concern in the respondents increased by 1 unit. As for the perceived environmental responsibility with 0.20 regression coefficient, the green purchase behavior of respondents will increase by 0.20 units when their perceived environmental responsibility increased 1 unit. The attitude towards environment with the regression coefficient of -0.131 will decrease the respondent's green purchase behavior by 0.131 units when the

attitude towards environment increased 1 unit. For environmental knowledge with regression coefficient of 0.332, it able to increase the green purchase behavior of respondents by 0.332 units when their environmental knowledge by 1 unit. Lastly, the awareness of environmental problems with the regression coefficient of 0.066 will affect the respondent's green purchase behavior to increase 0.066 units for each unit of awareness of environmental problem they added.

5.2 Discussion of Major Findings

Table 5.1: Summary of Result and Decision of Hypothesis Testing

Hypothesis	**Result**	**Decision (Accept / Reject)**
H1: There is a significant and positive relationship between environmental concern and green purchase behavior.	P= 0.000, (P<0.05) β= 0.261	Accept **H1**.
H2: There is a significant and positive relationship between perceived environmental responsibility and green purchase behavior.	P= 0.003, (P<0.05) β= 0.183	Accept **H2**.
H3: There is a significant and positive relationship between attitude towards the environment and green purchase behavior.	P= 0.010, (P<0.05) β= -0.151	Accept **H3**.
H4: There is a significant and positive relationship between environmental knowledge and green purchase behavior.	P= 0.000, (P<0.05) β= 0.287	Accept **H4**.

Source: Self-developed for this study.

H1: There is a significant and positive relationship between environmental concern and green purchase behavior.

Based on this study finding, there is a positive relationship between environmental concern toward green purchase behavior. This study is using P-value of 0.05 to test the hypothesis. Through the result of this study, it was revealed that environmental concern has a significant positive relationship on green purchase behavior (Beta= 0.261 at P-value =0.000). This result is similar to the study of Patricia Arttachariya (2012) that conducted in Bangkok, Thailand. Furthermore, there is various studies support the result of this study (Kim & Choi, 2005; Bang, et al., 2000). However, according to Baker and Ozaki (2008), green purchasing intention and behavior has no direct linkage with the environmental concern. Overall, the positive arguments are more than the negative arguments. Therefore, H1 of this study was supported and accepted.

H2: There is a significant and positive relationship between perceived environmental responsibility and green purchase behavior.

Based on this study finding, there is a positive relationship between perceived environmental responsibility toward green purchase behavior. This study is using P-value of 0.05 to test the hypothesis testing. Through the result of this study, it was revealed that perceived environmental responsibility has a significant positive relationship on green purchase behavior (Beta= 0.183 at P-value = 0.003). This result is supported by the study conducted by Irawan and Darmayanti (2012) in Jakarta, Indonesia. Furthermore, there is various studies support the result of this study (Nyborg et al., 2006; Hessami & Yousefi 2013). However, Lee (2009) claimed that there is a weak relationship between perceived environmental responsibility and green purchase behavior. Overall, the positive arguments are more than the negative arguments. Hence, H2 of this study was supported and accepted.

H3: There is a significant and positive relationship between attitude towards the environment and green purchase behavior.

Based on this study finding, there is a positive relationship between attitude towards the environment toward green purchase behavior. This study is using P-value of 0.05 to test the hypothesis testing. Through the result of this study, it was revealed that attitude towards the environment has a significant positive relationship on green purchase behavior (Beta = -0.151at P-value = 0.010). This result is similar with the study done by Schlegelmilch, Bohlen and Diamantopoulos (1996). Furthermore, there is various studies support the result of this study (Beckford et al., 2010; Cornelissen et al. 2008). However, Lee (2009) also found that Hong Kong adolescents' green purchasing behavior have weak associations with environmental attitude. Overall, the positive arguments are more than the negative arguments. Thus, H3 of this study was supported and accepted.

H4: There is a significant and positive relationship between environmental knowledge and green purchase behavior.

Based on this study finding, there is a positive relationship between environmental knowledge toward green purchase behavior. This study is using P-value of 0.05 to test the hypothesis testing. Through the result of this study, it was revealed that environmental knowledge has a significant positive relationship on green purchase behavior (Beta = 0.287 at P-value = 0.000). This result is similar with the study carried out by Irene Tilikidou (2007) that done on Greek respondents. Furthermore, there is various studies support the result of this study (Amyx et al., 1994; Rahbar & Abdul Wahid, 2010). On the other hand, one of the studies also argues that although lacks of environmental knowledge, one can still pursue environmental purchase behavior with their emotional involvement in environmental protection. (Henion & Wilson, 1976; Maloney & Ward, 1973) Overall, the positive arguments are more than the negative arguments. Hence, H4 of this study was supported and accepted.

5.3 Implications of the Study

The result of this study may lead to several implications for three of the managerial parties that mentioned earlier in chapter one of this research study. The managerial parties are the business, the marketer as well as the party members of government.

According to the six green products categories that provided in this study (vehicle or automobile, electrical appliances, household products, personal care products, organic and green foods, and also green apparels), businesses of these industries are benefited in term of their products manufacturing plan as well as their sustainability business strategic planning. Moreover, this studies able to assist in the planning and formulation of green business strategy integration for Sustainability Corporation or Multinational Corporation in Malaysia. They can use the result from this study as a reference and take into account of consideration during decision making section.

Based on the projection of result for this study, environmental knowledge is positively related to consumer green purchase behavior, which means that environment knowledge able to drive Generation Y consumers to purchase green products in Malaysia. This indicates that manufacturers or business persons must be able to enhance greater environmental or specific green product knowledge, in order to encourage green purchasing among Generation Y consumers. For instance, precisely to the category of automobile and vehicle, respondents of this study mostly purchased hybrid car. Therefore, our national car maker- Proton can capture this as guideline, try to develop public knowledge on hybrid technology and renewable energy in order to ease for their future launching of hybrid car in the coming years.

Meanwhile, the result of this study also point out that most of Generation Y consumers intended to purchase green products and purchased green products before, especially organic and green goods as well as personal care products. This hinted that is a great business opportunity and green product trend for business

persons. Thus, it is good to further invest and conduct business expedition in these businesses. For example, farmers in Malaysia can start to farm more organic fruits and vegetables since the demand is favorable and future growth is optimistic. Personal care product manufacturers also can further develop more product lines that are more natural and cause less harm to our environment.

Besides, marketer can also be benefited from the result of this study. Based on the results shows that attitude towards environments has significant positive relationship with green purchase behavior. Hence, this hinted marketer for skin care industry that Generation Y's attitude toward environment will lead them to purchase green products. Based on the result collected, skin care product is one of the green product that mostly purchased by target respondents. Thus, skin care industry marketer can put more effort to build corporate images and focus more on consumer social responsibility since Generation Y has favorable attitude toward environment. For instance, marketer can involve consumer in protecting the environment together with the firm. Skin care marketer can introduce green recollecting program by collecting back the skin care container and consumer can be discounted for any purchasing of green skin care product.

Nevertheless, the results also show that willingness to pay of respondent is varied based on different category of green product provided in this study. For instance, as mentioned in previous sub-chapter, majority of respondents willing to pay 50% more in green product category like vehicle, electrical appliances, and daily household product compared with non- green product. This results hint marketer about the willingness to pay more of Generation Y consumer in different category of product. Indirectly, marketer can refer this study to implement or plan their marketing strategies to differentiate from their competitors and create their own competitive advantage. With the results collected, marketer can modified their marketing mix (4P's) such as price elements in order to differentiate from their competitors. Marketer can set price higher with quality assurance in green product category like vehicle since target respondent willing to pay 50% more. While other product category can set differently compared with non-green product accordingly to the result collected.

Based on the result projected in chapter 4 of this study, it shows that perceived environmental responsibility is positive related to green purchase behavior. Besides that, the result projected is hinting government that current Generation Y are willing to take environmental responsibility within them self to protect Malaysia environment. Hence, our Ministry of Energy, Green Technology and Water (KeTTHA) can use this study as a reference to revise and implement a new green policy setting which include higher involvement with Generation Y to build up a clean environment with government together. For example, KeTTHA can organize more innovative green related competition like "Great KL Challenge" for the public with the aim to involve Generation Y in building up a clean environment together.

Moreover, this study also shows that environment concern from respondents is positive related to green purchase behavior. Thus, this can be interpreted as 320 respondents are having environmental concern towards Malaysia. Therefore, Department of Standard Malaysia can implement a new green manufacturing policy and develop a new green product standard for manufacturer by revising this study as reference, plus adopting some similar green manufacturing policy from other countries. Precisely to textile and apparels industry, South Korea is famous in green textile and apparels, and their green apparels standard is internationally certified. Hence, Department of Standard Malaysia should bring in the latest technology of green textile and apparels, and introduce to it our local businesses. Besides, revise and enhance our local green standard accordingly. By implement this, it able to enhance the green products quality, and at the same time it will also increase consumer's confidence level of purchase green apparels in Malaysia.

5.4 Limitation of the Study

Throughout the whole research process, there are several identified limitations for this study. And these limitations are majorly due to respondents, cost and time constraints which are unavoidable. As a result, this study may not as comprehensive due to the constraints encountered by the group.

At first, the target respondents for this research study only targeted to university students. Furthermore, this study only covered one ethnic group which is only Chinese respondents as the targeted respondent. As we know, Malaysia is a multiple races country, and Malay is the majority ethnic group followed by Chinese and Indian. In addition to that, most of the respondents are from the same age group which is majority ranged from 20 to 22 years old. Thus, this cannot be fully representing the population of Malaysia as a whole as Malay and Indian respondents are not included in this research study. In addition to that, this study also lacking of other age respondents. Due to that, results of this study may not represent all definable targets.

Furthermore, due to time constraint as mentioned above, the sampling technique used for this study is convenience sampling technique. The major problem of using convenience sampling is that may cause bias due to researchers' selective behavior during questionnaire distribution. Respondents only drawn from convenience sampling based on availability and convenience basis in order to overcome the limited time available.

Last but not least, this study setting is solely developed from environment perspective towards green purchase behavior. Yet, there are many other factors may influence green purchase behavior besides from environmental factors. However, this study still able to provide better guideline for any future research.

5.5 Recommendation for Future Research

Although there are limitations of this study, however, the group mutually comes out with several recommendations to enhance comprehensiveness for the future research study on this field. As a result, it will further develop the understanding of environment concern and green purchasing behavior.

In future research study on this field, a more comprehensive analysis and data collection is highly recommended. Therefore, future research should use a larger sample size and try to include other respondents other than university students. It enable researchers to capture a more reliable data, and also able to uncover more variety of data collected as respondents from different ethnic groups and different occupation being include in the studies. Hence, achieve a greater accuracy and significant of research result on green purchasing behavior study.

Cross-sectional studies can be defined as a "snapshot" or the study of a particular phenomenon at a particular time. On the other hand, longitudinal studies are the study of a particular phenomenon over an extended period of time. (Saunders, Lewis & Thornhill, 2009, pg.155) Cross-sectional analysis able to capture the general behavior representing the interest of target respondents, while longitudinal analysis can help in providing with a better insight on the changes of purchasing behavior pattern and trends of the respondents studied. Thus, longitudinal analysis is more suitable and appropriate for the studies of green purchasing behavior and intention as consumer purchasing behavior and intention change due to various factors over the period of time. Despite, this will further enhance the comprehensiveness of the result of study.

As for the theoretical framework of this study, there are only five variables included as independent variables. Based on the group research, there are various variables used to test consumer green purchasing behavior by other researchers. For instance, environmental variables like perceived consumer effectiveness (PCE), environment conscious. Likewise, social variables such as demographic, cultural factor as well as social influence and peer or parental influence. It is

highly recommended that the future research to include other variables in green purchasing behavior study in order to gain a broader view and look at the picture from a wider scope to further understand the consumer green purchasing behavior and intention.

5.6 Conclusion

In conclusion, in the past decade "Green" has been became one of the popular topic to discuss and examine in differ aspect. And the main focus in this study is green purchasing behavior on the specific targeted respondent, Generation Y. The purpose of choosing Generation Y is due to their potential purchasing power in the near future. Based on this research, its shows that the current Generation Y in the selected private university had purchased green product such as organic foods and they also started considered other categories as their purchasing option.

Based on the results collected from this study, it shows that Generation Y have moderate positive intention of purchasing green products in future and have positive in green purchase behavior. Hence, this result actually mean something to marketers which the result actually could be interpreted as Generation Y consumers will be the near future strong potential purchaser, by knowing this result, it can enable marketers to develop new marketing strategy to attract Generation Y to purchase green products. Overall, the research project has met its objectives to test the relationship between environmental concern, perceived environmental responsibility, attitude towards the environment, environmental knowledge, and awareness of environmental problem with part of Generation Y's green purchase behavior in Malaysia.

Apart from that, this study has included few limitations that faced by the researchers. However, these limitations have been supported by recommendations in order to enhance the research related to green purchase behavior in the future. Hence, it also definitely helps to raise Generation Y's environmental concern and green purchase behavior.

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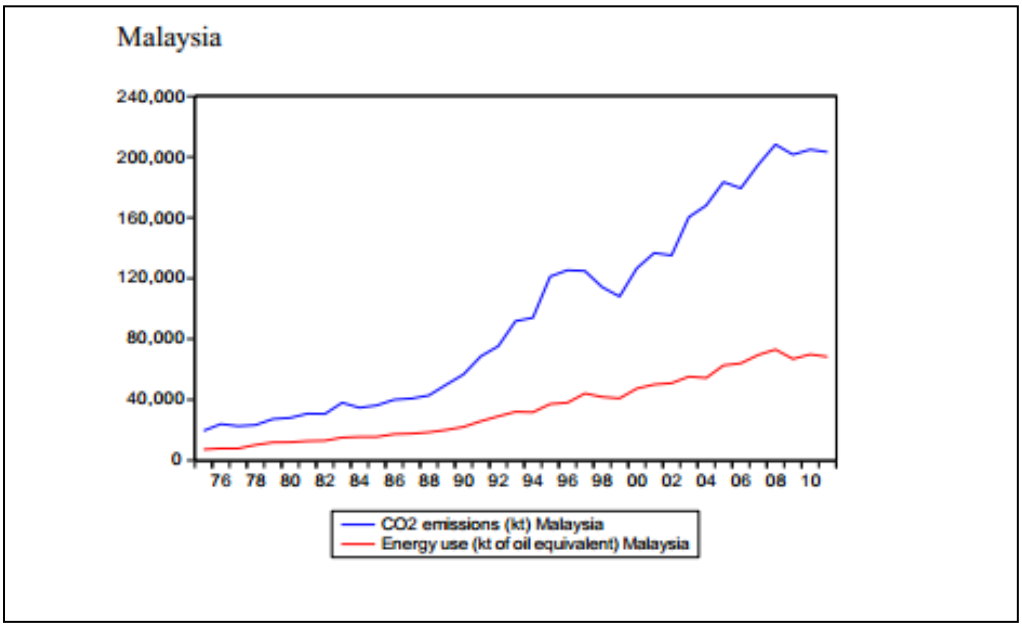
APPENDICES

(Appendix A: Figures)

Figure 1: CO2 Emission and Energy Use In Malaysia from 1975-2011



Source: Wahid, I. N., Aziz, A. A., & Nik Mustapha, N. H. (2013). Energy consumption, economic growth and co2 emissions in selected ASEAN countries. *Proceedings of the Eighth Malaysian National Economic Conference, 2*, 758-765

Figure 2: Key Indicator of Environmental Statistic

			2009	2010	2011	2012	2013
		Udara/Atmosfera *Air/Atmosphere*					
1.	a.	Purata suhu (°C)[a] *Mean temperature (°C)*					
		- Maksimum *Maximum*	31.8	32.0	31.7	31.9	**32.9**[b]
		- Minimum	24.0	24.3	24.1	24.2	**24.9**[b]
	b.	Jumlah hujan (mm)[a] *Total rainfall (mm)*	2,099.2	2,264.8	1,632.4	2,271.4	**623.1**[b]
	c.	Purata kelembapan relatif (%)[a] *Mean relative humidity (%)*	81.2	83.4	83.6	82.1	**78.5**[b]

Source: Department of Statistic Malaysia (2013). *Compendium of environment statistics.* Retrieved August 10, 2014, from http://www.statistics.gov.my/portal/download_Environment/files/Compendium_2013/Compendium_Of_Environment_Statistics_Malaysia_2013.pdf

(Appendix B: Questionnaire)

UNIVERSITI TUNKU ABDUL RAHMAN
FACULTY OF ACCOUNTANCY AND MANAGEMENT
BACHELOR OF INTERNATIONAL BUSINESS (HONS)

Dear Respondent,

We are students pursuing Bachelor of International Business (Hons) at Universiti Tunku Abdul Rahman (UTAR). We are currently conducting a study on "**Environmental Concerns and Green Purchase Behavior of Generation Y Consumers.**" The purpose of our study is to examine the perceptions of Generation Y consumers on the environment and their impacts on green purchase behavior.

This questionnaire consists of two sections. In Section A, the questions are pertaining to the respondents' demographics. In Section B, it consists of questions on your perceptions towards the environment and your purchasing behavior of green products.

This questionnaire will only take a few minutes to complete. We appreciate your cooperation and your valuable information. You are required to answer the questions based on your true opinions. **Please be informed that your responses to this questionnaire will be kept PRIVATE and CONFIDENTIAL and will be used solely for academic purpose.**

Please do not hesitate to contact ***Yong Chin Loong (chinloong93@gmail.com, 016-6824116)*** if you have any question regarding this survey.

Thank you for your participation in this survey research.

Yours Sincerely,

Ang Wei Ting	11UKB03693
Loh Chee Wei	11UKB06060
Ong Yun Qi	11UKB05776
Yong Chin Loong	11UKB02949

Section A: General Information

Please tick (√) one of the options as stated below the questions or fill in the blank for each of the following questions.

1. Gender :

   ☐ Male ☐ Female

2. Age : _____ years

3. Your average monthly allowance (please specify):

   RM_____ per month

4. Green products are defined as environmental-friendly products that have less of an impact on the environment or are less detrimental to human health. Please tick (√) the green product category and state what green products you have purchased before under that category. **You may tick more than one category for this question.**

   Example:

   ☑ ***Electrical Appliances (please specify): LED light-bulb; air-conditioner***

   ☐ Vehicles (please specify): _____
   ☐ Electrical Appliances (please specify): _____
   ☐ Daily Household Products (please specify): _____
   ☐ Personal Care Products (please specify): _____
   ☐ Organic & Green Foods (please specify): _____
   ☐ Apparels (please specify): _____
   ☐ Never bought any green products before.

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

Definitely will not	**Probably will not**	**Only if it is necessary with no other choices**	**Probably will**	**Definitely will**
1	2	3	4	5

6. How much more are you willing to pay for the green products in relation to non-green products? Please state your percentage maximum in terms of price willingness. Please circle the number that represents your opinion the most for each of the following green product categories stated below.

Green Product Categories	**0%**	**10% more**	**20% more**	**30% more**	**40% more**	**50% more**	**60% more**	**70% more**	**80% more**	**90% more**	**100% more**
Vehicles	0	1	2	3	4	5	6	7	8	9	10
Electrical Appliances	0	1	2	3	4	5	6	7	8	9	10
Daily Household Products	0	1	2	3	4	5	6	7	8	9	10
Personal Care Products	0	1	2	3	4	5	6	7	8	9	10
Organic & Green Food	0	1	2	3	4	5	6	7	8	9	10
Apparels	0	1	2	3	4	5	6	7	8	9	10

Section B: Environment Factors and Green Purchase

This section asks about your perceptions towards the environment and your green purchase behavior. Please circle the number that represents your opinion the most for each of the statements stated below.

Environmental Concern

		Strongly Disagree	Moderately Disagree	Slightly Disagree	Slightly Agree	Moderately Agree	Strongly Agree
1	I am worried about the worsening of the quality of our environment.	1	2	3	4	5	6
2	My major concern is Malaysia's environment.	1	2	3	4	5	6
3	I am emotionally involved in environmental protection issue in Malaysia.	1	2	3	4	5	6
4	I often think about how the environmental quality in Malaysia can be improved.	1	2	3	4	5	6

Perceived Environmental Responsibility

		Strongly Disagree	Moderately Disagree	Slightly Disagree	Slightly Agree	Moderately Agree	Strongly Agree
1	Environmental protection is the responsibility of the Malaysian government, not me.	1	2	3	4	5	6
2	Environmental protection is the responsibility of the environmental organizations, not me.	1	2	3	4	5	6
3	I should be responsible for protecting our environment.	1	2	3	4	5	6
4	Environmental protection starts with me.	1	2	3	4	5	6
5	I think I have responsibility in protecting the environment in Malaysia.	1	2	3	4	5	6
6	I have taken responsibility for environmental protection since I was young.	1	2	3	4	5	6
7.	I am willing to take up responsibility to protect the environment in Malaysia.	1	2	3	4	5	6

Attitude towards the Environment

		Strongly Disagree	Moderately Disagree	Slightly Disagree	Slightly Agree	Moderately Agree	Strongly Agree
1	Environmental protection efforts are simply a waste of money and resources.	1	2	3	4	5	6
2	Environmental protection issues are none of my business.	1	2	3	4	5	6
3	I think environmental protection is meaningless.	1	2	3	4	5	6
4	It is unwise for Malaysia to spend a vast amount of money on promoting environmental protection.	1	2	3	4	5	6
5	It is essential to promote green living in Malaysia.	1	2	3	4	5	6
6	I strongly agree that more environmental protection efforts are needed in Malaysia.	1	2	3	4	5	6
7	It is very important to raise environmental awareness among Malaysians.	1	2	3	4	5	6

Environmental Knowledge

		Strongly Disagree	Moderately Disagree	Slightly Disagree	Slightly Agree	Moderately Agree	Strongly Agree
1	I am very knowledgeable in knowing what to do to protect the environment.	1	2	3	4	5	6
2	I know what is meant by hybrid technology.	1	2	3	4	5	6
3	I know what is meant by renewable energy sources.	1	2	3	4	5	6
4	I can explain what is meant by recycling.	1	2	3	4	5	6
5	I can list a few types of actions to protect the environment in our daily lives.	1	2	3	4	5	6
6	I often read to absorb more information about how to save the environment.	1	2	3	4	5	6

Awareness of Environmental Problems

		Strongly Disagree	Moderately Disagree	Slightly Disagree	Slightly Agree	Moderately Agree	Strongly Agree
1	I am aware that Malaysia's environmental problems are worsening.	1	2	3	4	5	6
2	I am aware that there is urgent need to tackle Malaysia's environmental problem.	1	2	3	4	5	6
3	I am aware that Malaysia's environmental problems are affecting our health.	1	2	3	4	5	6
4	I am aware that Malaysia's environmental problems are threatening the reputation of Malaysia.	1	2	3	4	5	6
5	I aware that Malaysia's environmental problems are serious.	1	2	3	4	5	6

Green Purchase Behavior

		Strongly Disagree	Moderately Disagree	Slightly Disagree	Slightly Agree	Moderately Agree	Strongly Agree
1	When I want to buy a product, I look at the ingredients label to see if it contains things that are environmentally damaging.	1	2	3	4	5	6
2	I prefer green products over non-green products when their product qualities are similar.	1	2	3	4	5	6
3	I buy green products even if they are more expensive than the non-green ones.	1	2	3	4	5	6
4	I choose to buy products that are environmentally-friendly.	1	2	3	4	5	6

Thank you for your participation.

Your time and opinions are greatly appreciated.

All responses will be kept PRIVATE and CONFIDENTIAL.

(Appendix C: SPSS Output)

Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	128	40.0	40.0	40.0
	Female	192	60.0	60.0	100.0
	Total	320	100.0	100.0	

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Age	320	19	26	20.93	1.133
Valid N (listwise)	320				

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Monthly Allowance	305	50	1500	542.59	292.162
Valid N (listwise)	305				

Vehicles

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Tick	20	6.3	6.3	6.3
	No tick	300	93.8	93.8	100.0
	Total	320	100.0	100.0	

Electrical Appliances

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Tick	63	19.7	19.7	19.7
	No tick	257	80.3	80.3	100.0
	Total	320	100.0	100.0	

Daily Household Product

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Tick	50	15.6	15.6	15.6
	No tick	270	84.4	84.4	100.0
	Total	320	100.0	100.0	

Personal Care Products

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Tick	78	24.4	24.4	24.4
	No tick	242	75.6	75.6	100.0
	Total	320	100.0	100.0	

Organic & Green Foods

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Tick	129	40.3	40.3	40.3
	No tick	191	59.7	59.7	100.0
	Total	320	100.0	100.0	

Apparels

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Tick	16	5.0	5.0	5.0
	No tick	304	95.0	95.0	100.0
	Total	320	100.0	100.0	

Never bought any green product before

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Tick	112	35.0	35.0	35.0
	No tick	208	65.0	65.0	100.0
	Total	320	100.0	100.0	

How likely are you to buy green product in future?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Definitely will not	1	.3	.3	.3
	probably will not	7	2.2	2.2	2.5
	Only if it is necessary with no other choice	79	24.7	25.1	27.6
	Probably will	199	62.2	63.2	90.8
	Definitely will	29	9.1	9.2	100.0
	Total	315	98.4	100.0	
Missing	8888	5	1.6		
Total		320	100.0		

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
How likely are you to buy green product in future?	315	1	5	3.79	.645
Valid N (listwise)	315				

Vehicle

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0%	10	3.1	3.1	3.1
	10% more	34	10.6	10.6	13.8
	20% more	36	11.3	11.3	25.0
	30% more	37	11.6	11.6	36.6
	40% more	29	9.1	9.1	45.6
	50% more	62	19.4	19.4	65.0
	60% more	36	11.3	11.3	76.3
	70% more	25	7.8	7.8	84.1
	80% more	31	9.7	9.7	93.8
	90% more	10	3.1	3.1	96.9
	100% more	10	3.1	3.1	100.0
	Total	320	100.0	100.0	

Electrical Appliances

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0%	7	2.2	2.2	2.2
	10% more	23	7.2	7.2	9.4
	20% more	36	11.3	11.3	20.6
	30% more	35	10.9	10.9	31.6
	40% more	23	7.2	7.2	38.8
	50% more	55	17.2	17.2	55.9
	60% more	38	11.9	11.9	67.8
	70% more	42	13.1	13.1	80.9
	80% more	39	12.2	12.2	93.1
	90% more	14	4.4	4.4	97.5
	100% more	8	2.5	2.5	100.0
	Total	320	100.0	100.0	

Daily Household Products

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0%	10	3.1	3.1	3.1
	10% more	25	7.8	7.8	10.9
	20% more	41	12.8	12.8	23.8
	30% more	27	8.4	8.4	32.2
	40% more	25	7.8	7.8	40.0
	50% more	48	15.0	15.0	55.0
	60% more	41	12.8	12.8	67.8
	70% more	46	14.4	14.4	82.2
	80% more	38	11.9	11.9	94.1
	90% more	13	4.1	4.1	98.1
	100% more	6	1.9	1.9	100.0
	Total	320	100.0	100.0	

Personal Care Products

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0%	8	2.5	2.5	2.5
	10% more	22	6.9	6.9	9.4
	20% more	34	10.6	10.6	20.0
	30% more	33	10.3	10.3	30.3
	40% more	25	7.8	7.8	38.1
	50% more	41	12.8	12.8	50.9
	60% more	30	9.4	9.4	60.3
	70% more	46	14.4	14.4	74.7
	80% more	36	11.3	11.3	85.9
	90% more	30	9.4	9.4	95.3
	100% more	15	4.7	4.7	100.0
	Total	320	100.0	100.0	

Organic & Green Foods

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0%	10	3.1	3.1	3.1
	10% more	20	6.3	6.3	9.4
	20% more	28	8.8	8.8	18.1
	30% more	28	8.8	8.8	26.9
	40% more	23	7.2	7.2	34.1
	50% more	48	15.0	15.0	49.1
	60% more	20	6.3	6.3	55.3
	70% more	35	10.9	10.9	66.3
	80% more	48	15.0	15.0	81.3
	90% more	36	11.3	11.3	92.5
	100% more	24	7.5	7.5	100.0
	Total	320	100.0	100.0	

Apparels

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0%	16	5.0	5.0	5.0
	10% more	43	13.4	13.4	18.4
	20% more	38	11.9	11.9	30.3
	30% more	44	13.8	13.8	44.1
	40% more	26	8.1	8.1	52.2
	50% more	64	20.0	20.0	72.2
	60% more	32	10.0	10.0	82.2
	70% more	27	8.4	8.4	90.6
	80% more	21	6.6	6.6	97.2
	90% more	6	1.9	1.9	99.1
	100% more	3	.9	.9	100.0
	Total	320	100.0	100.0	

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Vehicle	320	0	10	4.60	2.547
Electrical Appliances	320	0	10	5.02	2.511
Daily Household Products	320	0	10	4.93	2.551
Personal Care Products	320	0	10	5.33	2.728
Organic & Green Foods	320	0	10	5.64	2.851
Apparels	320	0	10	4.09	2.418
Valid N (listwise)	320				

Reliability Test

Environmental Concern

Reliability Statistics

Cronbach's Alpha	N of Items
.682	4

Perceived Environmental Responsibility

Reliability Statistics

Cronbach's Alpha	N of Items
.828	7

Attitude towards the Environment

Reliability Statistics

Cronbach's Alpha	N of Items
.837	7

Environmental Knowledge

Reliability Statistics

Cronbach's Alpha	N of Items
.811	6

Awareness of Environmental Problems

Reliability Statistics

Cronbach's Alpha	N of Items
.886	5

Green Purchase Behavior

Reliability Statistics

Cronbach's Alpha	N of Items
.783	4

Pearson Correlation

Correlations

		AVGPB	AVEC	AVPER	AVATE	AVEK	AVAEP
AVGPB	Pearson Correlation	1	.440**	.386**	.162**	.466**	.344**
	Sig. (2-tailed)		.000	.000	.004	.000	.000
	N	320	320	320	320	320	320
AVEC	Pearson Correlation	.440**	1	.490**	.413**	.420**	.492**
	Sig. (2-tailed)	.000		.000	.000	.000	.000
	N	320	320	320	320	320	320
AVPER	Pearson Correlation	.386**	.490**	1	.530**	.440**	.469**
	Sig. (2-tailed)	.000	.000		.000	.000	.000
	N	320	320	320	320	320	320
AVATE	Pearson Correlation	.162**	.413**	.530**	1	.273**	.487**
	Sig. (2-tailed)	.004	.000	.000		.000	.000
	N	320	320	320	320	320	320
AVEK	Pearson Correlation	.466**	.420**	.440**	.273**	1	.492**
	Sig. (2-tailed)	.000	.000	.000	.000		.000
	N	320	320	320	320	320	320
AVAEP	Pearson Correlation	.344**	.492**	.469**	.487**	.492**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	
	N	320	320	320	320	320	320

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

Environmental Concern

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
I am worried about the worsening of the quality of our environment	320	1.00	6.00	4.7625	.88871
My major concern is Malaysia's environment	320	1.00	6.00	4.1312	1.03009
I am emotionally involved in environmental protection issue in Malaysia	320	1.00	6.00	3.9094	.85715
I often think about how the environmental quality in Malaysia can be improved	320	1.00	6.00	4.1188	1.01012
Valid N (listwise)	320				

Perceived Environmental Responsibility

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Environment protection is the responsibility of tbe Malaysian government, not me	320	1.00	6.00	4.3875	1.29860
Environmental protection is the responsibility of the environmental organizations, not me.	320	1.00	6.00	4.5906	1.12449
I should be responsible for protecting our environment.	320	1.00	6.00	4.7000	.86955
Environmental protection starts with me.	320	1.00	6.00	4.4594	1.04367
I think I have responsibility in protecting the environment in Malaysia.	320	1.00	6.00	4.6750	.88915
I have taken responsibility for environmental protection since I was young.	320	1.00	6.00	3.9687	.98847
I am willing to take up responsibility to protect the environment in Malaysia.	320	1.00	6.00	4.5125	.86729
Valid N (listwise)	320				

Attitude towards the Environment

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Environmental protection efforts are simply a waste of money and resources.	320	1.00	6.00	4.9531	1.03587
Environmental protection issues are none of my business.	320	1.00	6.00	5.0875	1.00711
I think environmental protection is meaningless.	320	1.00	6.00	5.2031	1.00437
It is unwise for Malaysia to spend a vast amount of money on promoting environmental protection.	320	1.00	6.00	4.8281	1.15227
It is essential to promote green living in Malaysia.	320	1.00	6.00	4.6125	1.12530
I strongly agree that more environmental protection efforts are needed in Malaysia.	320	1.00	6.00	4.9531	.98626
It is very important to raise environmental awareness among Malaysians.	320	1.00	6.00	4.9969	.96164
Valid N (listwise)	320				

Environmental Knowledge

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
I am very knowledgeable in knowing what to do to protect the environment	320	1.00	6.00	3.6500	.85793
I know what is meant by hybrid technology.	320	1.00	6.00	3.9688	1.04400
I know what is meant by renewable energy sources.	320	1.00	6.00	4.2875	.96579
I can explain what is meant by recycling.	320	1.00	6.00	4.5406	.90881
I can list a few types of actions to protect the environment in our daily lives.	320	1.00	6.00	4.3625	.85271
I often read to absorb more information about how to save the environment.	320	1.00	6.00	3.7813	1.02123
Valid N (listwise)	320				

Awareness of Environmental Problems

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
I am aware that Malaysia's environmental problems are worsening.	320	1.00	6.00	4.5344	.88105
I am aware that there is urgent need to tackle Malaysia's environmental problem.	320	2.00	6.00	4.5094	.87094
I am aware that Malaysia's environmental problems are affecting our health.	320	2.00	6.00	4.8281	.91581
I am aware that Malaysia's environmental problems are threatening the reputation of Malaysia.	320	2.00	6.00	4.5563	.91142
I aware that Malaysia's environmental problems are serious.	320	1.00	6.00	4.7156	.95202
Valid N (listwise)	320				

Green Purchase Behavior

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
When I want to buy a product, I look at the ingredients label to see if it contains things that are environmentally damaging.	320	1.00	6.00	3.5344	1.08513
I prefer green products over non-green products when their product qualities are similar.	320	1.00	6.00	4.3500	.97105
I buy green products even if they are more expensive than the non-green ones.	320	1.00	6.00	3.6469	1.04910
I choose to buy products that are environmentally-friendly.	320	1.00	6.00	4.2594	.91225
Valid N (listwise)	320				

Environmental Concern (Average)

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
AVEC	320	1.50	6.00	4.2305	.67898
Valid N (listwise)	320				

Perceived Environmental Responsibility (Average)

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
AVPER	320	1.43	6.00	4.4705	.71748
Valid N (listwise)	320				

Attitude towards the Environment (Average)

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
AVATE	320	2.57	6.00	4.9478	.73977
Valid N (listwise)	320				

Environmental Knowledge (Average)

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
AVEK	320	1.67	6.00	4.0984	.67738
Valid N (listwise)	320				

Awareness of Environmental Problems (Average)

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
AVAEP	320	2.40	6.00	4.6288	.75162
Valid N (listwise)	320				

Green Purchase Behavior (Average)

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
AVGPB	320	1.25	6.00	3.9477	.78372
Valid N (listwise)	320				

Multiple Regression Analysis

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.562[a]	.316	.305	.65325

a. Predictors: (Constant), AVAEP, AVPER, AVEK, AVEC, AVATE

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	61.941	5	12.388	29.030	.000[b]
	Residual	133.994	314	.427		
	Total	195.936	319			

a. Dependent Variable: AVGPB

b. Predictors: (Constant), AVAEP, AVPER, AVEK, AVEC, AVATE

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	.770	.298		2.582	.010
	AVEC	.301	.067	.261	4.489	.000
	AVPER	.200	.067	.183	2.981	.003
	AVATE	-.131	.051	-.151	-2.580	.010
	AVEK	.332	.066	.287	5.061	.000
	AVAEP	.066	.064	.063	1.024	.307

a. Dependent Variable: AVGPB