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綠色行銷與綠色心理利益對於綠色購買意圖之調節效果
在柬埔寨：計畫行為理論之延伸

The Moderating Effects of Green Marketing and Green
Psychological Benefits on Green Purchase Intention: An
Extension of the Theory of Planned Behavior

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準碩士推薦函

本校企業管理學系管理科學碩士班研究生何森虹(Hourt Sengheang)君在本系修業1.5年，已經完成本系碩士班規定之修業課程及論文研究之訓練。

1、在修業課程方面：何森虹(Hourt Sengheang)君已修滿42學分，其中必修科目：電子商務專題、企業倫理專題、策略管理專題、研究方法、管理科學等科目，成績及格(請查閱碩士班歷年成績)。

2、在論文研究方面：何森虹(Hourt Sengheang)君在學期間已完成下列論文：

(1)碩士論文：綠色行銷與綠色心理利益對於綠色購買意圖之調節效果：計畫行為理論之延伸

(2)學術期刊：

本人認為何森虹(Hourt Sengheang)君已完成南華大學企業管理學系管理科學碩士班之碩士養成教育，符合訓練水準，並具備本校碩士學位考試之申請資格，特向碩士資格審查小組推薦其初稿，名稱：綠色行銷與綠色心理利益對於綠色購買意圖之調節效果：計畫行為理論之延伸，以參加碩士論文口試。

指導教授： 簽章

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南華大學企業管理學系管理科學碩士班

107 學年度 第 2 學期 碩士論文摘要

論文題目：綠色行銷與綠色心理利益對於綠色購買意圖之調節效果 在東

埔寨：計畫行為理論之延伸

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論文摘要內容：

由於人類的需求造成非永續的消費，已經嚴重影響環境之永續議題例如全球氣候暖化、空氣汙染、水汙染及廢棄物推積，這些環境議題已經引起非常多的關切，要求社會必須改變傳統的消費模式及購買行為來追求進一步的環境永續，基於以上的考量，本研究試圖發展一個全面性的研究架構，來探討綠色採購的前置變數、結果變數及干擾變數，並進一步實證此研究架構之可行性，因此本研究的第一個目的是要調查綠色購買之影響因素，包括環境關切、環境意識、主觀規範、知覺道德義務及綠色顧客價值。

本研究的第二個目的是要探討綠色行銷及綠色心理利益，對於綠色採購之干擾效果，本研究是在東埔寨地區蒐集 319 位受訪者之資料，利用部分最小平方法(PLS)進行分析，研究之結果顯示顧客對於綠色產品之態度、主觀規範、知覺道德義務及知覺行為控制，對於綠色購買意圖有顯著的影響。而環境意識對於環境關切、主觀規範、知覺道德義務及知覺行為控制有顯著的影響。

本研究之結果可提供學術界最為更進一步實證有關綠色購買之依據，本研究之結果也可作為企業經理人發展及管理綠色行銷業務之參考。

關鍵詞：環境關切、環境意識、綠色行銷、綠色顧客價值、綠色心理利益、計畫行為理論



Title of Thesis: The Moderating Effects of Green Marketing and Green Psychological Benefits on Green Purchase Intention: An Extension of the Theory of Planned Behavior

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ABSTRACT

The unsustainable levels of consumptions globally from human needs has led to severe environmental sustainability issues such as global warming, air pollution, water pollution, land pollution and waste generation. These environmental issues have called a lot of attention to ask the society to change their conventional consumption patterns and purchases behavior toward the pursuit of environmental sustainability. Based on above considerations, this study tries to develop a comprehensive research framework to identify antecedents, consequences and moderators of green purchase, and empirically tested the viability of the framework.

The purpose of this study is firstly to investigate the influential factors of green purchase, such as environmental concerns, environmental awareness, subjective norms, perceived moral obligation and green customer value on green purchase intention. Secondly, the moderating effects of green marketing and green psychological benefit that influence on green purchase intention is also evaluated. This study derived and examined the model through the Partial Least Squares (PLS) in a sample of 319 respondents in Cambodia.

The findings of this model indicated that consumer attitude toward green products, subjective norm, perceived moral obligation, and perceived behavioral control have a significant positive influence to purchase intention. Furthermore, the results of this study indicated that the moderating effect of green marketing and green psychological benefit also has significant positive moderate to green purchase intention. The results of this study have provided as a critical reference for academicians to conduct further empirical validations on the research of green purchase intention. The results may also be very useful for managers to develop and manage the business of green marketing.

Keywords: Environmental concern, Environmental Awareness, Green Marketing, Green customer value, Green Psychological benefits, Theory of Planned Behavior (TPB)



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CHAPTER ONE

INTRODUCTION

In chapter one, research background and research motivations, research objectives and research constructs are represented.

1.1 Research Background and Research Motivation

Rapid economic growth has led to adverse environmental degradation and mortification. With the incredible worries of the ecological issue and the expanding weight of natural crumbling, numerous organizations have found a way to turn out to be all the more socially capable through augmenting items that can fulfill the need of earth cognizant shoppers. Therefore, green buyer conduct has been developed as another model of promoting discipline for advertisers and analysts in the domain of contemporary customer examine (Ottman, 1998; Peattie & Belz, 2010; Lai & Cheng, 2016). The new idea of green marketing has emerged as a competitive tendency to grab and win customers' attention from the market place.

In recent years, the production of green products has dramatically increased worldwide, products that will not pollute the environment, and can be recycled or conserved using low-toxicity materials (Calkins, 2008). Comprehending green consumers and developing a marketing strategy to entice targeted consumers have become the center of research topics in a great amount of studies. It is evident to see that the intensifying ecological problems have increased consumer's environmental consciousness and concern in the marketplace. For example, environmental concern has a strong impact on people's behavior in environmentally related domains like recycling, energy saving, buying environmentally friendly products and travel mode choices

(Bamberg, 2003). As consequently, they have popularity among consumers globally (Paul et al., 2016; Ritter et al., 2015).

According to Ottman (1992), expressed that customers might want to buy green items when their needs or needs for security, quality and agreeable are the needs and understood that green items can take care of the ecological issue. Shoppers will in general judge the estimation of an items utilizing quality as the measure markers and consolidate that judgment to assess their buy expectation. In promoting part, most specialists are enamored in finding the wellspring of green items buy expectation (Chan et al., 2012) as it is useful to create fitting procedures and so as to catch more pieces of the pie for such items. A hypothesis which is extensively used to look at the inspiration of people's goal and conduct, is the hypothesis of arranged conduct (TPB) (Ajzen and Manstead, 2007; Fishbein and Ajzen, 1975). Based on comments of several studies, TPB is one of the most popular theatrical frameworks which is use to explain determinants and antecedents of purchase intention research conducted. However, TPB does not integrate other important aspects, such as perceived values, environmental concerns, moral obligation and responsibility. Ohtomo and Hirose (2007) informed that if shoppers are less of mindfulness and awareness about green items, a frame of mind hole between their natural concern and genuine obtaining conduct will be come about. Subsequently, ecological concern and natural mindfulness are considered as similarly significant really taking shape buy choice for green items (Scott and Vigar-Ellis, 2014; Diamantopoulos et al., 2003). For this premise, these two factors (ecological concerns and natural mindfulness) will be incorporate as forerunners of procurement aim towards green items utilizing TPB Model. Previous studies further suggested that personal feelings of moral obligation are needed to be considered while examining an individual's willingness to perform certain environmental behaviors (Gorsuch & Ortberg, 1983; Pomazal

& Jaccard, 1976; Schwartz & Tessler, 1972). Both Beck and Ajzen (1991) asserted that perceived moral obligation should take into consideration to increase the TPB's predictive power. In the pro-environmental context, Kaiser (2006) pointed out that a model predicting consumers' conservation behavioral intention should contain a moral dimension, which is positively related to consumer conservation behavioral intention. Thus, the main aim of this study is to use the extended TPB model to integrate the research constructs such as consumers' attitude toward green products, subjective norms, perceived behavioral control and perceived moral obligation to probe into consumers' intention to purchase the green products. However, to explain such a complex phenomenon of green marketing and green purchase, TPB is not enough due to it lacking some of consumer's value perception. Therefore, this study aims to integrate the research variable of TPB and VAM.

1.2 Research Objectives

According to the above discussion, this study aims to investigate the influential factors and moderating effect of green marketing and green psychological benefits on green purchasing intention in Cambodia. The research objectives are as follows:

1. To extend TPB model by incorporating environmental concern, environmental awareness, perceived moral obligation and perceived value to develop a research framework of green product purchasing.
2. To examine the influence of subjective norms, environmental concern, environmental awareness and perceived moral obligation on perceived value and attitude toward green products purchasing.
3. To investigate the mediation roles of perceived value and attitude for the influence of antecedents on green product purchasing.

4. To investigate the moderating effects of green marketing and green psychological benefits on green products purchasing.

1.3 Research Contributions

This study specifically contributes to the current literature for academicians and professional managers from the following three aspects: First, this study attempts to examine the effects of relevant factors on green purchasing which is integrated TBP aspects of perceived values, perceived moral obligation, environmental concern, and environmental awareness are largely neglected. Second, this study intent to integrate relevant constructs from those aspects of Theory of Planned Behavior (TPB), Value-based Adoption Model (VAM), Value-belief Norm (VBN), Perceived Moral Obligation Theory (PMOT) and Theory of Pro-Environmentally Responsible Behavior Intention (TPRBI) and develop a comprehensive model to fully investigate the adoption of green purchase intention. It is expected that the results of this study can provide valuable information for both practitioners and academicians. Finally, this study attempts to examine the moderating effects of green marketing and green psychological benefits for the influence of the attitude toward green products and green customer value on customer green purchase intention. The empirical validations on this result could provide a very important references for scholars and practitioners.

1.4 Subject and Research Scope

The theme focuses to explore and analyze the moderating effects of green marketing, green psychological benefits towards purchasing intention of green products in Cambodia. The scope of the study is presented detail in the Table 1.1 presents the scope of this research in detail:

Table 1-1 The Scope of the Study

Items	Scope of The Study
Types of the research	The study conducts literature reviews to build up the research hypotheses and framework. Collecting data by using questionnaires to test hypotheses and figure out the results and conclusions
Key Issue	Examine the influence of important effects of green marketing, green psychological benefits on Cambodia customers' green purchase intention.
Independent Variables	Environmental Awareness, Environmental Concern, Subjective norm, perceived behavioral control, attitude towards green products, perceived moral obligation, green customer value, and green purchase intention.
Dependent Variables	Green Purchase Intention
Moderating Variable	Green marketing strategy, and green psychological benefits.
Underlying theory (s)	Theory of Planned Behavior (TPB), Value-Based Adopted Model (VAM), Norm Activation Model Theory (NAM), Value-Belief Norm (VBN) and Perceived moral obligation theory.

Table 1-1 The Scope of the Study (Continued)

Research Study Location	Phnom Penh City, Cambodia
Analyzed Unit	Personal individual customers
Research Method	Using SPSS version 20 to run and analyze the data.

Source: Original Study

1.5 The Procedure and Research Structure

This study first conducts a comprehensive literature review to have a comprehensive theoretical background on the constructs: environmental concern, environmental awareness, attitude towards green products, subjective norms, perceived behavioral control, perceived moral obligation, customer value, green marketing, green psychological benefits and green purchase intention, using quantitative research method to conduct survey in this study. Second, based on the above-mentioned literature review, conceptual model and hypotheses are developed within the relationship between each construct. After that, research method will be developed and introduced in detail. There are two research questions which is going to answer in this study. Questionnaires and data sample were designed, which is focused on Cambodia customer who employed, students and adults. Soon after, online questionnaires survey was posted in any official formats and mail to the colleague and university as well as at many companies to fill in. Directly after collecting the respondent questionnaires, the data were interpreted and analyzed. Finally, conclusion, suggestion, limitation and managerial implication were presented at the end of the research. The research flow chart is shown in Figure 1-1.

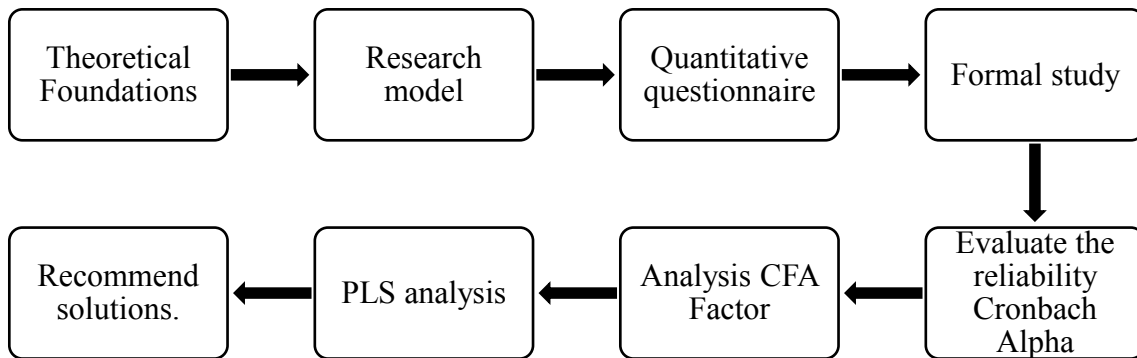


Figure 1-1: Research Process

Source: Original Study

1.6 Research Structure

This research consists of five chapters, and the summaries for each chapter are described as follow: Chapter one initially describes the research background, motivation and objectives. Then last section of this chapter presents the procedure and structure.

Chapter tow discusses the previous literature review on the previous studies on environmental concern, environmental awareness, and subjective norm, perceived behavioral control, perceived moral obligation, green marketing and purchase intention of green products, as well as the moderating effects of green psychological benefits. Key variables and their respective relationships will be identified. Finally, the hypothesized relationships will be proposed for integrating the finding of previous studies.

Chapter three of this study introduces the construct measurement items, research design and methodology. The research framework which suggests general relationship among key research constructs was identified. In the meanwhile, the research design inclusive of sampling plan, data collection procedures and data analysis techniques will be also discussed.

Chapter four illustrate the results of this study. It includes data collection, the basic characteristics of respondents, descriptive statistic for each research items and reliability tests of research constructs. It also presents the research results to verify the research hypotheses including, (1) relationship among environmental concern, environmental awareness, attitude towards green products, and green purchase intention, (2) the relationship among environmental attitude, environmental subjective norms, perceived behavioral control, perceived moral obligation, attitude towards green products and green customer value, (3) the interrelationship between customer's environmental value, green perceived values, environmental image, attitude towards green products and green purchase intention, (4) the moderating effects of green marketing strategy and green psychological benefits among attitude towards green products and customer values on green purchase intention. Descriptive analysis, factors analysis, reliability test and validity of the measurement scales is presented in details in this chapter.

Chapter five presents the conclusion of the study. The result of this study is summarized in the first section. Academic contributions and managerial implications are then presented. Research limitation and further suggestions are presented in the last section as a reference for future scholars.

CHAPTER TWO

LITERATURE REVIEW

In chapter two the literature review of extended TPB model will be discussing between attitude toward green purchase intention, subjective norm, perceived behavior control, and perceived moral obligation. Researcher also focus on the moderating effects relationship between green marketing, green psychological benefits and green purchasing intention in Cambodia. In this chapter, author will conduct a comprehensive literature review on each construct. The relationship between each constructs and research hypotheses will be proposed at the end of this chapter.

2. Conceptualization and Hypotheses Development

2.1 Definition of Research Constructs

2.1.1 Environmental Concerns (EC)

Environmental concern is defined by Alibeli and Johnson (2009) as the degree to which individuals mindful of natural results and their readiness to reply about ecological issues. Diamantopoulos et al., (2003) observed that environmental concern is one of the important factors in consumer decision making process. People's awareness towards natural issues and their status to break those issues (Kim and Choi, 2005; Prakash and Pathak, 2017) are required (Kim & Choi, 2005; Prakash & Pathak, 2017). It's also implies the sense of responsibility to protect the environment, embodied with emotional appeal at the individuals' level which is reflected in their involvement towards the environmental protection (Lee, 2008; Dagher & Itani, 2014; Prakash & Pathak, 2017). According to Hassan (2010) defined environmental concerns as the degree of consumer worry about the threats to environment due to human interventions. Choi (2005), states that environmental concerns allude to the

level of customer's awareness of ecological issues and their readiness to contribute by and by to the arrangement of those issues.

2.1.2 Environmental Awareness (EA)

Kollmuss and Agyeman (2002) defined environmental awareness as “knowing of the impact of human behavior on the environment”. According to Carrete et al. (2012), environmental awareness “recognizes the effect of human conduct on the environment and facilitate an ecological consciousness comprising a cognitive, comprehension-based element and a non-cognitive, insight-based element”. Yadav and Pathak (2016) conceptualized environmental awareness as the one's cognitive ability to understand about environmental or sustainability related issues majority such as air, water, land pollution, and consequences on society and physical environments. For instance, people may purchase products with eco-labels, consume organic foods and participate in recycling programs as a result of their increased awareness of environmental problems.

2.1.3 Attitude toward Green Products

As one of the three conceptually independent determinants of intention in TPB, attitude towards a behavior refers to the degree of one's favorable or unfavorable evaluation of their behavior in question (Ajzen, 1991; Ha & Janda, 2012; Klockner, 2013). Ivancevich et al., (2010) defined attitude as a mental state of readiness learned and organized through experience, exerting a specific influence on a person's response to the people, objects and situations to which it is related. Gholami et al., (2013) defined attitude is an effective characteristic of an organization's decision-makers which measures the extent to which they are aware of and interested in particular things. Therefore, this phenomenon will also have applied that one's beliefs or feelings towards the purchase

direction of environmentally friendly products, will also influence attitude toward green product and green purchase (Kaiser et al., 1999; Bamberg, 2003; Tan, 2011).

2.1.4 Environmental Subjective Norms

Environmental subjective norm refers to the perceived expectations of pro-environmental behavior from people such as family, peers, and colleagues (Fishbein & Ajzen, 1975). Ajzen (1991) suggested that subjective norm refers to the perceived social pressure to perform or not to perform behavior and its reveals the perceived social force on environmentally friendly behavior. Barber et al., (2014), pointed out that environmental subjective norms indicate how people perceive social responsibility when purchasing environmentally friendly products and how people value others' social perception of them.

2.1.5 Environmental Perceived Behavioral Control

Perceived behavioral control refers to the degree of control that people perceived themselves having while performing a behavior (Kang et al., 2006). He further states that perceived behavioral control will be measure an individual's ability to carry out environmentally sustainable activities. Furthermore, Ajzen (1991), defined perceived behavioral control refers to an individual's perceived ease or difficulty in performing a particular behavior which concerned with the presence of factors that may facilitate or prevent the performance of the behavior of interest. Consumers are likely to develop a strong behavioral intention if they are feel that they lack the opportunities or resources required to perform the behavior (Mpinganjira et al., 2014). Therefore, in this study will be adopted perceived behavioral control as the degree of people will have a higher control over general environmentally responsible behavior and sustainability actives.

2.2 Green Customer Values and Purchase Intention

2.2.1 Green Customer's Attitude and Environmental Values

Stern and Oskamp (1987) and Chen (2013) defined environmental value as prescriptive or proscriptive belief which directly reflects individual's environmental concerns. Value play a very important role in the consumer decision process, with regards to product choice and brand choice (Blackwell et al., 2012). Values provide a powerful basis for understanding consumer attitude within and across cultures (Burgess & Steenkamp, 1999). Consequently, value is extremely linked to a consumer attitudes concerning any issues surrounding that purchase, and will influence their purchase intention towards green products (Li & Cai, 2012; Woodall, 2003). This study will be adopted environmental value as the consideration and understanding about individual's concerns and perspective level on environmental behavior.

2.2.2 Green Customer's Perceived Values and Environmental Image

Perceive values is defined as a consumer's overall evaluation of the net benefits of a products or services based on a consumer's appraisal (Bolton & Drew, 1991); Patterson & Spreng, 1997). The concept of perceived value has been widely employed to illustrate a costumer's assessment of products, services and relationships in the consumer and business markets Woodruff (1997). According to Ledden et al., (2007) claimed that environmental image refers to a status that adds to the overall experience of customer's mindset and the wider of social context. As a driver of customer perceived value, environmental image is considered to represent the outcome of the supplier's emphasis on environmentally oriented improvements.

2.3 Green Marketing

The concept of green marketing has become the buzzword in the last decade as a result of dramatically increase in environmental consciousness worldwide. Polonsky (1996), defined green marketing as a marketer's attempt to develop a strategy targeting about the concern to the environment consumers. Green marketing plays a very important role in the holistic management process that responsible for identifying and anticipating the satisfaction of the needs of customers and society in a profitable as well as sustainable way to protect the earth within less harmful or cause the problem to environment (Peattie & Crane, 2005). According to above literature review, this study will be indicated green or environmental marketing as an action generally focuses on the efficiency of cognitive persuasion strategies, and believes that the consumer's high involvement concerning environmental issues with an effect of growing environmental knowledge (Harmann and Ibanez, 2006).

2.3.1 Environmental Advertisements

Leonidas et al., (2014) declared that environmental advertisement refers to the program which could influence consumer's intention by labeling on the products and environmental message. According to Baldwin (1993), environmental messages in advertisement help to form a consumer's values sand translate the value into the purchase of green products. Moreover, green advertisements can influence consumer's purchase behavior by encouraging them to purchase products that do not harm the environment and to direct their attention to the positive consequences of their purchase behavior, for themselves as well as the environment (Elham et al., 2011).

2.3.2 Green Word of Mouth Intention (GWOM)

Green word-of-mouth intention is defined as “the willingness of an individual to spread favorable environmental messages about products or services to his or her acquaintances” (Anderson and Gerbing, 1988, Söderlund, 1998). Satisfactory experience acted as a significant determinant of word-of-mouth intention (Lankton et al., 2010). Chen et al. (2015) proposed that green word-of-mouth (green WOM) is the extent to which customers inform their friends, relatives and colleagues about the positive environmental messages and the environmentally friendly nature of a product or a brand.

2.4 Green Psychological Benefits

Environmental management significantly arise in the provision of psychological benefits or green products or bands to their customers (Hartmann et al., 2009). According to Sweeney and Webb (2007), psychological benefits refer to the “feeling of trust or confidence in the other party that result in greater peace of mind”. In specific meaning, psychological benefits of green brands lead to the creation of positive overall image of the brands (Hartamann et al., 2012).

2.4.1 Warm Glow

The term warm glow can be defined as “satisfaction that goes beyond the benefits derived from aggregate provision of a public good through pro-environmental behavior” (Clark et al., 2003). Following this concept, private benefits are raised from the moral satisfaction of contributing to the common good for the environment (Andreoni, 1989; Menges et al., 2005). In the same vein, people contribute to the common good through environmental protection, they are more likely to achieve a high level of life satisfaction and happiness (Andeoni, 1989; Videras & Owen, 2006). In other words, if people feel that a

greater social responsibility is not important, they are less likely to feel a warm glow.

2.4.2 Self-Expressive Benefits

Self- expressive benefit refers to the enhancement of consumer's self-concepts via buying and evaluate the significant of degree by the products they consume (Roberts, 1998; Van Vugt, Roberts & Hardy, 2007). Lee (2008) defined self-expressive benefit as how person thinks of himself or herself in different aspects of good image. According to Sirgy, (1982) self-expressive refers to consumers will consume definite products or brands that can further express his or her self-image. The concepts of self-expressive benefit are theoretically supported by the following two theories: signaling theory and self-congruity theory. Consequently, consumer tends to convey information about their tendency towards the protection of the environment through the consumption of environmentally friendly products or services, which lead to a higher level of self-expressive benefits (Hu, 2012).

2.4.3 Nature Experiences

Weinstein et al., (2015) defined nature experience is a sense of connection or relatedness with one's surroundings, which includes not only the physical environment but also other people. Similarly, Hirsh & Pasek et al., (2015), Romeo et al., (2018) indicated that nature experience refers to the engagement of people with their responsive in balanced conservations about the environmental issue. According to Scherer (2009) nature experience as an individual's disposition to experience affective ness response in specific environmentally relevant situations. Positive images of natural environments may help constructs a positive attribute belief, increasing the salience of environmentally sound product feature. Mayer et al., (2009) suggested that

nature experiences play an important role in the formation of environmental values and attitudes, which turn positively affects to pro-environmental behavior as well as green purchase intention.

2.4.4 Green Purchase Intention

Green purchase intentions refer to the likelihood that a consumer will buy a particular product resulting from his or her environmental views, and represents the extent to which consumers are prepared to purchase products and services from firms with a reputation for being environmentally friendly (Netemeyer et al., 2005; Newton et al.2015). According to Motafa (2007), green purchase intention refers to environmentally friendly products or sustainable products those are “recyclable and beneficial” to the environmental and avoiding such products in which harm to the environment and society, especially human health. Aligned with the definition above mentioned, Lee (2008) defined green purchasing as the purchasing of procurement efforts which give preferences to products or services that are less harmful to the environmental and human health. Chan (2001) defined green purchase intention as a specific kind of eco-friendly behavior that consumers perform to express their concern to environment.

2.5 Hypotheses Development

2.5.1 Interrelationship among Environmental Awareness and Environmental Concerns

Aman et al., (2012) observed that an increasing number of consumers with environmental concerns will expand the intention to purchase green products. Consumers having a higher level of concern towards the environment may result in the purchase of green products. Several studies have examined the influence of environmental concern on the green products purchase

intention (Albayrak et al., 2013). As per natural conduct examine setting, ecological concern is dependably delectation as a person's worry level to the ecological issues (Hines et al., 1987). Besides, it demonstrates the awareness of other's expectations to monitor the earth, epitomized with enthusiastic intrigue at the people's dimension which is revealed in their association towards the ecological assurance (Lee, 2008; Dagher and Itani, 2014; Prakash and Pathak, 2017). It's trusted that a person's natural mindfulness may increment with his or her organic conduct. Individuals may buy items with eco-name and take part with the reusing programs because of their more prominent increment the attention to ecological issue. Chan and Hawkins (2010) demonstrated that ecological mindfulness was improved by increment a person's natural awareness and discovering the framework. Thusly, the speculation of this examination can be selected as pursues:

H1: There is a positive relationship between environmental awareness and environmental concern on green purchase intention.

2.5.2 Interrelationship among of Environmental concern, Subjective Norm, Perceived Moral Obligation and Perceived Behavioral Control on Green Purchase Intention

2.5.2.1 The Relationship of Environmental concerns and Subjective Norms on Green Purchase Intention

Subjective norm is the idea of an individual that have an influence in another one's decision making (Hee, 2000). Zukin and Maguire (2004) studied social norms and found that they have a major influence on green consumption, and are the basis of many theories and models concerning consumption. Several studies have reported that the subjective norm is an important determinant of intention to purchase green products (Paul et al., 2016). In this study, subjective norms are represented by subjective views of other people that would have the

ability to exert a significant influence on a consumer's decision making. When people are aware of the environmental problem, they are willing to take action and prevent their environment from being influenced by their families, friends, co-workers, and business partners or colleagues. As above indicated, the hypothesis can be drawn as follows:

H2: There is a positive relationship between environmental concern and subjective norm on green purchase intention.

2.5.2.2 The Relationship of Environmental concerns and Perceived Moral Obligation on Green Purchase Intention

Aman et al., (2012) observed that an increasing number of consumers with environmental concerns will build the intention to purchase green products. Consumers having a more elevated amount of worry towards the environment may result in the purchase of green products. Thus, environmental concern is often cited as a strong motivator to purchase (Davies et al., 1995). Several studies have examined the influence of environmental concern on the green products purchase intention (Albayrak et al., 2013). In environmental behavior research, environmental concern is always treated as an individual's concern level to the environmental issues (Hines et al., 1987). They further stated that environmental awareness was constrained by several cognitive and emotional limitations. Cognitive limitations include the non-immediacy of many ecological problems, slow and gradual ecological destruction and the complexity of environmental problems which can seriously compromise an individual's willingness to act environmentally. Moreover, it implies the sense of responsibility to protect the environment, embodied with emotional appeal at the individual's level which is reflected in their involvement towards the environmental protection (Lee, 2008; Dagher & Itani, 2014; Prakash & Pathak, 2017). Thus, the hypothesis can be proposed as follows:

H3: There is positive relationship between environmental concern and perceived moral obligation on green purchase intention.

2.5.2.3 The Relationship of Environmental Concerns and Perceived Behavioral Control on Green Purchase Intention

Perceived behavioral control refers to the degree of control that people perceived themselves having while performing a behavior (Kang et al., 2006). Perceived behavioral control is concerned with the perceived presence of factors that may facilitate or impede the performance of the behavior of interest (Ajzen, 1991). Consumers are likely to develop a strong behavioral intention if they feel that they lack the opportunities or resources required to perform the behavior (Mugobo, 2014). Because perceived behavioral control addresses the issue of behaviors that may not be under the consumer's control, in this study would like include the relationship of environmental awareness and perceived behavioral control.

Lu et al., (2018) demonstrated that perceived behavioral control measure the individual's ability to carry out environmentally sustainability. He further suggested that when people perceived a higher degree of control in engaging in an environmentally sustainable activity, they tend to have a stronger behavior intention. Therefore, the following hypothesis is proposed:

H4: There is a positive relationship between environmental concerns and perceived behavior control on green purchase intention.

2.5.3 Interrelationship among Environmental Awareness, Subjective Norms, Perceived Moral Obligation and Perceived Behavioral Control

2.5.3.1 The Relationship of Environmental Awareness and Subjective Norms on Green Purchase Intention

Subjective norms, as an important determinant of behavioral intention, have been well researched in numerous frameworks in marketing, psychology and consumer behavior (Cherian & Jacob, 2012; Chen & Chai, 2010; Han, Hsu & Chwen, 2010; Savita & Kumar, 2010). Hence, the individual's perceived social pressure to purchase green products would increase with the consumer's motivation to conform to this norm. When people aware of the environmental problem, they willing to take action and prevents their environment that influence by their families, friends, co-workers, and business partners or colleagues. On the basis of this literature review, the hypotheses will be hypothesizing that:

H5: There is a positive relationship of environmental awareness and subjective norms on green purchase intention.

2.5.3.2 The Relationship of Environmental Awareness and Perceived Moral Obligation on Green Purchase Intention

Several studies have examined the influence of environmental awareness on the green products purchase intention (Albayrak et al., 2013). In environmental behavior research, environmental concern is always treated as an individual's concern level to the environmental issues (Hines et al., 1987). They further stated that environmental awareness was constrained by several cognitive and emotional limitations. Previous researches suggested that a person's moral considerations play a prominent role in predicting intention when an individual's self-interest is at odds with others' (Kurland, 1995; Kaiser

and Scheuthle, 2003). Individual's environmental awareness may increase with his/her ecological behavior. For instance, people may purchase products with eco-labels, consume organic foods and participate in recycling programs as a result of their increased awareness of environmental problems (Sarumathi, 2014). Therefore, hypothesis in this study can be drawn as follow:

H6: There is a positive relationship of environmental awareness on perceived moral obligation on green purchase intention.

2.5.3.3 The Relationship of Environmental Awareness and Perceived Behavioral Control on Green Purchase Intention

TPB suggests that when people perceive a higher degree of control in engaging in an environmentally sustainable activity, they tend to have a stronger behavior intention (Ajzen, 1991). Wang and Hazen (2016) demonstrates that environmental awareness has influence in the environmental friendly product purchasing intention decision-making. Perceived behavior control will be measuring an individual's ability to carry out environmentally sustainable activities. According to the TPB model, developing perceived behavioral control prior to generating intention is essential. Therefore, perceived behavior control anticipate that people will have higher control over general environmentally responsible behaviors. Based on the above discussion, hypothesis can be proposed as follow:

H7: There is a positive relationship of environmental awareness and perceived behavioral control on green purchase intention.

2.5.4 Interrelationship among Subjective Norms, Attitude toward Green Products and Green Customer Value

2.5.4.1 The Relationship between Subjective Norms and Attitude Toward Green Products

Swidi et al. (2014) indicated that subjective norms have a direct and significant impact on individual's purchasing intentions. Voon et al. (2011) and Chen (2007) also corroborated these findings, indicating the importance of subjective norms in the framework of the purchasing intentions of consumers. Additionally, subjective norms were found to have a mediations relationship in terms of behavioral factors and green purchasing intentions, as well as a mediate relationship in terms of attitudes and purchasing intentions (Swidi et al. 2014). Previous studies have examined consumer value as the antecedent of consumers' behavioral intention to purchase a product or use a certain service (e.g., Sweeney & Soutar, 2001). Consumer's overall assessment of the utility of a product or service based on the perceptions of what is received and what is given (Zeithaml, 1988). Based on the above, the hypothesis will be proposed:

H8: There is a positive relationship between subjective norms and attitude toward green products.

2.5.4.2 The Relationship between Subjective Norms and Customer Perceived Environmental Value and Perceived Environmental Image

Blackwell et al., (2012) indicated that value play a very important role in the consumer decision process regards to product choice and brand choice. Consequently, value is extremely linked to a consumer attitude concerning any issues surrounding that purchase, and will influence their purchase intention toward green products (Li & Cai, 2012). Swidi et al., (2014) indicate that subjective norms have a direct and significant impact on an individual's

purchasing intentions. According to Woodruff, (1997), the concept of perceived value has been widely employed to illustrate a customer's assessment of products, services and relationships in the consumer and business markets. Several studies have examined the influence of environmental concern, environmental value and environmental image on the green products purchase intention (Albayrak et al., 2013). The sense of responsibility to protect the environment, embodied with emotional appeal at the individuals' level which is reflected in their involvement towards the environmental protection (Lee, 2008; Dagher and Itani, 2014; Prakash and Pathak, 2017). Therefore, hypothesis will be proposed as follow:

H9a: There is a positive relationship between subjective norms and perceived environmental values.

H9b: There is a positive relationship between subjective norms and perceived environmental image.

2.5.4.3 The Relationship among Perceived Moral Obligation, Attitude toward Green Products, and Green Customer Value

Past researches suggested that a person's moral considerations play a prominent role in predicting intention when an individual's self-interest is at odds with others' (Kurland, 1995; Kaiser and Scheuthle, 2003). In some research studies, including a moral factor as a predictor of behaviors has a significantly improved the prediction of intentions such as carrying out dishonest action (Beck and Ajzen, 1991), committing driving violations (Parker et al., 1992), and shoplifting (Tonglet, 2002). Previous studies have explored that perceived values have a positive effect on marketing performance (Sweeney et al., 1999). Due to the perceived value is more importantly to companies or organizations can enhance customer purchase intentions through

product value (Steenkamp and Geyskens, 2006). As indicated, hypothesis in this study can be drawn as follow:

H10: There is a positive relationship between perceived moral obligation and attitude toward green products.

H11a: There is a positive relationship between perceived moral obligation and perceived environmental value.

H11b: There is a positive relationship between perceived moral obligation and perceived environmental image.

2.5.4.4 The Relationship among Perceived Behavioral Control, Attitude toward Green Products, and Green Customer Value

Previous studies have identified that the TBP model has been fundamental in contributing to the understanding and prediction of purchase behaviors concerning eco-friendly action (Cherian & Jacob, 2012). Consumers are unlikely to elaborate strong behavioral intention if they feel that they lack the chances or resources need to perform the behavior (Maree & Mugobo, 2014). Environmental customer's value is extremely attached to a consumer attitudes involving any kind of issues surrounding that purchase, and will influence their purchase intention towards green products (Li & Cai, 2012; Woodall, 2003). Gohand and Balaji, (2016) and Liobikiene and Juknys, (2016) demonstrated that environmental attitude and customer value are manifested in actual action behavior. Previous studies have attempted to explain why consumers make particular choices and sought to find the relationships among the value, attitude and behavioral intentions of consumers. Therefore, the leading hypothesis will be stated as follow:

H12: There is a positive relationship between perceived behavioral control and attitude toward green products.

H13a: There is a positive relationship between perceived behavioral control and perceived environmental value.

H13b: There is a positive relationship between perceived behavioral control and perceived environmental image.

2.5.4.5. The Relationship of Green Customer Value and Attitude toward Products on Green Purchase Intention

Perceived value is described as a customer's general assessment of the net benefit of a service or product based on a customer's judgment (Bolton, 1991). Past research has broadly studied perceived value because it has a positive effect on marketing performance (Sweeney et al., 1999). According to Woodruff, (1997), the concept of perceived value has been widely employed to illustrate a customer's assessment of products, services and relationships in the consumer and business markets. Previous research shows that an environmental image is a major driver of environmental purchasing intention for industrial customers (Bjorklund, 2011). Image represents the benefits of a higher status that adds to the overall experience of a company in the minds of its customers and the wider social context (Ledden et al., 2007). Reputational benefits are realized in the wider supply chain by contributing to the customer's own capabilities as a supplier downward in the supply channel (Appolloni et al., 2014; Fang et al., 2008). As a driver of customer perceived value, environmental image is considered to represent the outcome of the supplier's emphasis on environmentally oriented improvements. Hence, the hypothesis in this study will be proposed as follows:

H14: Green customer value including perceived value and environmental image has a positive relationship on attitude toward green products.

2.5.4.6 The Relationship between Attitude toward Green Products and Green Purchase Intention

Ajzen (1985), who mentioned that one with one attitude towards an actions is more likely to perform that action. As one of the three conceptually independent determinants of intention in TPB, attitude towards a behavior refers to the degree of one's favorable or unfavorable evaluation of their behavior in question (Ajzen, 1991; Ha & Janda, 2012; Klockner, 2013). For example, Irland (1993), conclude that consumer's purchasing intentions are dependent upon their environmental attitudes. According to Tsen et al., 2006, attitude is among factors that plays a major role in predicting intentions of consumers who willing to pay more for green products. Releasing, attitude has a very clear role in the decision making to accept a specific behavior. Based on this literature review, attitude towards green products will have influence towards purchasing green products and as a result, the hypothesis come out below:

H15: There is a positive relationship between attitude toward green products and green purchase intention.

2.5.4.7 The Relationship of Green Customer Value and Green Purchase Intention

Consumer's judgment is happened dependent on the absence of fragmented data, perceived value of items which is acted as a sign to them may decidedly impacts buy goal (Kardes et al., 2004). Past investigation inquire about on human qualities recommend that qualities are core value that are essential judgment and activity (Schwartz, 1992). Seen ecological value is progressively noteworthy today, organizations can expand client buy goal through item esteem (Steenkamp, 2006). A single product can make message an incentive to clients by communicating them by distinguishing the item from

contenders and different advantages. The green value increases the information of social esteem. As indicated by Ko (2013) exhibited that the consequences of green promoting altogether identified with the making and contributing a positive saw ecological profile for green items, and result demonstrates that the consumer's expectation to utilize green brand item, for the most part analyze in mix of item greatness and friend's social duty points of view. Mourad (2012) expressed the apparent ecological image is comprehending to positively affect green buying choice. Thusly, this investigation will infer the accompanying theory. Therefore, this study will imply the following hypothesis:

H16a: There is a positive relationship between customer perceived environmental value and green purchase intention.

H16b: There is a positive relationship between customer perceived environmental image and green purchase intention.

2.5.4.8 The Moderating Effect of Attitude toward green products, Green Marketing and Green Purchase Intention

Advantageous individual's honors are conceivable to animate consumer to change their utilization inclinations and purchase decision making (Zhao and Xie, 2011). Chen et al., 2014, showed that WOM is altogether for shopper's basic leadership and furthermore numerous organizations embrace it as a virtual promoting technique. Keller and Fay (2012) recommended that positive WOM can make an abnormal state of respectability in this way, buyers are probably going to settle on a buy choices making when they hear other relating positive data about "green items" those with better green WOM are bound to win the customers' trust and escalate their green acquiring goals (Chen et al., 2012). Past studies on this matter, declared that green advertising has shown a promising effects and enhanced consumer's attitude towards green purchasing intention. Haykto and Matulich (2008), identified several ways of consumers'

response in expressing the green advertising effectiveness, in term of willingness to pay premium price, trust the product safety and believed less harm as well as through loyalty. Consequently, the hypotheses about the moderating effects of green marketing strategy, environmental advertisement, and green WOM are propose as following:

H17: Green marketing including environmental advertisement and green WOM will moderate the effects of green customer value, and attitude to green products on green purchase intention.

2.5.4.9 The Moderating Effective of Green Psychological Benefits, Warm Glow, Self-Expressive Benefit and Nature Experience on Green Purchase Intention

People are willingness to pay more money to purchase environmentally friendly products or service which help to form a self-satisfaction (Nunes & Schokkaert, 2003). Warm glow is caused by the pursuit of a positive emotional state to help other voluntarily (Andreoni, 1990; Allison et al., 2013). Self-expressive benefit is a major influence on green consumer behavior (Hartmann & Apaolaza, 2012). Consumer convey information about their tendency towards the protection of the environment through the consumption of environmentally friendly products or services leads to a higher level of self-expressive benefits (Hu, 2012). Ahmad and Thyagaraj, (2015) found the relationship between self-expressive benefits and purchase intention.

Positive emotional responses to advertising result in a more positive brand attitude affecting intention to purchase (Batra & Ray, 1986; Edell & Burke, 1987). Positive affect evoked by advertising-induced nature experiences leads to brand attitude improvement increases purchase intention (Hartmann & Apaolaza-Ibáñez, 2009). The importance of nature experiences was also investigated in diverse industries. For instance, Mayer et al., (2009) suggested

that nature experiences play an important role in the formation of environmental values and attitudes, which turn positively affects to pro-environmental behavior as well as green purchase intention. Therefore, based on the theoretical and empirical background review, the below hypotheses are stated:

H18: Green psychological benefit including warm glow, self-expressive benefit, and nature experience will positive moderate effect of green customer value on purchasing intention for green products.



CHAPTER THREE

RESEARCH METHODOLOGY

This chapter first introduces conceptual model and construct measurement as well as the hypotheses of this study. The research design and methodology adopted in these studies including questionnaire design, sampling design, data collection methods, and data analysis techniques are included in this chapter.

3.1 Research Model

Based on the above research hypotheses development, this study develops a research framework as shown in Figure 3.1.

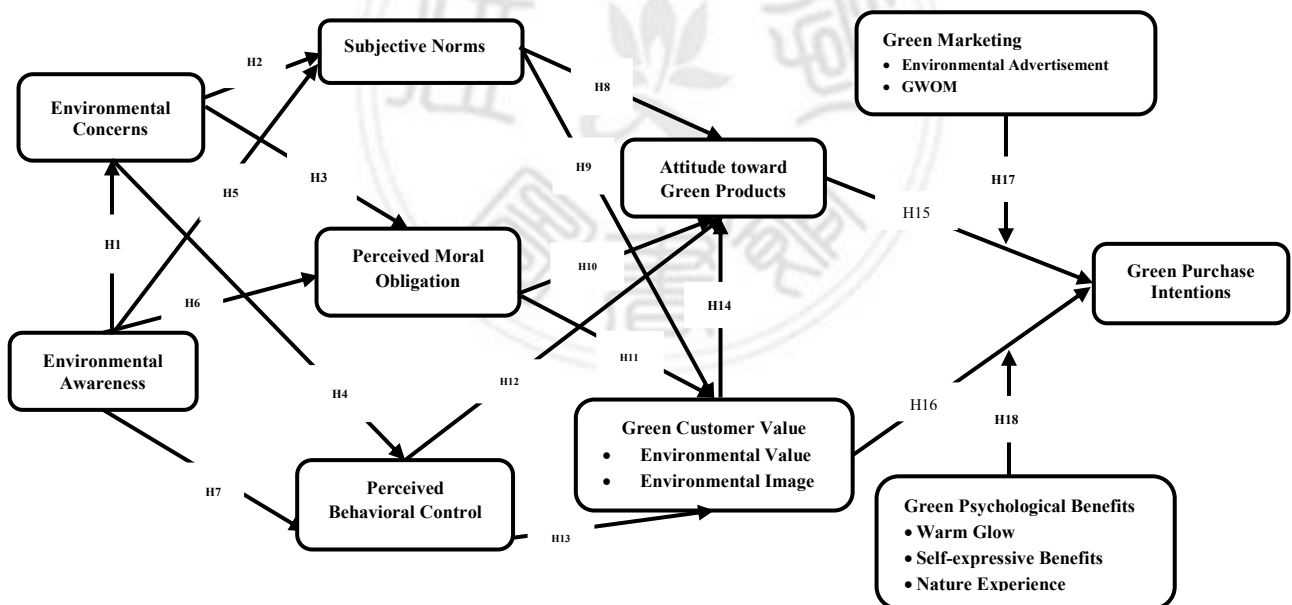


Figure 3-1: Proposed Research Framework

Source: Original Study

3.2 Summary of Research Hypotheses

Based on the above literature review in chapter two and the conceptual model in the previous section, the following research hypotheses were developed for further empirical validation:

H1: There is a positive influence between environmental awareness and environmental concern.

H2: There is a positive influence between environmental concern and subjective norm.

H3: There is positive influence between environmental concern and perceived moral obligation.

H4: There is a positive influence between environmental concerns and perceived behavior control.

H5: There is a positive influence between environmental awareness and subjective norms.

H6: There is a positive influence between environmental awareness and perceived moral obligation.

H7: There is a positive influence between environmental awareness and perceived behavioral control.

H8: There is a positive influence between subjective norms and attitude toward green products.

H9: There is a positive influence between subjective norms and green customer perceived values.

H10: There is a positive influence between perceived moral obligation and attitude toward green products.

- H11a: There is a positive influence between perceived moral obligation and customer perceived environmental value.
- H11b: There is a positive influence between perceived moral obligation and customer perceived environmental image.
- H12: There is a positive influence between perceived behavioral control and attitude toward green products.
- H13a: There is a positive influence between perceived behavioral control and customer perceived environmental value.
- H13b: There is a positive influence between perceived behavioral control and customer perceived environmental image.
- H14: Green customer value including perceived value and environmental image has a positive influence on attitude toward green products.
- H15: There is a positive influence between attitude toward green products and green purchase intention.
- H16: There is a positive influence between green customer value and green purchase intention.
- H17: Green marketing including environmental advertisement and green WOM will moderate the effects of green customer value, and attitude to green products on green purchase intention.
- H18: Green Psychological benefit of warm glow, benefit of self-expressive benefit and nature experience will moderate effect of green customer value and attitude towards green products on purchasing intention for green products.

3.3 Research Design

To accomplish the data collection, it was antedated in Cambodia. The data collecting procedure was started on the 19th of January, 2019, which took one month to finish gathered the questionnaires, and it was completed on 19th February 2019. The survey is conducted by sending seventy-eight (78) questionnaires to Cambodia customers. The questionnaires were collected from two different languages such as Khmer and English in Phnom Penh city, Cambodia. Three hundred and fifty (350) respondents were requested to fill in the questionnaire, based on their experiences of purchasing green products. The purpose of this study is to test and analyze the theoretical model, measuring all the constructs to test the hypotheses.

3.4 Sampling Plan and Data Collection Method

To accomplish the data collection, it was antedated in Cambodia. The data collecting procedure was started on 19th of January, 2019, which took about one month to finishing gathering the questionnaires, and it was completed on 19th February 2019. The survey will be conducted by sending seventy-eight (78) questionnaires to Cambodia customer. Sekaran (2016) recommended that the larger sample size can be obtain more exactly data represent. The normal sample size is between 31 to 500 (Mathwick et al., 2006). The questionnaires were collected from two different languages in Phnom Penh city, Cambodia. Three hundred and nineteen (319) respondents were requested to fill in the questionnaire, based on their experiences of purchasing green products. The purpose of this study is to test and analyze the theoretical model, measuring all the constructs to test the hypotheses. The quantitative data will have collected from Cambodia customer in recent years.

3.5 Research Instrument and Questionnaire Design

3.5.1 Questionnaire Design

The survey consists of 78 questionnaire items was sent out via online to the respondents who have experience on green product purchase such as employees work in service industries, production companies and also university students both of undergraduate and graduated. The data is gathered through a questionnaire survey in one month. The whole arrangement of the poll contains an introductory letter, statistic, directing impact, and green acquiring expectation, and the end of the surveys. The questionnaires is designed as follow:

- (1) Strongly disagree
- (2) Disagree
- (3) Neutral
- (4) Agree
- (5) Strongly Agree

3.5.2 Translation

To conduct and collect data for this study, the respondent will be in Cambodia such as employee from companies, service industries, public sectors, and university students. More importantly, Cambodia language play a very essential role in data collection. In this study, the survey was designed by English, then the second language Khmer was used to translate all questionnaire items in to national language. It is providing convenience to respondents to understand and answer to the right question as well as the purpose of the study. The last but not least is to translate the questionnaire items back into English to check and confirm whether there is any mistake or missing any meaning for correction. To complete this questionnaire, two university lectures from Royal University of Phnom Phen, who major teaching in

International Business Management which have excellent skills in English as well Khmer, in Cambodia were asked to give their suggestion for all the items from English to translate into Cambodia language in order to make sure that nothing is different between Cambodia Language version and English Version. Later, double check by translating Cambodia language back into English one more time. After that, the incorrect words will be removed. Finally, version of the questionnaire in Cambodia language will be completed after being carefully discussed and modified with professional lectures.

3.6 Constructs Measurement

This study proposed 10 research constructs and assessing the relationships among each variable. These constructs are environmental concern, environmental awareness, subjective norm, and behavioral control, attitude toward green products, perceived moral obligation, green customer value, green marketing strategy, green psychological benefits, and green purchase intention. A survey questionnaire items and scales were designed by adapting the measurement that had been validate by other previous researcher or by converting the definitions of each constructs. Moreover, the items of questionnaires from this study are combined with other researchers are described as following:

Table 3-1 Summary of Questionnaires Development

No.	Factors Influences	Sources of Question	Number of items
1	Environmental Concerns	Alibeli & Johnson (2009) Aman et al., (2012)	6

Table 3-1 Summary of Questionnaires Development (Continued)

2	Environmental Awareness	Carrete et al. (2012) Kollmuss & Agyeman (2002)	5
3	Theory of planned Behavior		
	Attitude	(Ajzen, 1991) Ivancevich et al. (2010)	5
	Subjective Norm	(Han et al., & (Paul et al., 2016)	6
	Perceived Behavioral Control	(Ajzen, 1991) & (Zhou et al., 2013)	5
4	Perceived Moral Obligation	Beck & Ajzen, 1991; Leonard et al.,2004	5
5	Green Customer Value		
	Customer's Attitude and Environmental Value	Oskamp et al., (1991)	5
	Customer Perceived value and Environmental Image	(Ledden et al., 2007) (Appolloni et al., 2014; Fang et al., 2008) (Junquera et al., 2012)	5
6	Green Marketing Strategy Moderator		
	Environmental Advertisement	Haykto and Matulich (2008) Tsen et al., (2006)	6
	Green World of Mouth	(Chen et al., 2011) Keller and Fay (2012)	5

Table 3-1 Summary of Questionnaires Development (Continued)

7	Green Psychological Benefit Moderator		
	Warm Glow	(Clark et al., 2003) (Andreoni, 1989; Menges et al., 2005)	6
	Self-expressive Benefit	(Aaker, 1999; Glazer & Konrad, 1996) and (Hartmann and Apaolaza, 2012)	6
	Nature Experience	(Curtin & Lee, 2005) Leather et al., 1998; Maller et al., 2006)	6
8	Green Purchase Intention	Lai and Cheng, 2016 Chan, 2001 & Motafa, 2007	7
Total items			78

Source: Original Study

3.6.1 Environmental Concerns (EC)

As per Diamantopoulos et al., (2003) exhibited that environmental concern is a significant component in buyer basic making process. Aman et al., (2012) consented that when the growth number of shoppers with natural concerns increment will effect on goal to buy green items. Customers with a more elevated amount of worry towards nature may result in the buy of green items. Environmental concern in this investigation will be attempted to create things dependent on the first definition and measurements from Aman et al. (2012). Hence, this examination utilizes a 6 questionnaires item of

environmental concern. All the items use the five-point Likert Scales to measure from 1=strongly disagree to 5=strongly agree. The questionnaire items are shown in Table 3-2 below:

Table 3-2 Measurement of Environmental Concerns

Research Constructs: Environmental Concerns
EC1 The environment issue of this country is my priority concern.
EC2 When I want to purchase some kind of products, I look at the feature label to indent if it contains things that are environmentally friendly.
EC3 I always think about how to lead environmental quality in such kind of appropriate way.
EC4 I Choose to buy products that are environmental-friendly product.
EC5 I prefer green products over non-green products when their products qualities are similar.
EA6 Human must live in harmony with nature to survive.

Source: Alibeli & Johnson (2009) & Aman et al., (2012)

3.6.2 Environmental Awareness (EA)

According to Carrete et al. (2012), environmental awareness refers to “recognize the effect of human conduct on the environment and to facilitate an ecological consciousness comprising a cognitive, comprehension-based element and a non-cognitive, insight-based element”. Emotional limitations include emotional non-involvement and emotional reactions. The dimension of this construct will be measured with 5 items which is modified from Carrete et al., (2012) and Kollmuss and Agyeman (2002). All the items use the five-point Likert Scales to measure from 1=strongly disagree to 5=strongly agree. The questionnaire items are shown in Table 3-3 below:

Table 3-3 Measurement of Environmental Awareness

Research Constructs: Environmental Awareness
EA1: I am an environmentalist.
EA2: I know that environmental problem is not affect to only my country but also worldwide.
EA3: I used to hear and knowledgeable about environmental problem in my country.
EA4: I buy green products even if they are more expensive than non-green alternatives,
EA5: I prefer to buy green products because it can save the environment.

Source: Carrete et al. (2012), Kollmuss & Agyeman (2002)

3.6.3 Attitude, Subjective Norms and Perceived Behavioral Control Toward Green Products

Previous study suggested that subjective norms were found to have a mediations relationship in terms of behavioral factors and green purchasing intentions, as well as a mediate relationship in terms of attitudes and purchasing intentions (Swidi et al. 2014). Ivancevich et al., (2010) showed attitude as a psychological mental condition of availability learned and sorted out through understanding, applying a specific effect on an individual's reaction to the general population, items and circumstances to which it is related. In this examination, attitude will be estimated with 5 things which is adjusted by Ivancevich et al., (2010) and Tan, (2011). All the more critically, Planed Behavior Theory (TPB), pronounced that buy goal is essentially settled attitude, perceived behavioral control, and subjective norm. Concerning these three components anticipate expectation and the guaranteeing foresee conduct (Ajzen, 1991). All the items use the five-point Likert Scales to measure from

1=strongly disagree to 5=strongly agree. The questionnaire items are shown in Table 3-4 as following:

Table 3-4 The measurement of Attitude, Subjective Norms, and Perceived behavioral control towards green products

Research Constructs: Attitude towards Green Products
ATT1: It is essential to promote green living in Cambodia.
ATT2: I think environmental protection issue is none of my business and waste time.
ATT3: I tend to buy and use the products that ensuring health and safety.
ATT4: I am strongly agreeing that more environmental protection is more needed in Cambodia.
ATT5: It is very important to raise up the environmental awareness for Cambodia people.
Research Constructs: Subjective Norms Towards Green Products
SN1: Social networks are an option when searching for information about environmental-friendly products I want.
SN2: When selecting products, I always ask the opinion from other friends or other members in my social network.
SN3: Social networks help in accessing details about environmental friendly easily and quickly.
SN4: People in my social network like me to use environmental friendly products.
SN5: People who are influence my behavior think that I should purchase environmentally products.
SN6: My family think that I should purchase environmental friendly products for my convenient.

Table 3-4 The measurement of Attitude, Subjective Norms, and Perceived behavioral control towards green products (Continued)

Research Constructs: Perceived Behavioral Control Towards Green Products
PBC1: I see myself capable to purchase environmental friendly products in the future.
PBC2: I can purchase environmental friendly products even if there is no one around to help me.
PBC3: I have enough knowledge about environmental friendly products before I buy it.
PBC4: I am confident that I can purchase environmental friendly products when I want.
PBC5: I have time, resource, and willingness to purchase environmental friendly.

Source: Ajzen, 1991 & Zhou et al., 2013

3.6.4 Perceived Moral Obligation towards Green Products

Beck and Ajen (1991) contended that apparent perceived moral commitment that somebody feels in charge of playing out a specific conduct ethically when he/she faces with a moral circumstance. Buyers who having a larger amount of worry towards nature may resultant really taking shape a buy of green items. In this way, natural concern is frequently referred to as a solid help to buy (Davies et al., 1995). Numerous examinations have inspected the impact of natural worry on the green items buy expectation (Albayrak et al., 2013). Hence, saw moral commitment toward green item will be estimated with 5 things which is altered by Leonard et al., (2004) and Manstead (2000). All the items use the five-point Likert Scales to measure from 1=strongly disagree to 5=strongly agree. The questionnaire items are shown in Table 3-5 below:

Table 3-5 The measurement of perceived moral obligation

Research Constructs: Perceived Moral Obligation
PMO1: I have an obligation to save my environment.
PMO2: It is important to making a decision to purchase such kind of environmental friendly products.
PMO3: I do care about what kind of products that I have purchase; it does not matter for me to consider about environmental issue.
PMO4: Buying an environmental friendly product is my responsibility.
PMO5: Purchasing an environmental friendly products should start from me.

Source: Beck & Ajzen, 1991; Leonard et al.,2004

3.6.5 Green Customer's Perceived Environmental Values and Environmental Image

According to Woodruff, (1997) the concept of perceived value has been widely employed to illustrate a costumer's assessment of products, services and relationships in the consumer and business markets. Due to perceived values, image represents the benefits of a higher status that adds to the overall experience of a company in the minds of its customers and the wider social context (Ledden et al., 2007). Consequently, environmental image is considered to represent the outcome of the supplier's emphasis on environmentally oriented improvements. The measurement scales are developed based on the results of previous studies. Each of measurement was measured using 5-point Likert-types scales ranging from 1=strongly disagree to 5=strongly agree. The construct measurements are listed in Table 3-6 below:

Table 3-6 The measurement of Green Customer’s Perceived Environmental Values and Environmental Image

Research Constructs: Perceived Environmental Values
PEV1: This product is created through environmentally friendlier process. It will enhance environmental protection and help a better quality of life.
PEV 2: This product is created through environmentally friendlier process, so it causes environmental protection benefits everyone.
PEV 3: I like to buy green products as regarding as the best benchmark of environmental commitments.
PEV 4: This product is successfully about environmental performance.
PEV 5: This product is well established about environmental promise.
Research Constructs: Perceived Environmental Image
PEI1: The quality of green products is extremely high.
PEI 2: I am aware of green products.
PEI3: I always pay much attention on green products when I want to buy something.
PEI4: I am proud of belong to green branding of any kinds of products.
PEI5: The green products of this brand is well made and less harmful to the environment.

Source: Ledden et al., 2007, Appolloni et al., 2014; Fang et al., 2008, Junquera et al., 2012

3.6.6 Green Marketing

As global markets continue to evolve, Kumar et al., (2013) identified that green marketing refers to the marketing of products that are presumed to be environmentally safe. Ottman, Stafford, and Hartman (2006) suggested that a green marketing strategy can be run successfully and effectively after the planners to distinguish the inherent consumer value of green products attributes

or tie desired consumer value to green products and to draw marketing attention to this consumer value. Green marketing tool such environmental advertisement and green word of mouth will make easier perception and awareness of green products attributes and characteristic into purchasing environmentally-friendly product. According to above literature review, green marketing is measured with 5-point Likert-types scales ranging from 1=strongly disagree to 5=strongly agree. The construct measurements are listed in Table 3-7.

Table 3-7 The Measurement of Green Marketing

Research Constructs: Environmental Advertisement
EAD1: Environmental advertisement makes me aware of the products that I need to buy with less harmful to the environment.
EAD2: Environmental commercials provide me with important information regarding to that green products purchasing.
EAD3: After understanding the special incentive program, I can recognize how I can save earth by purchasing green products.
EAD4: Products that are advertised as green are safer to use.
EAD5: Environmental advertisement is a good source of information to buy a product.
EAD6: I like marketing activities which is made by green advertisement.

Table 3-7 The measurement of green marketing (Continued)

Research Constructs: Green World of Mouth (GWOM)
GWOM1: I would like to recommend green product to my friends, colleagues, and other people in my community.
GWOM2: I would share my experience to other people about benefit of buying and purchasing a green product.
GWOM3: Recommend to other people that green product is suitable for their purchasing.
GWOM4: I have an easiness to accept the information from green products.
GWOM5: I suggest green products that I satisfied to my communities.

Source: Chen et al., 2011; Keller and Fay, 2012

3.6.7 Green Psychological Benefits

Hartmann et al., (2012) stated that psychological benefits of green products lead to the creation of positive overall image of the brands. Furthermore, green psychological benefits consist of three components such as: warm glow, self-expressive benefits, and nature experiences. Consumers experience the intrinsic warm glow feeling of well-being as a consequence of the moral satisfaction engendered by contributing to the environmental common good (Nunes & Schokkaert, 2003). Society as a whole receives benefits from green energy, users experience additional personal warm glow, self-expressive, and nature experience benefits contributing to climate protection and energy independence (Menges et al. 2005). Therefore, the measurement of each scales of this study is measured with 5-point Likert-types scales ranging from 1=strongly disagree to 5=strongly agree. The construct measurements are shown in Table 3-8.

Table 3-8 The construct measurements of warm glow, self-expressive benefit, and nature experience

Research Constructs: Warm Glow
<p>WG1: Green products would be my first choice.</p> <p>WG2: Within using a green product, I can feel good because I can help to protect the environment.</p> <p>WG3: Within purchasing and using a green product, I have the feeling off contributing to the well-being of humanity and nature.</p> <p>WG4: Purchasing and using a green product can help me to express my environmental concerns.</p> <p>WG5: Within purchasing and using a green product, my friend perceives me to be concerned about the environment.</p> <p>WG6: Purchasing and using a green product can help me to prevent my country environmental as well as global warming.</p>
Research Constructs: Self-expressive Benefit
<p>SEB1: Purchasing of green products helps me to express myself as a green supporter.</p> <p>SEB2: Purchasing green products reflects my personality of environment.</p> <p>SEB3: Purchasing green products enhance myself.</p> <p>SEB4: Buying green products would help me to feel accepted in the society.</p> <p>SEB5: Buying a green product would improve the way I am perceived.</p> <p>SEB6: Purchasing a green product would make me a good impression on other people.</p>

Table 3-8 The construct measurements of warm glow, self-expressive benefit, and nature experience (Continued)

Research Constructs: Nature Experiences
NE1: Interacting with nature make me happy.
NE2: Interacting with nature keeps me optimistic.
NE3: Not interacting with nature poorly affects my physical health.
NE4: I am more positive when I think of nature.
NE5: I feel uneasy when I am apart from nature for a long time.

Source: Aaker, 1999; Glazer & Konrad, 1996 and Hartmann and Apaolaza, 2012

3.6.8 Green Purchase Intention (GPI)

Green purchase intentions refer to the likelihood that a consumer will buy a particular product resulting from his or her environmental views, and represents the extent to which consumers are prepared to purchase products and services from firms with a reputation for being environmentally friendly (Netemeyer et al., 2005; Newton et al., 2015). Various examinations in regards to factors that impact green consumers' purchase intentions have led by previous analysis such as Chan, (2001); Motafa, (2007), Akehurst et al., 2012; Dagher and Itani, 2014, Kim et al., 2013; Kanchanapibul et al., 2014; Lai and Cheng, 2016. This study intent to measure green purchasing by adopting Lai and Cheng, (2016) with 5-point Likert-types scales ranging from 1=strongly disagree to 5=strongly agree. The construct measurements are shown in Table 3-9.

Table 3-9 The measurement of Green Purchasing Intention

Research Constructs: Green Purchase Intention
GPI1: I avoid buying products which are potentially harmful to the environment.
GPI2: I have changed my principle products for ecological reasons.
GPI3: When I have to choose between two similar products, I choose the one that is less harmful to the environment.
GPI4: I make a special effort to buy paper and plastic that are made from a recycled material.
GPI5: I will not consider the environmental issue when making a purchase.
GPI6: I feel more comfortable when I use green products rather than normal ones.
GPI 7: I aim to buy green products again after my first purchase.

Source: Lai and Cheng, 2016 Chan, 2001 & Motafa, 2007

3.6.9 Demographic Information

The questionnaire items which are related with the respondents and their company will be presented on the last section of the entire questionnaire. These questions are shown as below in table 3-10:

Table 3-10 Demographic Information of Respondents

Demographic Information
1. Gender
2. Ages
3. Occupation Level
4. Educational Background
5. Experience on buying green product
6. Frequency of purchasing green product

Source: Original Study

3.7. Data Analysis Procedures

In order to test the hypotheses, this study applied SPSS 20.0 software and Smart PLS software to analyze the collected data. The following data analysis procedures were as follows:

3.7.1 Descriptive Statistic Analysis

To better understand the characteristics of each variable, descriptive statistical analysis is used to present the means and standard deviation for each research variable. In this study, respondents' profile will be also illustrated which use descriptive statistical analysis techniques in term of frequency of distribution.

3.7.2 Factor Analysis and Reliability Test

To verify the measurement scales and to identify the dimensionality, principal components factors analysis with varimax rotation was applied to condense the collected data into factors. After conducting factor analysis, item-to-total correlation and internal consistency analysis (Cronbach's alpha) were employed to confirm the reliability of each research factors.

- **Factor Analysis**

The purpose of factor analysis is to explore the underlying variance structure of a set of correlation coefficients. Factor analysis assumes that a small number of unobserved constructs are responsible for the correlations among a large number of observed variables. Moreover, factor analysis used to not only summarize or reduce data, but also for exploratory or confirmatory purpose. Items of measurement with factor loading greater than 0.6 were selected as the members for specific factors.

- **Item-to-total Correlation**

Item-to-total correlation measures the correlation of each item to the sum of the remaining items within one factor. This approach assumes that the total score was valid and thus the extent to which the item correlates with the total score is indicative of convergent validity for item. Items with a low correlation (e.g., lower than 0.5) were deleted from further analysis.

- **Internal Consistency Analysis (Cronbach's alpha)**

Cronbach's alpha (α) coefficient is a measure of squared correlation between observed scores and true scores. In other words, Cronbach's alpha is measured in term of the ratio of true score variance to observed score variance. It can test the internal consistency of each factor. According to Robinson and Shaver (1973), if α is greater than 0.7, the factor has high reliability and if α is smaller than 0.3, then it implies that there is low reliability. Cronbach's alpha (α) was calculated for all factor of each research construct in this study.

3.7.3 Confirmatory Factor Analysis (CFA)

Confirmatory factor analysis (CFA) is another form of factor analysis, which is commonly used in social research. It is used to test whether measures of a dimension are consistent with a researcher's understanding and analyzing the nature of that dimension (or factor). The objective of CFA is to test if the data fit a measurement model. We also put all the main variables together with each factor in this stage of analysis. The figure of CFA in this study can be seen in below section.

3.7.3 Partial Least Squares (PLS)

In this study the Partial Least Squares path modeling algorithm was adopted for measurement model and the structural model. The Partial Least Square is less restrictive in regard to its normal distribution assumption, sample size restriction according to Karim, (2009) and multi-collinearity situation than

other options. According to Hair et al., (2014), PLS has more advantages than CB-SEM in the following situations: (1) it's avoid issues related to small sample size, which is not properly distributed; (2) it's can estimate complex research models with many intermediates, latent and observable variables, especially, structure models; (3) It's suitable for research oriented toward prediction (Henseier et al., (2009).

Following to Hair et al., (2014) the evaluation of the measurement model needs to coverage 3 of criterial as below:

- The R^2 value varies from 0 to 1. Specifically, the value of R^2 will be tight if $R^2 \geq 0.672$, the value of R^2 is moderate when R^2 is between 0.33 and below 0.672. However, R^2 is weak if the value of $R^2 \leq 0.19$.
- Average variance extracted (AVE) used for measure convergence. This value has to be smaller than 0.5 (Hair et al., (1998).
- Composite reliability (CR) >0.5 .
- Cronbach's alpha coefficient, its need to be larger than 0.6 to ensure the suitable of the research structure.

CHAPTER FOUR

DATA ANALYSIS AND RESULTS

This chapter presents the results of the study. The first section is the descriptive analysis of the respondents including the responds rates, characteristics of respondents, and the measurement results of variables. The second section present the results of factors analysis and the reliability tests of measurement scales which consist of principal component factors analysis, Cronbach's alpha, coefficient, and item to total correlations. The final section will indicate the results of data analysis associated with each research hypothesis testing.

4.1 Descriptive Statistic Analysis

In order to have a better understand of the characteristics of research structure and demographic information, descriptive statistics analysis was performed to illustrate the mean and standard deviation for all of research variables as well as the frequency for demographic information.

4.1.1 Characteristics of Respondents

Data were gathered through online questionnaire survey over one a half month period from the beginning of mid-February, 2019 to the end of March, 2019 which is for final survey. This survey was conducted in Cambodia, 420 online survey were sent out to respondents via email, web-link, Facebook, and Line. After one and half month, there are 339 valid questionnaires were collected and 20 questionnaires were drop off by the reason of missing data. As a result, 319 questionnaires were usable for further analysis.

Table 4-1 demonstrated the characteristics of respondents, including gender, age, education level, occupation, experience on buying green product, and frequency of buying or purchasing green products. The result shows that 62.4% of respondents are female while the 37.6% of respondents are male. Majority of respondent's age were 26-35 (46.1%) and followed by below 25 (41.7%) respectively. 56.7% of respondents have their education level in undergraduate study which is the majority of respondents, following by postgraduate of 32.9% and 9.1% obtain education lower than undergraduate along with 1.3% are at Ph.D level. Yet, 35.7% of respondents are working in the private sector and 32% are students. 89.3% of respondents have experienced in buying green products with the percent of while the 10.7% have no experience on purchasing green products. The detail characteristics of respondent are conferred in Table 4-1.

Table 4-1 The Characteristics of Respondent

Demographic Variables		Frequency (n=368)	%
Gender	Female	199	62.4
	Male	120	37.6
Age	Less than 25 years old	133	41.7
	26 to 35 years old	147	46.1
	36 to 45 years old	27	8.5
	46 to 55 years old	12	3.8
	More than 55 years old	0	0
Education Level	High School	29	9.1
	Bachelor degree	181	56.7

Table 4-1 The Characteristics of Respondent (Continued)

	Master degree	105	32.9
	Doctoral degree	4	1.3
Occupation	Public Sector	38	11.9
	Private Sector	114	35.7
	Entrepreneur	43	13.5
	Self-employed	22	6.9
	Student	102	32
	Other	0	0
Experience on buying green products	Yes	314	89.3
	No	5	5
Average frequency of purchasing green product	Everyday	46	14.4
	Once a week	90	28.2
	Twice a week	76	23.8
	Once a month	28	8.8
	Once a quarter	35	11
	Once a year	38	11.9
	Never	6	1.9

Source Original Study

4.1.2 Descriptive Statistic

Table 4-2 illustrates a complete descriptive statistic with respect to each of the research variables for 319 respondents, including mean values and standard deviation. The results specify that all respondents incline to report higher levels for most items of the constructs of this research. Particularly, in the constructs of environmental awareness, environmental concern, subjective norm, perceived moral obligation, perceived behavioral control, attitude toward

green products, green customer value, green marketing, green psychological benefit, and green purchase intention with mean score over 4.0 in a five-point scale excepted the item NE5 (M=3.95). However, all respondent tends to report a lower levels of item ATT2 (M=1.48). The detail descriptive statistic shown in Table 4-2.

Table 4-2 Descriptive analysis for Questionnaire Items

Research Items	Mean	Std. Dev.
Environmental Awareness		
[EA1]	4.23	0.632
[EA2]	4.33	0.633
[EA3]	4.28	0.527
[EA4]	4.17	0685
[EA5]	4.24	0.698
Environmental Concern		
[EC1]	4.36	0.480
[EC2]	4.20	0.667
[EC3]	4.21	0.656
[EC4]	4.33	0.666
[EC5]	4.37	0.650
[EC6]	4.30	0.699
Attitude toward Green Product		
[ATT1]	4.18	0.629
[ATT2]	1.48	0.613
[ATT3]	4.20	0.725
[ATT4]	4.41	0.622
[ATT5]	4.32	0.58

Table 4-2 Descriptive analysis for Questionnaire Items (Continued)

Subjective Norm		
[SN1]	4.11	0.682
[SN2]	4.05	0.621
[SN3]	4.16	0.639
[SN4]	4.11	0.690
[SN5]	4.16	0.559
[SN6]	4.07	0.700
Perceived Moral Obligation		
[PMO1]	4.39	0.639
[PMO2]	4.33	0.624
[PMO3]	4.42	0.635
[PMO4]	4.39	0.634
[PMO5]	4.45	0.498
Perceived Behavioral Control		
[PBC1]	4.24	0.567
[PBC 2]	4.06	0.756
[PBCB3]	4.24	0.581
[PBC4]	4.30	0.643
[PBC5]	4.29	0.593
Research Constructs: Green Customer's Value		
Customer's Perceived Environmental Value		
[PEV1]	4.15	0.744
[PEV2]	4.12	0.681
[PEV3]	4.22	0.690
[PEV4]	4.26	0.650
[PEV5]	4.20	0.690

Table 4-2 Descriptive analysis for Questionnaire Items (Continued)

Customer's Perceived Environmental Image		
[PEI1]	4.27	0.634
[PEI2]	4.26	0.589
[PEI3]	4.27	0.611
[PEI4]	4.37	0.535
[PEI5]	4.20	0.699
Research Constructs: Green Marketing		
Environmental Advertisement		
[EAD1]	4.42	0.619
[EAD2]	4.45	0.616
[EAD3]	4.44	0.621
[EAD4]	4.37	0.538
[EAD5]	3.16	1.339
[EAD6]	4.44	0.616
Green Word of Mouth		
[GWOM1]	4.30	0.529
[GWOM2]	4.32	0.581
[GWOM3]	4.31	0.600
[GWOM4]	4.11	0.627
[GWOM5]	4.22	0.666
Research Constructs: Green Psychological Benefit		
Warm Glow		
[WG1]	4.24	0.766
[WG2]	4.16	0.693
[WG3]	4.08	0.751

Table 4-2 Descriptive analysis for Questionnaire Items (Continued)

[WG4]	4.20	0.748
[WG5]	4.13	0.533
[WG6]	4.19	0.553
Self-expressive Benefit		
[SEB1]	4.26	0.564
[SEB2]	4.19	0.593
[SEB3]	4.18	0.652
[SEB4]	4.16	0.660
[SEB5]	4.16	0.668
[SEB6]	4.12	0.7845
Nature Experience		
[NE1]	4.32	0.650
[NE2]	4.21	0.735
[NE3]	3.95	0.832
[NE4]	4.16	0.688
[NE5]	3.95	0.968
[NE6]	4.10	0.676
Research Constructs: Green Purchase Intention		
[GPI1]	4.03	0.747
[GPI2]	4.06	0.641
[GPI3]	4.16	0.652
[GPI4]	4.13	0.736
[GPI5]	4.42	0.634
[GPI6]	4.30	0.622
[GPI7]	4.33	0.592

Source: Original Study

4.2 Factor Analysis and Reliability Test

To validate the dimensionality and reliability of the research constructs, several purification processes, including factor analysis, correlation analysis, and internal consistency analysis (Cronbach's alpha) were conducted. Through factor analysis we have proved the dimensionality of each research construct, selecting questionnaire items with high factor loadings, and to compare these selected items with items suggested theoretically. Latent roots (Eigenvalues), scree test, and other criteria were employed to determine the number of dimensions to be extracted from the principal component factor analysis. Item-to-total correlation and coefficient alpha were also assessed to identify the internal consistency and reliability of the constructs. Factor analysis was conducted for all research contracts as data were taken and adapted from former research and following criterions as below (Hair et al., (2010):

- Factor Loading > than 0.6
- Kaiser Meyer Olkin Measure of Sampling Adequacy (KMO): > than 0.5
- Bartlett's test Sig. < 0.05
- Eigen Value: > than 1
- Explained Variance (accumulative): > than 0.6
- Cronbach's Coefficient alpha (α): > 0.7
- Item-to-total Correlation: Higher than 0.5

After the deletion of questionnaire items, all the research constructs have demonstrated to be valid and reliable, holding Cronbach's alpha (α) higher than 0.70. Also, these research variables indicate item-to-total correlation above 0.50. Therefore, we can continue using them for further analysis to test the proposed hypotheses. The results of the factor analysis and reliability test for each dimension are shown from Table 4-3 to Table 4-17.

4.2.1 Environmental Awareness

Table 4-3 presents the results of factor loading for measurement of “environmental awareness”. Overall, KMO value for all factors in this construct is 0.634 over 0.5, Bartlett test values is 0.000, which indicates correlations between the variable are significant. Therefore, it is shown that items in this factor are all well acceptable to perform factor analysis. Table 4-3 indicates the results of factor loadings for the measurements of environmental awareness. The result shows that the variance explained by this variable is 67.680%. Furthermore, the result also shows that Cronbach’s α value for this factor is 0.721. All variables within this factor have a high coefficient of item-to-total correlation (0.528~0.701).

Table 4-3 Factor Analysis and Reliability Test Results of Environmental Awareness

Research Construct	Research Items	FL	EV	AE	ITC	α
Environmental Awareness KMO=0.634 BTV=0.000			2.384	67.680		0.721
	EA3	0.714			0.602	
	EA4	0.713			0.701	
	EA5	0.706			0.701	
	EA2	0.699			0.583	
	EA1	0.616			0.528	

Note: FL= Factor Loading; EV= Eigen Value; AE= Accumulative Explained; ITC=Item to Total Correlation

Source: Original Study

4.2.2 Environmental Concern

There are sixth items in this construct using to explain the “environmental concern”, which are listed in below Table 4-4. Mainly, the KMO value for all

factors in this construct is 0. 0.659 over 0.5, Bartlett test values is 0.000, which indicates correlations between the variable are significant. Therefore, it is shown that items in this factor are all well acceptable to perform factor analysis. Table 4-4 indicates the results of factor loadings for the measurements of environmental concern. The results show that the variance explained by this variable is 70.706%. Furthermore, the results also show that Cronbach’s α value for this factor is 0.620. All variables within this factor have a high coefficient of item-to-total correlation (0.684~0.900).

Table 4-4 Factor Analysis and Reliability Test Results of Environmental Concern

Research Construct	Research Items	FL	EV	AE	ITC	α
Environmental Concern KMO=0.659 BTV=0.000			1.538	70.706		0.620
	EC3	0.684			0.513	
	EA6	0.841			0.746	
	EC4	Factor loading<0.6		Deleted		
	EC5	0.812			0.619	
	EC2	0.900			0.716	
	EC1	Factor loading<0.6		Deleted		

Note: FL= Factor Loading; EV= Eigen Value; AE= Accumulative Explained; ITC=Item to Total Correlation

Source: Original Study

4.2.3 Subjective Norm

There are six items in this construct using to explain the “subjective norm”, which are listed in below Table 4-5. Mainly, the KMO value for all factors in this construct is 0.659 over 0.5, Bartlett test values is 0.000, which indicates correlations between the variable are significant. Therefore, it shown that items

in this factor are all well acceptable to perform factor analysis. Table 4-5 indicates the results of factor loadings for the measurements of subjective norm. The results show that the variance explained by this variable is 53.170%. Furthermore, the results also show that Cronbach's α value for this factor is 0.821. All variables within this factor have a high coefficient of item-to-total correlation (0.606~0.810).

Table 4-5 Factor Analysis and Reliability Test Results of Subjective Norm

Research Construct	Research Items	FL	EV	AE	ITC	α
Subjective Norm KMO=0.659 BTV=0.000			3.190	53.170		0.821
	SN6	0.810		0.683	0.513	
	SN4	0.807		0.684	0.746	
	SN3	0.737		0.601	0.643	
	SN1	0.730		0.588	0.619	
	SN5	0.663		0.516	0.716	
	SN2	0.606		0.663	0.665	

Note: FL= Factor Loading; EV= Eigen Value; AE= Accumulative Explained; ITC=Item to Total Correlation

Source: Original Study

4.2.4 Perceived Moral Obligation

Table 4-6 illustrates the results of factor loading for measurement of "perceived moral obligation". Mainly, the overall KMO value for all factors in this construct is 0.626 over 0.5, Bartlett test values is 0.000, which indicates correlations between the variable are significant. Therefore, it shown that items in this factor are all well acceptable to perform factor analysis. Table 4-6 indicates the results of factor loadings for the measurements of perceived moral

obligation. The results show that the variance explained by this variable is 73.194%. Furthermore, the results also show that Cronbach's α value for this factor is 0.878. All variables within this factor have a high coefficient of item-to-total correlation (0.826~0.876).

Table 4-6 Factor Analysis and Reliability Test Results of Perceived Moral Obligation

Research Construct	Research Items	FL	EV	AE	ITC	α
Perceived Moral Obligation KMO=0.626 BTV=0.000			2.928	73.194		0.878
	PMO1	0.876			0.761	
	PMO4	0.876			0.672	
	PMO2	0.844			0.726	
	PMO3	0.826			0.699	
	PMO5	Factor loading<0.6			Deleted	

FL= Factor Loading; EV= Eigen Value; AE= Accumulative Explained;
ITC=Item to Total Correlation
Source: Original Study

4.2.5 Perceived Behavioral Control

There are five items in this construct using to explain the “perceived behavioral control”, which are listed in below Table 4-7. Mainly, the KMO value for all factors in this construct is 0.618over 0.5, Bartlett test values is 0.000, which indicates correlations between the variable are significant. Therefore, it shown that items in this factor are all well acceptable to perform factor analysis. Table 4-7 indicates the results of factor loadings for the measurements of subjective norm. The results show that the variance explained by this variable is 66.909%. Furthermore, the results also show that Cronbach's

α value for this factor is 0.705. All variables within this factor have a high coefficient of item-to-total correlation (0.633~0.929).

Table 4-7 Factor Analysis and Reliability Test Results of Perceived Behavioral Control

Research Construct	Research Items	FL	EV	AE	ITC	α
Perceived Behavioral Control KMO=0.618 BTV=0.000			3.345	66.909		0.705
	PBC4	0.849			0.556	
	PBC5	0.711			0.715	
	PBC2	0.644			0.552	
	PBC1	0.929			0.583	
	PBC3	0.633			0.571	

Note: FL= Factor Loading; EV= Eigen Value; AE= Accumulative Explained; ITC=Item to Total Correlation

Source: Original Study

4.2.6 Attitude toward Green Products

There are five items in this construct using to explain the “attitude toward green products”, which are listed in below Table 4-8. Mainly, the KMO value for all factors in this construct is 0.707 over 0.5, Bartlett test values is 0.000, which indicates correlations between the variable are significant. Therefore, it shown that items in this factor are all well acceptable to perform factor analysis. Table 4-8 indicates the results of factor loadings for the measurements of attitude toward green product. The results show that the variance explained by this variable is 60.456%. Furthermore, the results also show that Cronbach’s α value for this factor is 0.707. All variables within this factor have a high coefficient of item-to-total correlation (0.525~0.646).

Table 4-8 Factor Analysis and Reliability Test Results of Attitude toward green products

Research Construct	Research Items	FL	EV	AE	ITC	α
Attitude toward Green Product KMO=0.707 BTV=0.000			3.023	60.456		0.707
	ATT3	0.769			0.646	
	ATT5	0.721			0.551	
	ATT4	0.687			0.533	
	ATT1	0.640			0.525	
	ATT2	0.978			0.541	

Note: FL= Factor Loading; EV= Eigen Value; AE= Accumulative Explained; ITC=Item to Total Correlation

Source: Original Study

4.2.7 Green Customer's Perceived Value

4.2.7.1 Customer's Perceived Environmental Value

There are five items in this construct using to explain the “customer’s perceived value”, which are listed in below Table 4-9. Mainly, the KMO value for all factors in this construct is 0.786 over 0.5, Bartlett test values is 0.000, which indicates correlations between the variable are significant. Therefore, it shown that items in this factor are all well acceptable to perform factor analysis. Table 4-9 indicates the results of factor loadings for the measurements of customer’s perceived environmental value. The results show that the variance explained by this variable is 60.078%. Furthermore, the results also show that Cronbach’s α value for this factor is 0.833. All variables within this factor have a high coefficient of item-to-total correlation (0.741~0.828).

Table 4-9 Factor Analysis and Reliability Test Results of Customer’s Perceived Environmental Value

Research Construct	Research Items	FL	EV	AE	ITC	α
Perceived Environmental Value KMO=0.786 BTV=0.000			3.004	60.078		0.833
	PEV 2	0.828			0.703	
	PEV 4	0.783			0.639	
	PEV 5	0.764			0.617	
	PEV 3	0.756			0.612	
	PEV1	0.741			0.600	

Note: FL= Factor Loading; EV= Eigen Value; AE= Accumulative Explained; ITC=Item to Total Correlation

Source: Original Study

4.2.7.2 Customer’s Perceived Environmental Image

There are five items in this construct using to explain the “customer’s perceived image”, which are listed in below Table 4-10. Mainly, the KMO value for all factors in this construct is 0.768 over 0.5, Bartlett test values is 0.000, which indicates correlations between the variable are significant. Therefore, it shown that items in this factor are all well acceptable to perform factor analysis. Table 4-10 indicates the results of factor loadings for the measurements of customer’s perceived environmental image. The results show that the variance explained by this variable is 57.035%. Furthermore, the results also show that Cronbach’s α value for this factor is 0.811. All variables within this factor have a high coefficient of item-to-total correlation (0.524~0.665).

Table 4-10 Factor Analysis and Reliability Test Results of Customer's Perceived Environmental Image

Research Construct	Research Items	FL	EV	AE	ITC	α
Perceived Environmental Image KMO=0.768 BTV=0.000			2.852	57.035		0.811
	PEI 2	0.802			0.665	
	PEI5	0.793			0.637	
	PEI4	0.754			0.600	
	PEI3	0.733			0.663	
	PEI1	0.688			0.524	

Note: FL= Factor Loading; EV= Eigen Value; AE= Accumulative Explained; ITC=Item to Total Correlation
Source: Original Study

4.2.8 Green Marketing of Environmental Advertisement

There are six items in this construct using to explain the “environmental advertisement”, which are listed in below Table 4-11. Mainly, the KMO value for all factors in this construct is 0.838 over 0.5, Bartlett test values is 0.000, which indicates correlations between the variable are significant. Therefore, it shown that items in this factor are all well acceptable to perform factor analysis. Table 4-11 indicates the results of factor loadings for the measurements of environmental advertisement. The results show that the variance explained by this variable is 81.893%. Furthermore, the results also show that Cronbach’s α value for this factor is 0.994. All variables within this factor have a high coefficient of item-to-total correlation (0.978~0.994).

Table 4-11 Factor Analysis and Reliability Test Results of Environmental Advertisement

Research Construct	Research Items	FL	EV	AE	ITC	α
Environmental Advertisement KMO=0.838 BTV=0.000			4.893	81.893		0.994
	EAD5	0.994			0.990	
	EAD2	0.993			0.989	
	EAD6	0.992			0.988	
	EAD3	0.983			0.975	
	EAD1	0.978			0.966	
	EAD4	Factor loading<0.6			Deleted	

Note: FL= Factor Loading; EV= Eigen Value; AE= Accumulative Explained; ITC=Item to Total Correlation

Source: Original Study

4.2.9 Green Marketing of Green Word of Mouth

There are total items in this construct using to explain the “green word of mouth”, which are listed in below Table 4-12. Mainly, the KMO value for all factors in this construct is 0.780 over 0.5, Bartlett test values is 0.000, which indicates correlations between the variable are significant. Therefore, it shown that items in this factor are all well acceptable to perform factor analysis. Table 4-12 indicates the results of factor loadings for the measurements of green word of mouth. The results show that the variance explained by this variable is 55.582%. Furthermore, the results also show that Cronbach’s α value for this factor is 0.798. All variables within this factor have a high coefficient of item-to-total correlation (0.686~0.829)

Table 4-12 Factor Analysis and Reliability Test Results of Green Word of Mouth

Research Construct	Research Items	FL	EV	AE	ITC	α
Green Word of Mouth (GWOM) KMO=0.780 BTV=0.000			2.779	55.582		0.798
	GWOM2	0.829			0.688	
	GWOM4	0.786			0.636	
	GWOM5	0.722			0.650	
	GWOM3	0.695			0.625	
	GWOM1	0.686			0.615	

Note: FL= Factor Loading; EV= Eigen Value; AE= Accumulative Explained; ITC=Item to Total Correlation

Source: Original Study

4.2.10 Green Psychological Benefits of Warm Glow

There are six items in this construct using to explain the “warm glow”, which are listed in below Table 4-13. Mainly, the KMO value for all factors in this construct is 0.831 over 0.5, Bartlett test values is 0.000, which indicates correlations between the variable are significant. Therefore, it shown that items in this factor are all well acceptable to perform factor analysis. Table 4-13 indicates the results of factor loadings for the measurements warm glow factor. The results show that the variance explained by this variable is 52.582%. Furthermore, the results also show that Cronbach’s α value for this factor is 0.810. All variables within this factor have a high coefficient of item-to-total correlation (0.540~0.762).

Table 4-13 Factor Analysis and Reliability Test Results of Warm Glow

Research Construct	Research Items	FL	EV	AE	ITC	α
Warm Glow KMO=0.831 BTV=0.000			3.155	52.582		0.810
	WG2	0.863			0.762	
	WG3	0.826			0.688	
	WG4	0.707			0.541	
	WG1	0.674			0.540	
	WG5	0.648			0.548	
	WG6	Factor loading<0.6			Deleted	

Note: FL= Factor Loading; EV= Eigen Value; AE= Accumulative Explained; ITC=Item to Total Correlation
Source: Original Study

4.2.11 Green Psychological Benefits of Self-Expressive Benefit

There are six items in this construct using to explain the “self-expressive benefit”, which are listed in below Table 4-14. Mainly, the KMO value for all factors in this construct is 0.800 over 0.5, Bartlett test values is 0.000, which indicates correlations between the variable are significant. Therefore, it shown that items in this factor are all well acceptable to perform factor analysis. Table 4-14 indicates the results of factor loadings for the measurements of self-expressive benefit. The results show that the variance explained by this variable is 55.235%. Furthermore, the results also show that Cronbach’s α value for this factor is 0.835. All variables within this factor have a high coefficient of item-to-total correlation (0.514~0.730).

Table 4-14 Factor Analysis and Reliability Test Results of Self-Expressive Benefit

Research Construct	Research Items	FL	EV	AE	ITC	α
Self-expressive Benefit KMO=0.800 BTV=0.000			3.314	55.235		0.835
	SEB6	0.893			0.615	
	SEB4	0.836			0.730	
	SEB5	0.797			0.708	
	SEB3	0.615			0.618	
	SEB2	0.886			0.585	
	SEB1	0.816			0.514	

Note: FL= Factor Loading; EV= Eigen Value; AE= Accumulative Explained; ITC=Item to Total Correlation
Source: Original Study

4.2.12 Green Psychological Benefits of Nature Experience

There are six items in this construct using to explain the “nature experience”, which are listed in below Table 4-15. Mainly, the KMO value for all factors in this construct is 0.801 over 0.5, Bartlett test values is 0.000, which indicates correlations between the variable are significant. Therefore, it shown that items in this factor are all well acceptable to perform factor analysis. Table 4-15 indicates the results of factor loadings for the measurements of nature experience. The results show that the variance explained by this variable is 52.308%. Furthermore, the results also show that Cronbach’s α value for this factor is 0.820. All variables within this factor have a high coefficient of item-to-total correlation (0.525~0.746).

Table 4-15 Factor Analysis and Reliability Test Results of Nature Experience

Research Construct	Research Items	FL	EV	AE	ITC	α
Nature Experience KMO=0.801 BTV=0.000			3.138	52.308		0.820
	NE1	0.857			0.746	
	NE2	0.836			0.681	
	NE6	0.755			0.633	
	NE5	0.690			0.525	
	NE4	0.625			0.548	
	NE3	Factor loading<0.6			Deleted	

Note: FL= Factor Loading; EV= Eigen Value; AE= Accumulative Explained; ITC=Item to Total Correlation
Source: Original Study

4.2.13 Green Purchase Intention

There are seven items in this construct using to explain the “green purchase intention”, which are listed in below Table 4-16. Mainly, the KMO value for all factors in this construct is 0.868 over 0.5, Bartlett test values is 0.000, which indicates correlations between the variable are significant. Therefore, it shown that items in this factor are all well acceptable to perform factor analysis. Table 4-16 indicates the results of factor loadings for the measurements of nature experience. The results show that the variance explained by this variable is 54.240%. Furthermore, the results also show that Cronbach’s α value for this factor is 0.862. All variables within this factor have a high coefficient of item-to-total correlation (0.543~0.761).

Table 4-16 Factor Analysis and Reliability Test Results of Green Purchase Intention

Research Construct	Research Items	FL	EV	AE	ITC	α
Green Purchase Intention KMO=0.868 BTV=0.00			3.797	54.240		0.862
	GPI3	0.849			0.761	
	GPI2	0.824			0.730	
	GPI1	0.796			0.668	
	GPI6	0.735			0.622	
	GPI4	0.716			0.612	
	GPI 7	0.653			0.543	
	GPI5	Factor loading<0.6			Deleted	

Note: FL= Factor Loading; EV= Eigen Value; AE= Accumulative Explained; ITC=Item to Total Correlation
Source: Original Study

4.3 Confirmatory Factor Analysis (CFA)

According to the confirmatory factor analysis, this study conducted the factor loading by using the SPSS Amos version 23 to check with the questionnaire items and its components. This study adopted analysis the component of each variables as, EA signified as Environmental Awareness, EC signified as Environmental Concern, SN signified as Subjective Norm, PMO signified as Perceived Moral Obligation, PBC signified as Perceived Behavioral Control, ATT signified as Attitude toward green product, CPV signified as Customer's perceived Value, GM signified as Green Marketing, PSYB signified as Psychological Benefits, and GIP signified as Green Purchase Intention. The results of CFA loading required the value is higher than 0.6.

According to Table 4-17, the factor loading which conducted in SPSS Amos were greater than 0.6, and the lowest loading in this analysis 0.694 (SN2). Based on above criteria, it concluded that the reliability and internal consistency of this factor are acceptable.

Table 4-17 Results of Confirmatory Factor Analysis

Environmental Awareness			Estimate Loading
EA5	<---	EA	0.814
EA4	<---	EA	0.759
EA3	<---	EA	0.785
EA2	<---	EA	0.767
EA1	<---	EA	0.826
Environmental Concern			
EC4	<---	EC	0.789
EC3	<---	EC	0.686
EC2	<---	EC	0.850
EC1	<---	EC	0.769
Subjective Norm			
SN5	<---	SN	0.700
SN4	<---	SN	0.794
SN3	<---	SN	0.788
SN2	<---	SN	0.694
SN1	<---	SN	0.776

Table 4-17 Results of Confirmatory Factor Analysis (Continued)

Perceived Moral Obligation			
PMO4	<---	PMO	0.808
PMO3	<---	PMO	0.838
PMO2	<---	PMO	0.859
PMO1	<---	PMO	0.784
Perceived Behavioral Control			
PBC5	<---	PBC	0.858
PBC4	<---	PBC	0.727
PBC3	<---	PBC	0.849
PBC2	<---	PBC	0.852
PBC1	<---	PBC	0.853
Attitude toward green product			
ATT5	<---	ATT	0.758
ATT4	<---	ATT	0.805
ATT3	<---	ATT	0.801
ATT2	<---	ATT	0.701
ATT1	<---	ATT	0.696
Customer's Perceived Vale			
PEIF	<---	CPV	0.782
PEVF	<---	CPV	0.836
Green Marketing			
EADF	<---	GMKT	0.779
GWOM	<---	GMKT	0.817

Table 4-17 Results of Confirmatory Factor Analysis (Continued)

Psychological Benefit			
NEF	<---	GPSYB	0.895
SEBF	<---	GPSYB	0.891
WGF	<---	GPSYB	0.886
Green Purchase Intention			
GPI5	<---	GPI	0.828
GPI4	<---	GPI	0.859
GPI3	<---	GPI	0.793
GPI2	<---	GPI	0.766

Source: Original Study



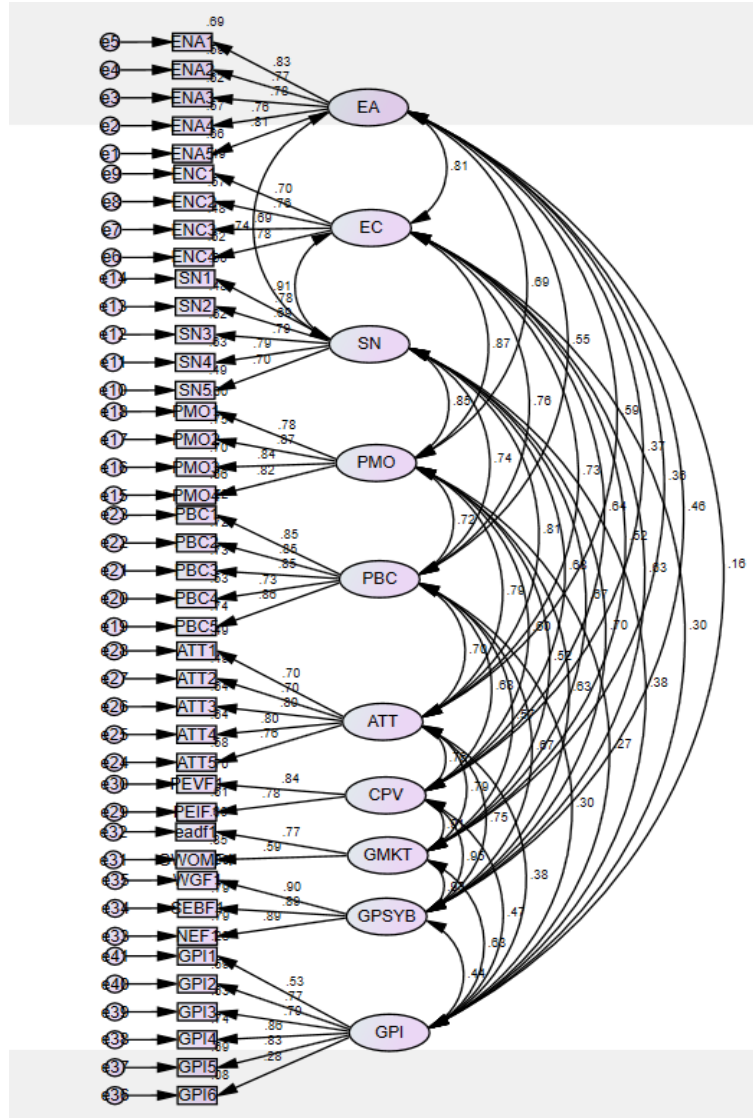


Figure 4-1: The Confirmatory Factor Analysis Result

Source: Original Study

4.4 Hypotheses Testing

4.4.1 Evaluation of the Measurement Model

According to Hair (2011), although the covariance-based structural equation modeling (CB-SEM) has dominated since its first appeared in the 1980s, the partial least square SEM (PLS-SEM) has called a great deal of attention in recent years. While CB-SEM aims at reproducing the theoretical covariance matrix rather than on explained variance, PLS-SEM focuses on

maximizing the explained variance of the dependent latent constructs. Therefore, PLS path modeling has been encountered increasingly among marketing researchers, because of its ability to model latent constructs under conditions of non-normality distribution with small to medium sample sizes (Hair et al., 2011). PLS has been recognized as an effective analytical technique, particularly for those studies focusing on prediction of an outcome (Chin, Marcolin, & Newsted, 2003). Hair et al., (2011) have identified several citations for the appropriates of using PLS. They further argued that PLS-SEM path modeling can be a “silver bullet” to provide parameters that can maximize the explained variance (R^2 value) of the dependent constructs.

Following Hair et al., (2011), there are several criteria to measure the reliability and validity of the measurement model. The principal rule is the coefficient of assurance (R^2) which estimates the measure of clarified difference of each endogenous idle variable. As indicated by Schroer and Herterl (2009), R^2 estimation of more than 0.672 is viewed as generous, 0.33 is portrayed as moderate, while under 0.19 is viewed as feeble. The second criteria of PLS is the normal change separated (AVE) which force the united legitimacy, AVE ought to be higher than 0.5 to comfort that the inactive factors can clarify more the normal (Henseler et al, 2009). The third PLS criteria is the composite unwavering quality (CR), which ought to be higher than 0.6 to avow that the change shared by the various pointers is robuts (Nunnally & Bersin, 1994). The fourth PLS basis is the Cronbach's alpha (α) coefficient, which is ought to be more prominent than 0.7 to check the interior consistency of the examination variable. Thereafter, revealed that the proposed model possesses convergent and discriminant validity in each construct, we evaluated the predictive power of the research model as shown in table 4-4. Furthermore, using the above criteria, the reliability and validity of the measurement model can be verified. There are two relevant criterions for the PLS model assessment

namely, R^2 (Hair et al., 2012) and the goodness of fit of the model (GoF) (Vinzi et al, 2010). As stated in Table 4-4, this research calculated R^2 values for the nine endogenous latent variables which are as follows: 0.477 for environmental awareness, 0.443 for environmental concern, 0.453 for subjective norm, 0.213 for perceived moral obligation, and 0.390 for perceived behavioral control, 0.445 for attitude toward green product, 0.391 for perceived environmental value, 0.413 for perceived environmental image, and 0.711 for green purchase intention. These R^2 coefficient are considered as moderate according to Schroer and Herterl (2009). In addition, the AVEs of the constructs are ranged from 0.458 to 0.600, which are almost higher than the benchmark of 0.5 as suggested, and determine a satisfactory reliability and convergent validity of the research constructs.

The Cronbach's alpha (α) coefficients are ranged from 0.604 to 0.877, which have almost satisfied the criteria of 0.6, and validate the internal consistency if the measurement items. The CR coefficients are ranged from 0.688 to 0.915, which are higher than the criteria of 0.6, and for further assert that the variance shared by the respective indicators is robust. Stand on the above discussions, it can be concluded that the reliability and convergent validity of the research construct are proper, which is allows researcher to continue to an evaluation of the structural model.

Table 4-18 Evaluation of the Measurement Model

Construct	AVE	CR	Cronbach's Alpha(α)	R²
Environmental Awareness	0.477	0.820	0.728	-
Environmental Concern	0.443	0.756	0.652	0.473
Subjective Norm	0.548	0.878	0.833	0.453
Perceived Moral Obligation	0.730	0.915	0.877	0.213
Perceived Behavioral Control	0.458	0.795	0.675	0.390
Attitude toward Green Product	0.490	0.688	0.604	0.445
Perceived Environmental Value	0.600	0.885	0.833	0.391
Perceived Environmental Image	0.567	0.867	0.810	0.413
Green Purchase Intention	0.595	0.897	0.862	0.711

Note: The Good-of-Fitness=0.491

Source: Original Study

4.4.2 The Correlation Among the Research Constructs

Table 4-19 show the of relationship between each pair of factors in this study framework. As the results presented, all the variables have a positive significant correlation with the others. First, green purchase intention was found to be positive correlated with environmental awareness ($r=0.504$, $p<0.01$), environmental concern ($r=0.481$, $p<0.01$), subjective norm ($r=0.608$, $p<0.01$), attitude toward green product ($r=0.517$, $p<0.01$), perceived moral obligation ($r=607$, $p<0.01$). Second, when it comes to the relationship between variable green purchase intention and green psychological benefit, a positive

relation was settled with $r=0.791$, $p<0.01$, which is the strongest correlated pair in the study. Third, factor green customer perceived value ($r=0.706$, $p<0.01$) and green marketing ($r= 0.706$, $p<0.01$) also shows the positive correlations with factor green purchase intention.



Table 4-19 The correlation among The Research Constructs

Constructs	ENA	ENC	SN	ATT	PMO	PBC	GCPV	GMKT	GPSYB	GPI
ENA	1									
ENC	0.460**	1								
SN	0.632***	0.491**	1							
ATT	0.615***	0.362**	0.492**	1						
PMO	0.386**	0.404**	0.441**	0.385**	1					
PBC	0.577**	0.457**	0.695***	0.485**	0.481**	1				
GCPV	0.684***	0.535**	0.617***	0.497**	0.528**	0.545**	1			
GMKT	0.501**	0.415**	0.469**	0.429**	0.825***	0.528**	0.652***	1		
GPSYB	0.583**	0.565**	0.643***	0.483**	0.677***	0.643***	0.751***	0.622***	1	
GPI	0.504**	0.481**	0.608***	0.517**	0.662***	0.607***	0.747***	0.706***	0.791***	1

Note: *p<.05, **p<.01, ***p<.001

ENA=Environmental Awareness, ENC=Environmental Concern, SN=Subjective Norm, ATT= Attitude toward green product, PBC= perceived behavioral control, GCPV=green customer perceived value, GMKT=green marketing, GPSYB= green psychological benefit, GPI= green purchase intention.

Source: Original study

4.4.3 Evaluation of the Structural Model

The structural model with its research hypotheses was tested using the parameter estimate of the path between research constructs. Using a sample of 319, a non-parametric bootstrapping procedure was performed with 2500 sub-sample to obtain the statistical significance of each path coefficient for hypotheses testing. The goodness-of-fit (GoF) index is used to measure the overall fitness between the data and the model. Following Vinzi et al. (2010), GoF greater than 0.36 is considered to be large, 0.25 is described as medium, while 0.10 is described as small. The GoF of this structural model is 0.491, which is considered to be large. This result confirmed that the structural model is appropriate with high predictive power. Based on the structural model as shown in Figure 4-1, and Table 4-2.

4.4.3.1 The Influence of Environmental Awareness

Environmental issue has accompanied the development of human society and also exert different impacts on human being. While recent environmental sustainability research works in the operations management field have focused on product acquisition management and sustainability performance (Walker et al., 2014), environmental awareness stimuli a very critical to promote green purchase intention. The hypotheses as developed in this study have illustrated that environmental awareness have a significant and positive influence on environmental concern (H1), subjective norm (H5), perceived moral obligation (H6), and perceived behavioral control (H7). The empirical results shown that many variables have significant influence on environmental awareness including environmental concern ($\beta = 0.573$; $t = 4.807$), subjective norm ($\beta = 0.573$; $t = 37.534$), perceived moral obligation ($\beta = 0.206$; $t = 11.134$). Furthermore, perceived behavioral control ($\beta = 0.478$; $t = 37.534$) has positive

influence on environmental awareness. Therefore, H1, H5, H6, H7 are supported.

The above results are in line with previous study, Lu Xu et al., (2018) examined that environmental awareness has a significant and positive influence on subjective norm, perceived behavioral control, and attitude toward green products. Several studies have reported that the subjective norm is an important determinant of intention to purchase green products (Paul et al., 2016).

4.4.3.2 The Influence of Environmental Concern

Environmental concerns exist in many people's mind as a general attitude toward environmental protection, which is important determinant of making people change their behaviors to become more environmental friendly (Hansla et al., 2008). This study has stated that environmental concern can positive influence subjective norm (H2), perceived moral obligation (H3), and perceived behavioral control (H4). The empirical results indicated that the relevant variables have significant influences on environmental concern, including subjective norm ($\beta=0.145$; $t=9.190$), perceived moral obligation ($\beta=0.315$; $t=13.215$). Furthermore, the path modeling of perceived behavioral behavior ($\beta=0.218$; $t=11.75$) has significant and positive influence to environmental concern. For this reason, H2, H3, and H4 are supported.

These results are in line with previous studies. Bamberg's (2003) & Kaiser, (2006) view that environmental concern would exert direct influences on subjective norm, perceived moral obligation and perceived behavioral control. In Bamberg's (2003) research into college students' behavior as exhibited in their request for a brochure on green electricity products, he found that environmental concern has direct effects not only on the perception of the normative, behavioral, and control beliefs but also on subjective norms and perceived behavioral control. Furthermore, Mei Fang & Pei Ju, 2014 suggested

that individual's subjective norm, perceived moral obligation and perceived behavioral control are all significant and positive influence respectively by his/her environmental concern. However, Kamonthip & Surakiat (2016) augured that environmental concerns were found to have significant and positive influence for attitude, perceived moral obligation and perceived behavioral control for green product. While, he suggested that environmental concern does not has significant influence on subjective norm.

4.4.3.3 The Interrelationship among Subjective Norm, Attitude toward Green Product and Green Customer Values

This study formulated that there is a significant and positive relationship of subjective norm on attitude towards green products (H8). Subjective norm positively impacts on perceived environmental value (H9a). Subjective norm positively influences on perceived environmental image (H9b). The empirical results subjective norm has a significant and positive influence on attitude toward green product ($\beta = 0.208$; $t = 8.171$), perceived environmental value ($\beta = 0.353$; $t = 11.955$), and perceived environmental image ($\beta = 0.389$; $t = 13.698$). Therefore, hypotheses H8, H9a and H9b are all supported. This study results are aligning with the previous literature. Previous studies have demonstrated the evidence that there is a significant causal path from subjective norm to attitudes which was in prior studies (Vallerand et al. 1992). Chang (1998), examined that the correlation between subjective norms and attitude toward green products more thoroughly, and tested the causal link from norms to attitude. Furthermore, he suggested that the link could be explained with social environment's influence on an individual's attitude formation. Tarkiainen (2005) supported that there is positive relationship between subjective norms and attitude toward green products. When people have a very high environmental value, they will have a very high influence to their people those

who perceived higher environmental image will have a higher influence to their family, friend, and community.

4.4.3.4 The Interrelationship among Perceived Moral Obligation, Attitude toward Green Product, and Green Customer Value

This study has demonstrated that perceived moral obligation can have a significant and positive relationship with attitude toward green product (H10), and green customer value (H11). The empirical results indicated that perceived moral obligation has a significant and positive influence to green customer value including perceived environmental value ($\beta = 0.310$; $t = 12.213$), and perceived environmental image ($\beta = 0.090$; $t = 4.025$) is marginal significant and positive influence on attitude toward green product. However, the path of perceived moral obligation ($\beta = -0.022$; $t = 1.024$) indicated that there is no significant and positive influence on attitude toward green product. The results indicated that individual moral obligation to buy green product is determined by his/ her value and state of mind on environmental protection which is a responsibility of individual contributes to their community as well as the society. According to Tanner and Kast (2003), green product purchases strongly facilitated by positive attitude of consumers towards environmental protection. Personal norm is the feeling of moral obligation of consumers. It is a powerful motivator of environmental behavior (Stern and Dietz, 1994; Vining & Ebreo, 1992). The extent to which people feel obliged to recycle is related to conservation-related product attributes (Ebreo et al., 1999). Chang (2008) explained the individual moral obligation and green value increases the aware of social value. Keller (2011) has stated that the green perceived value is one of the most important for green users. A lot of consumers really care about their purchase. It's important for them that green products which they buy were accepted in their social surrounds. However, the attitude toward green products

might be not influence by their responsibility as they tend to focus more on price of the products or they have a limitation of income and other factors that impact to their purchase green products. Therefore, the hypotheses H10 is not supported, while H11 is supported.

4.4.3.5 The Interrelationship among Perceived Behavioral Control, Attitude toward Green Product, and Green Customer Value on Green Purchase Intention

Ajzen (1991) stated that perceived behavioral control is concerned with the perceived presence of factors that may facilitate or impede the performance of the behavior of interest. Green customer's value is extremely linked to a consumer attitudes concerning any issues surrounding that purchase, and will influence their purchase intention towards green products (Li & Cai, 2012; Woodall, 2003). In this study, the hypothesis developed illustrated that perceived behavioral control has a significant and positive influence on attitude toward green product (H12), perceived environmental value (H13a), and perceived environmental image (H13b).

The empirical results of these hypotheses indicated that perceived behavioral control has significant and positive influence on attitude toward green product ($\beta= 0.185$; $t= 6.165$), perceived environmental image ($\beta= 0.242$; $t= 9.346$). However, the path of perceived behavioral control ($\beta= 0.071$; $t= 2.717$) is significant and positive influence on perceived environmental value. Therefore, hypotheses H12 and H13b are supported. Yet, hypotheses H13a is partially supported.

To support this study, the previous studies have indicated that environmental attitude and customer value are manifested in actual action behavior (Gohand & Balaji, 2016) and Liobikiene & Juknys, 2016). Previous studies have attempted to explain why consumers make particular choices and

sought to find the relationships among the value, attitude and behavioral intentions of consumers (Kim et al., (2014). Hence, individual belief that one has control of the situation is influenced by attitude and values that associated with purchase intention to buy eco-friendly products.

4.4.3.6 The Interrelationship between Attitude Toward Green Product and Green Purchase Intention

The phenomena of attitude have been emphasized as one of the imperative antecedents of purchase intention. Kumar et al., (2017) illustrated such underlying relationships consumers with more favorable attitude towards green products are expected to high degree of their involvement in purchase decision for such products. In order to validate the hypotheses developed in this study have illustrated that attitude towards green product have positive relationship on green purchase intention (H15). The empirical results show that attitude toward green product ($\beta= 0.124$; $t= 5.809$) have a significant and positive relationship with green purchase intention. Aligning to the study results of Kamonthip et al., (2016) attitude had the most significant influence on consumer's purchase intention. Therefore, H15 is supported.

4.4.3.7. The Influence of Green Customer Value on Attitude Toward Green Product and Green Purchase Intention

This study identifies green perceived environmental value and green perceived environmental image as two of the most influential mediators that promote their influence on attitude toward green product and green purchase intention. The hypotheses as developed in this study have illustrated that perceived environmental value has a significant and positive influence on attitude toward green product (H14a), green perceived environmental image

has a positive influence on attitude toward green product(H14b). Perceived environmental value has positive impact on green purchase intention (H16a). Perceived environmental image positively influences on green purchase intention (H16b). The empirical results show that perceived environmental value has a marginal significant and positively influence on attitude toward green product ($\beta= 0.088$; $t= 4.588$). Furthermore, perceived environmental value ($\beta= 0.540$; $t= 25.291$) has a significant and positive influence on green purchase intention. In addition, green perceived environmental image has a significant and positive influence on attitude toward green product ($\beta= 0.326$; $t= 14.157$). Finally, the influence of green perceived environmental image on green purchase intention is significant ($\beta= 0.229$; $t= 10.237$). As a result, H16a, H16b, H14b are supported while H14a is partially supported.

According to Steenkamp (1999) values provide a powerful basis for understanding consumer behavior across cultures. Consequently, value is inextricably linked to a consumer attitudes concerning any issues surrounding that purchase and will influence their purchase intention (Li & Cai, 2012; Woodall, 2003). Previous empirical findings suggest that purchasing environmental product intention tend to be emphasized the performance related aspects of products instead of the environmental qualities (Lingreen et al., 2009). Additionally, Appolloni et al., (2014) suggested that environmental image contributes to the customer's environmental status downstream in the value chain as image is found to be a strong predictor of customer perceived value and attitude toward such products (Ciavolino and Dahlgaard, 2007). Therefore, green customer value including perceived environmental value and perceived environmental image have a positive influence to customer green purchase intention.

Table 4-20 Evaluation of Structural Model and Hypothesis Testing

Hypo.	Path	Standardize Estimate	t-value	p-value
H ₁	Environmental Awareness -> Environmental Concern	0.549	31.455	***
H ₂	Environmental Concern -> Subjective Norm	0.145	9.190	***
H ₃	Environmental Concern -> Perceived Moral Obligation	0.315	13.215	***
H ₄	Environmental Concern -> Perceived Behavioral Control	0.218	11.75	***
H ₅	Environmental Awareness -> Subjective Norm	0.573	37.6303	***
H ₆	Environmental Awareness -> Perceived Moral Obligation	0.206	10.236	***
H ₇	Environmental Awareness -> Perceived Behavioral Control	0.478	32.266	***
H ₈	Subjective Norm -> Attitude toward green product	0.208	8.171	***
H _{9a}	Subjective Norm -> Perceived Environmental Value	0.353	11.955	***
H _{9b}	Subjective Norm -> Perceived Environmental Image	0.389	13.698	***
H ₁₀	Perceived Moral Obligation -> Attitude toward green product	-0.022	1.024	-
H _{11a}	Perceived Moral Obligation -> Perceived Environmental Value	0.310	12.213	***
H _{11b}	Perceived Moral Obligation -> Perceived Environmental Image	0.090	4.025	**
H ₁₂	Perceived Behavioral Control -> Attitude toward green product	0.185	6.165	***
H _{13a}	Perceived Behavioral Control -> Perceived Environmental Value	0.071	2.717	**

Table 4-20 Evaluation of Structural Model and Hypothesis Testing (Continued)

H _{13b}	Perceived Behavioral Control -> Perceived Environmental Image	0.242	9.346	***
H _{14a}	Perceived Environmental Value -> Attitude toward green product	0.088	4.588	**
H _{14b}	Perceived Environmental Image -> Attitude toward green product	0.326	14.157	***
H ₁₅	Attitude toward green product -> Green Purchase Intention	0.124	5.809	***
H _{16a}	Perceived Environmental Value -> Green Purchase Intention	0.540	25.291	***
H _{16b}	Perceived Environmental Image -> Green Purchase Intention	0.229	10.237	***

Notes: *** p < 0.001

Source: Original Study

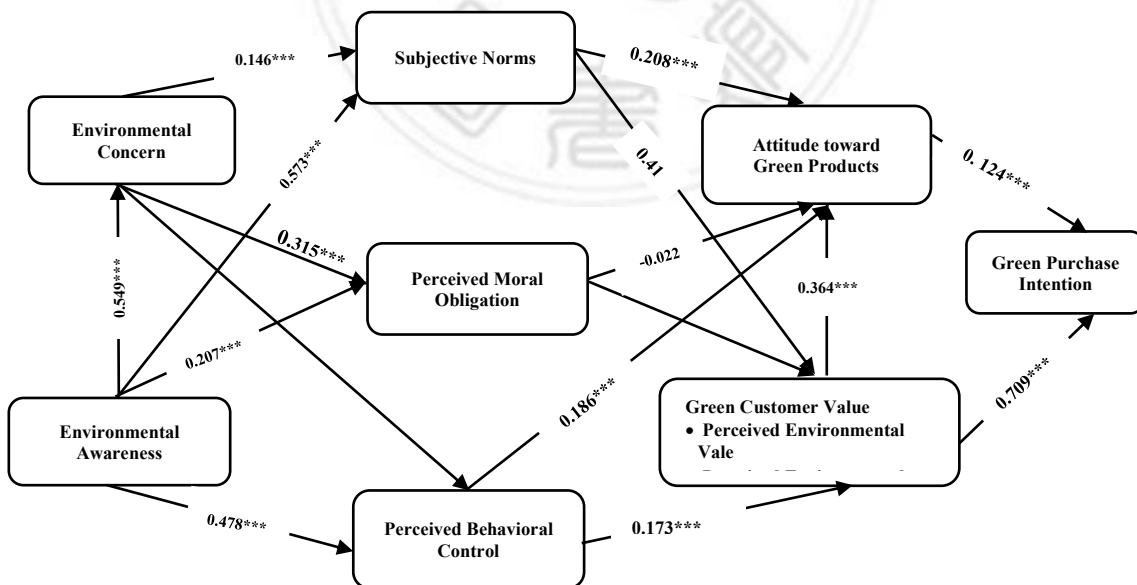


Figure 4-2: The Measurement Model of this Research

Source: Original Study

4.4.4 The Moderating Effects

This study identifies two aspects of moderators; green marketing and green psychological benefit to investigate their impacts on the influences of attitude toward green product, green customer perceived value, and green purchase intention. Green marketing moderators include environmental advertisement and green word of mouth. Meanwhile, psychological benefit moderators consist of warm glow, self-expressive benefit, and nature experience.

To evaluate the moderating effects of these two manners of moderator, this study divided the respondents into four (4) groups using attitude toward green product and the moderators (2x2) as the clustering variables in the K-mean cluster analysis. Later, analysis of variance was then conducted to verify whether the differences of the dependent variables are significant among these four groups of the respondents.

4.4.4.1 The Evaluating Moderating Effect of Green Marketing

To evaluate the moderating effects of green marketing, this study used K-means method to cluster the respondents into 4 groups for each green marketing moderator. For instance, in the study of using environmental advertisement (EAD) as the moderator, the respondents were divided into four groups using EAD and attitude toward green product (ATT) as the two-categorizing variable. As a result, the respondents were divided into four groups as follows: (1) High ATT/High GM, (2) High ATT/Low GM, (3) Low ATT/High GM, and (4) Low ATT/Low GM.

The ANOVA results shows that green marketing including environmental advertisement ($F=18.131$, $p<0.001$) exhibited significant moderating effects of the relationship between attitude toward green product and green purchase intention. Therefore, H17 is supported and confirmed in this study.

Figure 4-3 represents the moderating effect of green marketing. This figure indicated that respondents with higher levels of green marketing ($t=27.6607$) tended to achieved the highest level of attitude toward green product and intention to buy green items. As predicted, respondents with higher level of attitude toward green product but lower level perceived of green marketing ($t=23.6637$) tended to have lower levels of intention to purchase green products. Furthermore, the post-hoc Scheffe in Table 4-21 show that 1 and 2 are in the same group, while 3 and 4 are in the other group. The study results suggested that positive attitude toward green product can enhance consumer to purchase environmentally product in situations which there is a higher environmental advertisement and green word of mouth. These results are supported by Pirani and Secondi (2011), suggested that “eco-friendly attitude represent the most consistent predictor of pro-environmental purchasing intention and behavior”.

Table 4-21 The Results of Green Marketing Moderators

Name of Factor	Low Attitude toward green product		High Attitude toward green product		F-value (p)	Scheffe
	1. Low GM (n=14)	2. High GM (n=24)	3. Low GM (n=30)	4. High GM (n=251)		
Green Purchase Intention	23.6637	23.7347	26.8354	27.6607	18.131 (0.000)	12,34

Source: Original Study

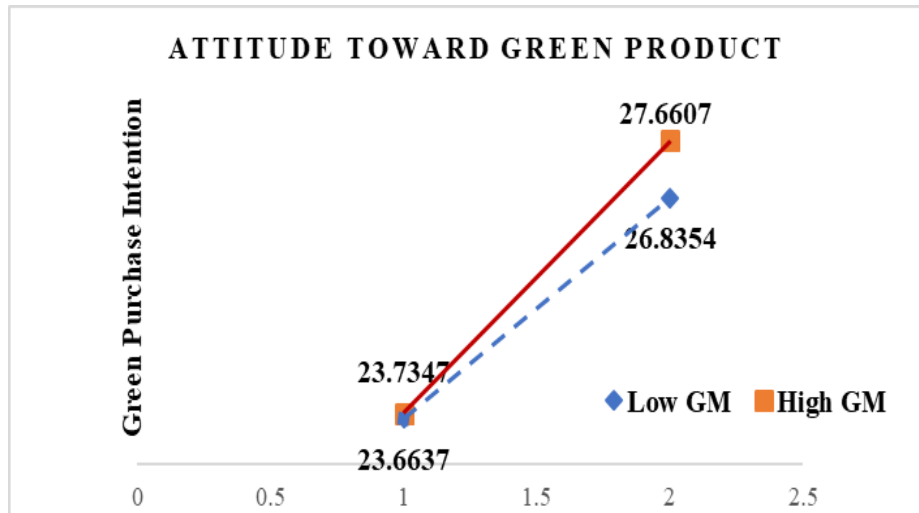


Figure 4-3: The Role of Green Marketing Moderators

Source: Original Study

4.4.4.2 The Evaluating Moderating Effect of Green Psychological Benefit

To evaluate the moderating effects of green psychological benefit, this study used K-means method to cluster the respondents into 4 categories for each green psychological benefit moderator. For example, in the study of using green psychological benefit (GSPYB) as the moderator, the respondents were divided into four groups using WG and green customer's perceived value (GCP) as the two-categorizing variable. As a result, the respondents were divided into four groups as following: (1) High GCP/High GSPYB, (2) High GCP /Low GSPYB, (3) Low GCP/High GSPYB, and (4) Low GCP/Low GSPYB.

Table 4-22 indicates the moderating effect of green psychological benefit ($F=66.327$, $p<0.001$) exhibited significant moderating effects of the relationship between costumer's perceived value and green purchase intention. Therefore, H18 is supported and confirmed in this study.

Figure 4-4 represents the moderating effect of green psychological benefit. This figure illustrates that respondent with higher level of perceived of green psychological benefit ($t=27.3832$), tended to perceived a higher level of

environmental value and green image on green purchase intention. As predicted, respondents with higher level of environmental value and green image but lower level perceived of green psychological benefit ($t=23.3445$) tended to have lower levels of intention to purchase green products.

The results of this study also align with Hartmann & Apaolaza, (2012), they suggested that the psychological benefit warm glow arising from contribution to the improvement of the environmental common good increases intention to purchase green products. Moreover, the level of nature experiences evoked positively effects intention to purchase green product associated by the value of consumer concerning to environmental consumption behavior focus on personal factors and personality such as value related to environmental conservation and general concern for the environment.

Table 4-22 The Results of Green Psychology Benefits Moderators

Name of Factor	Low Green Perceived Customer Value		High Green Perceived Customer Value		F-value (p)	Scheffe
	1. Low GSPYB (n=32)	2. High GSPYB (n=110)	3. Low GSPYB (n=4)	4. High GSPYB (n=173)		
Green Purchase Intention	23.3445	24.5714	24.5636	27.3832	66.329 (0.000)	1,23,4

Source: Original Study

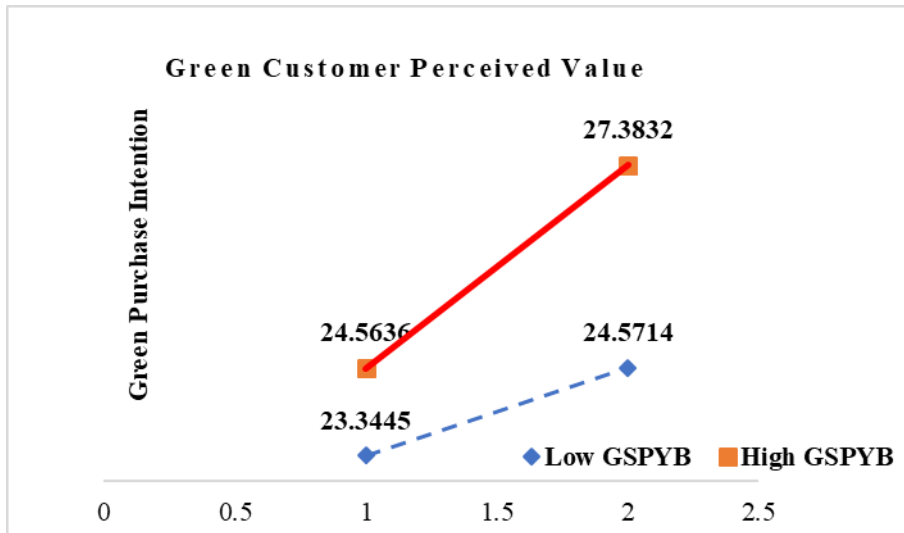


Figure 4-4 The Role of Green Psychological Benefit Moderators

Source: Original Study



CHAPTER FIVE

CONCLUSIONS AND SUGGESTIONS

This chapter discusses the conclusion of this study. Academic and managerial implications, limitations and future research directions are suggested according to the study results. The first section concluded the results from chapter four. On the basis of the conclusion, academic and managerial implications are provided for scholars and marketers in the next section. At the end of this chapter limitations and future research directions are indicated for future improvement.

5.1 Research Discussion and Conclusion

The major purpose of this study is firstly to investigate the influential factors of green purchase, such as environmental concerns, environmental awareness, subjective norms, perceived moral obligation and green customer value on green purchase intention in Cambodia. Secondly, the moderating effects on green marketing (Environmental advertisement and green word of mouth advertisement) and green psychological benefits including warm glow, self-expressive benefits and nature experience that influence of green purchase is also evaluated. Beyond shadow of doubt, this study tries to develop a comprehensive research framework to identify antecedents, and moderator of green purchase, and empirically tested the validity of the framework. Based on the results of this study, several conclusions could be drawn. In Table 5-1, the results of hypotheses are summarized. Among the 18 hypotheses, 16 hypotheses are supported and 1 is not supported. According to the discussion, several conclusions and managerial implication can be drawn as follows.

Table 5-1 The Results of Research Hypotheses

Hypo.	Path	Result
H1	There is a positive influence between environmental awareness and environmental concern on green purchase intention.	Supported
H2	There is a positive influence between environmental concern and subjective norm on green purchase intention.	Supported
H3	There is positive influence between environmental concern and perceived moral obligation on green purchase intention.	Supported
H4	There is a positive relationship between environmental concerns and perceived behavior control on green purchase intention.	Supported
H5	There is a positive relationship of environmental awareness and subjective norms on green purchase intention.	Supported
H6	There is a positive relationship of environmental awareness on perceived moral obligation on green purchase intention.	Supported
H7	There is a positive relationship of environmental awareness and perceived behavioral control on green purchase intention.	Supported
H8	There is a positive relationship between subjective norms and attitude toward green products.	Supported

Table 5-1 The Results of Research Hypotheses (Continued)

H9a	There is a positive relationship between subjective norms and perceived environmental values.	Supported
H9b	There is a positive relationship between subjective norms and perceived environmental image.	Supported
H10	There is a positive relationship between perceived moral obligation and attitude toward green products.	Not Supported
H11a	There is a positive relationship between perceived moral obligation and perceived environmental value.	Supported
H11b	There is a positive relationship between perceived moral obligation and perceived environmental image.	Supported
H12	There is a positive relationship between perceived behavioral control and attitude toward green products.	Supported
13a	There is a positive relationship between perceived behavioral control and perceived environmental value.	Supported
13b	There is a positive relationship between perceived behavioral control and perceived environmental image.	Supported

Table 5-1 The Results of Research Hypotheses (Continued)

14a	There is a positive influence of customer perceived environmental value on attitude toward green product.	Supported
14b	There is a positive influence of customer perceived environmental image on attitude toward green product.	Supported
15	There is a positive relationship between attitude toward green products and green purchase intention.	Supported
16a	There is a positive relationship between customer perceived environmental value and green purchase intention.	Supported
16b	There is a positive influence between customer perceived environmental image and green purchase intention.	Supported
17	The moderating effect of green marketing including environmental advertisement and green word of mouth has a positive moderate on green purchase intention.	Supported
18	The moderating effect of green psychological benefit including warm glow, self-expressive benefit, and nature experience has a positive moderate on green purchase intention.	Supported

Source: Original Study

According to the above results, most of the hypotheses are supported, except hypothesis H10. The first conclusion shows that there are significant and

positive influence of environmental awareness, environmental concerns and the TBP model on green purchase intention. It is indicated that consumers' environmental awareness appears to impact on the consumers' environmental concerns and lead to become a responsibility which consumer need to obligated significantly. These results are consistent with Lu Xu et al. (2018); Paul et al. (2016) which illustrated that environmental awareness is positively influence on subjective norm, perceived behavioral control and attitude toward green products. Deepak and Rishi, (2018) and Hansla et al., (2008) further pointed out that the antecedents and consequence of environmental concern is a general attitude toward environmental protection, which is very important determinant of making people change their behavior to become more environmental friendly user. Consumers translate environmental concerns into their constant commitment to purchase green products. More importantly, when individual consumer with a stronger environmental awareness and concern will present more conservative behavior toward green products. Srivastava (2007), found that green products have evolved as a result of increasing concerns about global warming, global and local pollution levels, diminishing natural reserves, and the torrential of wastes. To make this study more initiative, marketers should apply the concept of green sustainable consumptions to promote the use of goods and services to satisfy the basic needs and enable a better life quality and at the same time the minimize to consumption of the natural resource, the generation of toxic materials and waste and pollutants over a life cycle. Therefore, there is no risk of the impossibility to satisfy the needs of further generation and need to create a share sense of responsibility to the environment that will encourage consumer to adopt an environmentally friendly lifestyle (Chen & Peng, 2012).

Second, this study extended the framework of the TPB model, in which perceived moral obligation is added as antecedents of attitude toward green

products, subjective norm, and perceived behavioral control toward green purchase intention. Several primary studies have provided evidence that moral norms contribute to an explanation of pro-environmental behaviors like energy conservation (Black, Stern, & Elworth, 1985), recycling (Guagnano, Stern, & Dietz 1995), travel mode choice (Hunecke, Blohbaum, Matthies & Hoger, 2001), and pro-environmental buying (Thøgersen, 1999). Past research suggested that personal feelings of moral obligation are needed to be considered to examine an individual's willingness to perform certain behaviors (Gorsuch & Ortberg, 1983; Pomazal & Jaccard, 1976; Schwartz & Tessler, 1972). Furthermore, Beck and Ajzen (1991) asserted that perceived moral obligation should take into consideration of the moral issues to increase the TPB's predictive power. The result in this study denoted that consumer's perceived moral obligation has a positive impact on customer perceived value which including perceived environmental value and perceived environmental image and intention to buy green products. These results are in agreement with those of the previous studies using the TBP model to investigate consumer's intention to purchase green product (Haines et al., 2008). Chen and Tung, (2014) revealed that in the context of green purchase three determinants of TPB model and individual's perceived moral obligation are all statistically significantly. It is indicated that an individual's intention to buy green product is determined by their subjective norm, perceived behavioral control and perceived moral obligation. For instance, to increase and promote customer purchase green products, individual customer needs to feel a sense of respond to their environment with high commitment. Moral obligation is considered as a necessary factor to predict the customer green purchase intention. Thus, marketer can exercise different practice based on the consumer and competition environment to promote green products and green purchase intention. Contrary to our expectation, this study demonstrated that the effect of perceived moral

obligation on attitude toward green products is not significant. A possible explanation for this insignificant effect of perceived moral obligation is that individual moral obligation to buy green product is determined by his/ her value and state of mind on environmental protection which is a responsibility of individual contributes to their community as well as the society. However, the attitude toward green products might be not influenced by their responsibility individuals tend to focus more on price of the products or they have a limitation of income to purchase the products. Another potential reason is that consumers' perceived value is important, this value perception may direct influence to purchase intention.

Third, consumers will perceive the value of green purchase intention higher once their attitude is positive toward green products. In this study, the results revealed that the green customer's perceived value including environmental value and perceived environmental image are significant and positive influence to attitude toward green product. Holbrook (2005) suggested that a customer's perceived value can be a relativistic preference and experience depending on the individual, situation, or product. According to the multidimensional approach, perceived value represents the sum of the different dimension value which have effects in a specific situation. Altogether, previous study shows that customer's perceived green value is reported as a high level of environmental consciousness and pro-environmental attitude (Karna et al., 2001). Perceived value also consists of "softer" elements such as social and image benefit (Anderson et al., 2000; Andreassen and Lindestad, 1998; Ledden et al., 2007). A customer with a positive image about environment not only can enhance the level of environmentally product sustainable consumption but also providing a good image of themselves to the society which further build an environmentally behavior intention to gain the benefit from purchasing a green product. Appolloni et al., (2014) suggested that environmental image

contributes to the customer's environmental status downstream in the value chain as image is found to be a strong predictor of customer perceived value and attitude toward such green products. Additionally, this study results also aligned with Nora and Heikki (2017) addressed that customer's perceived environmental values and perceived environmental image are a main dimension that impact on customer attitude toward green products. Consumer who possessed stronger environmental attitude also rated their environmental value and image constituted strongly to the overall values of green purchase intention.

Furthermore, with regards to the moderators, this study further suggested that both green marketing and psychological benefits have significant moderating effects for the influence of attitude toward green products on green purchase intention. Respondents who perceived higher environmental advertisement of green product will result in higher green purchase intention. These study results are signified with the previous studies. Wagner and Hansen (2002) found that environmental advertisement had a positive impact on consumer attitudes toward green product, the brand advertised, and the intention to buy the product mentioned in the advertisement. This study also pointed out that a person will show great emotional attachment to environmental well-being or more likely to form a more positive environmental actions despite of having a little concern on the environment through the effect and enhanced consumer's attitude toward green purchase intention. Also, Brahim et al., (2015) demoted that green advertising can be positive or negative to a person's attitude varies from one and another toward item, thing, event or person in term of creating favorable attitudes toward the environmental advertisement lead to perform a high level value by encouraging them to form a stronger intention to buy green products.

Furthermore, the green word of mouth illustrated that there is a positive significant and influence on attitude toward green products and green purchase intention. This study aligned with Blacwell et al., (2006) displayed that green WOM give a reliable and trustworthy information about products is more positive behavior and choice. The more positive information customer gain about the product from peers, the more likely they will embrace to make a better products choice. It is very true in efficient marketing, for example “80% of all buying decision are influenced by someone’s direct recommendations” (Solomon et al. 2010). In this study, consumer who has higher positive attitude toward green product which promoted by green word of mouth promotion has a higher level of intention to purchase green product. Therefore, it is very important for marketers to pay more attention on above green marketing moderator to promote green purchase intention.

Another important moderator in this study is green psychological benefit including warm glow, self-expressive benefit, and nature experience is shown to be significant moderating effect on the influence of green purchase in the results. Specifically, respondents who perceived higher warm glow, self-expressive and nature experience tented to have higher green purchase intention. The results of this study also align with Hartmann & Apaolaza, (2012), they suggested that the psychological benefit warm glow arising from contribution to the improvement of the environmental common good increases intention to purchase green products. Moreover, the level of nature experiences evoked positively effects intention to purchase green product associated by the value of consumer concerning to environmental consumption behavior focus on personal factors and personality such as value related to environmental conservation and general concern for the environment. Moreover, Vloachos et al., (2010) suggested that consumers who are emotionally attached (brand love and brand attachment) to a specific brand tended to be more committed to

repurchase and to recommend it to others. Yet, individuals may also engage in distinct environmentally sound behavior to signal their altruism to enhance status and reputations by showing an individual's capacity and willingness to contribute to the common good (Robert & Hardy, 2007). Griskevicius et al., (2010) demonstrated that status motives lead consumers to choose green products over non-green alternatives. Similarly, Anees and Thyagaraj (2015) suggested that the more consumer desire for status and reputation, the higher is their intention to purchase a green product. Therefore, consumers who have a higher self-expressive benefit tend to focus on higher level value of green product, so when the value of green product is high, they will have higher intention toward the green purchase intention (Baek et al., 2010).

5.2 Academic Implications

The empirical results of the hypotheses in this study confirmed the relationships as stated at model. Several academic implications can be drawn from the results of this study. First, though TPB (Ajzen, 1985) and VAM (Kim et al., 2007) have been extensively adopted in early studies, some conclusions have been drawn to consolidate the comprehension of the framework for green purchase intention. To explain such a complex phenomenon of green marketing and green purchase, TPB perceived ease of use and perceived usefulness are not enough due to its lacking of consumer's value perception. Therefore, this study tried to identify the crucial components for consumer's green purchase intention by extending the Theory of Planned Behavior (TPB) proposed by Ajzen (1991), Value-based Adoption Model (VAM) developed by Kim et al., (2007), Perceived Moral Obligation Theory (PMOT) was proposed by Gorsuch & Ortberg (1983), and Norm Activation Theory Model (NAM) was owned by Shalom Schwartz (1977) to introduce the antecedents, mediator, moderators and consequences of green purchase intention. This study examined the

extended framework of the TPB model, in which environmental concern, environmental awareness and perceived moral obligation are added as the antecedents of the attitude toward green products, subjective norm and perceived behavioral control. An integrative research framework was introduced in this study. The results have confirmed that the constructs of TPB (including green attitude, subjective norm, and perceived behavioral control) have significant effect on consumer's green purchase intention. Moreover, this study provided evidence that difference level of individual customer's perceived environmental value, perceived environmental image should be taken into consideration abnormally when conducting a targeted advertising campaign. In addition, perceived value has significant influence on attitude toward green product on purchase intention. This result verified the theory of Value-based Adoption Model (VAM; Kim et al. 2007).

Perceived moral obligation has insignificant on attitude toward green products. This result is contrary to those existing research (Beck and Ajzen, 1991; Leonard et al., 2004; Manstead, 2000; Chen & Tung, 2014). It is suggested that further research can try to evaluate the effects of perceived moral obligation toward green products by different research methodology, e.g. field experiment. This results probably due to an individual moral obligation to buy green product is determined by his/ her value and state of mind on environmental protection which depend on the responsibility of individual contributes to their community as well as the society. However, the attitude toward green products might be not influenced by their responsibility as consumer tend to focus more on price of the products or they have a limitation of income and other factors when they purchase green products.

There are three major academic contributions in this study. Firstly, TPB model was extensively adopted in the customer purchase intention research,

and this study aimed to apply TPB model to better understanding of customer purchase intention toward green products in Cambodia. Secondly, VAM model also adopted in technology adoption research, and this study aimed to apply VAM for green advertising to reduce marketer's ambiguity of green strategy. Hartmann and Apaolaza-Ibanez, (2009) demonstrated that green advertising can address issues from the "environmental issues, environmental friendliness of the products, corporate image campaigns and emphasize on the environmental credential of large companies, to public campaigns promoting environmental responsible behaviors. Since environmental advertisement plays a very important role in marketing, it is potential to influence the consumers due to the emotional appearance which can result in action and lead to green purchase intention. This study endorsed green word-of-mouth model (Anderson & Gerbing, 1988; Söderlund, 1998) to explain the effects of green brand product on the above model. As mentioned by Chen et al., (2015), previous research regarding to consumer green purchase intention has focused on verbal communication between consumer and other group parties through word of mouth channel. Hence, green WOM can convey consumer's pleasant experience through complaints and rumors, so when consumer attached to a good experience with green products, then they are willing to spread words and recommend to other people. Based on the above results, a comprehensive research model has been developed in this study. This research model has integrated different theories and been empirically tested through the data gathering and questionnaire survey. Since previous studies never integrate relevant factors from different perspectives for green purchase, the results of this study have provided as an important reference for academicians to conduct further empirical validations on the research of green purchase intention.

5.3 Managerial Implications

Several managerial implications can be drawn from the results of this study. First, previous studies on green purchase intention have emphasized attitude toward green product, subjective norm, and perceived behavioral control. This study integrated several theories and found important influential antecedents to develop more convincing marketing strategy on green purchase intention. The findings suggested that marketers should try to attract the attention of consumers toward green products using promotions activities as these can persuade consumer to purchase green product. By improving the green marketing advertisement, attitude toward green products, and green purchase intention, environmental awareness is a significant factor to be consider. Additionally, environmental concern is among the strongest influences on the purchase intention for green products, suggesting that government, private sectors, entrepreneurs, and marketers should develop public interventions showcasing how consumption of green products by the environmentally concerned could help in reducing adverse impacts on the environment. This could help increase the consumer's purchase intention for green products, leading to green behavior performance and also impact positively the environment within Cambodian consumers to conduct and improve their eco-friendly living system.

In order to increase consumer's perceived value of green products, marketers have to highlight the function and create a good environmental image and environmental value to the costumers. Perceived value is the most significant variable to determine purchase intention, thus marketers can adopt the two factors of perceived value as the key performance indicator for their advertising campaign to evaluate their customer performance toward green purchase intention. This study indicated that self-expressive benefit is the most critical factor to moderate the relationship between customer perceived value

and purchase intention of green product. The customers who have higher self-expressive benefit will strengthen the positive effect of green product on green purchase intention. Hence, company also could take into account that how to improve customers' self-expressive benefit, as well as, to enrich company's environmental social responsibility to customers, those movements will enhance environmental social responsibility in customers' mind, and then to increase influence positively customer behavioral intentions.

This study reviewed all important moderators of purchase intention toward green products from the literatures and justified their applicability in the research model. This model should provide an important reference for practitioners to develop green marketing strategy of the company. Specifically, marketer or manager should design an effective environmental advertisement in order to increase the environmental image from customer side and create a sense value of environmental friendly consumptions to save society as well as responsibility to their environment. Furthermore, managers should have a better understanding about moderating variable which would benefits them, such green marketing and psychological benefit moderators. Moreover, having a strong green marketing and a strong relationship with consumers, managers can develop and manage the business of green marketing successfully with profitability. The findings of this study also have server implications for the policy maker and development of program implementation bearing on green purchase intention. Therefore, government must pay attention to promoting the concept of environment protection in order to heighten the public's environment concern. In doing so, the government can focus on public communication or in school education about the environment issue. As long as a consumer perceives a higher degree of environmental concern, he/she will take a more positive attitude toward green product and increase their intention to purchase green products.

5.4 Limitation and Future Research Directions

Even though the results demonstrated in this study provide a new conception and perception into the antecedents, moderators, and consequences of the green purchase intention, the findings might be confounded by the following limitations which merit for further investigation. First, this study has developed a comprehensive research framework that encompass the antecedents, moderators, and the consequences of purchase intention toward green products, it is not able to guarantee that those variables that did not mentioned or included in this study are not necessary to explore. Further empirical validations to identify the essential of additional green purchase related factor are encouraged. Therefore, the research framework of this study has integrated some constructs that are conceptually similar and most of the measurement items are adopted from previous literature, yet the study's results maybe deserve further investigation. Second, although this study has illustrated many theories to explain the influential path of the research model, the comparisons of explained capacity among different theories are not performed. Further study can embrace a competing model to compare the explained variance using difference theories from different perspectives. Third, the result of this study found that perceived moral obligation is not significant influence on attitude toward green products of green purchase intention which is different from the previous study of Chen and Tung (2014). Thus, for further research this variable can be investigated again. Finally, limitation in this study is considers green products in general instead of specific green products, so the findings could be different for different products. In consequence, further research should propose and experiments model for various specific green products, green hotel, green restaurant, and green energy consumption etc. Similarly, an approach would be very useful in observing the reactions of consumers who intended to purchase more sustainable products and

consumption toward green products and could also help further researcher to understand how the behavioral intention and attitudes are needed to develop and influenced to green purchase intention.



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APPENDIX

Questionnaire for the Official Experiment The Moderating Effects of Green Marketing and Green Psychological Benefits on Green Purchase Intention. An Extension of the Theory of Planned Behavior

Dear Respondents:

This academic questionnaire is to investigate the relationship of green marketing and green psychological benefits on green purchase intention, environmental concerns, environmental awareness, and subjective norms, perceived behavioral control, attitude towards green products, perceived moral obligations and green customer values. We are anxious to understand better about the effects on how the types and magnitudes of green marketing and green psychological benefits can successfully bring customer attitude toward green products and perceived moral obligation to customer on green purchasing intention in Cambodia. These questions are purely opinion based on there are no right or wrong answer.

Researcher sincerely invite you to spend around 10-15 minutes to complete the questionnaire below and return to us at your earliest convenience side. Your countenance and assistance in this research will be greatly appreciated. Please be assured that your answers will be kept in strict confidentiality and take the time to fill out this questionnaire as accurately as possible. Your kindly help is crucial for this research as well as for future understanding about these issues. We deeply appreciate your kind cooperation.

Yours Faithfully,



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Please kindly answers the following questionnaire based on your opinion:

សូមមេត្តាឆ្លើយសំណួរខាងក្រោមដោយផ្អែកលើគំនិតរបស់អ្នក:

Section 1: Respondent Information: ផ្នែកទី 1: ព័ត៌មានអ្នកចូលរួម

<p>We sincerely appreciate your time and efforts to answer the following questions. Your answer will be treated in strict confidentiality. Please continue to fill out the following questions regarding your personal information:</p> <p>យើងខ្ញុំសូមថ្លែងអំណរគុណយ៉ាងជ្រាលជ្រៅចំពោះការចំណាយពេលវេលានិងការខិតខំរបស់អ្នកដើម្បីឆ្លើយសំណួរខាងក្រោម។ ចម្លើយរបស់អ្នកនឹងត្រូវបានរក្សាទុកក្នុងការរក្សាការសម្ងាត់។ សូមបន្តបំពេញសំណួរខាងក្រោមទាក់ទងនឹងព័ត៌មានផ្ទាល់ខ្លួនរបស់អ្នក:</p>	
1. Gender: ភេទ	<input type="checkbox"/> Male : <input type="checkbox"/> Female: ស្រី ប្រុស
2. Age: អាយុ	<input type="checkbox"/> Less than 25 <input type="checkbox"/> 26-35 <input type="checkbox"/> 36-45 តិចជាង 25 ឆ្នាំ 26-35 ឆ្នាំ 36-45 ឆ្នាំ <input type="checkbox"/> 46-55 <input type="checkbox"/> More than 55 46-55 ឆ្នាំ ច្រើនជាង 55 ឆ្នាំ
3. Education ការអប់រំ	<input type="checkbox"/> High school or lower <input type="checkbox"/> Bachelor degree <input type="checkbox"/> Master degree <input type="checkbox"/> PhD វិទ្យាល័យឬកម្រិតទាបជាង បរិញ្ញាប័ត្រ កម្រិតអនុបណ្ឌិត បណ្ឌិត
4. Occupation (or sectors belonged) មុខរបរ	<input type="checkbox"/> Public Sector <input type="checkbox"/> Private Sector <input type="checkbox"/> Entrepreneur <input type="checkbox"/> Self-employed <input type="checkbox"/> Students <input type="checkbox"/> Other....
<p>5. Experience on Buying an eco-friendly product. (buying/selling green goods or services)</p> <p>បទពិសោធន៍លើការទិញផលិតផលដៃគូប៉ះពាល់បរិស្ថាន។ (ការទិញ / លក់ផលិតផលប្រយោជន៍បរិស្ថាន)</p>	
	<input type="checkbox"/> Yes <input type="checkbox"/> No បាទ/ចាស ទេ

<p>6. Average frequency on purchasing green products</p> <p>ជាមធ្យមលើការទិញផលិតផលដែលមិនប៉ះពាល់បរិស្ថាន</p>	<input type="checkbox"/> Everyday ជាម្សិងរាល់ថ្ងៃ	<input type="checkbox"/> Once a week ម្តងក្នុងមួយសប្តាហ៍	<input type="checkbox"/> Twice a week ពីរដងក្នុងមួយសប្តាហ៍	<input type="checkbox"/> Once a month មួយខែម្តង
	<input type="checkbox"/> Once a quarter ម្តងក្នុងមួយត្រីមាស	<input type="checkbox"/> Once every year ម្តងក្នុងមួយឆ្នាំ	<input type="checkbox"/> Never មិនដែល	

Section 2: Environmental Concerns: ផ្នែកទី 2 ការព្រួយបារម្ភអំពីបញ្ហាបរិស្ថាន

<p>Please take a short look on the questions below related to the satisfaction level after the environmental concerns, and then CIRCLE the level of agreement on each the item below based on your opinion. សូមធ្វើការពិចារណាខ្លីៗលើសំណួរខាងក្រោមដែលទាក់ទងទៅនឹងកម្រិតនៃការពេញចិត្តបន្ទាប់ពីការព្រួយបារម្ភអំពីបញ្ហាបរិស្ថានហើយបន្ទាប់មកធ្វើវាយតម្លៃលើកម្រិតនៃកិច្ចព្រមព្រៀងលើធាតុនីមួយៗខាងក្រោមដោយផ្អែកលើទស្សនៈរបស់អ្នក។</p>	Levels of Agreement កម្រិតនៃការយល់ស្រប				
	Strongly disagree មិនយល់ស្របយ៉ាងខ្លាំង	Disagree: មិនយល់ស្រប	Neutral អព្យាក្រឹត	Agree: យល់ស្រប	Strongly Agree យល់ស្របយ៉ាងខ្លាំង
EC1: Cambodia's environment issue is my priority concern. បញ្ហាបរិស្ថានរបស់ប្រទេសកម្ពុជាគឺជាកង្វល់របស់ខ្ញុំ។	1	2	3	4	5
EC2: When I want to purchase some kind of products, I look at the feature label to see if it contains things that are environmentally friendly. នៅពេលខ្ញុំចង់ទិញផលិតផលមួយចំនួនខ្ញុំមើលស្លាកលក្ខណៈពិសេសដើម្បីមើលថាតើវាមានរបស់អ្វីដែលមិនប៉ះពាល់ដល់បរិស្ថានដែរទេ។	1	2	3	4	5
EC3: I always think about how to lead environmental quality in Cambodia improved in such kind of appropriate way. ខ្ញុំតែងតែគិតពីរបៀបដែលនាំឱ្យគុណភាពបរិស្ថាននៅកម្ពុជាប្រសើរឡើង។	1	2	3	4	5
EC4: I Choose to buy products that are environmental friendly. ខ្ញុំជ្រើសរើសដើម្បីទិញផលិតផលដែលមិនប៉ះពាល់ដល់បរិស្ថាន។	1	2	3	4	5
EC5: I prefer green products over non-green products when their products qualities are similar.	1	2	3	4	5

ខ្ញុំចូលចិត្តទិញផលិតផលដែលមិនប៉ះពាល់ដល់បរិស្ថានជាជាងផលិតផលដែលប៉ះពាល់បរិស្ថាននៅពេលគុណភាពផលិតផលរបស់ពួកគេស្រដៀងគ្នា។					
EA6: Human must live in harmony with nature to survive. មនុស្សត្រូវការរស់នៅដោយសុខដុមរមនាជាមួយធម្មជាតិ។	1	2	3	4	5

Section 3: Environmental Awareness: ការយល់ដឹងអំពីបរិស្ថាន

Please take a short look on the questions below related to the environmental awareness and then CIRCLE the level of agreement on each the item below based on your opinion. សូមធ្វើការពិចារណាខ្លីៗលើសំណួរខាងក្រោមដែលទាក់ទងទៅនឹងកម្រិតនៃការពេញចិត្តបន្ទាប់ពីការព្រួយបារម្ភពីបរិស្ថានហើយបន្ទាប់មកធ្វើវាយតម្លៃកម្រិតនៃកិច្ចព្រមព្រៀងលើធាតុនីមួយៗខាងក្រោមដោយផ្អែកលើទស្សនៈរបស់អ្នក។	Levels of Agreement: កម្រិតនៃការយល់ស្រប				
	Strongly disagree មិនយល់ស្របយ៉ាងខ្លាំង	Disagree: មិនយល់ស្រប	Neutral: អព្យាក្រឹត	Agree: យល់ស្រប	Strongly Agree យល់ស្របខ្លាំង
EA1: I am an environmentalist. ខ្ញុំជាអ្នកស្រឡាញ់បរិស្ថាន។	1	2	3	4	5
EA2: I know that environmental problem is not affect to only my country but also worldwide. ខ្ញុំដឹងថាបញ្ហាបរិស្ថានមិនមានផលប៉ះពាល់ដល់តែប្រទេសរបស់ខ្ញុំប៉ុណ្ណោះទេប៉ុន្តែក៏មាននៅទូទាំងពិភពលោកផងដែរ។	1	2	3	4	5
EA3: I used to hear and knowledgeable about environmental problem in my country. ខ្ញុំធ្លាប់ឮនិងមានចំណេះដឹងអំពីបញ្ហាបរិស្ថាននៅក្នុងប្រទេសរបស់ខ្ញុំ។ ខ្ញុំធ្លាប់ឮនិងមានចំណេះដឹងអំពីបញ្ហាបរិស្ថាននៅក្នុងប្រទេសរបស់ខ្ញុំ។	1	2	3	4	5
EA4: I buy green products even if they are more expensive than non-green alternatives. ខ្ញុំទិញផលិតផលដែលមិនប៉ះពាល់ដល់បរិស្ថានបើទោះបីជាវាមានតម្លៃថ្លៃជាងផលិតផលដែលប៉ះពាល់ដល់បរិស្ថានក៏ដោយ។	1	2	3	4	5
EA5: I prefer to buy green products because it can save the environment. អាចជួយរក្សាបរិស្ថាន។	1	2	3	4	5

Section 4: Attitude, Subjective Norms, Perceived Behavioral Control Toward Green Products.

ផ្នែកទី 4: អាកប្បកិរិយា, បទដ្ឋានតាមប្រធានបទ, និងការត្រួតពិនិត្យគំរូយល់ចំពោះផលិតផលបៃតង។

Please take a short look on the questions below related to the attitude, subjective norms and perceived behavioral control and then CIRCLE the level of agreement on each the item below based on your opinion. សូមធ្វើការពិចារណាខ្លីៗលើសំណួរខាងក្រោមដែលទាក់ទងទៅនឹងកម្រិតនៃការពេញចិត្តបន្ទាប់ពីការព្រួយបារម្ភពីបរិស្ថានហើយបន្ទាប់មករាយការណ៍លើកម្រិតនៃកិច្ចព្រមព្រៀងលើធាតុនីមួយៗខាងក្រោមដោយផ្អែកលើទស្សនៈរបស់អ្នក។	Levels of Agreement កម្រិតនៃការយល់ស្រប				
	Strongly disagree ទំនយល់ស្របយ៉ាងខ្លាំង	Disagree: ទំនយល់ស្រប	Neutral: អព្យាក្រឹត	Agree: យល់ស្រប	Strongly Agree គាំទ្រពេញទំហឹង
Attitude towards green products: គំរូយល់ចំពោះផលិតផលបៃតង។					
ATT1: It is essential to promote green living in Cambodia. វាមានសារៈសំខាន់ណាស់ក្នុងការលើកកម្ពស់ជីវភាពបៃតងនៅកម្ពុជា។	1	2	3	4	5
ATT2: I think environmental protection issue is none of my business and waste time. ខ្ញុំគិតថាបញ្ហាការការពារបរិស្ថានមិនមែនជាជំនួញរបស់ខ្ញុំទេហើយខ្លះខ្លាយពេលវេលា។	1	2	3	4	5
ATT3: I tend to buy and use the products that ensuring health and safety. ខ្ញុំមាននិទ្ទាការក្នុងការទិញនិងប្រើផលិតផលដែលធានាសុខភាពនិងសុវត្ថិភាព។	1	2	3	4	5
ATT4: I am strongly agree that more environmental protection is more needed in Cambodia. ខ្ញុំយល់ស្របយ៉ាងខ្លាំងថាការការពារបរិស្ថានកាន់តែច្រើនគឺត្រូវការជាចាំបាច់នៅក្នុងប្រទេសកម្ពុជា។	1	2	3	4	5
ATT5: It is very important to raise up the environmental awareness for Cambodia people. វាមានសារៈសំខាន់ខ្លាំងណាស់ក្នុងការលើកកម្ពស់ការយល់ដឹងពីបរិស្ថានសម្រាប់ប្រជាជនកម្ពុជា។	1	2	3	4	5
Subjective Norms: បទដ្ឋានតាមប្រធានបទ (ទំនោរ)					
SN1: Social networks are an option when searching for information about environmental	1	2	3	4	5

friendly products I want. បណ្តាញសង្គមគឺជាជម្រើសមួយនៅពេលស្វែងរកព័ត៌មានអំពីផលិតផលដែលមានបរិស្ថានល្អដែលខ្ញុំចង់បាន។					
SN2: When selecting products, I always ask the opinion from other friends or other members in my social network. នៅពេលជ្រើសរើសផលិតផលខ្ញុំតែងតែសួរយោបល់ពីមិត្តភក្តិផ្សេងទៀតឬសមាជិកដទៃទៀតនៅក្នុងបណ្តាញសង្គមរបស់ខ្ញុំ។	1	2	3	4	5
help in accessing SN3: details about environmental Social networks friendly easily and quickly. បណ្តាញសង្គមជួយក្នុងការទទួលបានព័ត៌មានលម្អិតអំពីបរិស្ថានមានភាពងាយស្រួលនិងឆាប់រហ័ស។	1	2	3	4	5
SN4: People in my social network like me to use environmental friendly products. មនុស្សក្នុងបណ្តាញសង្គមរបស់ខ្ញុំណែនាំខ្ញុំឱ្យប្រើផលិតផលដែលមិនប៉ះពាល់ដល់បរិស្ថាន។	1	2	3	4	5
SN5: People who are influence my behavior think that I should purchase environmentally products. មនុស្សដែលមានឥទ្ធិពលឥរិយាបថរបស់ខ្ញុំគិតថាខ្ញុំគួរទិញផលិតផលដែលមិនប៉ះពាល់ដល់បរិស្ថាន។	1	2	3	4	5
SN6: My family think that I should purchase environmental friendly products for my convenient. គ្រួសារខ្ញុំគិតថាខ្ញុំគួរតែទិញផលិតផលដែលមិនប៉ះពាល់ដល់បរិស្ថានសម្រាប់ភាពងាយស្រួលរបស់ខ្ញុំ។	1	2	3	4	5
Perceived Behavioral Control : ការត្រួតពិនិត្យឥរិយាបថ					
PBC1: I see myself capable to purchase environmental friendly products in the future. ខ្ញុំយល់ថាខ្ញុំមានសមត្ថភាពក្នុងការទិញផលិតផលដែលមិនប៉ះពាល់ដល់បរិស្ថាននាពេលអនាគត។	1	2	3	4	5
PBC2: I can purchase environmental friendly products even if there is no one around to help me. ខ្ញុំអាចទិញផលិតផលដែលមិនប៉ះពាល់ដល់បរិស្ថានទោះបីជាគ្មាននរណាម្នាក់ជួយខ្ញុំក៏ដោយ។	1	2	3	4	5

PBC3: I have enough knowledge about environmental friendly products before I buy it. ខ្ញុំមានចំណេះដឹងគ្រប់គ្រាន់អំពីផលិតផលដែលមិនប៉ះពាល់បរិស្ថានមុនពេលខ្ញុំទិញវា។	1	2	3	4	5
PBC4: I am confident that I can purchase environmental friendly products when I want. ខ្ញុំជឿជាក់ថាខ្ញុំអាចទិញផលិតផលដែលមិនប៉ះពាល់បរិស្ថាននៅពេលខ្ញុំចង់បាន។	1	2	3	4	5
PBC5: I have time, resource, and willingness to purchase environmental friendly. ខ្ញុំមានពេលវេលាធនធាននិងឆន្ទៈក្នុងការទិញផលិតផលដែលមិនប៉ះពាល់បរិស្ថាន។	1	2	3	4	5

Section 5: Perceived Moral Obligation towards Green Products

ផ្នែកទី 5: ការយល់ដឹងពីកាតព្វកិច្ចសីលធម៌ឆ្ពោះទៅរកផលិតផលបៃតង

Please take a short look on the questions below related to the perceived moral obligation towards green products and then CIRCLE the level of agreement on each the item below based on your opinion. សូមធ្វើការពិចារណាខ្លីៗលើសំណួរខាងក្រោមដែលទាក់ទងទៅនឹងកម្រិតនៃការពេញចិត្តបន្ទាប់ពីការព្រួយបារម្ភពីបរិស្ថានហើយបន្ទាប់មកធ្វើវាយតម្លៃកម្រិតនៃកិច្ចព្រមព្រៀងលើធាតុនីមួយៗខាងក្រោមដោយផ្អែកលើទស្សនៈរបស់អ្នក។	Levels of Agreement: កម្រិតនៃការយល់ស្រប				
	Strongly disagree មិនយល់ស្របយ៉ាងខ្លាំង	Disagree: មិនយល់ស្រប	Neutral: អព្យាក្រឹត	Agree: យល់ស្រប	Strongly Agree យល់ស្របខ្លាំង
PMO1: I have an obligation to save my environment. ខ្ញុំមានកាតព្វកិច្ចក្នុងការជួយមើលថែរក្សាបរិស្ថានរបស់ខ្ញុំ។	1	2	3	4	5
PMO2: It is important to making a decision to purchase such kind of environmental friendly products. វាជាការសំខាន់ណាស់ក្នុងការសម្រេចចិត្តទិញផលិតផលមិនប៉ះពាល់ដល់បរិស្ថានបែបនេះ។	1	2	3	4	5
PMO3: I do care about what kind of products that I have purchase, it does not matter for me to consider about environmental issue. ខ្ញុំខ្វល់អំពីផលិតផលប្រភេទណាដែលខ្ញុំបានទិញនោះទេវាគ្មានបញ្ហាទេសម្រាប់ខ្ញុំក្នុងការគិតអំពីបញ្ហាបរិស្ថាន។	1	2	3	4	5

PMO4: Buying an environmental friendly product is my responsibility. ការទិញផលិតផលដែលមិនប៉ះពាល់ដល់បរិស្ថានគឺជាទំនួលខុសត្រូវរបស់ខ្ញុំទេ។	1	2	3	4	5
PMO5: Purchasing an environmental friendly product should start from me. ការទិញផលិតផលដែលមិនប៉ះពាល់ដល់បរិស្ថានគួរចាប់ផ្តើមពីខ្ញុំ។	1	2	3	4	5

Section 6: Green Customer's Values towards Green Products

ផ្នែកទី 6: តម្លៃរបស់អតិថិជនបែតងចំពោះផលិតផលបៃតង។

Please take a short look on the questions below related to the green customer's attitude and environmental values, green customer's perceived values and environmental image and then CIRCLE the level of agreement on each the item below based on your opinion. សូមធ្វើការពិចារណាខ្លីៗលើសំណួរខាងក្រោមដែលទាក់ទងទៅនឹងកម្រិតនៃការពេញចិត្តបន្ទាប់ពីការជ្រាបប្រព័ន្ធបរិស្ថានហើយបន្ទាប់មកធ្វើវាយតម្លៃកម្រិតនៃកិច្ចព្រមព្រៀងលើធាតុនីមួយៗខាងក្រោមដោយផ្អែកលើទស្សនៈរបស់អ្នក។	Levels of Agreement កម្រិតនៃការយល់ស្រប				
	Strongly disagree មិនយល់ស្របយ៉ាងខ្លាំង	Disagree: មិនយល់ស្រប	Neutral: អព្យាក្រឹត	Agree: យល់ស្រប	Strongly Agree យល់ស្របខ្លាំង
Green Customer's Attitude and Environmental Values: តម្លៃរបស់អតិថិជនបែតងចំពោះផលិតផលបៃតង					
CAEV1: This product is created through environmentally friendlier process. It will enhance environmental protection and help a better quality of life. ផលិតផលនេះត្រូវបានបង្កើតឡើងតាមរយៈដំណើរការប្រកបដោយភាពជិតស្និទ្ធជាមួយបរិស្ថាន។ វានឹងជួយលើកកម្ពស់ការការពារបរិស្ថាននិងជួយដល់គុណភាពនៃជីវិតកាន់តែប្រសើរឡើង។	1	2	3	4	5
CAEV2: This product is created through environmentally friendlier process, so it causes environmental protection benefits everyone. ផលិតផលនេះត្រូវបានបង្កើតឡើងតាមរយៈដំណើរការដែលមានលក្ខណៈមិនប៉ះពាល់ដល់បរិស្ថាន។ ដូច្នេះវាបណ្តាលឱ្យមនុស្សគ្រប់រូបទទួលបានការការពារបរិស្ថាន។	1	2	3	4	5
CAEV3: I like to buy green products as regarding as the best benchmark of environmental commitments.	1	2	3	4	5

Please take a short look on the questions below related to the green customer's attitude and environmental values, green customer's perceived values and environmental image and then CIRCLE the level of agreement on each the item below based on your opinion. សូមធ្វើការពិចារណាខ្លីៗលើសំណួរខាងក្រោមដែលទាក់ទងទៅនឹងកម្រិតនៃការពេញចិត្តបន្ទាប់ពីការព្រួយបារម្ភពីបរិស្ថានហើយបន្ទាប់មកធ្វើវាយតម្លៃលើកម្រិតនៃកិច្ចព្រមព្រៀងលើធាតុនីមួយៗខាងក្រោមដោយផ្អែកលើទស្សនៈរបស់អ្នក។	Levels of Agreement កម្រិតនៃការយល់ស្រប				
	Strongly disagree ទំនយល់ស្របយ៉ាងខ្លាំង	Disagree: ទំនយល់ស្រប	Neutral: អព្យាក្រឹត	Agree: យល់ស្រប	Strongly Agree គាំទ្រពេញទំហឹង
ខ្ញុំចូលចិត្តទិញផលិតផលបែកតែព្រោះវាទាក់ទងនឹងការប្តេជ្ញាចិត្តខ្ពស់បំផុតក្នុងការជួយការពារបរិស្ថានរបស់ខ្ញុំ។					
CAEV4: This product is successfully about environmental performance. ផលិតផលនេះទទួលបានជោគជ័យចំពោះការអនុវត្តន៍បរិស្ថានល្អ។	1	2	3	4	5
CAEV5: This product is well established about environmental promise. ផលិតផលនេះត្រូវបានបង្កើតឡើងផងដែរអំពីការសន្យាក្នុងការការពារបរិស្ថាន។	1	2	3	4	5
Green Customer's Perceived Values and Environmental Image គុណតម្លៃនៃការយល់ដឹងរបស់អតិថិជនបែកតែនិងរូបភាពនៃបរិស្ថាន					
CPVEI1: The quality of green products is extremely high. គុណភាពនៃផលិតផលបែកតែគឺមានភាពយ៉ាងខ្លាំងក្លាណាស់។	1	2	3	4	5
CPVEI2: I am aware of green products. ខ្ញុំដឹងពីផលិតផលបែកតែ។	1	2	3	4	5
CPVEI3: I always pay much attention on green products when I want to buy something. ខ្ញុំតែងតែយកចិត្តទុកដាក់លើផលិតផលបែកតែនៅពេលខ្ញុំចង់ទិញអ្វីមួយ។	1	2	3	4	5
CPVEI4: I am proud of belong to green branding of any kinds of products. ខ្ញុំមានមោទនភាពចំពោះភាពជាកម្មសិទ្ធិរបស់ផលិតផលម៉ាកអក្សរដែលមាន គ្រប់ប្រភេទនៃផលិតផល។	1	2	3	4	5
CPEVI5: The green products of this brand are well made and less harmful to the environment. ផលិតផលពណ៌បែកតែនៃយីហោនេះត្រូវបានផលិតយ៉ាងល្អនិងមិនសូវមានគ្រោះថ្នាក់ដល់បរិស្ថាន។	1	2	3	4	5

Section 7: The Moderating Effect of Green Marketing Strategy

ផ្នែកទី 7: ឥទ្ធិពលនៃយុទ្ធសាស្ត្រទីផ្សារបៃតង

Please take a short look on the questions below related to the green marketing strategy and then CIRCLE the level of agreement on each the item below based on your opinion. សូមធ្វើការពិចារណាខ្លីៗលើសំណួរខាងក្រោមដែលទាក់ទងទៅនឹងកម្រិតនៃការពេញចិត្តបន្ទាប់ពីការព្រួយបារម្ភពីបរិស្ថានហើយបន្ទាប់មកធ្វើវាយតម្លៃលើកម្រិតនៃកិច្ចព្រមព្រៀងលើធាតុនីមួយៗខាងក្រោមដោយផ្អែកលើទស្សនៈរបស់អ្នក។	Levels of Agreement កម្រិតនៃការយល់ស្រប				
	Strongly disagree	Disagree: មិនយល់ស្រប	Neutral: អព្យាក្រឹត	Agree: យល់ស្រប	Strongly Agree គាំទ្រពេញទំហឹង
Environmental Advertisement: ការផ្សព្វផ្សាយអំពីបរិស្ថាន					
EAD1: Environmental advertisement makes me aware of the products that I need to buy with less harmful to the environment. ការផ្សព្វផ្សាយអំពីបរិស្ថានធ្វើឱ្យខ្ញុំដឹងពីផលិតផលដែលខ្ញុំត្រូវការទិញដោយមិនមានប៉ះពាល់ដល់បរិស្ថាន។	1	2	3	4	5
EAD2: Environmental commercials provide me with important information regarding to that green products purchasing. អំពីបរិស្ថានផ្តល់ឱ្យខ្ញុំនូវព័ត៌មានសំខាន់ៗទាក់ទងនឹងការទិញផលិតផលពាណិជ្ជកម្មបៃតង។	1	2	3	4	5
EAD3: After understanding the special incentive program, I can recognize how can I save earth by purchasing green products. បន្ទាប់ពីយល់ដឹងពីកម្មវិធីលើកទឹកចិត្តពិសេសសម្រាប់អ្នកដឹងពីរបៀបដែលខ្ញុំអាចជួយផែនដីដោយទិញផលិតផលដែលមិនប៉ះពាល់បរិស្ថាន។	1	2	3	4	5
EAD4: Products that are advertised as green are safer to use. ផលិតផលដែលត្រូវបានផ្សព្វផ្សាយជាពាណិជ្ជកម្មបៃតងគឺមានសុវត្ថិភាពក្នុងការប្រើ។	1	2	3	4	5
EAD5: Environmental advertisement is a good source of information to buy a product. ការផ្សព្វផ្សាយអំពីបរិស្ថានគឺជាប្រភពព័ត៌មានដ៏ល្អមួយដើម្បីទិញផលិតផល។	1	2	3	4	5
EAD6: I like marketing activities which is made by green advertisement. ខ្ញុំចូលចិត្តសកម្មភាពទីផ្សារដែលត្រូវបានធ្វើឡើងដោយការផ្សព្វផ្សាយពាណិជ្ជកម្មពាណិជ្ជកម្មបៃតង។					

Green World of Mouth (GWOM) ពាក្យផ្សព្វផ្សាយមាត់					
<p>GWOM1: I would like to recommend green product to my friends, colleagues, and other people in my community.</p> <p>ខ្ញុំចង់ណែនាំផលិតផលបៃតងដល់មិត្តភក្តិមិត្តរួមការងារនិងអ្នកដទៃនៅក្នុងសហគមន៍របស់ខ្ញុំ។</p>	1	2	3	4	5
<p>GWOM2: I would share my experience to other people about benefit of buying and purchasing a green product.</p> <p>ខ្ញុំនឹងចែករំលែកបទពិសោធរបស់ខ្ញុំដល់មនុស្សផ្សេងទៀតអំពីអត្ថប្រយោជន៍នៃការទិញនិងប្រើប្រាស់ផលិតផលបៃតង។</p>	1	2	3	4	5
<p>GWOM3: I will Recommend to other people that green product is suitable for their purchasing.</p> <p>ខ្ញុំនឹងណែនាំអ្នកដទៃថាផលិតផលពណ៌បៃតងគឺសមស្របសម្រាប់ការទិញរបស់ពួកគេ។</p>	1	2	3	4	5
<p>GWOM4: I have an easiness to accept the information from green products.</p> <p>ខ្ញុំមានភាពងាយស្រួលក្នុងការទទួលយកព័ត៌មានពីផលិតផលបៃតង។</p>	1	2	3	4	5
<p>GWOM5: I suggest green products that I satisfied to my communities.</p> <p>ខ្ញុំបានស្នើផលិតផលបៃតងដែលខ្ញុំពេញចិត្តចំពោះសហគមន៍របស់ខ្ញុំ។</p>	1	2	3	4	5

Section 8: The Moderating Effects of Green Psychological Benefits

ផ្នែកទី 8: ឥទ្ធិពលនៃផលប្រយោជន៍ផ្លូវចិត្តបៃតង

<p>Please take a short look on the questions below related to the green psychological benefits and then CIRCLE the level of agreement on each the item below based on your opinion.</p> <p>សូមធ្វើការពិចារណាខ្លីៗលើសំណួរខាងក្រោមដែលទាក់ទងនឹងកម្រិតនៃការពេញចិត្តបន្ទាប់ពីការរួមបញ្ចូលបទពិសោធបើយបន្ទាប់មកធ្វើវាយតម្លៃកម្រិតនៃកិច្ចព្រមព្រៀងលើធាតុនីមួយៗខាងក្រោមដោយផ្អែកលើទស្សនៈរបស់អ្នក។</p>	Levels of Agreement កម្រិតនៃការយល់ស្រប				
	Strongly disagree	Disagree: មិនយល់	Neutral: អព្យាក្រឹត	Agree: យល់ស្រប	Strongly Agree
Warm Glow: ការពេញចិត្តដែលអំពីបរិស្ថាន					
<p>WG1: Green products would be my first choice.</p> <p>ផលិតផលបៃតងនឹងជាជម្រើសដំបូងរបស់ខ្ញុំ។</p>	1	2	3	4	5

<p>WG2: Within using a green product, I can feel good because I can help to protect the environment. នៅក្នុងការប្រើប្រាស់ផលិតផលបៃតងខ្ញុំអាចមានអារម្មណ៍ល្អ ពីព្រោះខ្ញុំអាចជួយការពារបរិស្ថាន។</p>	1	2	3	4	5
<p>WG3: Within purchasing and using a green product, I have the feeling off contributing to the well-being of humanity and nature. ក្នុងការទិញនិងការប្រើប្រាស់ផលិតផលបៃតងខ្ញុំមានអារម្មណ៍ថាបានរួមចំណែកដល់ សុខុមាលភាពរបស់មនុស្សជាតិនិងធម្មជាតិ។</p>	1	2	3	4	5
<p>WG4: Purchasing and using a green product can help me to express my environmental concerns. ការទិញនិងប្រើប្រាស់ផលិតផលបៃតងអាចជួយខ្ញុំក្នុងការបង្ហាញអំពី កង្វល់បរិស្ថានរបស់ខ្ញុំ។</p>	1	2	3	4	5
<p>WG5: Within purchasing and using a green product, my friend perceives me to be concerned about the environment. ក្នុងការទិញនិងប្រើប្រាស់ផលិតផលបៃតងមិត្តរបស់ខ្ញុំយល់ថាខ្ញុំបារម្ភអំពីបរិស្ថាន។</p>	1	2	3	4	5
<p>WG6: Purchasing and using a green product can help me to prevent my country environmental as well as global warming. ការទិញនិងប្រើប្រាស់ផលិតផលបៃតងអាចជួយខ្ញុំទប់ស្កាត់ការបំពុលបរិស្ថានបរិស្ថាននិង កម្ដៅផែនដី។</p>	1	2	3	4	5
Self-Expressive Benefit: អត្ថប្រយោជន៍សម្រាប់ខ្លួនឯង					
<p>SEB1: Purchasing of green products helps me to express myself as a green supporter. ការទិញផលិតផលបៃតងជួយខ្ញុំក្នុងការបង្ហាញពីខ្លួនខ្ញុំថាជាការគាំទ្រផលិតផលអេកូ។</p>	1	2	3	4	5
<p>SEB2: Purchasing green products reflects my personality of environment. ការទិញផលិតផលបៃតងផ្ទុះបញ្ចាំងពីបុគ្គលិកលក្ខណៈរបស់ខ្ញុំអំពីបរិស្ថាន។</p>	1	2	3	4	5
<p>SEB3: Purchasing green products enhance myself. ការទិញផលិតផលបៃតងលើកកម្ពស់ខ្លួនឯង។</p>	1	2	3	4	5
<p>SEB4: Buying green products would help me to feel accepted in the society. ការទិញផលិតផលបៃតងនឹង ជួយខ្ញុំឱ្យមានអារម្មណ៍ថាទទួលបានការលើកទឹកចិត្តក្នុងសង្គម។</p>	1	2	3	4	5

SEB5: Buying a green product would improve the way I am perceived. ការទិញផលិតផលពណ៌បៃតងនឹងធ្វើអោយខ្ញុំប្រសើរឡើងនូវវិធីដែលខ្ញុំដឹង។	1	2	3	4	5
SEB6: Purchasing a green product would make me a good impression on other people. ការទិញផលិតផលពណ៌បៃតងនឹងធ្វើឱ្យអ្នកដទៃមានចំណាប់អារម្មណ៍ល្អចំពោះខ្ញុំ។	1	2	3	4	5
Nature Experiences: បទពិសោធន៍ចំពោះធម្មជាតិ					
NE1: Interacting with nature make me happy. ការប្រាស្រ័យទាក់ទងជាមួយធម្មជាតិធ្វើឱ្យខ្ញុំសប្បាយចិត្ត។	1	2	3	4	5
NE2: Interacting with nature keeps me optimistic. ការប្រាស្រ័យទាក់ទងជាមួយធម្មជាតិធ្វើឱ្យខ្ញុំមានការគិតសុទ្ធិដ៏និយម។	1	2	3	4	5
NE3: Not interacting with nature poorly affects my physical health. ការទាក់ទងជាមួយធម្មជាតិមិនសូវប៉ះពាល់ដល់សុខភាពរាងកាយរបស់ខ្ញុំទេ។	1	2	3	4	5
NE4: I am more positive when I think of nature. ខ្ញុំមានគំនិតវិជ្ជមាននៅពេលខ្ញុំគិតពីធម្មជាតិ។	1	2	3	4	5
NE5: I feel uneasy when I am apart from nature for a long time. ខ្ញុំមានអារម្មណ៍មិនស្រួលនៅពេលដែលខ្ញុំនៅដាច់ឆ្ងាយពីធម្មជាតិអស់រយៈពេលយូរ។	1	2	3	4	5
NE6: In order to maintain physical health, I have to interact with nature. ដើម្បីរក្សាសុខភាពរាងកាយខ្ញុំត្រូវតែមានការទំនាក់ទំនងជាមួយធម្មជាតិ។	1	2	3	4	5

Section 9: Green Purchase Intentions

ផ្នែកទី 9: គោលបំណងទិញផលិតផលអេកូ

<p>Please take a short look on the questions below related to the green purchasing intention and then CIRCLE the level of agreement on each the item below based on your opinion. សូមធ្វើការពិចារណាខ្លីៗលើសំណួរខាងក្រោមដែលទាក់ទងទៅនឹងកម្រិតនៃការពេញចិត្តបន្ទាប់ពីការព្រួយបារម្ភពីបរិស្ថានហើយបន្ទាប់មកធ្វើវាយតម្លៃលើកម្រិតនៃកិច្ចព្រមព្រៀងលើធាតុនីមួយៗខាងក្រោមដោយផ្អែកលើទស្សនៈរបស់អ្នក។</p>	Levels of Agreement កម្រិតនៃការយល់ស្រប				
	Strongly disagree អនិច្ចព័រសារពឹងខ្លាំង	Disagree : មិនយល់	Neutral : អព្យាក្រឹត	Agree : យល់ស្រប	Strongly Agree តាំងទ្រព្យពឹងខ្លាំង

GPI1: I avoid buying products which are potentially harmful to the environment. ខ្ញុំជៀសវាងការទិញផលិតផលដែលមានផលប៉ះពាល់ដល់បរិស្ថាន។	1	2	3	4	5
GPI2: I have changed my principle products for ecological reasons. ខ្ញុំបានផ្លាស់ប្តូរផលិតផលដើមរបស់ខ្ញុំសម្រាប់ហេតុផលអេកូឡូស៊ី។	1	2	3	4	5
GPI3: When I have to choose between two similar products, I choose the one that is less harmful to the environment. នៅពេលខ្ញុំត្រូវជ្រើសរើសរវាងផលិតផលស្រដៀងគ្នាពីរខ្ញុំជ្រើសរើសយកមួយដែលមិនសូវបង្កអន្តរាយដល់បរិស្ថាន។	1	2	3	4	5
GPI4: I make a special effort to buy paper and plastic that are made from a recycled material. ខ្ញុំជ្រើសរើសទិញក្រដាសនិងផ្កាស្និតដែលត្រូវបានផលិតចេញពីសម្ភារៈដែលបានកែច្នៃ។	1	2	3	4	5
GPI5: I will not consider the environmental issue when making a purchase. ខ្ញុំមិនពិចារណាអំពីបញ្ហាបរិស្ថាននៅពេលធ្វើការទិញនោះទេ។	1	2	3	4	5
GPI6: I feel more comfortable when I use green products rather than normal ones. ខ្ញុំមានអារម្មណ៍ថាមានភាពងាយស្រួលនៅពេលខ្ញុំប្រើផលិតផលពិសេសជាងផលិតផលធម្មតា។	1	2	3	4	5
GPI 7: I aim to buy green products again after my first purchase. ខ្ញុំមានបំណងទិញផលិតផលពិសេសម្តងទៀតបន្ទាប់ពីការទិញដំបូងរបស់ខ្ញុំ។	1	2	3	4	5