## 南華大學企業管理學系管理科學碩士班碩士論文

### A THESIS FOR THE DEGREE MASTER OF BUSINESS ADMINISTRATION MASTER PROGRAM IN MANAGEMENT SCIENCES COLLEGE OF MANAGEMENT NANHUA UNIVERSITY

## 探討影響越南消費者綠色購物行為的重要因素 IMPORTANT FACTORS THAT AFFECT VIETNAMESE CONSUMERS' GREEN PURCHASING BEHAVIOUR

指導教授: 吳萬益 博士

廖英凯 博士

ADVISOR: WU WANN-YIH Ph.D.

LIAO YING-KAI Ph.D.

研究生:宋嘉翔

### **GRADUATE STUDENT: TONG GIA TUONG**

中華民國 108 年 1 月

# 南華大學

企業管理學系管理科學碩士班 碩士學位論文

探討影響越南消費者綠色購物行為的重要因素

研究生: 宋嘉 并引(Tong Gia Tuong)

經考試合格特此證明

口試委員: 30信光 村正 臀美凯 指導教授:美麗國際美麗 

口試日期:中華民國 107 年 1 月 5 日

### 準碩士推薦函

本校企業管理學系管理科學碩士班研究生<u>宋嘉翔</u>君在本系修業<u>1.5</u>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。

管理科學、研究方法等科目,成績及格(請查閱碩士班歷年成績)。

2、在論文研究方面: <u>宋嘉翔</u>君在學期間已完成下列論文:

(1)碩士論文:探討影響越南消費者綠色購物行為的重要因素

(2)學術期刊:

本人認為<u>宋嘉翔</u>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:<u>探討影響越南消費</u> <u>者綠色購物行為的重要因素</u>,以參加碩士論文口試。

|      |     | 妥      | 蓠   | NO | -  |   |
|------|-----|--------|-----|----|----|---|
| 指導教授 | : _ | P      | H H | N  | _簽 | 章 |
| 中華民國 | 107 | ,<br>年 | 1   | 月  | 5  | 日 |

### Letter of Recommendation for ABT Masters

TONG GIA TUONG, a student of NHU Master Program for Business Administration for <u>1.5</u> years, has completed all of the courses and theses required for graduation.

- In terms of studies, <u>TONG GIA TUONG</u> has acquired <u>41</u> credits, passed all of the obligatory subjects such as <u>Research Method</u>, <u>Management Science etc.</u>
- 2. In terms of theses, <u>TONG GIA TUONG</u> has completed the following:
  - i. Master thesis: Important Factors That Affect Vietnamese Consumers' Green Purchasing Behaviour
  - ii. Journal:

I believe that <u>TONG GIA TUONG</u> has already received full formative education of NHU Master Program for Business Management and is qualified to apply for Master's Degree Examination. Therefore, I hereby recommend his/her preliminary paper, <u>Important Factors That Affect</u> <u>Vietnamese Consumers' Green Purchasing Behaviour</u>, for the oral defense.

Academic Advisor: Tongkai, Liao Date: 2018, 1.5

### ACKNOWLEDGEMENTS

The success and final outcomes of this thesis required a lot of guidance and assistance from many people and I extremely fortunate to have got this all along the completion my thesis. Whatever I have done is only due to such guidance and assistance and I would not forget to thank them. I respect and thank my advisor Dr. Wann-Yih Wu and Dr. Ying-Kai Liao for giving me an opportunity to do this research and providing me all support and guidance which made me completed the research on time, I extremely grateful to their providing such a nice support and guidance.

I also would like to express my gratitude to my friends and respondents for the support and willingness to spend some times with me to fill in the questionnaires. Without their help, this research would not have been finished.

Last but not least, I would like to thank my parent, who love and guidance are with me in whatever I pursue. They are the ultimate role models.



TONG GIA TUONG

January 2018

Title of Thesis: Important factors that affect Vietnamese consumers' green purchasing behavior

Department: Department Master Program in Management Sciences, Department of Business Administration, Nanhua University Graduate Date: January, 2018 Degree Conferred: M.B.A Name of Student: Tong Gia Tuong Advisor: Wann-Yih Wu

Ying – Kai Liao

### ABSTRACT

In the modern era of marketing, green marketing becomes the new strategy for companies and marketers to change customer purchasing behavior, becomes noteworthy due to its both affluence and influence. So that, the drive of this research is to recognize important factors that affect Vietnamese consumers' green purchasing behaviour. The results suggest that defendants have a high optimistic approach about green products and are prepared to buy green products more frequently but as for as the effectiveness of green marketing tools are concerned. This research functions as a innovator study to recognize significant aspects in affecting consumers' green purchasing behaviour in the Viet Nam situation. It offers applied advices to international green marketers forecasting to aim the Asian markets.

*Keywords*: Consumer behaviour, Green marketing, Environment concern, Social responsibility, Environmental behavior

關鍵詞: 消費者行為、綠色行銷、企業社會責任、環境行為、環境考量

Π

| TABLE OF | CONTENTS |
|----------|----------|
|----------|----------|

| ACKNOWLEDGEMENTSI   |
|---|
| ABSTRACTII  |
| TABLE OF CONTENTSIII  |
| LIST OF TABLESVIII  |
| LIST OF FIGURESXI   |
| CHAPTER ONE INTRODUCTION1                                     |
| 1.1 Research Background and Motivation1                       |
| 1.2 Research Objectives                                       |
| 1.3 Scope of the Study  |
| 1.4 Research Procedure  |
| 1.5 Research Structure  |
| CHAPTER TWO LITERATURE REVIEW                                 |
| 2.1 Green Marketing   |
| 2.2 Green marketing tools                                     |
| 2.3 Theoretical Background                                    |
| 2.3.1 Theory of Reasoned Actions (TRA)11                      |
| 2.3.2 Theory of Planned Behaviour (TPB) 12                    |
| 2.4 Definition of research construct                          |
| 2.4.1 Green Purchase Behaviour (GPB)13                        |
| 2.4.2 Perceived Seriousness of Environmental Problems (EP) 16 |
| 2.4.3 Environmental Concern and Attitude                      |

|     | 2.4.4 Perceived Environmental Responsibility (ER)                  | 20   |
|-----|--|------|
|     | 2.4.5 Social Influence (SI)  | 21   |
|     | 2.4.6 Perceived Effectiveness of Environmental Behaviour (EB)      | 22   |
|     | 2.4.7 Perception of eco-labeling                                   | 23   |
|     | 2.4.8 Perception of eco-brand                                      | 25   |
|     | 2.4.9 Environmental advertisements                                 | 26   |
| 2.5 | Hypotheses Development   | 28   |
|     | 2.5.1 Perceived Seriousness of Environmental Problems (EP)         | has  |
|     | possitive affect to Environment concern and attitude and percei    | ved  |
|     | effectiveness of environmental behavior                            | 28   |
|     | 2.5.2 The impact of Environmental Concern and Attitude on Percei   | ved  |
|     | effectiveness of environmental behaviour and Perceived effectiven  | ess  |
|     | of environmental behaviour   | 29   |
|     | 2.5.3 Social Influences (SI) will moderate the influence of Percei | ved  |
|     | seriousness of environmental problems, Environmental concern       | and  |
|     | attitude and Perceived effectiveness of environmental behaviour    | 30   |
|     | 2.5.4 Perceived Environmental Responsibility (ER) will moderate    | the  |
|     | influence of Perceived seriousness of environmental proble         | ms,  |
|     | Environmental concern and attitude and Perceived effectiveness     | of   |
|     | environmental behaviour  | .32  |
|     | 2.5.5 Relationship between Perceived Effectiveness of Environment  | ntal |
|     | Behaviour (EB) and Marketing tools.                                | 33   |
|     | 2.5.6 Relationship between Perception of eco-label, Environment    | ntal |
|     | advertisement and Perception of eco-brand                          | 34   |

| 2.5.7 Relationship between green marketing tools and cust | tomer's |
|---|---------|
| purchase behavior   | 34      |
| CHAPTER THREE RESEARCH METHODOLOGY                        | 36      |
| 3.1 Conceptual Framework                                  | 36      |
| 3.2 Research Design                                       | 36      |
| 3.2.1 Quantitative Research                               | 37      |
| 3.2.2 Descriptive Research                                | 37      |
| 3.3 Sampling and Data Collection                          | 38      |
| 3.4 Research Instrument                                   | 38      |
| 3.4.1 Questionnaire Design                                |         |
| 3.4.2 Pilot Test  | 40      |
| 3.5 Constructs Measurement                                | 40      |
| 3.5.1 Perceived seriousness of environmental problems     | 40      |
| 3.5.2 Eviromental concern and attitude                    | 41      |
| 3.5.3 Social Influence                                    | 42      |
| 3.5.4 Perceived environmental responsibility              | 43      |
| 3.5.5 Perceived effectiveness of environmental behaviour  | 44      |
| 3.5.6 Perception of eco-label                             | 44      |
| 3.5.7 Perception of eco-brand                             | 45      |
| 3.5.8 Environmental advertisement                         | 46      |
| 3.5.9 Green Purchase Behaviour                            | 46      |
| 3.6 Data Analysis Procedure                               | 47      |
| 3.6.1 Descriptive Analysis                                | 47      |

| 3.6.2 Frequency Distribution                             |    |
|--|----|
| 3.6.3 Factor Analysis and Reliability Tests              |    |
| 3.6.4 Hierarchical Multiple Regressions                  | 49 |
| 3.6.5 Structural Equation Model (SEM)                    | 49 |
| CHAPTER FOUR DATA ANALYSIS AND RESULTS                   | 50 |
| 4.1 Descriptive Analysis                                 | 50 |
| 4.2 Response rates                                       | 50 |
| 4.3 Characteristics of Respondents                       | 50 |
| 4.4 Descriptive Analysis of Research Variables           | 52 |
| 4.5 Factor Analysis and Reliability Tests                | 56 |
| 4.5.1 Perceived seriousness of environmental problems    | 57 |
| 4.5.2 Eviromental concern and attitudes                  |    |
| 4.5.3 Eviromental Social Influence                       | 60 |
| 4.5.4 Perceived environmental responsibility             |    |
| 4.5.5 Perceived effectiveness of environmental behaviour | 63 |
| 4.5.6 Perception of eco-label                            | 65 |
| 4.5.7 Perception of eco-brand                            | 66 |
| 4.5.8 Environmental advertisement                        |    |
| 4.5.9 Green Purchase Behaviour                           | 69 |
| 4.6 Confirmatory Factor Analysis CFA                     | 71 |
| 4.7 Structural Equation Model SEM                        | 71 |
| 4.8 The moderating effect of Social Influence            | 75 |

| 4.8.1 Moderating Test of Social influence among Perceived             |
|---|
| seriousness of environmental problems and Perceived effectiveness of  |
| environmental behaviour75   |
| 4.8.2 Moderating Test of Social Influence among Environmental         |
| concern and attitudes and Perceived effectiveness of environmental    |
| behaviour   |
| 4.9 The moderating effect of Perceived environmental responsibility79 |
| 4.9.1 Moderating Test of Perceived environmental responsibility       |
| among Perceived seriousness of environmental problems and             |
| Perceived effectiveness of environmental behaviour                    |
| 4.9.2 Moderating Test of Perceived environmental responsibility       |
| among Environmental concern and attitudes and Perceived               |
| effectiveness of environmental behaviour                              |
| CHAPTER FIVE CONCLUSION AND SUGGESTIONS                               |
| 5.1 Research conclusion   |
|   |
| 5.2 Research contribution   |
| 5.2.1 Academic Implication  |
| 5.2.2 Managerial Implication  |
| 5.3 Limitations and Future Research Directions                        |
| REFRENECES  |
| APPENDIX QUESTIONNAIRE  |

## LIST OF TABLES

| Table 1.1 The Scope of This Study   |
|---|
| Table 3.1: Measurement of Perceived seriousness of environmental problems                                     |
| Table 3.2: Measurement of Eviromental concern and attitude  |
| Table 3.3: Measurement of Social Influence  |
| Table 3.4: Measurement of Perceived environmental responsibility43  |
| Table 3.5: Measurement of Perceived effectiveness of environmental behaviour                                  |
| Table 3.6: Measurement of Perception of eco-label   |
| Table 3.7: Measurement of Perception of eco-brand   |
| Table 3.8: Measurement of Environmental advertisement   |
| Table 3.9: Measurement of Green Purchase Behaviour  |
| Table 4.1 Characteristics of the Respondents   51   |
| Table 4.2 Descriptive Analysis for Questionnaire Items  |
| Table 4.3 Results of factor analysis and reliability check on perceived seriousness of environmental problems |
| Table 4.4 Results of factor analysis and reliability check on Eviromental concern and attitude                |
| Table 4.5 Results of factor analysis and reliability check on Social      Influence                           |

| Table 4.6 Results of factor analysis and reliability check on Perceived          |
|--|
| environmental responsibility   |
| Table 4.7 Results of factor analysis and reliability check on Perceived          |
| effectiveness of environmental behaviour63                                       |
| Table 4.8 Results of factor analysis and reliability check on Perception of eco- |
| label65  |
| Table 4.9 Results of factor analysis and reliability check on Perception of eco- |
| brand67  |
| Table 4.10 Results of factor analysis and reliability check on Environmental     |
| advertisement  |
| Table 4.11 Results of factor analysis and reliability check on green purchase    |
| behaviour  |
| Table 4.12 Structural Equation Modeling  |
| Table 4.13 Moderating Test of Social influence among Perceived seriousness       |
| of environmental problems and Perceived effectiveness of                         |
| environmental  |
| behaviour  |
| ) BI   |
| Table 4.14 Moderating Test of Social influence among Environmental               |
| concern and attitudes and Perceived effectiveness of environmental               |
| behaviour  |
| Table 4.15 Mederating Test of Social influence among Densitied series            |
| Table 4.15 Moderating Test of Social influence among Perceived seriousness       |
| of environmental problems and Perceived effectiveness of environmental           |
| behaviour  |

| Table 4.16 Moderating Test of Perceived environmental responsibility | ty among   |
|--|------------|
| Environmental concern and attitudes and Perceived effe               | ectiveness |
| of environmental behaviour   |            |
| Table 5.1 Research Table Results                                     |            |



## **LIST OF FIGURES**

| Figure 1.1 Flow chart of research procedure   |
|---|
| Figure 2.1 Theory of Reasoned Action (TRA)12  |
| Figure 3.1 Proposed Conceptual Framework  |
| Figure 4.1 Structural Equation Modeling Result  |
| Figure 4.2 The Moderating Effect of Social Influence among Perceived seriousness of environmental problems and Perceived effectiveness of environmental behaviour                           |
| Figure 4.3 The Moderating Effect of Social Influence among Environmental concern and attitudes and Perceived effectiveness of environmental behaviour                                       |
| Figure 4.4 The moderating Test of Perceived environmental responsibility<br>among Perceived seriousness of environmental problems and<br>Perceived effectiveness of environmental behaviour |
| Figure 4.5 The moderating Test of Perceived environmental responsibility<br>among Environmental concern and attitudes and Perceived<br>effectiveness of environmental behaviour             |

# CHAPTER ONE INTRODUCTION

### **1.1 Research Background and Motivation**

One of environmental squalor signs was radically change in weather that influences all people on the earth no exception. The natural calamity became serious now. As per CNN News (2017), Tropical Storm Philippe, which is a significant storm, happened in Vietnam has devastated or harmed around 657,000 individuals destitute. Thus, the storm affected nearly 2,000,000 Filipinos and a heavy storm brings a lot of damage to million people over 20 countries. Nowadays, many people around the world recognize the dangers, negative effects to their environment. They are educated very much about environment protecting through activities of government and ecology organization. Thus, a lot of natural problems occurred such as air and water pollution, unforeseen and dangerous ecological issues which are realized over the world. After they understand how environment affect their life, may be they have more concern and do their own obligation to environment contribution.

In the last few decades, environmental concerns have become not only an important issue but a common theme in academic research. The global economy worldwide's growth has been connected with an increase in consumers' consumption. However, the more goods that people purchase, the larger is the impact upon the environment. It is upheld that diverse exercises of business associations, for example, sourcing, creating, coordination, and promoting negatively affect nature and furthermore thought to be the wellspring of the vast majority of the ecological issues (Eltayeb, Zailani and Jayaraman, K, 2011). The environment has turned into a basic issue that is impacting how items are produced, promoted, and discarded. Previous research show that majority of customer change their buying actions when they identified the environment issues (Schlossberg, 1990). Since clients have comprehended the centrality of ensuring the ecology, environmentalism has turned into a fundamental subject in the commercial places (Chamorro et al., 2006).

Through many different stages these environmental concerns have changed (Straughan and Roberts, 1999). The greening concept started in the 1960s, focusing on contamination and energy saving. Subsequently, company must go outside the old ideas to produce and discard because of increased social and political pressure. A quick ascent in environment protecting has developed in western countries. The encouraging alteration inside customer's green purchasing behavior connected items can be recognize because of the expanded degree of ecological mindfulness (Berger and Alwitt, 1996). This vary made the appearance of the ecology age to anticipate additionally harm to nature. Since the 1980s, green showcasing has experienced a few phases. After the 1990s, green marketing made a rise (Vermillion et al., 2010). In western countries, organizations have found that in potential customer buying choice will be founded on natural contemplations. This wonder is called green Marketing (Papadopoulos, Ioannis, et al., 2010). The expression "Green Marketing" has been utilized to portray showcasing activities which endeavor to decrease the negative social and ecological effects of existing items and creation frameworks, and which advance less harming items and administrations. As our comprehension of the cooperation between organizations, society and the physical environment has enhanced, so what we comprehend to be "green" practices and standards for marketing has likewise advanced. Green marketing is basic for organizations as an upper hand, picture fortify, and designer of new markets (Chen, 2008).

The green developing business sector is an open door for organizations that will become environmentally friendly these days. As such, customers worry to business more that contribute more natural endeavors and buyers will bolster organizations that fantastic in and good at green promotion. Scholastics and marketing experts are in a nonstop push to locate where green customers are, by distinguishing them, determine their needs and creating ecology items that address such issues (D'Souza, Clare, Taghian, Sheep and Peretiatko, 2007). As indicated by Papadopoulos' examination (as refered to in Zand Hessami and Yousefi, 2013), the past make shoppers have more worry to their surroundings contrast and they will change buying behavior. In this manner, from the point of view of shoppers, worry for ecological will enormously impact their basic leadership in choosing or acquiring merchandise or items.

A few inquiries about have been led on green buying expectations. The numerous scientists have recognized the consumers' green purchase behavior. In view of multifaceted nature in green purchase behaviour of shoppers', speculation is regularly not significant under various social and characteristics settings. To fortify this contention, Elham and Nabsiah (2011), Rezai (2013) and Chamorro (2009) announced that request and states of mind for environment amicable items is probably going to be diffirence over various markets and countries. Then, view on the impacts of different factors on customers green purchasing expectations in developing Asian markets is thought to be ideal.

Vietnam likewise understood that putting resources into ecological protection turn out to be progressively vital. In this way, ecological mindfulness is developing. In this way, this exploration expects to distinguish the Vietnamese consumers' purchasing behaviour towards green products. The investigation additionally examinations how the elements (social

influences, environmental concern and attitudes, perceived effectiveness of environmental problems, perceived effectiveness of environmental behaviour, perceived environmental responsibility, and green marketing tools) impact Vietnamese customers' green purchasing behaviour.

### **1.2 Research Objectives**

This investigation intends to examine factors that impact Vietnamese consumers' green purchasing behaviour. The research objectives are created as the accompanying:

i. The first objective of this study was to analyze and explores the hypothesized relationship between dependent and independent variable i.e. environmental concern and attitudes (ECA), perceived seriousness of environmental problems (EP) and perceived effectiveness of environmental behaviour (EB) via the moderating role of social influence (SI), perceived environmental responsibility (ER). The additional objective was to ascertain the effect of perceived seriousness of environmental problems (EP) towards environmental concern and attitudes (ECA).

ii. The second was to verify the relationship of predictor and 3 independent variables i.e. perceived effectiveness of environmental behaviour (EB) and perception of eco-label (EL),perception of eco-brand (EBR), environmental advertisement (EA). The additional objective was to ascertain the effect of perception of eco-label (EL), environmental advertisement (EA) toward perception of eco-brand (EBR).

iii. Finally, the third was to determine the relationship of green marketing tool (3 criterion variables) and outcome variable i.e. perception of

eco-label (EL), perception of eco-brand (EBR), environmental advertisement (EA) and green purchasing behaviour (GPB).

### **1.3 Scope of the Study**

The scope of this study is presented in the following table:

| Items                 | Scope of the study  |
|-----------------------|---|
| Types of the research | The study conducts literature reviews to build up the research<br>hypotheses and framework. Collecting data by using<br>questionnaires to test hypotheses and figure out the results and<br>conclusions |
| Key issue             | Examine the influence of important factors that affect Vietnamese consumers' green purchasing behavior  |
| Dependent variables   | Perceived effectiveness of environmental behaviour, Green<br>Purchase Intention, Perception of eco-label, Perception of eco-<br>brand, Environmental advertisement, Green purchasing behavior.          |
| Independent variables | Environmental concern, Environmental attitude, Perceived seriousness of environmental problems  |
| Moderating variables  | Social influence, Perceived environmental responsibility  |
| Underlying theory (s) | Theory of Reasoned Actions, Theory of Planned Behaviour   |
| Testing location      | Ho Chi Minh, biggest city of Vietnam  |
| Analyzed unit         | Individual  |
| Research method       | Using SPSS version 20 and AMOS 20 to run the data.  |

Table 1.1 Scope of This Study

### **1.4 Research Procedure**

This study commenced from the gathering of pertinent literatures and other relevant news and information. Then, literatures were reviewed to identify the research objectives and motivations and taken after by the improvement reasonable system which is balanced from the related before models of different analysts. Simultaneously, hypotheses and research design were also developed. Next, the experiment was conducted and data was systematically collected. A short time later, the diagnostic procedures would be utilized to investigate those gathered information took after by the came about discussion. Lastly, conclusion and proposal for this investigation are accounted for. The research procedure is shown in Figure 1.1.

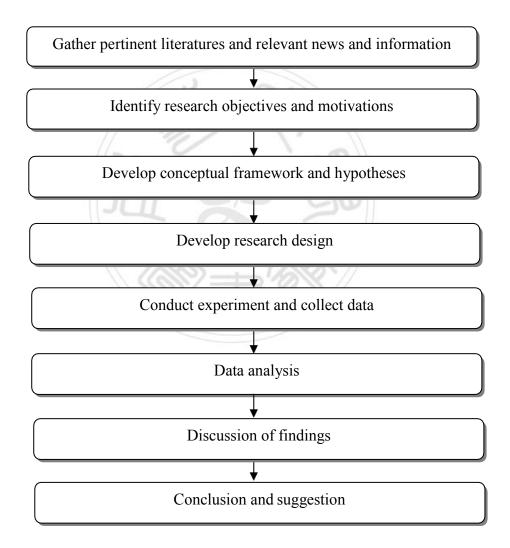


Figure 1.1: Flow chart of research procedure

### **1.5 Research Structure**

This study contains five chapters, and the review for each is as below:

Chapter one defines research background, research motivations, research objectives, and research contributions. Besides that, it also shows the research flow and the entire structure of the study.

Chapter two presents the previous literature related to the Perceived seriousness of environmental problems, Environmental concern and attitude, Social influence, Perceived environmental responsibility, Perceived effectiveness of environmental behaviour, Perception of eco-label, Perception of eco-brand, Environmental advertisement, Green purchasing behavior. The critical variables and their relevant relationship are specified. In the end of the chapter, the hypotheses are proposed to integrate the consequence of the past studies.

Chapter three identifies the conceptual framework of this study along with the research design. This chapter also presents the research model which proposes the general relationships among the key research construct including Perceived seriousness of environmental problems, Environmental Social influence. Perceived and attitude. environmental concern responsibility, Perceived effectiveness of environmental behaviour, Perception of eco-label, Perception of eco-brand, Environmental advertisement, Green purchasing behavior. Plus, this chapter also discusses stimulus used in the study; moreover, important manipulation check is also discussed in order to confirm the validity of the stimulus used in experimental study. Meanwhile, this chapter also presents the sampling plan, data collection procedure, main experiment, measurements of dependent and independent variables, together with the data analysis techniques.

Chapter four presents the data analysis and findings of this study. It involves data collection, the demographics of attendant, descriptive statistics, factor analysis and reliability test. In addition, this chapter also presents the results analysis of data associated with each research hypothesis.

Chapter five is a summary of the study by explaining the significant findings, implications and limitation of the study. Additional suggestions for future studies are comprised in.



### CHAPTER TWO LITERATURE REVIEW

### **2.1 Green Marketing**

Green can be characterized and demonstrated in a wide range of implications. Green characterized by Shamdasani, Prem, Gloria Ong Chon-Lin, and Daleen Richmond (1993) as natural and biological mindfulness or awareness, corporate social obligation (CSR), reasonable advancement, ecological assurance or preservation, and new consumerism.

Green or ecology marketing incorporate of all exercises work to produce and encourage any trades keeping in mind the end goal to supply life (Prothero, 1997). As it were, green marketing was a way for organizations to present and advance natural well disposed or green items to clients with a specific end goal to fulfill its clients' needs and needs. For the most part, organizations or associations that entered in green marketing will energetically advance its natural agreeable strategies and accomplishments to its objective clients and also future clients. It implies that organizations or associations necessity to publicize and advance its items or administrations that combine with natural or green attributes such as natural, ecological agreeable and reuse that connected in creating shopper items or products. Thus, the distinction between traditional marketing and green marketing go to an assortment of exercises required in green promoting which incorporates adjustment on product, make the creations procedure, change in the items appropriation, new looking and enhancement in items bundling, and alter in the method for doing marketing.

As indicated by the Dagnoli (1991), the amount of individuals is developing who want to buy ecological friendly products will prompt

progressively in the quantity of green customers. The green consumers not by any stretch of the imagination will purchase green items in spite of the fact that they have bounty information on green products (Delafrooz, 2009), have high familiarity with ecological problems (Abdul Wahid et al., 2002) or worried and acknowledged to their condition (Biswas and Hirose's examination as referred to in Ooi et al., 2012) won't really carry on in green way or assume liability to buy natural agreeable or green items. This condition may because of some wrong green marketing practice executed by organizations which prompted the disappointment of green marketing.

### 2.2 Green marketing tools

Han (2011) states three phases for green marketing. The main time of green marketing began from the 1980s, when the green marketing notion was recently started in industry (Kirchoff and Satinover Nichols, 2011). Green marketing went into its second stage in the 1990s, in this decade the particular kickback was experienced by advertisers (Wongdata et al., 1996). Besides to, marketers grasped that customer's needs, their positive activities towards condition and eco-items did not transfer to purchasing behavior (Schrum et al., 1995). Since 2000, green marketing has formed into a third stage. In the this stage green marketing has experienced new force again with execution of further developed innovation, stricter control by governments and upgrade of worldwide natural mindfulness.

As indicated by Pickett-Baker, Josephine, and Ritsuko Ozaki (2008) green marketing for the most part concentrates on the proficiency of intellectual influence techniques, and trusts that the buyer's high contribution concerning natural issues is an impact of developing ecological learning. Stanton and Futrell (1987) characterize green or environmental marketing as activities proposed to supplant current needs

and needs with negligible hurtful effect on our environment.

Cronin and Smith (2011) assert that there isn't any single marketing tool that would be fitting for all organizations. Or maybe, systems ought to be diverse of various markets and the level of buyer worry on the environment. Three green marketing tools are considered in this investigation as improvements to a purchaser's learning about environmental friendly products. Right now, these tools are additionally used to enable buyers to recognize green items and tradition. These tools include eco-brand, eco-label and environmental advertisement.

### **2.3 Theoretical Background**

There are many theories to explain human behavior in general and buying behavior of consumers in particular. Some like Theory of Reasoned Actions (TRA) (Fishbein and Ajzen, 1975) and Theory of Planned Behaviour (TPB) Ajzen (1991). Two theories are widely used in explaining the intention to commit acts of man.

#### 2.3.1 Theory of Reasoned Actions (TRA)

Theory of Reasoned Actions (TRA) was a hypothesis use to examine customers' states of mind with respect to how these demeanors are formed and how other individuals could impact their behavior. Thus, TRA demonstrate is utilized to talk about on how the purchasers' dispositions towards the ecological issues can influence their green purchasing behavior and activity (Fishbein and Ajzen, 1975). Numerous analysts, for example, Cook and Ozaki (2008), Datta and Saroj Kumar (2011), and Kalafatis, et al. (1999) have connected this hypothesis in various field to examine human's behavior. In addition, TRA likewise widely talked about and used to investigate consumers' purchasing intention (Albayrak, Tahir, et al., 2011) or consumers' purchasing behaviour (Albayrak, 2011; Cheah, 2009). TRA expected that "Individuals consider the ramifications of their activities previously they choose to draw in or not take part in specific practices" (Fishbein et al., 1975; 1980). Ajzen (2005) expressed that a person's expectation comprise of behavioral character, when an individual have choose to take part in certain conduct will change over his or her aim vigorously in a suitable open door and correct time. Then again, Theory of Planned Behaviour (TPB) demonstrate additionally valuable in foreseeing and clarifying consumers' green purchasing behaviour (Starts and Shepherd, 1992).

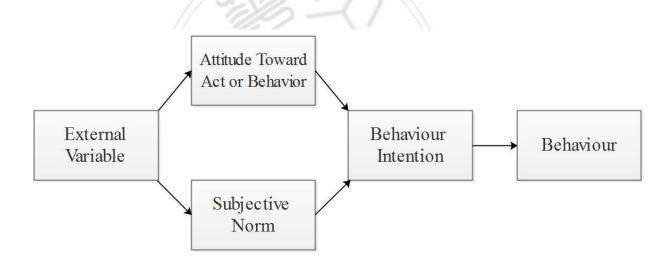


Figure 2.1 Theory of Reasoned Action (TRA) (Ajzen & Fishbein, 1980)

### **2.3.2** Theory of Planned Behaviour (TPB)

According to Ajzen (1991), the theory of planned behaviour is an extension of the theory of reasoned action. Intentions to real behaviours of various types can be anticipated with high exactness from subjective standards, demeanors toward the conduct, and saw behavioral control; and

these aims, together with comprehension of behavioral control, represent significant fluctuation in real conduct. Like TRA, the intention is for the motivating factors leading to behavior. The intention is for the motivating factors leading to behavior, it is indicated for people who will try to what extent, or how many planned to spend their efforts on the implementation of a specific behavior. As a general rule, the more powerful intentions, the ability to act is made growing. It is clear, however, that the intention of committing acts become acts really only be seen in the behavior that is entirely under the control of reason. This investigation is to comprehend the different determinates of the green purchase behaviour keeping in mind the end goal to give the experiences of the green consumerism and fill in as a rule for organizations to detail and execute their green and practical promoting methodologies precisely and viably. The determinate incorporates perceived seriousness of environmental problems, environmental concern and attitudes, environmental responsibility, perceived social influences, perceived effectiveness of environmental behaviour, perception of eco-label, perception of eco-brand, environmental advertisement.

### **2.4 Definition of research construct**

#### 2.4.1 Green Purchase Behaviour (GPB)

Green purchase behaviour characterized by Chan (2001) as a specific sorts of natural well disposed conduct that buyers express their minding and thoughtfulness regarding the environment. Furthermore, green purchase behaviour likewise alludes to the utilization of items that are recyclable or conservable, useful or generous to the environment, and delicate or receptive to environmental concern (Albayrak, 2011). Expanding the familiarity with buyers towards natural issues will expanded the interest for biological items. Numerous past scientists have directed research on purchasers' behavior towards green products since 1970's. Consequently, there have a wide range of factors, for example, mentalities, qualities, convictions or information are utilized to test which elements will drive buyers' decision to buy environmental friendly products (Amato, 2012). Takes after and Middleman (2000) affirmed that their examination presence the various leveled relationship of qualities states of mind expectation conduct when they directed an exploration on forecast of purchasing eco-friendly and antagonistic items on an alternate consumer model.

A few investigations on green division have been directed by past specialists. Cleveland, Mark, Maria Kalamas, and Michel Laroche (2005) were explored on the North America customers' ability to pay more for ecofriendly products in light of the buyers' socioeconomics, mental and behavioral. They found that ladies who are hitched with no less than one youngster were bolstered to its outcome. Additionally, the examination has been finished by Yazdanifard et al. (2011) with respect to the statistic and natural criteria in Portuguese purchasers was discovered that they were hesitant to purchase green items despite the fact that they know about the ecological issues. For Straughan et al. (1999), they ponder had demonstrated that psychographic criteria was more precise and helpful than statistic criteria in investigate onsumers purchasing behaviour. Besides, various examinations with respect to factors that impact onsumers purchasing behaviour have been led by previous analysts, for example, Chan and Lau (2000), D'Souza, Taghian, Sheep and Peretiatkos (2006), and Han (2011). To testing on the consumers' green purchase intention, target respondent of Han (2011) was youthful buyers while the respondents of D'Souza et al. (2006) were dominant part Australian female shoppers with matured around 35 to 54 years of age. Chan et al. (2000) were examining on

Chineseconsumers' green purchase behaviour through the impact of three autonomous factors. As per Han (2011), a further report led to review on how extraordinary in sexual orientation in different elements would impact Hong Kong adolescent consumers' green purchase behaviour. As indicated by Datta and Saroj Kumar (2011), "trust", "in-group identity", "expectation of others' co-operation" and "perceived efficacy" was valuable individual attributes to separate purchasers from "green" or "non-green". Their examination additionally supportive in understanding the reasons caused the hole amongst disposition and conduct in green consumerism.

Lately, specialists just begin does thinks about on ecological names. D'Souza (2006) had built up a model to grouped buyers into four classifications, to be specific "environmentally green consumers", "emerging green consumers", "price sensitive green consumers" and "conventional consumers". D'Souza et al. (2007) were additionally explored on the diverse environmentalism level of Australian purchasers through the impact of environmental labels. They ponder found that shoppers can be assembled into it is possible that they discovered environmental labels are hard to comprehend or they can read the names and willing to purchase green items in spite of the fact that the items are in low quality (D'Souza et al, 2007). Be that as it may, there has just couple of scientists led subjective research identified with green purchase behaviour and green methodology. After find this examination hole, Tadajewski and Tsukamoto (2006) directed a subjective research to think about on the many-sided quality behavioral of UK and Germany buyers towards green items by utilizing life-cycle investigation. Their investigation demonstrates that searching for the items' image name was the most straightforward path for customers to assess the "greenness" of an item (Tadajewski et al., 2006). Moreover, Vinodh, S., and Rathod, G. (2011) additionally led a subjective report in breaking down the

item advancement methodologies for eco-accommodating items on the chose organizations in England and Germany. Their investigation uncovered that viability of ecological procedure on item advancement can make an upper hand to organization itself (Vinodh et al.,2011). Additionally, contrasts in a nation's social and financial conditions would cause diverse variables are being tried on consumers' green purchase behaviour in that nation. Along these lines, factors use by investigates to decide the consumers' green purchase behaviour likewise differs among them.

#### **2.4.2 Perceived Seriousness of Environmental Problems (EP)**

Amyx, DeJong, Chakraborty and Wiener (1994) defined perceived seriousness of environmental problems as a level of individual concern and significant towards biological issues. At the point when individuals ecological issues, the measure of burdens experience those and inconveniences that individuals need to manage and the mentality and conduct that they ought to have towards the natural issues was trouble to know. For example, simple and comfort for utilization may make buyers buy an item or nourishment even they know the bundling of the item or sustenance will dangerous or harm for the nature and eviroment. Banerjee and Mckeage (1994) expressed that the impression of a person to the force, risky and reality of ecological issues and issues could influence his or her green purchasing behaviour. As such, non-green buyers that don't act in green way trust that the earth issues will be explained without anyone else naturally and the other way around.

Furthermore, Clayton and Susan D (2012) expressed that the broad communications assume a basic part in instructing buyers to comprehend the significance of ecological issues. For instance, advertisers pass on the

message with respect to how their item can lessen the ecological issues and how customers can add to condition through purchasing the green items. Through this, individuals will mindful the ecological issues and their duty towards environment.

### 2.4.3 Environmental Concern and Attitude

### 2.4.3.1 Environmental Concern (EC)

As per Chan and Lau (2004), environmental concern has assortment definitions which rely upon point of view and its entangled and precarious nature. Environmental concern characterized by Dunlap and Jones (2008) as individuals attention to ecological issues and endeavors to tackle it. In any case, the early meaning of environmental concern was the level of defensive disposition towards environment (Boehlert and Gill, 2010), yet later was characterized as a general state of mind which has an aberrant impact on mentality through behavioral expectation (Boehlert and Gill, 2010).



What's more, environmental concern alludes to a person's enthusiastic component, for example, as or abhorrence stresses and thought (Yeung, 2004) and the conviction, mentality, and level of concern (Stated, Ahmadun, Paim and Masud, 2003) towards the earth. Subsequently, environmental concern can be reasoned that an individual was sincerely required to natural related issues. Schultz and Zelezny (2000) expressed that "states of mind of ecological concern are established in a man's idea of self and how much an individual sees him or herself to be an essential piece of the indigenous habitat". A portion of the natural sociologists have eluded ecological demeanors as "environmental concern" (Vining and Ebreo, 1992; Hansla and Gärling, 2008; Dunlap et al, 2008). It implied that environmental concern is synonymous with natural disposition. In this way, these two terms can utilize compatible in many examinations (Dunlap et al., 2008). In any case, a portion of the examinations have isolated them into two distinct terms (Stern and Dietz, 1994; Schultz et al., 2000; Sinnappan et al., 2011; Zank Hessami et al., 2013). In addition, diverse fragments of the workforce respond contrastingly towards the green issues (Ahmed et al., 2001). Walter (1990) found that shoppers concern on environmental does not generally convert into purchasing decisions.

#### 2.4.3.2 Environmental Attitude (EA)

Attitude refers to "a mental and neural state of readiness, which exerts a direct influence upon the individual's response to all objects and situations with which it is related" (Allport, 1935). Attitude can be characterized as alluring or unwanted assessments (Ajzen, 1991) and persistent constructive or adverse sentiments (Bogner, 1998) that a specific people have towards items, issues or other individuals.

Delafrooz (2014) characterized environmental attitude as "a scholarly

inclination to react reliably ideal or horrible way concerning the environment". While, Schulz, Shriver, Tabanico and Khazian (2004) characterized environmental attitude as "the gathering of convictions, influence, and behavioral goals a man holds with respect to naturally related exercises or issues". In increments, environmental attitude was additionally characterized by Han (2011) in light of a people's psychological appraisal of the estimation of ecological protection. At the end of the day, environmental attitude would influence consumers' attitude and buying decisions (Schwepker and Cornwell, 1991). Pujari (2006) recommended that the level of bargain included and certainty of a specific urchasing choice towards green products may differ in like manner.

As per Cleveland et al. (2005) and Chyong et al. (2006), attitudes is the most noteworthy factor in foreseeing shoppers' eagerness to pay more for buy green products. This implies cost isn't an obstruction for buyers who are willful take an interest in professional condition exercises or to purchase green items. Condition corruption will diminish if buyers have an uplifting demeanor towards natural security will in the end move it into a genuine practice by being a green consumerism (Leather treater and Kast, 2003). In any case, many individuals feel that administration have the key and fundamental duty in protecting nature in spite of the fact that individuals have high cognizant and worry on their environment.

Schultz (2000) expressed that environmental attitudes can be ordered in three sorts which are philanthropic states of mind, egotistical demeanors, and eco-driven mentalities. Selfless dispositions incorporate the worries over others. Narcissistic dispositions incorporate their worries. Eco-driven mentalities incorporate worry for the environment. In light of research result, Schultz (2000) established that narcissistic demeanors are causing the behaviour of consumers.

As indicated by Abdul Wahid, Abustan and Karwi (2000) uncovered that individual, businesses, government and fund have square with essential parts in develop an inspirational state of mind of individual towards natural security. In this way, many organizations as of late underscored their obligation towards condition by delivered environmental friendly products and keep track with the progressions of environment.

### 2.4.4 Perceived Environmental Responsibility (ER)

As per Sukhdial and Venice (1990), saw perceived environmental responsibility as the level of a person's impression of independent work in ensuring the earth. As it were, saw perceived environmental responsibility was the level of concern has a place with a person towards the natural and social duty to spare the earth from ceaselessly crumbling by utilizing not eco-friendly products.

Hsiao et al., (1999) additionally characterized perceived environmental responsibility as a level of enthusiastic association in ecological issues. Be that as it may, saw ecological obligation was characterized by Zank Hessami et al. (2013) as a conduct and disposition of a man that he or she is in charge of his or her utilization conduct and its belongings towards the nature and condition. By and large, individuals expect and trust governments have the capacity and can wipe out the natural issues. Notwithstanding, Hsiao et al., (1999) found that individuals are falter or unwilling to make one-side penances with the administration's approach. Along these lines, even many individuals have natural concern, yet they feel that the environmental protection is the obligation of the legislature or tremendous enterprises rather than themselves.

Besides, Strong (1996) uncovered that the real harm to the environment was caused amid the assembling procedure. In this way, shoppers who bolster green items will maintain a strategic distance from those not eco-friendly products which will imperil and harm their wellbeing. The standard actuation display that recommended by Schwartz (1977) found that when individual mindful and aware of unfavorable results and feel in charge of these outcomes will move the person's helping conduct. Gurău, Călin, and Ashok Ranchhod (2005) confirmed that Asian resident's social orders are getting to be noticeably aware of disturbing natural issues. To make green purchase behaviour among people can't be shy of their own apparent duty. Henceforth, saw perceived environmental responsibility is a determinant of acquiring conduct towards green items.

### 2.4.5 Social Influence (SI)

Information provided by people can have a great effects or tremendous impact on consumers are known as social influence. According to Espelage (2003), social dynamic refers to association among an individual with other people. It means that an individual shares their beliefs, thoughts and values with other people that he or she communicated with. For example, how much the person gain knowledge about green products through his or her family, how much she or he discusses in the field of environmental products with his or her friends and how much he or she shares the information about green products with family (Finisterra do Paço & Raposo, 2010).

Kalafatis et al. (1999) additionally characterized that "social standard is whether an activity ought to or ought not be performed by a respondent in a referent's perspective". The referent's perspective in here could be characterizes as the point of view of companions, partners, neighbors, associations, relatives or different referents. As per Daido (2006), change in the ecological can change the outlook and impacts the behavioral of individuals. At the point when individuals were going along to do a few

things that they were not required to conform to, the social impact can prompted a major moving in individuals behavioral. These implied individuals will purchase green items when their social setting is urging them to carry on in green way. It is obviously to demonstrate that giving individual's data are insufficient to change their conduct. Bearden and Etzel (1982), Bravo Gil, R., E. Fraj Andres, and E. Martinez Salinas (2007), Value, Feick, and Higie (1987), and Ward and Reingen (1990) have specified that the significance of social effect on buyers' items assessment and items decision. As indicated by Coulter, Cost and Feick (2003), interpersonal organization and item contribution are co-related. Social setting of shoppers, for example companions, colleagues, and family which give basic impact and criticism on their utilization will at last influenced their choice on item and brand decision.

As indicated by Business Wire (2009), a study directed by Advertisement ology Exploration found that web-based social networking or long range interpersonal communication, for example, Facebook, Twitter, LinkedIn, YouTube, Flickr and others online networking have huge effect on customers buying conduct. For example, individuals are generally share the data identified with natural exercises, for example, Earth Hour in online networking. Hence, online networking assumed a significance part in training individuals in finding out about natural exercises. When they exchange the got data into rehearses and at last, online networking can influence consumers' buying behaviour towards green products.

#### 2.4.6 Perceived Effectiveness of Environmental Behaviour (EB)

As indicated by Han (2011), saw perceived effectiveness of environmental behaviour is firmly identified with the impression of a person. A person who are effectively taken an interest into professional natural exercises and have of star ecological conduct will get a kick out of the chance to contribute more to the ecological. Miao, Li, and Wei Wei (2013) and Jensen (2006) characterize "expert ecological conduct as conscious moves made by an individual in order to limit the negative effect of human exercises on the earth or to enhance nature". The effectiveness perceived by consumer additionally characterized by Harris and Bernhardt (2005) as a buyer's trust in their capacity to enhance the environment. Lee, Jin-Soo, et al., (2010) said that the level of adequacy which is seen by the customer is fluctuates from individual to individual and this was dictated by immediate and circuitous information and experience. At the end of the day, individuals from divergent foundation have distinctive beneficial experience and individual learning. Consequently, individuals who are trust in their capacities trusted their commitments and activities can prompt positive and awesome changes later on and the other way around.

#### 2.4.7 Perception of eco-labeling

One of the noteworthy green marketing tools is eco-label on environmental friendly products. The environmental labels are progressively being used by marketers to advance the distinguishing proof of green items (D'Souza et al., 2006). Van Dam and De Jonge (2015) distinguish eco-label as a critical apparatus to assigned asymmetry data amongst dealers and purchasers. They additionally express that labels are a flag to achieve two primary capacities for buyers: data work that advises them about immaterial item attributes, for example, item's quality and esteem work which give an incentive in themselves (e.g. renown). Besides, Chamorro, Antonio, and Tomás M. Bañegil (2006) characterize eco-labels as a tool for buyer to encourage settling on choice for select environmentally-friendly products additionally empower them to know how items are made. A large number of the investigations on eco-labels searching for the approaches to make them successful in customers' buy conduct of ecological safe items (D'Souza et al., 2006; Van Dam and De Jonge, 2015). The vital issue is perceiving the effect of eco-labels on buyers and their impacts on environment and whether they consider eco-label in their basic leadership. Delafrooz (2014) think about has demonstrated that familiarity with eco-name has constructive outcome between learning of green item and shopper's goal to buy. In any case, some different examinations show that in spite of the fact that the elements of labels are perceived by a few buyers yet this does not consequently lead them to green acquiring choices (Nissinen, Ari, et al., 2007).

Scarcely any examinations have researched the connection between environmental labeling and a purchaser's aim and conduct to buy environmentally-friendly products (D'Souza, 2004; Delafrooz, 2014; Whitson and Henry, 1996). Moreover, D'Souza (2004) clarifies that little is comprehended about the effect of label information on a consumer's intention to buy ecological neighborly items. For example, as per a report by the Parliamentary Office of Science and Technology (2004), in business sectors with low mindfulness purchasers about ecological issues, eco-labeling as a green marketing tool is inadequate. One purpose behind this ineffectualness is the absence of shopper's trust of eco-name plans (Schwartz and Miller, 1991). Now and again buyer's doubt of eco-marks can be communicated through their numbness in recognizing eco-label and the controls which approve organizations to put names on their items (Bonner, 2004). In these sense specialists, for example, Bleda and Valente (2008) express that execution of eco-labels plans has demonstrated the unfriendly impact in some circumstance, though, Galarraga Gallastegui, Ibon (2002) represent that these circumstances will develop by development in contamination from expanding the market in aftereffect of accomplishing more noteworthy piece of the overall industry through made natural agreeable items. Moreover, very little

has been said in regards to the impact of the psychological procedure of perusing name data as a decision paradigm that buyers use to make green buys.

As per Delafrooz (2014) eco-labels are appealing instruments advising shoppers about the natural effect of their purchasing decisions. To help customers to recognize items those are more environmental ideal than other comparative items, eco-labeling plans were started to advance natural consumerism. The principal eco-labeling plans have been created since the late 1977 in Germany (Blue Angel eco-name). To date, there are around 30 diverse green mark plans around the world. Asian nations, for example, China, Japan, Korea, India, Thailand, Malaysia and Singapore have propelled their own particular eco-labeling plans. The Vietnamese business division isn't a long ways behind in reacting to challenges emerging from interest produced using the buyers for naturally well disposed items. This examination manages the customers' acknowledgment of different names, utilization of eco-labels and the comprehension of eco-labels importance and trust of the name's message.

#### 2.4.8 Perception of eco-brand

The American Marketing Association characterize a brand as "a name, term, sign, image, or outline, or the mix of them, proposed to distinguish the merchandise or administrations of one vender or gathering of dealers and to separate them from those of a contender." This definition can be summed up for eco-brand also. Eco-brand is a name, image or plan of items that are safe to the earth. Using eco-brands highlights can help to buyers separate them somehow from other non-green items. Buyers will try to purchase ecofriendly alternatives for products that created abnormal state of natural effect contrasted with those with low level of ecological effect (Chatterjee, 2009). The prior research in western nations underpins this thought shoppers in the USA and Germany make a move decidedly to eco-branded items, for example, Body Shop and efficient power vitality (Wustenhagen & Bilharz, 2006). A purchaser's assessment on the natural execution of brands ought to be decidedly influenced by environmental labels (Teisl, M. F., Roe, B., & Hicks, R. L., 2002). Understanding the impact of brands on buyers' purchasing decisions is imperative for marketers and marketing researchers.

This impact is known as brand value. As per Aaker (1992), mark value, from a consumer's point of view, can be characterized as a differential impact that brand learning has on a purchaser's reaction to the advertising of that brand. Green brands ought to be utilized to underline the position that green items play out the same as non-green ones. Additionally, green brands ought to be utilized to enable buyers to separate green brands from other comparative brands with same capacities. The huge factor propelling customers to change genuine buy behavior to purchase eco friendly products is enthusiastic brand benefits (Hartmann et al., 2006). Pickett-Baker, Josephine, and Ritsuko Ozaki (2008) list diverse kinds of enthusiastic brand benefits as: A sentiment prosperity, auto-articulation benefits through the socially obvious utilization and nature-related advantages.

Along these lines, the purchasing behavior will change to purchase ecological amicable items because of thought of the advantage of green brands. The consumers who recognized themselves as an ecological cognizant customers want to choose the green items in their real buy to fulfill their passionate needs.

#### 2.4.9 Environmental advertisements

In parallel with enhancing green developments worldwide and with expanding open consideration regarding natural issues, most associations have picked environmental advertisements through media or daily papers as green procedures for acquainting their items with earth capable purchasers. The target of environmental advertisements is to impact customers' obtaining conduct by urging them to purchase items that don't hurt the earth and to guide their consideration regarding the positive outcomes of consumers' purchasing behavior, for themselves and in addition the environment. Davis (1994) depicts that ecological promoting by organizations more often than not contains three components. Right off the bat, the promotion starts with an announcement of corporate worry for nature. Besides, the ad portrays the way the enterprise has changed its methodology so as to show its worry and commitment into enhancing the environment. Thirdly, the advertisement depicts particular ecological activities in which the organization is included as well as results for which the company assumes praise. As indicated by Baldwin (1993), ecological ads help to shape a shopper's esteems and make an interpretation of these qualities into the buy of green items. As expressed by Chase and Smith (1992), ecological messages in advertisements and item marking was found to "in some cases" impact the acquiring choices of 70 percent of the respondent. In a similar report, the greater part of the respondents showed that they gave careful consideration to such messages because of abundance use, and most respondents detailed that ecological advertisements were not valid. Chan (2004) states the principle explanations behind the low apparent believability of ecological claims in natural promotion. The reasons are: The dubious contentions to substantiate the natural claim, the source nation of the publicized item does not hold up under an eco-accommodating picture, the maker (sponsor) of the promoted item does not manage an eco-accommodating picture and the affirmed ecoamicability of the promoted item does not coordinate with the respondent's past utilization encounter.

#### **2.5 Hypotheses Development**

### 2.5.1 Perceived Seriousness of Environmental Problems (EP) has possitive affect to Environment concern and attitude and perceived effectiveness of environmental behavior

As indicated by Dunlap (2008), the greater part of these investigations focused on deciding the subject perspective of the issue, its reality and how are contrasts from the various societies. Dunlap (2008) found that Asian individuals were more worried about such issues than other Western regions since Asian culture has a tendency to see their nearby society in a negative way than Western nations. Bord and O'Connor (1997) found that ladies were more seen reality of the natural issues and stressed over different negative effects on their wellbeing than men.

Sinnapan et al. (2011) uncovers that buyer would truly make extreme move, change its thinkings in light of the fact that natural issues will genuinely influence their wellbeing and personal satisfaction. In any case, Han (2011) found that it was an insignificant factor in impacting youngsters' green purchasing behaviour because of their desensitization. Along these lines, the outcome may fluctuate in various setting of study. Thus, the hypothesis is produced as:

# H1: Perceived seriousness of environmental problems will positively affect to Environmental concern and attitude

H2: Perceived seriousness of environmental problems will positively affect to Perceived effectiveness of environmental behaviour

### 2.5.2 The impact of Environmental Concern and Attitude on Perceived effectiveness of environmental behaviour and Perceived effectiveness of environmental behaviour

#### **2.5.2.1 Environmental Concern (EC)**

Suchard and Polonski (1991) expressed that moral utilization was one of the purchasing behaviour communicated by customers who are concern about the environment. These sorts of customers will just purchase green items and check the bundling material of items.

Numerous analysts demonstrated that environment concern has decidedly and essentially impact on perceived effectiveness of environmental behaviour (Amores-Salvadó and Navas-López, 2014; Van Liere and Dunlap, 1981; Bamberg, 2003). As per Duan (2011), medical problems cause the need of high worried towards ecological. In this way, Lee, Jin-Soo, et al., (2010) uncovered that individuals with high worried to the ecological issues are all the more ready to comprehence effectiveness of environmental behaviour and the other way around.

The level of individuals' towards ecological concern is related with their advantage and wants to buy green items (Biswas, Liecata, McKee, Pullig and Daughtridge, 2000; Hedlund, Therese, 2011; Schwepker and Cornwell, 1991). Henceforth, environmental concern would be a basic factor for advertisers as they can without much of stretch target earth consumers (Albayrak, 2011). Besides, consumers who have perceivation effectiveness of environmental behaviour shown that they are all the more minding and cognizant to the issues show up in their ecological as contrast with other people who are not wanting to their environment (Bang et al., 2000).

#### 2.5.2.2 Environmental Attitude (EA)

Individuals will purchase green products on the off chance that they trusted that their utilization have a huge impact and outcome to their environment (Urien and Kilbourne, 2011). As indicated by Datta and Saroj Kumar(2011), Wasik (1992), Murray (1991), Sezen, B., and Çankaya, S. Y. (2013) feeling of ecological decay makes shoppers willing to concern more for the effectiveness of environmental behaviour keeping in mind the end goal to ensure their condition. Squirea, Juris and Cornwell (2001) found that customers who have positive attitude towards nvironment will probably buy natural sustenances.

The outcome from an examination led by Albayrak (2011) demonstrates that consumers' attitude towards perceived effectiveness of environmental behaviour can straightforwardly influences their real green purchase behaviour. Scientists, for example, Beckford, Jacobs, Williams, and Nahdee (2010), Cornelissen, Pandelaere and Warlop (2006), and Smith and Petty (1994) showed that ecological states of mind have a noteworthy or beneficial outcome on perceived effectiveness of environmental behaviour.

Henceforth, it important to has an examination on this issue with regards to customers' green purchase behaviour in Vietnam. Along these lines, the hypothesis will be:

H3: Environmental concern and attitude will positively affect to Perceived effectiveness of environmental behaviour.

2.5.3 Social Influences (SI) will moderate the influence of Perceived seriousness of environmental problems, Environmental concern and attitude and Perceived effectiveness of environmental behaviour

Social influence has been considered as one of the imperative factors in decided a person's acquiring practices. As per Baker et al. (2008), the investigation found that social influence has a solid association with eco-friendly products since it was altogether drive individuals to buy green items.

Chen-Yu and Seock (2002) found that companion congruity is an imperative variables for buy certain things. Consequently, social impact was critical in driving eco-dependable conduct. Also, Kalafatis et al. (1999) demonstrated that the most essentialness determinant that influences consumers' purchasing intention towards green products was social impact. Lee (2012) and Abdul Wahid et al. (2010) additionally found that social impact was the huge boost and most astounding indicator towards green purchase behaviour.

In addition, peer impact was one of the social impacts which can drive buyer acquiring conduct towards green items. As indicated by Espelage (2003), a man typically will share and speak with other people who have a similar idea, conviction and conduct. Along these lines, companion can be unequivocally impact and influence their buy conduct. For instance, buyers may buy green items when they have impact by their companions of companions who regularly share the helpful of green items.

In increases, a few examinations directed by Axelrod and Lehman (1993), Smith, Haugtvedt and Petty (1994), Berger and Corbin (1992) uncovered that there was a directing part of social impact between apparent reality of ecological issues and saw adequacy of natural conduct. Han (2011) likewise found that social impact was a feeble factor of youthful purchasers' natural conduct. Thus, the hypothesis is developed as:

H4 : Social Influences will strengthen the effect of Perceived seriousness of environmental problems to Perceived effectiveness of environmental behaviour.

H5 : Social Influences will strengthen the effect of Environmental concern and attitude to Perceived effectiveness of environmental behaviour. 2.5.4 Perceived Environmental Responsibility (ER) will moderate the influence of Perceived seriousness of environmental problems, Environmental concern and attitude and Perceived effectiveness of environmental behaviour

Hsiao, H., et al., (1999) has announced that client have extremely mindful of the ecological issues and more dependable in securing their condition. In any case, their feeling of individual obligation in ecological security is ordinarily frail (Hsiao, H., et al., 1999). Notwithstanding, contemplate led by Han (2011) exhibited that the apparent ecological obligation was an essential determinant for Hong Kong's youth consumers towards purchase green products. Also, females have a tendency to have a superior capacity to assume the liability for easing issues on the planet (Lewis & Gough, 1997). In this way, Zelezny, Chua and Alrich (2000) have prove that females had more elevated amounts of apparent responsibility towards environmental protection when contrasted with guys.

To make environmental behaviour among people can't be shy of their own apparent obligation. Ensuring the environment is the obligation of everybody. Thus, perceived environmental responsibility is the moderate predictor between environmental concern and attitude toward perceived effectiveness of environmental behaviour. Therefore, the hypothesis is developed as:

H6 : Perceived Environmental Responsibility will strengthen the effect of Perceived seriousness of environmental problems to Perceived effectiveness of environmental behaviour.

H7 : Perceived Environmental Responsibility will strengthen the effect of environmental concern and attitude to Perceived effectiveness of environmental behaviour.

32

### 2.5.5 Relationship between Perceived Effectiveness of Environmental Behaviour (EB) and Marketing tools

As per Han (2011) uncovered that the general population have distinctive recognition will prompt diverse activity and this additionally will impact the purchasers whether to purchase green items or not. Albayrak, Tahir, et al., (2011) showed that perceived effectiveness of environmental behaviour is a critical determinant of expert ecological shopper practices. Purchasers who have high seen viability of perceived effectiveness of environmental behaviour will made them wind up noticeably green buying behaviours, through perception of eco-label (Vermeir & Verbeke 2006), perception of eco-brand(Verhoef 2005), and environmental advertisement (Lee, Jin-Soo, et al., 2010).

Diverse consumers' perceived effectiveness of environmental behaviour can be seen in different circumstances. On the off chance that individuals trust that an ecological issue can be unraveled by a particular conduct, this may change the consumer's behaviour. Perceived effectiveness of environmental behaviour can make an interpretation of their state of mind into real acquiring activity (Berger et al., 1992; Albayrak, Tahir, et al 2011). Therefore, the hypothesis is defined as:

H8: Perceived Effectiveness of Environmental Behaviour will positively affect to Marketing tools:

H8a: Perceived Effectiveness of Environmental Behaviour will positively affect to Perception of eco-label.

H8b: Perceived Effectiveness of Environmental Behaviour will positively affect to Perception of eco-brand.

H8c: Perceived Effectiveness of Environmental Behaviour will positively affect to Environmental advertisement.

# 2.5.6 Relationship between Perception of eco-label, Environmental advertisement and Perception of eco-brand

In investigation of Tsen, Phang, Hasan and Buncha (2006) uncovered that in spite of the fact that consumers have high sense on environmental concerning, yet despite everything they promoting apparatuses assume an essential part towards consumers purchasing behaviour on green item. The study of Sinnappan et al. (2011) shows that perception of eco-label and environmental advertisement can increase the perception of eco- brand. Thus, there are different result in the role of eco-label and environmental advertisement toward perception of geen customer.

The significant factor motivating consumers to change perception of ecobrand is perception of eco-label and environmental advertisement. Thinking about customers' image buy choices are imperative for advertisers and economic scientists. Therefore, the hypothesis is defined as:

H9: Perception of eco-label will positively affect to Perception of eco-brand.

H10: Environmental advertisement will positively affect to Perception of ecobrand.

# 2.5.7 Relationship between green marketing tools and customer's purchase behavior

Past examinations have concentrated on looking at the variables influencing environmental purchasing behavior for example, state of mind, information and esteem. In spite of the fact that these components have been recognized as a critical determinant of environmental purchasing behavior, none has researched the utilization of environmental friendly marketing exercises as a determinant to impact consumers' purchase of environmental friendly products. Green marketing exercises are expanding in numerous nations, and these exercises have had a vital impact on expanding purchaser information and in moving customer into buying green items (Scott, 1994). Advertisers ought to underscore the environmental learning in their associations, their items and their publicizing so as to accomplish the objective of changing the consumer purchasing behavior (Leonidou, 2011).

Referencing from the existing literature, it is thus hypothesized that:

H11. Green marketing tools will positively affect to green purchasing behavior:

H11a. Eco-label will positively affect to green purchasing behavior

H11b. Eco-brand will positively affect to green purchasing behavior.

H11c. Environmental advertisement will positively affect to green purchasing behavior.

## CHAPTER THREE RESEARCH METHODOLOGY

#### 3.1 Conceptual Framework

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

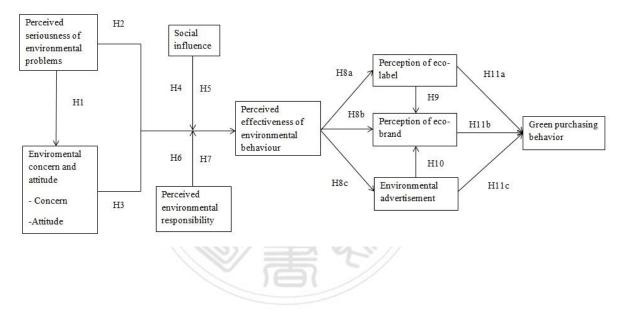


Figure 3.1 Proposed Conceptual Framework

#### 3.2 Research Design

Research design is an all-inclusive strategy that expressed the techniques and systems for collecting and examining the needed data (Blumberg et al., 2014). As indicated by Sekaran (2003), research design is set up to choose how to analyse data and turn it in solution for the issue. The examination directed by scientist might be imagined as meaning, occurring of something. Subsequently, this research was hoped to maintain a strategic distance from mistake happened in gathering applicable data.

#### 3.2.1 Quantitative Research

Quantitative research is connected in this investigation where a lot of respondents' alternatives can be gathered. Along these lines, its dissecting techniques comprised of scientific equations and likelihood to render discoveries (Zikmund, 2003) which implies that the estimation is objective, quantitative and measurably substantial. Plus, as indicated by Malhorta and Peterson (2006), a game-plan can be proposed base on the convincing aftereffect of quantitative research.

#### **3.2.2 Descriptive Research**

Descriptive research is fitting in this investigation since it plans to decide the factors that influence consumers' green purchase behaviour in Vietnam. Descriptive research is utilized to portray the population characteristics (Zikmund, 2003) and depict the accessible conditions as opposed to deciphering and making judgments (Creswell, 2017). The fundamental goal of the descriptive research is to confirm of the developed hypotheses that mirrors the present circumstance. Furthermore, descriptive studies depend on some past comprehension of the idea of the exploration issue (Zikmund, 2003).

In this research, the descriptive analysis was used to understand the characteristics of each variable. Firstly, respondent's profile will be illustrated by using descriptive statistic techniques in term of frequency of distribution. After that, the study will point out the mean and standard deviation of each variable.

37

#### **3.3 Sampling and Data Collection**

The survey will be conducted by sending 276 questionnaires to Vietnamese customer. Sekaran (2016) recommended that larger sample size can obtain more exactly data. The normal sample size is between 31 and 500 (Mathwick et al., 2006). The author gives to the target respondents about 276 questionnaires. The purpose of this study is to test the theoretical model, measuring all the constructs to test the hypotheses. The quantitative data will collected from Vietnamese customer in recent years.

#### **3.4 Research Instrument**

#### **3.4.1 Questionnaire Design**

Questionnaire design is a standout amongst the most basic stages in the study look into process since it will influence the reaction rate and the dependability and legitimacy of information accumulation. Specialist should utilize basic, reasonable, unambiguous words in outlining the survey's inquiries (Zikmund, 2003). Moreover, the questionnaire should just express the significant and require question keeping in mind the end goal to assemble the important information. Also, the discovering, wellsprings of information, format, request and stream of the inquiries are the basic factors in outlining the survey. It was vital that the survey configuration was alluring and clear keeping in mind the end goal to urge respondents to top off and return back to researcher. The questionnaire was originally composed in English, and then was translated into Vietnamese. To ensure the same meaning, a group of three doctoral degree candidates who major in business administration and good at English as well as Vietnamese are invited to discuss and translated each question into Vietnamese. The unclear and incorrect translations were removed. The final questionnaire in Vietnamese was completed after being

carefully discussed and modified (see Appendix).

This questionnaire involves of introductory letter, demongraphics, and night constructs. First of all, the author introduces by self, purpose of this research and also motivation. Moreover, as per Dillman (2001), the first impression affects so much to respondent's interest. Then, the author thanks attendants who give their time and concern to fill the questionnaire. This questionnaire comprises of three sections which is segment A (demographic), B (factors influencing) and C (green purchase behaviour).

In segment A, customer are requested to give some essential characteristics data. The gender, age, education level, and monthly income are requirement information in this segment. They must choose best answer to describe themself.

All the main questions of independent that recognize the variables impacting GPB will be asked in the segment B. The respondents have high focus on question to choose the answer follow their experience. The answer were count on the Likert five-point scale: 1 for "strongly disagree", 2 for "disagree", 3 for "neutral", 4 for "agree", and 5 for "strongly agree". Then, this rearch show what are items measurement in each the factor impact.

In C part, the green purchase behaviour of the respondents is tested in this part. The same with B segment, the Likert five-point scale was examed to answer of the respondents. In addition, the green purchase behaviour was measured by detail and direct items. This part is tool as scientist can distinguish not just the weight of the green purchase behaviour, yet in addition recognize the relationhip between factors impacts and the green purchase behaviour of Vietnamese buyers.

Toward the finish of the survey outline, specialist thanks the attendants for setting aside the opportunity to finish the survey. Additionally, the author declares all of information only use for academic purpose and keep in private.

#### 3.4.2 Pilot Test

The first step before going to collecting data is pre-test or pilot test. Because a study size is huge, the author do pre-test carefully to make sure the mearsure constructs are right (Zikmund, 2003). The pre-test helps decrease mistake in sample data (Blumberg et al., 2014). After that, data is more reliable and valid.

Denscombe, Martyn (2010) supports that the pilot testing needs at least ten percentage of study size which makes sure the results. So, the authors choose about 27 customers to send the survey and make sure they understand questions clearly. Besides, some respondents give comments for complete the question such as error typing or grammar. It make the questionare is more qualified and accurated. An acceptable level of internal consistency would be reflected in  $\alpha$  value of no less than 0.70 in this study. The results of the Cronbach's  $\alpha$  showed that the questionnaire of each variable had relatively high coefficient  $\alpha$  higher than 0.7.

#### **3.5 Constructs Measurement**

This study proposed 9 research constructs and assessing the relationships among constructs. These construct are Perceived seriousness of environmental problems, Eviromental concern and attitude, Social Influence, Perceived environmental responsibility, Perceived effectiveness of environmental behaviour, Perception of eco-label, Perception of eco-brand, Environmental advertisement, Green Purchase Behaviour. For each construct, the details of questionnaire items are show:

#### 3.5.1 Perceived seriousness of environmental problems

Banerjee and Mckeage (1994) expressed that the view of a person to the force, perilous and reality of ecological issues and issues could influence his

or her green purchasing behaviour. The perceived seriousness of environmental problems of this study will be measured with 5 items modified from Ranee Sinnappan & Abd Rahman (2011). All the items use the five – point Likert scale to measure from 1=strongly disagree to 5=strongly agree. The questionnaires are showing as below:

# Table 3.1: Measurement of Perceived seriousness of environmental problems

| Perceived seriousness of environmental problems |   |
|---|---|
| (EP1) How                                       | serious do you think the environmental problems are?                    |
| (EP2) How                                       | urgently do you think VN's environmental problems need to be dealt with |
| (EP3) I thir                                    | nk VN's environmental problems are worsening                            |
| (EP4) VN's                                      | s environmental problems are threatening our health                     |
| (EP5) VN's                                      | s environmental problems are threatening the reputation of VN           |

#### 3.5.2 Evironmental concern and attitude

Dagnoli (1990) and Bang, Ellinger, Hadjimarcou, and Traichal (2000) found that buyers who are more worry towards condition issues will in any case changed to buy green items even its value significantly higher than nongreen or less eco-accommodating items. Lee, Jin-Soo, et al., (2005) brought up that individuals with high worried to the natural issues will purchase green items and the other way around. As per Cleveland et al. (2005) and Chyong et al. (2006), states of mind is the most huge factor in foreseeing buyers' ability to pay more for ecological well disposed items. This examination additionally received the measure things from Sinnappan and Abd Rahman (2011), Ooi, Kwek and Tan (2012) to lead investigation this factor. This dimension of online customer review will be measured by 11 items. All the items will be measured by five –point Likert scale to measure from 1=strongly disagree to 5=strongly agree. The questionnaire as below:

| Table 3.2: Measurement of Eviromental | concern and attitude |
|---------------------------------------|----------------------|
|---------------------------------------|----------------------|

|             | Eviromental concern and attitude                                       |  |  |
|-------------|--|--|--|
|             | (ECA1) I am worried about the worsening of the quality of VN's         |  |  |
| Eviromental | environment.   |  |  |
|             | (ECA2) Viet Nam's environment is my major concern                      |  |  |
|             | (ECA3) I am emotionally involved in environmental protection issues in |  |  |
| concern     | VN   |  |  |
|             | (ECA4) I often think about how the environmental quality in VN can be  |  |  |
|             | improved   |  |  |
|             | (ECA5) It is essential to promote green living in Viet Nam.            |  |  |
|             | (ECA6) I strongly agree that more environmental protection works are   |  |  |
|             | needed in VN   |  |  |
|             | (ECA7) It is very important to raise environmental awareness           |  |  |
| Eviromental | among VN people  |  |  |
| attitude    | (ECA8) Environmental protection works are simply a waste of money and  |  |  |
| attitude    | resources  |  |  |
|             | (ECA9) Environmental protection issues are none of my business.        |  |  |
|             | (ECA10) I think environmental protection is meaningless                |  |  |
|             | (ECA11) It is unwise for VN to spend a vast amount of money on         |  |  |
|             | promoting environmental protection                                     |  |  |

#### **3.5.3 Social Influence**

As indicated by Espelage (2003), social dynamic alludes to relationship among a person with other people. It implies that an individual offers their convictions, contemplations and qualities with other individuals that he or she spoke with. This Social Influence will be measured by 6 items. All the items use the five –point Likert scale to measure from 1=strongly disagree to 5=strongly agree. The questionnaire as below:

| Table 3.3: Measurement | of Social | Influence |
|------------------------|-----------|-----------|
|------------------------|-----------|-----------|

| Social Influence  |
|---|
| (SI1) How much do you learn about environmental products from your friends          |
| (SI2) How much do you learn about environmental issues from your friends            |
| (SI3) How much do you discuss with your friends about environmental products        |
| (SI4) How much do you discuss with your friends about environmental issues          |
| (SI5) How often do you buy environmental products with your friends                 |
| (SI6) How often do you share information regarding environmental products with your |
| friend  |

#### 3.5. 4 Perceived environmental responsibility

The standard actuation demonstrate that recommended by Schwartz (1977) found that when individual mindful and aware of unfriendly results and feel in charge of these outcomes will motivate the person's helping behaviour. The dimension of perceived environmental responsibility was measured by 6 items. All the items use the five –point Likert scale to measure from 1=strongly disagree to 5=strongly agree. The questionnaire as below:

| Perceived environmental responsibility  |
|---|
| (ER1) I should be responsible for protecting our environment                      |
| (ER2) Environmental protection starts with me.                                    |
| (ER3) How much responsibility do you think you have in protecting the environment |
| in VN?  |

(ER4) I have taken responsibility for environmental protection since I was young(ER5) How willing are you to take up responsibility to protect the environment in VN?(ER6) Environmental protection is the responsibility of the VN

#### 3.5. 5 Perceived effectiveness of environmental behaviour

Lee, Jin-Soo, et al., (2010) specified that the level of viability which is seen by the purchaser is fluctuates from individual to individual and this was dictated by immediate and aberrant information and experience. The study measured perceived effectiveness of environmental behaviour using 4-item scale from the study of Sinnappan & Abd Rahman (2011). All the items use the five –point Likert scale to measure from 1=strongly disagree to 5=strongly agree. The questionnaire items are show as below:

 Table 3.5: Measurement of Perceived effectiveness of environmental

 behaviour

| Perceived effectiveness of environmental behaviour                                    |
|---|
| (EB1) I think if I carry out some pro-environmental behaviours in my everyday life, I |
| would contribute a lot to our environment   |
| (EB2) I think my participation in environmental protection would influence my family  |
| and friends to participate too  |
| (EB3) The environmental quality of VN will be better if I engage in some pro-         |
| environmental behaviours  |
| (EB4) When I recycle and reuse things, the environmental quality of VN will be        |
| improved so much  |

#### **3.5.6 Perception of eco-label**

The study used 6-item scale as developed by Chamorro, Antonio, and Tomás M. Bañegil (2006) Delafrooz (2014) and used in prior study by Delafrooz (2014). All the items use the five –point Likert scale to measure from 1=strongly disagree to 5=strongly agree. The questionnaire as below:

#### Table 3.6: Measurement of Perception of eco-label

| Perception of eco-label   |
|---|
| (EL1) When the green products are mentioned, I will firstly think of the green labels   |
| (EL2) I can think of at least one kind of the green labels now.                         |
| (EL3) I will pay attention on the green labels when buying products                     |
| (EL4) I get most knowledge of the green labels from the information of products'        |
| packagings and instructions.  |
| (EL5) I think the categories of the green labels are too much, making me feel difficult |
| to remember and classify them.  |
| (EL6) I believe that the information about the green labels on the packaging or         |
| instruction is accurate.  |

#### 3.5.7 Perception of eco-brand

The study measured Perception of eco-brand with 6 factors. The measurement items of Perception of eco-brand were adapted from Delafrooz (2014). All measurement items will use five-point Liker scales from 1=strongly disagree to 5=strongly agree. The questionnaire items are as follow:

#### Table 3.7: Measurement of Perception of eco-brand

| Perception of eco-brand   |
|---|
| (EBR1) I am aware of eco-brands   |
| (EBR2) I know all kinds of relevant information about the eco-brand.          |
| (EBR3) I believe in any products owning eco-brand                             |
| (EBR4) I have special preference on the eco-brand of certain kind of products |

(EBR5) Eco-brand is not certaintly symbol of product reliability

(EBR6) I believe that the eco-brand are not truthful, which means they can not reach the green standard

#### 3.5.8 Environmental advertisement

The study measured experiential value with 4 factors. The measurement items of Environmental advertisement were adapted from D'Souza (2005), Delafrooz (2014). All measurement items will use five-point Liker scales from 1=strongly disagree to 5=strongly agree. The questionnaire items are as follow:

Table 3.8: Measurement of Environmental advertisement

| Environmental advertisement  |   |
|--|---|
| (EA1) Environmental advertisement enhance my knowledge about green products        |   |
| (EA2) I enjoy watching broadcast environmental advertisement                       |   |
| (EA3) Environmental advertisement guide customers to making an informed purchasing | 5 |
| decision   |   |
| (EA4) I think eviromental advertisement is essential and effect                    |   |

#### 3.5.9 Green Purchase Behaviour

Various examinations in regards to factors that impact green consumers' purchase behaviours have been led by previous analysts, for example, Chan and Lau (2000), D'Souza, Taghian, Lamb and Peretiatkos (2006), and Han (2011). The study measured experiential value with 4 factors. The measurement items of experiential value were adapted from Sinnappan & Abd Rahman (2011). All measurement items will use five-point Liker scales from 1=strongly disagree to 5=strongly agree. The questionnaire items are as follow:

#### Table 3.9: Measurement of Green Purchase Behaviour

| Green Purchase Behaviour   |  |
|--|--|
| (GPB1) When I want to buy a product, I look at the ingredients label to see if it contains |  |
| thing that are environmentally damaging  |  |
| (GPB2) I prefer green products over non-green products when the products qualities         |  |
| are similar.   |  |
| (GPB3) I choose to buy products that are environmentally friendly                          |  |
| (GPB4) I buy green products even if they are more expensive than the non-green ones.       |  |

#### 3.6 Data Analysis Procedure

Data analysis alludes to the way toward breaking down and assessing data to shape a type of finding or conclusion. The motivation behind data analysis is to gathered data that correlated to the subject under thought. The target of precisely choosing the data analysis strategies is to interpret the importance of crude information into significant data for examination, support, and investigation purposes. It is arranged that a measurable bundle to be utilized for this procedure. Elucidating examination, factor investigation, unwavering quality test and inferential investigation will be utilized to analyse the data.

#### **3.6.1 Descriptive Analysis**

In this research, the descriptive analysis was used to understand the characteristics of each variable. Firstly, respondent's profile will be illustrated by using descriptive statistic techniques in term of frequency of distribution. After that, the study will point out the mean and standard deviation of each variable.

#### **3.6.2 Frequency Distribution**

Frequency distribution is an arrangement of information composed by condensing the circumstances a specific estimation of a variable happens (Zikmund, 2003). It suit for low level estimation scale which is nominal or ordinal scale (Zikmund, 2003). The reason for frequency is to outline how every now and again every reaction happens. From that point onward, information will organize into recurrence table which incorporated the rates for every one of the qualities associated with that variable (Mathwick, 2001).

#### 3.6.3 Factor Analysis and Reliability Tests

This study applied the principal component factor analysis to identify dimensionality and condense the data into certain factors. After factor analysis was done, item-to-total correlation and internal consistency analysis (Cronbach's alpha) was employed to confirm the reliability of each research factors. Factor analysis can be used to explore underlying variance structure of correlation coefficients.

Item to total correlation and coefficient alpha were also assessed to identify the internal consistency and reliability of the constructs. Item to total correlation measures the correlation of each item to the sum of the remaining items. This approach assumes that the total score is valid and thus the extent to which the item correlates with the total score is indicative of convergent validity for the item.

The method of extracting coefficients to use is the principal components with the varimax perpendicular rotation and the pause when extracting the elements with an eigenvalue value equal 1. The scale is accepted factor loading more 0.7, is highly satisfactory for most of research purposes (Hair et al., 2006) and if  $\alpha$  slower than 0.3, then it implies that there is low reliability.

#### 3.6.4 Hierarchical Multiple Regressions

Hierarchical regression indicates the explanation of a statistically significant amount of variance in Dependent Variable (DV) after accounting for all other variables. In another word, this kind of analysis is "sharing statistical strength". Apply hierarchical regression analysis in this study to test how significant of two moderating factor, Social influence and Perceived environmental responsibility, in the relationship between Perceived seriousness of environmental problems and Perceived effectiveness of environmental behaviour, Environmental concern and attitude and Perceived effectiveness of environmental behaviour.

#### **3.6.5 Structural Equation Model (SEM)**

Structural Equation Modelling (SEM) is a family of statistical models that seek to explain the relationship among multiple variable. To do so, it exams the "structure" of interrelationship expressed in a series of equations, similar to a series of multiple regression equations. These equations depict all of the relationship among variables (the dependent variables) involved in the analysis.

## CHAPTER FOUR DATA ANALYSIS AND RESULTS

#### **4.1 Descriptive Analysis**

To show off information about characteristics of respondents and the results, preliminary analyses were conducted in this section.

#### **4.2 Response rates**

The data were gathered through questionnaire survey four – month – period from June 2017 to Octorber 2017 in Ho Chi Minh, Vietnam. A total of 346 survey questionnaires are sent to customer who live in Viet Nam. Given the responses of 276 filled in questionnaires, a response rate of 79.7% is obtained. There are no missing data from the 276 questionnaires; hence there were 276 are usable.

#### **4.3 Characteristics of Respondents**

Table 4.1 is the attributes of the sample responses. There are four major points in this study: (1) Gender, (2) Age, (3) Education, (4) Income, (5) Do you have experience about buying Green product? As shown in the table, there are more female respondents than male, which stand at 52.5 percentages. Besides, most respondents are young people from 21-30 year old, which make up 84.8 percentages of samples. The amount of people earning under 300USD per month achieves 42.4 percentages, which is approximate to 117 persons. Finally, most of the people refer to have experience about buying Green product which stand at 68.8% and 31.2% of them refers to have no experience about buying Green product.

| Classification             | Respondents               |                |  |  |
|----------------------------|---------------------------|----------------|--|--|
| Classification             | Frequency                 | Percentage (%) |  |  |
| <u>Gender</u>              |                           |                |  |  |
| Male                       | 131                       | 47,5%          |  |  |
| Female                     | 145                       | 52.5%          |  |  |
| Age                        |                           |                |  |  |
| < 20                       | 28                        | 10.1%          |  |  |
| 21 - 30                    | 234                       | 84.8%          |  |  |
| 31 - 40                    | 6                         | 2.2%           |  |  |
| >40                        | 8                         | 2.9%           |  |  |
| Income (USD/month)         | Se M                      |                |  |  |
| < 300                      | 117                       | 42.4%          |  |  |
| 301 - 600                  | 97                        | 35.1%          |  |  |
| 601 - 900                  | 23                        | 8.3%           |  |  |
| 901 – 1200                 | 8                         | 2.9%           |  |  |
| 1200                       | 31                        | 11.2%          |  |  |
| Education                  |                           | ()<br>()       |  |  |
| High school                | 33                        | 12%            |  |  |
| College                    | 195                       | 70.7%          |  |  |
| Master                     | 40                        | 14.5%          |  |  |
| Master above               | 8                         | 2.9%           |  |  |
| Do you have experience abo | but buying green product? |                |  |  |
| Yes                        | 190                       | 68.8%          |  |  |
| No                         | 86                        | 31.2%          |  |  |

### Table 4.1 Characteristics of the Respondents (N = 276)

#### 4.4 Descriptive Analysis of Research Variables

Table 4.2 indicates the descriptive statistics by questionnaire items for sample. There are five items of Perceived seriousness of environmental problems, eleven items of Environmental concern and attitude, six items of Social influence, seven items of Perceived environmental responsibility, four items of Perceived effectiveness of environmental behaviour, six items of Perception of eco-label, six items of Perception of eco-brand, four items of Environmental advertisement, four items of Green purchasing behavior.

Table 4.2 provides descriptive statistics with respect to each of the research variables for 276 respondents, including mean values and standard deviations. The results of the means and standard deviations as shown in Table 4-2, the results indicate that all respondents tend to report higher levels (the value of mean all above 3) for most items of the constructs of this research framework. Particularly, in the constructs of Perceived seriousness of environmental problems, Social influence, Perceived environmental responsibility,Perceived effectiveness of environmental behaviour, Perception of eco-label, Perception of eco-brand with mean highest scores in a five-point scale, such as item SI6 (M=4.06), item SI2 (M=4.01), item EP3 (M=3.97) and item EBR5 (M=3.97). However, all respondents tend to report lower levels of constructs Environmental concern and attitudes such as item ECA9 (M=2.43), ECA3 (M=2.50).

Table 4.2 Descriptive Analysis for Questionnaire Items

| Item   | Description<br>(5 – point scale)                         | Mean | Std.<br>Dev |  |  |
|--|--|------|-------------|--|--|
| Perceived seriousness of environmental problems (EP) |  |      |             |  |  |
| EP1  | How serious do you think the environmental problems are? | 3.93 | 0.718       |  |  |

| EP2       | How urgently do you think VN's environmental problems need to be dealt with?              | 3.93 | 0.649 |
|-----------|---|------|-------|
| EP3       | I think VN's environmental problems are worsening   | 3.97 | 0.684 |
| EP4       | VN's environmental problems are threatening our health                                    | 3.84 | 0.708 |
| EP5       | VN's environmental problems are threatening the reputation of VN                          | 3.95 | 0.621 |
| Evirome   | ntal concern and attitude (ECA)   |      |       |
| ECA1      | am worried about the worsening of the quality of VN's environment                         | 2.53 | 1.003 |
| ECA2      | et Nam's environment is my major concern  | 2.57 | 1,015 |
| ECA3      | m emotionally involved in environmental protection issues in VN                           | 2.50 | 1,011 |
| ECA4      | ften think about how the environmental quality in VN can be improved                      | 2.74 | 1,187 |
| ECA5      | s essential to promote green living in Viet Nam   | 2.56 | 1,009 |
| ECA6      | trongly agree that more environmental protection<br>works are needed in VN                | 2.52 | 0,992 |
| ECA7      | is very important to raise environmental awareness<br>among VN people                     | 2.52 | 0,996 |
| ECA8      | vironmental protection works are simply a waste of money and resources                    | 2.66 | 1,175 |
| ECA9      | vironmental protection issues are none of my<br>business                                  | 2.43 | 0,949 |
| ECA10     | hink environmental protection is meaningless  | 3.05 | 0,883 |
| ECA11     | is unwise for VN to spend a vast amount of money<br>on promoting environmental protection | 3.09 | 0,889 |
| Social In | fluence (SI)  |      |       |
| SI1       | How much do you learn about environmental products from your friends                      | 3.89 | 0.940 |
| SI2       | How much do you learn about environmental issues from your friends                        | 4.01 | 0.874 |
| SI3       | How much do you discuss with your friends about<br>environmental products                 | 3.66 | 0.930 |
|           | 1   |      |       |

| SI4             | How much do you discuss with your friends about<br>environmental issues   | 3.48 | 0.788 |
|-----------------|---|------|-------|
| SI5             | How often do you buy environmental products with your friends   | 3.49 | 0.924 |
| <u>SI</u> 6     | How often do you share information regarding environmental products with your friend  | 4.06 | 1.102 |
| Perceive        | d environmental responsibility (ER)   |      |       |
| ER1             | I should be responsible for protecting our environment  | 3.44 | 1.141 |
| ER2             | Environmental protection starts with me   | 3.82 | 0.953 |
| ER3             | How much responsibility do you think you have in protecting the environment in VN?  | 3.47 | 1.116 |
| ER4             | I have taken responsibility for environmental protection since<br>I was young   | 3.62 | 1.057 |
| ER5             | How willing are you to take up responsibility to protect the environment in VN?   | 3.33 | 1.074 |
| ER6             | Environmental protection is the responsibility of the VN government, not me   | 3.51 | 1.146 |
| ER7             | Environmental protection is the responsibility  | 3.68 | 0.933 |
| <u>Perceive</u> | d effectiveness of environmental behaviour (EB)   |      |       |
| EB1             | I think if I carry out some pro-environmental behaviours<br>in my everyday life, I would contribute a lot to our<br>environment | 3.88 | 0.944 |
| EB2             | I think my participation in environmental protection would<br>influence my family and friends to participate too                | 3.70 | 1.033 |
| EB3             | The environmental quality of VN will be better if I engage in some pro-environmental behaviours.                                | 3.76 | 0.976 |
| EB4             | When I recycle and reuse things, the environmental quality of VN will improve so much   | 3.80 | 0.904 |
|                 | on of eco-label (EL)  |      |       |
| EL1             | When the green products are mentioned, I will firstly think of the green labels   | 3.92 | 0.752 |
| EL2             | I can think of at least one kind of the green labels now.   | 3.91 | 0.777 |

| EL3      | I will pay attention on the green labels when buying products.  | 3.73 | 0.866 |
|----------|---|------|-------|
| EL4      | I get most knowledge of the green labels from the information of products' packagings and instructions.                         | 3.82 | 0.785 |
| EL5      | I think the categories of the green labels are too much,<br>making me feel difficult to remember and classify them.             | 3.87 | 0.756 |
| EL6      | I believe that the information about the green labels on the packaging or instruction is accurate.                              | 3.87 | 0.768 |
|          | on of eco-brand (EBR)   |      |       |
| EBR1     | I am aware of eco-brands  | 3.88 | 0.680 |
| EBR2     | I know all kinds of relevant information about the eco-<br>brand.   | 3.87 | 0.715 |
| EBR3     | I believe in any products owning eco-brand  | 3.92 | 0.763 |
| EBR4     | I have special preference on the eco-brand of certain kind of products  | 3.92 | 0.680 |
| EBR5     | Eco-brand is not certainly symbol of product reliability  | 3.97 | 0.705 |
| EBR6     | I believe that the eco-brand are not truthful, which means<br>they can not reach the green standard                             | 3.80 | 0.689 |
| Environn | nental advertisement (EA)   |      |       |
| EA1      | Environmental advertisement enhance my knowledge about green products   | 3.42 | 0.933 |
| EA2      | I enjoy watching broadcast environmental advertisement  | 3.43 | 0.937 |
| EA3      | Environmental advertisement guide customers to making an informed purchasing decision   | 3.28 | 1.159 |
| EA4      | I think eviromental advertisement is essential and effect   | 3.49 | 0.924 |
|          | urchase Behaviour (GPB)   | 1    |       |
| GPB1     | When I want to buy a product, I look at the ingredients label<br>to see if it contains thing that are environmentally damaging. | 2.75 | 0.830 |
| GPB2     | I prefer green products over non-green products when the products qualities are similar.  | 2.89 | 0.914 |
| GPB3     | I choose to buy products that are environmentally friendly.   | 2.87 | 0.937 |
| GPB4     | I buy green products even if they are more expensive than the non-green ones.   | 2.84 | 0.932 |

#### 4.5 Factor Analysis and Reliability Tests

To verify the dimensionality and reliability of the constructs, several data purification processes are conducted in this research, including factor analysis, correlation analysis, and coefficient alpha analysis. For factor analysis examines the basic structure of the data. Correlation analysis confirms the multi-collinearity among variables, and coefficient (Cronbach's) alpha accesses the internal consistency of each variable.

For each research construct, factor analysis is adopted first to select the items with higher factor loading, and then to compare with the theoretically suggested items. After factor analysis, item-to-total correlation, coefficient alpha, and correlation matrix are calculated to provide the internal consistency measurements to each constructs.

Factor analysis was conducted for all constructs as the data were taken and adapted from former research and following criterions were followed for the factor analysis:

- Kaiser Meyer Olkin Measure of Sampling Adequacy (KMO): Higher than 0.5

& Bartlett's test Sig below than 0.05

- Eigen value: Higher than 1
- Explained variance (accumulative): Higher than 0.6
- Cronbach's coefficient alpha ( $\alpha$ ): Higher than 0.7
- Item-to-total correlation: Higher than 0.5

The results of the factor analysis and reliability for each variable are shown in Table 4.3 to 4.11

<sup>-</sup> Factor loading: Higher than 0.6

#### 4.5.1 Perceived seriousness of environmental problems

This construct has total of 5 items that used to explain on perceived seriousness of environmental problems construct. This construct is divided into 1 factor for further analysis purposes and items of each factor are listed in table below.

|                                 | seriousness of environme  | mai pro | UICIIIS |        |       |       |
|---------------------------------|---|---------|---------|--------|-------|-------|
| Research<br>Construct           | Research Item   | FL      | EV      | AE     | ITC   | α     |
|                                 |   |         | 2.567   | 51.334 |       | 0.861 |
|                                 | EP2 How urgently do you<br>think VN's environmental<br>problems need to be dealt<br>with? | 0.827   |         |        | 0.714 |       |
| Perceived<br>seriousnes<br>s of | EP3 I think VN's<br>environmental<br>problems are<br>worsening                            | 0.825   | E S     |        | 0.707 |       |
| environme<br>ntal<br>problems   | EP5 VN's environmental<br>problems are threatening the<br>reputation of VN                | 0.818   |         | /      | 0.699 |       |
| KMO=0.8<br>62<br>BTV=0.00<br>0  | EP4 VN's<br>environmental<br>problems are<br>threatening our<br>health                    | 0.778   |         |        | 0.649 |       |
|                                 | EP1 How serious<br>do you think the<br>environmental<br>problems are?                     | 0.770   |         |        | 0.638 |       |

Table 4.3: Results of factor analysis and reliability check on perceived seriousness of environmental problems

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

KMO value for perceived usefulness construct is 0.862, hence it represents data in each factor are well suitable to perform factor analysis. Bartlett test values are less than 0.001, indicate correlations between the variables are significant.

In this construct, all the variables have factor loadings value higher than 0.6. Item EP2 "How urgently do you think VN's environmental problems need to be dealt with?" had the highest factor loading of 0.827, indicating this item had the highest relation to perceived seriousness of environmental problems. A high internal consistency within perceived benefit of this factor is represented by all item to total correlation are greater than 0.5.

Factor has the item to total correlations are above 0.5, Cronbach's  $\alpha = 0.861$  and eigen value = 2.567.

The components had accumulated a total 51.334% of explained variance which show these are important underlying factors for this construct. Based on all criteria, we can conclude that the reliability and internal consistency of this factor are acceptable.

## 4.5.2 Eviromental concern and attitudes

This construct has total of 11 items that used to explain perceived enjoyment construct. This construct is divided into 1 factor for further analysis purposes and items of each factor are listed in table below.

| Research<br>Construct                             | Research Item   | FL    | EV    | AE     | ITC   | α     |
|---|---|-------|-------|--------|-------|-------|
|   |   |       | 4.044 | 57.768 |       | 0.877 |
| Eviromental                                       | ECA9 Environmental<br>protection issues are<br>none of my business              | 0.802 |       |        | 0.710 |       |
| concern and<br>attitude<br>KMO=0.907<br>BTV=0.000 | A1 I am worried about<br>the worsening of the<br>quality of VN's<br>environment | 0.798 |       |        | 0.703 |       |
|   | A3 I am emotionally involved in   | 0.766 |       |        | 0.668 |       |

 Table 4.4 Results of factor analysis and reliability check on Eviromental concern and attitude

| - |
|---|

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

KMO value for perceived enjoyment construct is 0.907 (over 0.7) hence it represents data in each factor are well suitable to perform factor analysis. Bartlett test values are less than 0.001, indicate correlations between the variables are significant.

In this construct, all the variables have factor loadings value higher than 0.6. Item ECA9 "environmental protection issues are none of my business" had the highest factor loading of 0.802, indicating this item had the highest relation to eviromental concern and attitude. A high internal consistency within perceived benefit of this factor is represented by all item to total correlation are greater than 0.5.

Factor has the item to total correlations are above 0.5 and Cronbach's  $\alpha$  = 0.877 and Eigen value = 4.044.

The components had accumulated a total 57.768% of explained variance which show these are important underlying factors for this construct. Based on all criteria, we can conclude that the reliability and internal consistency of this factor are acceptable.

## **4.5.3 Eviromental Social Influence**

This construct has total of 6 items that used to explain Eviromental Social Influence construct. This construct is divided into 8 factors for further analysis purposes and items of each factor are listed in table below.

| Research<br>Construct                                 | Research Item   | FL    | EV    | AE         | ITC   | α     |
|---|---|-------|-------|------------|-------|-------|
|   |   |       | 3.509 | 70.17<br>3 |       | 0.890 |
|   | <i>SI2</i> How much do<br>you learn about<br>environmental<br>issues from your<br>friends     | 0.895 | ST /  |            | 0.819 |       |
| Social<br>Influence<br>KMO=0.8<br>17<br>BTV=0.00<br>0 | <i>SI1</i> How much do<br>you learn about<br>environmental<br>products from your<br>friends   | 0.890 |       |            | 0.809 |       |
|   | <i>SI3</i> How much do<br>you discuss with<br>your friends about<br>environmental<br>products | 0.848 |       |            | 0.740 |       |
|   | SI4 How much do you   | 0.828 |       |            | 0.733 |       |

Table 4.5: Results of factor analysis and reliability check on Social Influence

| discuss with your<br>friends about<br>environmental issues                           |       |  |       |  |
|--|-------|--|-------|--|
| <i>SI5</i> How often do<br>you buy<br>environmental<br>products with your<br>friends | 0.715 |  | 0.584 |  |

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

KMO value for social influence construct is 0.817 (over 0.7), hence it represents data in each factor are well suitable to perform factor analysis. Bartlett test values are less than 0.001, indicate correlations between the variables are significant.

In this construct, all the variables have factor loadings value higher than 0.6. Item SI2 "How much do you learn about environmental issues from your friends" had the highest factor loading of 0.895, indicating this item had the highest relation to social influence. A high internal consistency within social influence of this factor is represented by all item to total correlation are greater than 0.5.

Factor has the item to total correlations are above 0.5, Cronbach's  $\alpha = 0.890$  and Eigen value = 3.509.

The components had accumulated a total 70.173% of explained variance which show these are important underlying factors for this construct. Based on all criteria, we can conclude that the reliability and internal consistency of this factor are acceptable.

## 4.5.4 Perceived environmental responsibility

This construct has total of 7 items that used to explain perceived environmental responsibility construct. This construct is divided into 1 factor for further analysis purposes and items of each factor are listed in table below.

| <b>—</b>   | environmentar respo   |       | /      | 1      | 1     |       |
|--|---|-------|--------|--------|-------|-------|
| Research<br>Construct                                    | Research Item   | FL    | EV     | AE     | ITC   | α     |
|  |   |       | 3.524  | 58.739 |       | 0.858 |
|  | ER3 How much<br>responsibility do you<br>think you have in<br>protecting the<br>environment in VN?        | 0.821 | T      |        | 0.713 |       |
| Perceived  | ER1Ishouldberesponsibleforprotectingourenvironment  | 0.805 | V. Y   | R      | 0.699 |       |
| environme<br>ntal<br>responsibil<br>ity<br>KMO=0.8<br>59 | ER4 I have taken<br>responsibility for<br>environmental<br>protection since I was<br>young                | 0.803 | A CARL |        | 0.693 |       |
| BTV=0.00<br>0  | ER2 Environmental<br>protection starts with<br>me   | 0.740 |        |        | 0.617 |       |
|  | ER7 Environmental<br>protection is the<br>responsibility of the<br>environmental<br>organizaitons, not me | 0.738 |        |        | 0.615 |       |
|  | ER5 How willing are<br>you to take up<br>responsibility to protect<br>the environment in VN?              | 0.683 |        |        | 0.558 |       |

Table 4.6 Results of factor analysis and reliability check on Perceived environmental responsibility

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

KMO value for perceived environmental responsibility construct is 0.859 (over 0.7) hence it represents data in each factor are well suitable to perform factor analysis. Bartlett test values are less than 0.001, indicate correlations between the variables are significant.

In this construct, all the variables have factor loadings value higher than 0.6. Item ER3 "How much responsibility do you think you have in protecting the environment in VN?" had the highest factor loading of 0.821, indicating this item had the highest relation to perceived environmental responsibility. A high internal consistency within perceived benefit of this factor is represented by all item to total correlation are greater than 0.5.

Factor has the item to total correlations are above 0.5 and Cronbach's  $\alpha = 0.858$  and Eigen value = 3.524.

The components had accumulated a total 58.739% of explained variance which show these are important underlying factors for this construct. Based on all criteria, we can conclude that the reliability and internal consistency of this factor are acceptable.

#### 4.5.5 Perceived effectiveness of environmental behaviour

This construct has total of 4 items that used to explain perceived environmental responsibility construct. This construct is divided into 1 factor for further analysis purposes and items of each factor are listed in table below.

| Table 4.7: | Results  | of  | factor   | analysis | and  | reliability | check | on | Perceived |
|------------|----------|-----|----------|----------|------|-------------|-------|----|-----------|
|            | effectiv | ven | ess of e | nvironme | ntal | behaviour   |       |    |           |

| Research<br>Construct | Research Item          | FL    | EV    | AE     | ITC   | α     |
|-----------------------|------------------------|-------|-------|--------|-------|-------|
| Perceived             |                        |       | 2.733 | 68.332 |       | 0.844 |
| effectiven            | EB1 I think if I carry | 0.848 |       |        | 0.902 |       |
| ess of                | out some pro-          |       |       |        |       |       |
| environme             | environmental          |       |       |        |       |       |
| ntal                  | behaviours in my       |       |       |        |       |       |

| behaviour<br>KMO=0.8<br>18<br>BTV=0.00 | everyday life, I would<br>contribute a lot to our<br>environment   |       |       |
|--|--|-------|-------|
| 0                                      | EB4 When I recycle and<br>reuse things, the<br>environmental quality of<br>VN will improve so much                         | 0.840 | 0.856 |
|  | EB3 The<br>environmental quality<br>of VN will be better if<br>I engage in some pro-<br>environmental<br>behaviours        | 0.819 | 0.800 |
|  | EB2 I think my participation<br>in environmental protection<br>would influence my family<br>and friends to participate too | 0.799 | 0.796 |

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

KMO value for perceived effectiveness of environmental behaviour construct is 0.818 (over 0.7) hence it represents data in each factor are well suitable to perform factor analysis. Bartlett test values are less than 0.001, indicate correlations between the variables are significant.

In this construct, all the variables have factor loadings value higher than 0.6. Item EB1 " I think if I carry out some pro-environmental behaviours in my everyday life, I would contribute a lot to our environment" had the highest factor loading of 0.848, indicating this item had the highest relation to perceived effectiveness of environmental behaviour. A high internal consistency within perceived benefit of this factor is represented by all item to total correlation are greater than 0.5.

Factor has the item to total correlations are above 0.5 and Cronbach's  $\alpha$  = 0.844 and Eigen value = 2.733.

The components had accumulated a total 68.332% of explained variance which show these are important underlying factors for this construct. Based on all criteria, we can conclude that the reliability and internal consistency of this factor are acceptable.

## **4.5.6** Perception of eco-label

This construct has total of 6 items that used to explain perception of ecolabel construct. This construct is divided into 1 factor for further analysis purposes and items of each factor are listed in table below.

| Table 4.8: Results of factor | analysis and | reliability | check on | Perception of |
|------------------------------|--------------|-------------|----------|---------------|
| eco-label                    |              |             |          |               |

|                                | eco-label   |            |       | 100    |       |       |
|--------------------------------|---|------------|-------|--------|-------|-------|
| Resear<br>ch<br>Constr<br>uct  | Research Item   | FL         | EV    | AE     | ITC   | α     |
|                                |   | 10 / Aller | 3.542 | 59.036 |       | 0.858 |
|                                | EL6 I believe that the information about the green labels on the packaging or instruction is accurate.                  | 0.841      |       |        | 0.739 |       |
| Percep<br>tion of<br>eco-      | EL4 I get most knowledge<br>of the green labels from the<br>information of products'<br>packagings and<br>instructions. | 0.833      | T     |        | 0.723 |       |
| label<br>KMO<br>=0.778<br>BTV= | EL2 I can think of at least<br>one kind of the green labels<br>now.   | 0.797      |       |        | 0.686 |       |
| 0.000                          | EL1 When the green<br>products are mentioned, I<br>will firstly think of the<br>green labels                            | 0.752      |       |        | 0.632 |       |
|                                | EL3 I will pay attention on<br>the green labels when buying<br>products   | 0.707      |       |        | 0.582 |       |

| 8                           | 0.664 |  | 0.538 |  |
|-----------------------------|-------|--|-------|--|
| of the green labels are too |       |  |       |  |
| much, making me feel        |       |  |       |  |
| difficult to remember and   |       |  |       |  |
| classify them.              |       |  |       |  |

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

KMO value for perception of eco-label construct is 0.778 (over 0.7) hence it represents data in each factor are well suitable to perform factor analysis. Bartlett test values are less than 0.001, indicate correlations between the variables are significant.

In this construct, all the variables have factor loadings value higher than 0.6. Item EL6 " I believe that the information about the green labels on the packaging or instruction is accurate" had the highest factor loading of 0.841, indicating this item had the highest relation to perception of eco-label . A high internal consistency within perceived benefit of this factor is represented by all item to total correlation are greater than 0.5.

Factor has the item to total correlations are above 0.5 and Cronbach's  $\alpha$  = 0.844 and Eigen value = 2.733.

The components had accumulated a total 59.036% of explained variance which show these are important underlying factors for this construct. Based on all criteria, we can conclude that the reliability and internal consistency of this factor are acceptable.

#### 4.5.7 Perception of eco-brand

This construct has total of 6 items that used to explain perception of ecobrand construct. This construct is divided into 1 factor for further analysis purposes and items of each factor are listed in table below

|                                    | 0 - 00 00   |       |       |        | -     |       |
|------------------------------------|---|-------|-------|--------|-------|-------|
| Resear<br>ch<br>Constr<br>uct      | Research Item   | FL    | EV    | AE     | ITC   | α     |
|                                    |   |       | 3.439 | 57.318 |       | 0.850 |
|                                    | EBR5 Eco-brand is not<br>certaintly symbol of product<br>reliability  | 0.790 |       |        | 0.675 |       |
|                                    | EBR3 I believe in any products owning eco-brand   | 0.769 |       |        | 0.649 |       |
| Percep<br>tion of<br>eco-<br>brand | EBR2 I know all kinds of relevant information about the eco-brand.  | 0.767 |       |        | 0.645 |       |
| KMO<br>=0.856<br>BTV=              | EBR1 I am aware of eco-<br>brands   | 0.760 | K     |        | 0.641 |       |
| 0.000                              | EBR4 I have special preference on the eco-brand of certain kind of products                                     | 0.753 | 1992  |        | 0.628 |       |
|                                    | EBR6 I believe that the eco-<br>brand are not truthful, which<br>means they can not reach the<br>green standard | 0.700 |       |        | 0.570 |       |

Table 4.9 Results of factor analysis and reliability check on Perception of ecobrand

KMO value for perception of eco-brand construct is 0.856 (over 0.7) hence it represents data in each factor are well suitable to perform factor analysis. Bartlett test values are less than 0.001, indicate correlations between the variables are significant.

In this construct, all the variables have factor loadings value higher than 0.6. Item EBR5 "Eco-brand is not certaintly symbol of product reliability" had the highest factor loading of 0.841, indicating this item had the highest relation to perception of eco-brand. A high internal consistency within

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

perceived benefit of this factor is represented by all item to total correlation are greater than 0.5.

Factor has the item to total correlations are above 0.5 and Cronbach's  $\alpha$  = 0.850 and Eigen value = 3.439.

The components had accumulated a total 57.318% of explained variance which show these are important underlying factors for this construct. Based on all criteria, we can conclude that the reliability and internal consistency of this factor are acceptable.

#### 4.5.8 Environmental advertisement

This construct has total of 6 items that used to explain environmental advertisement construct. This construct is divided into 1 factors for further analysis purposes and items of each factor are listed in table below.

Table 4.10 Results of factor analysis and reliability check on Environmental advertisement

| Research<br>Construct                          | Research Item  | FL         | EV    | AE     | ITC   | α     |
|--|--|------------|-------|--------|-------|-------|
|  |  | - <u>E</u> | 2.442 | 81.416 |       | 0.810 |
| Environm<br>ental                              | EA4 I think<br>eviromental<br>advertisement is<br>essential and effect             | 0.924      | /     |        | 0.819 |       |
| advertisem<br>ent<br>KMO=0.7<br>33<br>BTV=0.00 | EA2 I enjoy watching<br>broadcast environmental<br>advertisement                   | 0.900      |       |        | 0.771 |       |
| 0  | EA1 Environmental<br>advertisement enhance<br>my knowledge about<br>green products | 0.883      |       |        | 0.742 |       |

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

KMO value for environmental advertisement construct is 0.733 (over 0.7) hence it represents data in each factor are well suitable to perform factor analysis. Bartlett test values are less than 0.001, indicate correlations between the variables are significant.

In this construct, all the variables have factor loadings value higher than 0.6. Item EA4 "I think eviromental advertisement is essential and effect" had the highest factor loading of 0.924, indicating this item had the highest relation to environmental advertisement. A high internal consistency within perceived benefit of this factor is represented by all item to total correlation are greater than 0.5.

Factor has the item to total correlations are above 0.5 and Cronbach's  $\alpha$  = 0.810 and Eigen value = 2.442.

The components had accumulated a total 81.416% of explained variance which show these are important underlying factors for this construct. Based on all criteria, we can conclude that the reliability and internal consistency of this factor are acceptable.

## 4.5.9 Green Purchase Behaviour

This construct has total of 4 items that used to explain green purchase behaviour construct. This construct is divided into 1 factors for further analysis purposes and items of each factor are listed in table below.

| Table 4.11: Results of factor analysis and reliability check on green p | urchase |
|---|---------|
| behaviour   |         |

| Research<br>Construct | Research Item             | FL    | EV    | AE     | ITC   | α     |
|-----------------------|---------------------------|-------|-------|--------|-------|-------|
| Green                 |                           |       | 2.679 | 66.974 |       | 0.835 |
| Purchase              |                           |       |       |        |       |       |
| Behaviour             | GPB4 I buy green          | 0.857 |       |        | 0.722 |       |
| KMO=0.7               | products even if they are |       |       |        |       |       |
| 79                    | more expensive than the   |       |       |        |       |       |

| BTV=0.00 | non-green ones           |       |       |  |
|----------|--------------------------|-------|-------|--|
| 0        | GPB2 I prefer green      | 0.810 | 0.654 |  |
|          | products over non-green  |       |       |  |
|          | products when their      |       |       |  |
|          | product qualities are    |       |       |  |
|          | similar                  |       |       |  |
|          | GPB3 I choose to buy     | 0.803 | 0.647 |  |
|          | products that are        |       |       |  |
|          | environmentally friendly |       |       |  |
|          | GPB1 When I want to      | 0.801 | 0.641 |  |
|          | buy a product, I look at |       |       |  |
|          | the ingredients label to |       |       |  |
|          | see if it contains thing |       |       |  |
|          | that are environmentally |       |       |  |
|          | damaging                 |       |       |  |

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

KMO value for green purchase behaviour construct is 0.779 (over 0.7) hence it represents data in each factor are well suitable to perform factor analysis. Bartlett test values are less than 0.001, indicate correlations between the variables are significant.

In this construct, all the variables have factor loadings value higher than 0.6. Item GPB4 "I buy green products even if they are more expensive than the non-green ones" had the highest factor loading of 0.857, indicating this item had the highest relation to green purchase behaviour. A high internal consistency within perceived benefit of this factor is represented by all item to total correlation are greater than 0.5.

Factor has the item to total correlations are above 0.5 and Cronbach's  $\alpha$  = 0.835 and Eigen value = 2.679.

The components had accumulated a total 66.974% of explained variance which show these are important underlying factors for this construct. Based on all criteria, we can conclude that the reliability and internal consistency of this factor are acceptable.

## 4.6 Confirmatory Factor Analysis CFA

Confirmatory Factor Analysis (CFA) used to test the theoretical structure of measurement scales in Structural Equation Modeling (SEM). CFA has many advantages than EFA in testing scale. To measure the degree of fit of the model with market information, need to consider indicators as:

- (1)  $\chi^2$  -chi-square—small is better p>0.05;  $\chi^2$  /d.f. < 3
- (2) Goodness of Fit (GFI) > 0.90
- (3) Adjust of Goodness of Fit (AGFI) > 0.90
- (4) Root Mean Square Residual Error (RMR) < 0.05
- (5) RMSEA < 0.08 or NFI, CFI, TI > 0.90

However, Chi-squared drawback is dependent on sample size. When the value of n high makes the Chi-squared statistic is also high. The result of CFA for measurement scales.

# 4.7 Structural Equation Model SEM

Structural Equation Modeling (SEM) used to test the theoretical model proposed in Chapter 2. There are several criteria which must be followed in linear structural model (SEM) to assess overall Model Fit such as:

- (1)  $\chi^2$  -chi-square—small is better p>0.05;  $\chi^2$  /d.f. < 3
- (2) Goodness of Fit (GFI) > 0.90
- (3) Adjust of Goodness of Fit (AGFI) > 0.90
- (4) Root Mean Square Residual Error (RMR) < 0.05
- (5) RMSEA < 0.08 Or NFI, CFI, TI > 0.90

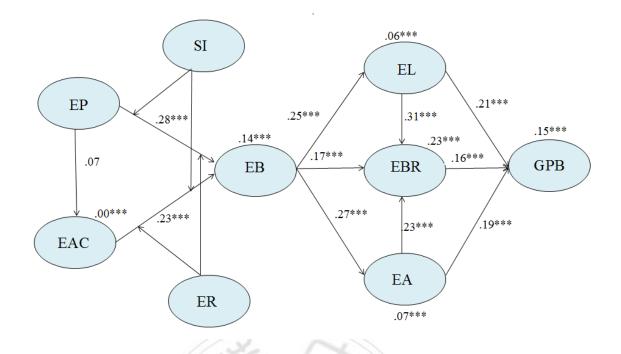


Figure 4.1 Structural Equation Modeling Result

The result shows that model is totally good with 583 degrees of freedom, Chi-squared = 790.038 and p-value = .000. Besides, we can consider other criteria such as GFI, TLI, CFI and RMSEA. The result show indicators of GFI = 0.864, TLI = 0.948, CFI = 0.952 (most of index greater than 0.9), and RMSEA = 0.036 (less than 0.08), so this model is fit with the market data.

| Relations                | Standardized<br>Coefficients | C. R. | p-value |
|--------------------------|------------------------------|-------|---------|
| Variables                |                              |       |         |
| $EP \square ECA (H1)$    | 0,069                        | 1     | 0.317   |
| $EP \square EB (H2)$     | 0,276                        | 3,999 | ***     |
| $ECA \square EB (H3)$    | 0,231                        | 3,411 | ***     |
| EB EL (H8a)              | 0,25                         | 3,604 | ***     |
| $EB \square EBR (H8b)$   | 0,171                        | 2,4   | 0,016   |
| EB EA (H8c)              | 0,273                        | 4,004 | ***     |
| $EL \square EBR (H9)$    | 0,307                        | 4,444 | ***     |
| EA BR (H10)              | 0,232                        | 3,451 | ***     |
| EL 🗆 GPB (H11a)          | 0,206                        | 2,819 | 0,005   |
| EBR GPB (H11b)           | 0,164                        | 2,086 | 0,037   |
| EA GPB (H11c)            | 0,192                        | 2,75  | 0,006   |
|                          |                              |       |         |
| Chi-Square (p-value)     | 790.038 (.000)               |       |         |
| Degree of freedom (d. f) | 583                          |       |         |
| Chi-Square/ d. f.        | 1.355                        | <     |         |
| GFI                      | 0.864                        |       |         |
| AGFI                     | 0.844                        |       |         |
| RMR                      | 0.065                        |       |         |

*Note:* 1. \*\*\*p-value <0.001, \*\*p-value <0.05, \*p-value <0.1; using a significance level of 0.05, critical ratios (t-value) that exceed 1.96 would be called significant.

## Table 4.12 Structural Equation Modeling

Table 4.12 shows the result of inspection theoretical model SEM, the analysis the theoretical models showed that  $\chi^2 / df = 1.355$  (< 3); GFI= 0.864 (nearly 0.9); AGFI= 0.844 (nearly 0.9); TLI= 0.948 (> 0.9); CFI= 0.952 (> 0.9); RMSEA= 0.036 (< 0.08) and RMR= 0.065 (nearly 0.05). That is model good fit and hence, it certainly provides substantial support to the fit between this research model and the real data. The results of hypothesis show that:

Hypothesis H1: "Perceived seriousness of environmental problems will positively affect to Environmental concern and attitude" has not been accepted because there is no statistically significant, with p = 0.317 > 0.05. Thus, this relationship needs to be reviewed, perceived seriousness of environmental problems have high perceived not mean to have high environmental concern and attitudes in this study context.

Hypothesis H2: "Perceived seriousness of environmental problems will positively affect to Perceived effectiveness of environmental behaviour" has standardized coefficients = 0.276, cr = 3.999. It is accepted at the level of significance p = 0.000. That means Perceived seriousness of environmental problems has significant with Perceived effectiveness of environmental behaviour.

Hypothesis H3: "Environmental concern and attitude will positively affect to Perceived effectiveness of environmental behaviour" has standardized coefficients = 0.231, CR = 3.411. It is accepted at the level of significance p = 0.000. That means Environmental concern and attitude has significant with Perceived effectiveness of environmental behaviour.

Hypothesis H8a: "perceived effectiveness of environmental behaviour will positively affect to Perception of eco-label" has standardized coefficients =0.25, CR = 3.604. It is accepted at the level of significance p = 0.000. That means perceived effectiveness of environmental behaviour has significant with Perception of eco-label.

Hypothesis H8b: "perceived effectiveness of environmental behaviour will positively affect to perception of eco-brand" has standardized coefficients = 0.171, CR = 2.4. It is accepted at the level of significance p = 0.016. That means perceived effectiveness of environmental behaviour has significant with perception of eco-brand.

Hypothesis H8c: "perceived effectiveness of environmental behaviour will positively affect to environmental advertisement" has standardized coefficients = 0.273, CR = 4.004. It is accepted at the level of significance p = 0.000. That means perceived effectiveness of environmental behaviour has significant with environmental advertisement.

Hypothesis H9: "perception of eco-label will positively affect to perception of eco-brand" has standardized coefficients = 0.307, CR = 4.444. It

is accepted at the level of significance p = 0.000. That means perception of eco-label has significant with perception of eco-brand.

Hypothesis H10: "environmental advertisement will positively affect to perception of eco-brand" has standardized coefficients = 0.232, CR = 3.451. It is accepted at the level of significance p = 0.000. That means environmental advertisement has significant with perception of eco-brand.

Hypothesis H11a: "eco-label will positively affect to green purchasing behavior" has standardized coefficients = 0.206, CR = 2.819. It is accepted at the level of significance p = 0.005. That means eco-label has significant with green purchasing behavior.

Hypothesis H11b: "eco-brand will positively affect to green purchasing behavior" has standardized coefficients = 0.164, CR = 2.086. It is accepted at the level of significance p = 0.037. That means eco-brand has significant with green purchasing behavior.

Hypothesis H11c: "environmental advertisement will positively affect to green purchasing behavior" has standardized coefficients = 0.192, CR = 2.75. It is accepted at the level of significance p = 0.006. That means environmental advertisement has significant with green purchasing behavior.

## 4.8 The moderating effect of Social Influence

# 4.8.1 Moderating Test of Social influence among Perceived seriousness of environmental problems and Perceived effectiveness of environmental behaviour

The research also uses hierarchical regression analysis to test the research hypothesis which is focusing on the moderating effects of Social influence in the relationship between Perceived seriousness of environmental problems and Perceived effectiveness of environmental behaviour (see Figure 4.2)

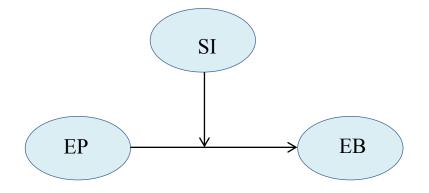


Figure 4.2 The Moderating Effect of Social Influence among Perceived seriousness of environmental problems and Perceived effectiveness of environmental behaviour

The result shown in table 4.13 indicate that Perceived seriousness of environmental problems ( $\beta$ =0.212, p<0.001) is positively and significantly affected to Perceived effectiveness of environmental behaviour.

As shown in Table 4.13, this research uses hierarchical regression analysis checking the moderating effect of Social influence

|   | lavioui  |          |          |
|---|----------|----------|----------|
|   | Model 1  | Model 2  | Model 3  |
|   | EB       | EB       | EB       |
| Independent variable                                    |          |          |          |
| Perceived seriousness of<br>environmental problems (EP) | 0.212*** | 0.214*** | 0.232*** |
| Moderating variables                                    |          |          |          |
| Social Influence (SI)                                   |          | -0.128*  | -0.119*  |
| Interaction variable                                    |          |          |          |
| EP*SI   |          |          | 0.179 *  |
| R <sup>2</sup>  | 0.045    | 0.061    | 0.093    |

Table 4.13 Moderating Test of Social influence among Perceived seriousness of environmental problems and Perceived effectiveness of environmental behaviour

| Adj-R <sup>2</sup> |   | 0.042  | 0.054 | 0.083 |
|--------------------|---|--------|-------|-------|
| <i>F</i> -value    |   | 12.922 | 8.917 | 9.305 |
| Durbin-Watson      |   |        |       | 1.841 |
| VIF                |   | 1.000  | 1.000 | 1.013 |
|                    | * |        |       |       |

Note: \*\*\* p < 0.001, \*\* p<0.01, \* p< 0.05, +p<0.1

The result in Model 2 shows that independent variable (Perceived seriousness of environmental problems,  $\beta$ =0.214, p<0.001) is significantly affected to dependent variable and moderating variables (Social influence,  $\beta$ = -0.128, p<0.05) is not significantly affected to dependent variable (Perceived effectiveness of environmental behaviour). In addition, Model 3 shows the interaction effect (R2 =0.093,  $\beta$ =0.179, p<0.05) of Perceived seriousness of environmental problems and Social influence is partially significant to Perceived effectiveness of environmental behaviour.

# **4.8.2 Moderating Test of Social Influence among Environmental concern and attitudes and Perceived effectiveness of environmental behaviour**

The research also uses hierarchical regression analysis to test the research hypothesis which is focusing on the moderating effects of Social influence in the relationship between Environmental concern and attitudes and Perceived effectiveness of environmental behaviour (see Figure 4.4)

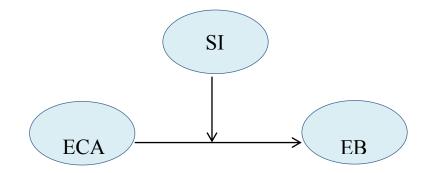


Figure 4.3 The Moderating Effect of Social Influence among Environmental concern and attitudes and Perceived effectiveness of environmental behaviour

The result shown in table 4.14 indicate that Environmental concern and attitudes ( $\beta$ =0.197, p<0.001) is positively and significantly affected to Perceived effectiveness of environmental behaviour.

As shown in Table 4.14, this research uses hierarchical regression analysis checking the moderating effect of Social influence

| environmental b                           | ehaviour |          |          |
|---|----------|----------|----------|
|   | Model 1  | Model 2  | Model 3  |
|   | EB       | EB       | EB       |
| Independent variable                      |          | 1        |          |
| Environmental concern and attitudes (ECA) | 0.197*** | 0.202*** | 0.188*** |
| Moderating variables                      |          |          |          |
| Social Influence (SI)                     | STE      | -0.131 * | -0.119*  |
| Interaction variable                      |          | 200      |          |
| ECA*SI                                    |          |          | 0.177*   |
| R <sup>2</sup>                            | 0.039    | 0.056    | 0.087    |
| Adj-R <sup>2</sup>                        | 0.035    | 0.049    | 0.077    |
| <i>F</i> -value                           | 11.050   | 8.102    | 8.628    |
| Durbin-Watson                             |          | /        | 1.786    |
| VIF                                       | 1.000    | 1.001    | 1.010    |

Table 4.14 Moderating Test of Social influence among Environmental concern and attitudes and Perceived effectiveness of environmental behaviour

Note: \*\*\* p < 0.001, \*\* p<0.01, \* p<0.05, +p<0.1

The result in Model 2 shows that independent variable (Environmental concern and attitudes,  $\beta$ =0.202, p<0.001) is significantly affected to dependent variable and moderating variables (Social influence,  $\beta$ = -0.131, p<0.05) is not significantly affected to dependent variable (Perceived effectiveness of environmental behaviour). In addition, Model 3 shows the interaction effect (R2 =0.087,  $\beta$ =0.177, p<0.05) of Environmental concern

and attitudes and Social influence is partially significant to Perceived effectiveness of environmental behaviour.

# 4.9 The moderating effect of Perceived environmental responsibility

**4.9.1 Moderating Test of Perceived environmental responsibility among Perceived seriousness of environmental problems and Perceived effectiveness of environmental behaviour** 

The research also uses hierarchical regression analysis to test the research hypothesis which is focusing on the moderating effects of Perceived environmental responsibility in the relationship between Perceived seriousness of environmental problems and Perceived effectiveness of environmental behaviour (see Figure 4.5)

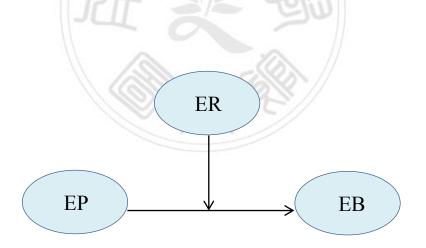


Figure 4.4 The moderating Test of Perceived environmental responsibility among Perceived seriousness of environmental problems and Perceived effectiveness of environmental behaviour The result shown in table 4.15 indicate that Perceived seriousness of environmental problems ( $\beta$ =0.212, p<0.001) is positively and significantly affected to Perceived effectiveness of environmental behaviour.

As shown in Table 4.15, this research uses hierarchical regression analysis checking the moderating effect of Social influence:

Table 4.15 Moderating Test of Social influence among Perceived seriousness of environmental problems and Perceived effectiveness of

|   | Model 1   | Model 2     | Model 3   |
|---|-----------|-------------|-----------|
|   | EB        | EB          | EB        |
| Independent variable                                    | EN        |             |           |
| Perceived seriousness of<br>environmental problems (EP) | 0.212 *** | 0.210 ***   | 0.215 *** |
| Moderating variables                                    |           | EN          |           |
| Perceived environmental responsibility (ER)             |           | 0.052       | 0.045     |
| Interaction variable                                    |           | S //        | ·         |
| EP*ER   | 2-5-10    | <u>8</u> // | -0.089    |
| R <sup>2</sup>  | 0.045     | 0.048       | 0.056     |
| Adj-R <sup>2</sup>                                      | 0.042     | 0.041       | 0.045     |
| <i>F</i> -value   | 12.922    | 6.846       | 5.343     |
| Durbin-Watson   |           |             | 1.780     |
| VIF   | 1.000     | 1.001       | 1.010     |

environmental behaviour

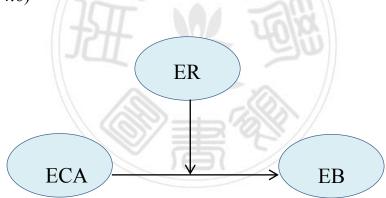
Note: \*\*\* p < 0.001, \*\* p<0.01, \* p<0.05, +p<0.1

The result in Model 2 shows that independent variable (Perceived seriousness of environmental problems,  $\beta$ =0.210, p<0.001) is significantly affected to dependent variable and moderating variables (Perceived environmental responsibility,  $\beta$ = 0.052, p>0.05) is not significantly affected to dependent variable (Perceived effectiveness of environmental behaviour). In

addition, Model 3 shows the interaction effect (R2 =0.056,  $\beta$ = -0.089, p>0.05) of Perceived seriousness of environmental problems and Perceived environmental responsibility is not significant to Perceived effectiveness of environmental behaviour.

# **4.9.2** Moderating Test of Perceived environmental responsibility among Environmental concern and attitudes and Perceived effectiveness of environmental behaviour

The research also uses hierarchical regression analysis to test the research hypothesis which is focusing on the moderating effects of Perceived environmental responsibility in the relationship between Environmental concern and attitudes and Perceived effectiveness of environmental behaviour (see Figure 4.6)



# Figure 4.5 The moderating Test of Perceived environmental responsibility among Environmental concern and attitudes and Perceived effectiveness of environmental behaviour

The result shown in table 4.16 indicate that Environmental concern and attitudes ( $\beta$ =0.197, p<0.001) is positively and significantly affected to Perceived effectiveness of environmental behaviour.

As shown in Table 4.16, this research uses hierarchical regression analysis checking the moderating effect of Perceived environmental responsibility.

Table 4.16 Moderating Test of Perceived environmental responsibility among Environmental concern and attitudes and Perceived effectiveness of environmental behaviour

|  | Model 1  | Model 2  | Model 3  |
|--|----------|----------|----------|
|  | EB       | EB       | EB       |
| Independent variable                           |          |          |          |
| Environmental concern and attitudes (ECA)      | 0.197*** | 0.197*** | 0.199*** |
| Moderating variables                           |          | 100      |          |
| Perceived environmental<br>responsibility (ER) |          | 0.062    | 0.054    |
| Interaction variable                           |          | EU       |          |
| ECA*ER   |          |          | -0.068   |
| R <sup>2</sup>                                 | 0.039    | 0.043    | 0.047    |
| Adj-R <sup>2</sup>                             | 0.035    | 0.036    | 0.037    |
| <i>F</i> -value                                | 11.050   | 6.069    | 4.489    |
| Durbin-Watson                                  |          | 11       | 1.757    |
| VIF  | 1.000    | 1.001    | 1.010    |

Note: \*\*\* p < 0.001, \*\* p<0.01, \* p< 0.05, +p<0.1

The result in Model 2 shows that independent variable (Environmental concern and attitudes,  $\beta$ =0.197, p<0.001) is significantly affected to dependent variable and moderating variables (Perceived environmental responsibility,  $\beta$ =0.062, p>0.05) is not significantly affected to dependent variable (Perceived effectiveness of environmental behaviour). In addition, Model 3 shows the interaction effect (R2 =0.047,  $\beta$ = -0.068, p>0.05) of Perceived seriousness of environmental problems and Social influence is not significant to Perceived effectiveness of environmental behaviour.

# CHAPTER FIVE CONCLUSION AND SUGGESTIONS

## **5.1 Research conclusion**

This study investigates to find out the factors affecting consumers' green purchasing behavior in Vietnam. It also examines attribute of the moderators: social influence, perceived environmental responsibility. And through the study result understand deeply the factors affecting consumers' green purchasing behavior. And then can improve the design and development functions and services suitable to consumers' need in Vietnam.

As shown in table 5.1, the result of hypothesis testing after analysis include: hypothesis H2, H3, H4, H5, H8a, H8b, H8c, H9, H10, H11a, H11b, H11c are supported while H1, H6, H7 are rejected.

|    | Research Hypotheses  | Results     |
|----|--|-------------|
| H1 | Perceived seriousness of environmental problems will<br>positively affect to Environmental concern and<br>attitude   | Not support |
| H2 | Perceived seriousness of environmental problems<br>will positively affect to Perceived effectiveness of<br>environmental behaviour                         | Support     |
| H3 | Environmental concern and attitude will positively<br>affect to Perceived effectiveness of environmental<br>behaviour                                      | Support     |
| H4 | Social influence will strengthen the effect of<br>Perceived seriousness of environmental problems on<br>Perceived effectiveness of environmental behaviour | Support     |
| H5 | Social influence will strengthen the effect of<br>Environmental concern and attitude on Perceived<br>effectiveness of environmental behaviour              | Support     |
| H6 | Perceived environmental responsibility will strengthen the effect of Perceived seriousness of  | Not support |

Table 5.1 Research Table Results

|   | environmental problems on Perceived effectiveness of  |             |
|---|---|-------------|
|   | environmental behaviour                               |             |
|   | Perceived environmental responsibility will           |             |
| H7  | strengthen the effect of Environmental concern and    | Not support |
| 11/   | attitude on Perceived effectiveness of environmental  | Not support |
|   | behaviour   |             |
| H8a   | Perceived Effectiveness of Environmental Behaviour    | Support     |
| will positively affect to Perception of eco-label.  |   | FF          |
| H8b Perceived Effectiveness of Environmental Behaviour will positively affect to Perception of eco-brand. |   | Support     |
|   |   | Support.    |
| H8c   | Perceived Effectiveness of Environmental Behaviour    | Sumport     |
| Нас   | will positively affect to Environmental advertisement | Support     |
| 110   | Perception of eco-label will positively affect to     | Course out  |
| H9  | Perception of eco-brand.                              | Support     |
| 1110  | Environmental advertisement will positively affect to | 0           |
| H10   | Perception of eco-brand.                              | Support     |
|   | Eco-label will positively affect to green purchasing  |             |
| H11a  | behavior  | Support     |
|   |   |             |
| H11b  | Eco-brand will positively affect to green purchasing  | Support     |
| 11110   | behavior  | Support     |
| II11a   | Environmental advertisement will positively affect to | Come out    |
| H11c  | green purchasing behavior                             | Support     |

The first hypothesis stated that the level of perceived seriousness of environmental problems will influence the level of Environmental concern and attitude. The study results suggest that this hypothesis is not supported. This reason of these results may be that their perception of environmental problems is difference with what their concern and attitudes.

The second hypothesis stated that perceived seriousness of environmental problems will moderate the influence of perceived effectiveness of environmental behaviour. This study results support the hypothesis. The results are also inline with Lee (2012). This author argued that most of customer perceived seriousness of environmental problems will think carefully before making any action to harm environment.

The third hypothesis also stated that Environmental concern and attitudes have positive effect on Perceived effectiveness of environmental behaviour. This study results support the hypothesis. Albayrak (2011) also mentioned environmental concern and attitudes directly affect the customer's behavior.

In this study, social influence and perceived environmental responsibility are two moderator variables and are explained from hypothesis 4 to 7. Social will the influence Perceived of influence strengthen seriousness environmental problems on Perceived effectiveness of environmental Environmental concern behaviour and and attitudes Perceived on effectiveness of environmental behaviour. In fact, after surveying and analyzing customer reviews in Vietnam, the result indicates it has contributed to making this relationship becomes stronger. This study results support both of hypothesis.

The sixth and seventh hypothesis stated that the moderating role of Perceived environmental responsibility is not significant to relationship between Perceived seriousness of environmental problems, Environmental concern and attitude and Perceived effectiveness of environmental behaviour.. The study results suggest that both of hypotheses are not supported.

The eighth hypothesis perceived effectiveness of environmental behaviour has positive impact on 3 green marketing tools. These results also support 3 hypotheses. According to Lee, Jin-Soo, et al., (2010) contented that perceived effectiveness of environmental behaviour will lead to higher perception of green marketing tool.

The ninth hypothesis stated that Perception of eco-label has positive impact on Perception of eco-brand. The result suggests that this hypothesis support. The tenth hypothesis stated that Environmental advertisement has positive impact on Perception of eco-brand. The result also support this hypothesis. According to Sinnappan (2011) argued that customer with higher levels of perceived label, advertisement tend to have Perception of eco-brand higher.

85

The last hypothesis stated that 3 green marketing tools have positive impact on green purchasing behavior. According to Skelly et al., (1998) stated that three green marketing tools are considered in this study as enhancements to a consumer's knowledge about environmental friendly products.

Base on the result showed as above table. The results suggest that defendants have a high optimistic approach about green products and are prepared to buy green products more frequently but as for as the effectiveness of green marketing tools (PEL, PEB, EA) are concerned. In addition, this research is a beneficial foundation of evidence for international green marketers about what works and what does not in appealing to the consumers in Viet Nam.

As the result, Vietnamese consumers have possive attitudes to green product and are affected by many factors. Consumer willing protects their life through the effectivenese of real action toward environment. However, green product price, quality and service must be concern more. This study is useful for many maketers who want to comprehence green purchase behaviour among Vietnamese consumers.

## 5.2 Research contribution

#### 5.2.1 Academic Implication

Green marketing is a relatively new field in Vietnam, so it is necessary to research theoretically to orient for practical activities. This study has contributed further a scientific literature in green marketing area, through the development of a theoretical model to explain the factors that affect the green purchasing behavior in Vietnam.

By building models based on TRA and TPB theories has provided a fuller perspective on the issue of research needs to be examined compared to using a homogeneous model. On the other hand, the scale of previous research which was conducted in developing countries, this study did adjust and test the scale in Vietnam through empirical data concentrated in the city Ho Chi Minh City. So this data will contribute to supplement the theoretical scale helped academic and applications researchers to better understand Vietnam market.

As indicated by the TRA and TPB speculations connected in this investigation, scientist uncovered that individual's biological convictions factors, for example, saw natural obligation, saw reality of ecological and ecological concern and demeanors are appropriate and exact to clarify the customers' green obtaining conduct through geen marketing tools. In this manner, future specialists can have a profundity research on how the components of individual's environmental convictions can altogether clarified on consumers' green purchasing behaviour.

#### **5.2.2 Managerial Implication**

Through the identification of factors that influence the green purchasing behavior of consumer in Vietnam, this study has provided for the green platforms, a look in more detail about the views of consumer in this new field. At the same time the green marketing platform can consider through the research proposals to enhance the competitiveness of its products to better meet needs of users.

Environmental concern can consider as imperative factor in impacting buyers' green buy conduct since worry to natural issues can enhance ecological quality. Advertisers can make another green item by utilizing wastage material. In addition, advertisers can advance their green items in view of cause-related promoting (CRM) strategy. As indicated by CSR Europe think about as refered to in Abdul Wahid et al. (2011), Scottish Power has situating itself as a naturally cognizant vitality provider and effectively partakes in green related occasions, for example, displays., saw reality of ecological issues enables advertisers to distinguish the current natural issues and give an understanding in the beginning time of item advancement. Accordingly, it can be create more eco-accommodating products.Besides, squander usage items, for example, eco mug which is delivered by utilizing rice husk fiber not just have an indistinguishable capacity from typical mug, it was more eco-friendly and lessen the ecological issues.

This study also suggests a new research direction for the green platform in carrying out similar studies with specific courses such as business, soft skills, management.... Then further develop this new learning way in the context of Vietnam in particular and developing countries in general.

## **5.3 Limitations and Future Research Directions**

Firstly, in terms short of time, budget, human resources, support tools,... research conducted sampling by convenient sample method should be representative of the total be not high. On the other hand the sample size is not really big, so the subjective assessment the group of respondents can give false study results. Thus future research may be conduct with more samples to increase the generalizability of the study.

Secondly, this study has large limitation about geography. Although Ho Chi Minh city is the biggest city in Viet Nam, it is larger area than others province but may not on behalf of whole Vietnam. Vietnam is a long country with clearly difference culture purchasing behavior so that the next research need investigate more.

Thirstly, the time frame of this study is the cross- sectional analysis that is data only collected at a specific point in time. Customer behavior may change follow the time, if can not catch up, it make wrong decision for company. So, this research isn't designed for all respondents and for all periods. Besides, strong personal feelings affect to anwser a lot which may be a disadvantage.

Future researchers can test alternate features in the statistical characteristics of respondents, for example, age, income and living area to investigate there is a noteworthy distinctive amongst characteristics and buying green product or not. As indicated by some previous research found that a noteworthy distinctive among various age. A few examinations exhibited which buyers are normally involved to 31 to 45 years old. A few investigations found that income has a positive association with green consumer behaviour while a few examinations found a affective of living area on it. Along these literatures, it is necessary to resreach more to decide whether a noteworthy or not huge connection amongst demographics and green purchasing behaviour.



# **REFRENECES**

- Keller, K. L., & Aaker, D. A. (1992). The effects of sequential introduction of brand extensions. *Journal of marketing research*, 35-50.
- Rahbar, E., & Wahid, N. A. (2010). The Malaysian consumer and the environment: Purchase behavior. *Global Business and Management Research: An International Journal*, 2(4), 323-336.
- Alkasseh, J. M., Adlan, M. N., Abustan, I., Aziz, H. A., & Hanif, A. B. M. (2013). Applying minimum night flow to estimate water loss using statistical modeling: a case study in Kinta Valley, Malaysia. Water resources management, 27(5), 1439-1455.
- Rahbar, E., & Abdul Wahid, N. (2011). Investigation of green marketing tools' effect on consumers' purchase behavior. *Business strategy series*, 12(2), 73-83.
- Aertsens, J., Verbeke, W., Mondelaers, K., & Van Huylenbroeck, G. (2009). Personal determinants of organic food consumption: a review. *British Food Journal*, 111(10), 1140-1167.
- Naik, C. K., Gantasala, S. B., & Prabhakar, G. V. (2010). Service quality (SERVQUAL) and its effect on customer satisfaction in retailing. *European Journal of Social Sciences*, 16(2), 231-243.
- Beck, L., & Ajzen, I. (1991). Predicting dishonest actions using the theory of planned behavior. *Journal of research in personality*, *25*(3), 285-301.
- Fishbein, M., & Ajzen, I. (2005). Theory-based behavior change interventions: Comments on Hobbis and Sutton. *Journal of Health Psychology*, 10(1), 27-31.
- Ajzen, I. (1985). From intentions to actions: A theory of planned behavior. In Action control (pp. 11-39). Springer Berlin Heidelberg.

- Berger, I. E., & Alwitt, L. F. (1996). Attitude conviction: a self-reflective measure of attitude strength. *Journal of Social Behavior and Personality*, 11(3), 555.
- Suchard, H. T., & Polonski, M. J. (1991). A theory of environmental buyer behaviour and its validity: the environmental action-behaviour model.
  In AMA Summer Educators' Conference Proceedings, American Marketing Association, Chicago, IL (Vol. 2, pp. 187-201).
- Lehman, D. R., Davis, C. G., DeLongis, A., Wortman, C. B., Bluck, S., Mandel, D. R., & Ellard, J. H. (1993). Positive and negative life changes following bereavement and their relations to adjustment. *Journal of Social and Clinical Psychology*, 12(1), 90-112.
- Fiore, M. C., Jaen, C. R., Baker, T., Bailey, W. C., Benowitz, N. L., Curry, S. E. E. A., ... & Henderson, P. N. (2008). Treating tobacco use and dependence: 2008 update. *Rockville, MD: US Department of Health and Human Services*.
- Moore, G. E., & Baldwin, T. (1993). *Principia ethica*. Cambridge University Press..
- Bamberg, S., Ajzen, I., & Schmidt, P. (2003). Choice of travel mode in the theory of planned behavior: The roles of past behavior, habit, and reasoned action. *Basic and applied social psychology*, 25(3), 175-187.
- Banerjee, B., & McKeage, K. (1994). How green is my value: exploring the relationship between environmentalism and materialism. ACR North American Advances.
- Miller, D. W., Hadjimarcou, J., & Miciak, A. (2000). A scale for measuring advertisement-evoked mental imagery. *Journal of Marketing Communications*, 6(1), 1-20.

- Shimp, T. A., & Bearden, W. O. (1982). Warranty and other extrinsic cue effects on consumers' risk perceptions. *Journal of Consumer research*, 9(1), 38-46.
- Beckford, C., & Barker, D. (2007). The role and value of local knowledge in Jamaican agriculture: adaptation and change in small-scale farming. *The Geographical Journal*, 173(2), 118-128.
- Berger, I. E. (1997). The demographics of recycling and the structure of environmental behavior. *Environment and behavior*, 29(4), 515-531.
- Stefan, V., van Herpen, E., Tudoran, A. A., & Lähteenmäki, L. (2013). Avoiding food waste by Romanian consumers: The importance of planning and shopping routines. *Food Quality and Preference*, 28(1), 375-381.
- Bleda, M., & Valente, M. (2009). Graded eco-labels: a demand-oriented approach to reduce pollution. *Technological Forecasting and Social Change*, 76(4), 512-524.
- Bord, R. J., Fisher, A., & O'Connor, R. E. (1998). Public perceptions of global warming: United States and international perspectives. *Climate research*, 11(1), 75-84.
- Amato, L. H., & Amato, C. H. (2012). Environmental policy, rankings and stock values. Business Strategy and the Environment, 21(5), 317-325.
- Wire, B. (2009). Spas and Salons Need to Get Social: Younger Demographics Influenced by Social Media. *Business Wire. New York.*
- Chan, R. Y. (1999). Environmental attitudes and behavior of consumers in China: Survey findings and implications. *Journal of International Consumer Marketing*, 11(4), 25-52.
- Straughan, R. D., & Roberts, J. A. (1999). Environmental segmentation alternatives: a look at green consumer behavior in the new millennium. *Journal of consumer marketing*, 16(6), 558-575..

- Chase, D., & Smith, T. K. (1992). Consumers keen on green but marketers don't deliver. *Advertising Age*, 63(29), 2-4.
- Chatterjee, P., & Kay, M. J. (2010). Green Brand Extensions: The Role of Attribute-Product Schema Incongruity on the Processing of Environmental Claims. *Proceedings of the Northeast Business & Economics Association*.
- Cheah, I., & Phau, I. (2011). Attitudes towards environmentally friendly products: The influence of ecoliteracy, interpersonal influence and value orientation. *Marketing Intelligence & Planning*, 29(5), 452-472.
- Chang, C. H., & Chen, Y. S. (2012). The determinants of green intellectual capital. *Management decision*, 50(1), 74-94.
- Chen, Y. S., & Chang, C. H. (2013). The determinants of green product development performance: Green dynamic capabilities, green transformational leadership, and green creativity. *Journal of Business Ethics*, 116(1), 107-119.
- Chen, T. B., & Chai, L. T. (2010). Attitude towards the environment and green products: consumers' perspective. *Management science and engineering*, 4(2), 27.
- Scott, D., & Willits, F. K. (1994). Environmental attitudes and behavior: A Pennsylvania survey. *Environment and behavior*, 26(2), 239-260.
- Skelly, S. M., & Zajicek, J. M. (1998). The effect of an interdisciplinary garden program on the environmental attitudes of elementary school students. *HortTechnology*, 8(4), 579-583.
- Blumberg, B. F., Cooper, D. R., & Schindler, P. S. (2014). *Business research methods*. McGraw-hill education.
- Cornelissen, G., Pandelaere, M., & Warlop, L. (2006). Cueing common ecological behaviors to increase environmental attitudes. *Persuasive Technology*, 39-44.

- Coulter, R. A., Price, L. L., & Feick, L. (2003). Rethinking the origins of involvement and brand commitment: Insights from post-socialist central Europe. *Journal of Consumer Research*, 30, 151-169.
- Creswell, J. W., & Creswell, J. D. (2017). *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage publications.
- Gill, J. D., Crosby, L. A., & Taylor, J. R. (1986). Ecological concern, attitudes, and social norms in voting behavior. *Public Opinion Quarterly*, 50(4), 537-554.
- D'Souza, C., Taghian, M., Lamb, P., & Peretiatko, R. (2007). Green decisions: demographics and consumer understanding of environmental labels. *International Journal of Consumer Studies*, 31(4), 371-376.
- D'Souza, C., Taghian, M., & Lamb, P. (2006). An empirical study on the influence of environmental labels on consumers. *Corporate communications: an international journal*, *11*(2), 162-173.
- D'souza, C., & Taghian, M. (2005). Green advertising effects on attitude and choice of advertising themes. *Asia Pacific Journal of Marketing and Logistics*, *17*(3), 51-66.
- Dagnoli, J. (1991). Consciously Green: Consumers Question Marketers' Commitment. Advertising Age, 14.
- Daido, K. (2006). Peer pressure and incentives. *Bulletin of Economic Research*, 58(1), 51-60.
- Davis, J. J. (1994). Consumer response to corporate environmental advertising. *Journal of Consumer Marketing*, 11(2), 25-37.
- Dillman, D. A., & Bowker, D. K. (2001). The web questionnaire challenge to survey methodologists. *Online social sciences*, 53-71.
- Dunlap, R. E., & York, R. (2008). The globalization of environmental concern and the limits of the postmaterialist values explanation: Evidence from four multinational surveys. *The Sociological Quarterly*,

49(3), 529-563.

- Rahbar, E., & Wahid, N. A. (2010). Ethno-cultural differences and consumer understanding of eco-labels: an empirical study in Malaysia. *Journal* of Sustainable Development, 3(3), 255.
- Eltayeb, T. K., Zailani, S., & Ramayah, T. (2011). Green supply chain initiatives among certified companies in Malaysia and environmental sustainability: Investigating the outcomes. *Resources, conservation and recycling*, *55*(5), 495-506.
- Finisterra do Paço, A. M., & Raposo, M. L. B. (2010). Green consumer market segmentation: empirical findings from Portugal. *International Journal of Consumer Studies*, 34(4), 429-436.
- Ajzen, I., & Fishbein, M. (1980). Understanding attitudes and predicting social behaviour.
- Urien, B., & Kilbourne, W. (2011). Generativity and self-enhancement values in eco-friendly behavioral intentions and environmentally responsible consumption behavior. *Psychology & Marketing*, 28(1), 69-90.
- Hansla, A., Gamble, A., Juliusson, A., & Gärling, T. (2008). The relationships between awareness of consequences, environmental concern, and value orientations. *Journal of environmental psychology*, 28(1), 1-9.
- Boehlert, G. W., & Gill, A. B. (2010). Environmental and ecological effects of ocean renewable energy development: a current synthesis. *Oceanography*, 23(2), 68-81.
- Cronin, J. J., Smith, J. S., Gleim, M. R., Ramirez, E., & Martinez, J. D. (2011). Green marketing strategies: an examination of stakeholders and the opportunities they present. *Journal of the Academy of Marketing Science*, 39(1), 158-174.

- Lewis, M., & Gough, C. (1997). Implementing the lexical approach: Putting theory into practice (Vol. 3, No. 1, pp. 223-232). Hove: Language Teaching Publications.
- Datta, S. K. (2011). Pro-environmental concern influencing green buying: A study on Indian consumers. *International Journal of Business and management*, 6(6), 124.
- Pickett-Baker, J., & Ozaki, R. (2008). Pro-environmental products: marketing influence on consumer purchase decision. *Journal of consumer marketing*, 25(5), 281-293.
- Hartmann, P., & Ibáñez, V. A. (2006). Effects of green brand communication on brand associations and attitude. *International advertising and communication: current insights and empirical findings*, 218.
- Jensen, B. B., & Schnack, K. (2006). The action competence approach in environmental education: Reprinted from Environmental Education Research (1997) 3 (2), pp. 163–178. Environmental education research, 12(3-4), 471-486.
- Gurău, C., & Ranchhod, A. (2005). International green marketing: A comparative study of British and Romanian firms. *International marketing review*, 22(5), 547-561.
- Chamorro, A., & Bañegil, T. M. (2006). Green marketing philosophy: a study of Spanish firms with ecolabels. *Corporate Social Responsibility and Environmental Management*, 13(1), 11-24.
- Harris, K. E., Grewal, D., Mohr, L. A., & Bernhardt, K. L. (2006). Consumer responses to service recovery strategies: the moderating role of online versus offline environment. *Journal of Business Research*, 59(4), 425-431.

- Lee, J. S., Hsu, L. T., Han, H., & Kim, Y. (2010). Understanding how consumers view green hotels: how a hotel's green image can influence behavioural intentions. *Journal of sustainable tourism*, 18(7), 901-914.
- Miao, L., & Wei, W. (2013). Consumers' pro-environmental behavior and the underlying motivations: A comparison between household and hotel settings. *International Journal of Hospitality Management*, 32, 102-112.
- Galarraga Gallastegui, I. (2002). The use of eco-labels: A review of the literature. *Environmental Policy and Governance*, *12*(6), 316-331.
- Denscombe, M. (2010). The Good Research Guide: for small-scale social research. McGraw Hill..
- Hsiao, H., Lai, O., Liu, H., Magno, F., Edles, L., & So, A. (1999). Culture and Asian styles of environmental movements. Asia's environmental movements: Comparative perspectives, 210-229.
- Papadopoulos, I., Karagouni, G., Trigkas, M., & Platogianni, E. (2010). Green marketing: The case of Greece in certified and sustainably managed timber products. *EuroMed Journal of Business*, 5(2), 166-190.
- Cleveland, M., Kalamas, M., & Laroche, M. (2005). Shades of green: Linking environmental locus of control and pro-environmental behaviors. *Journal of Consumer Marketing*, 22(4), 198-212.
- Han, H., Hsu, L. T. J., Lee, J. S., & Sheu, C. (2011). Are lodging customers ready to go green? An examination of attitudes, demographics, and eco-friendly intentions. *International Journal of Hospitality Management*, 30(2), 345-355.
- Lee, S. M., Tae Kim, S., & Choi, D. (2012). Green supply chain management and organizational performance. *Industrial Management & Data Systems*, 112(8), 1148-1180.

- Albayrak, T., Caber, M., Moutinho, L., & Herstein, R. (2011). The influence of skepticism on green purchase behavior. *International Journal of Business and Social Science*, 2(13).
- Nissinen, A., Grönroos, J., Heiskanen, E., Honkanen, A., Katajajuuri, J. M., Kurppa, S., ... & Usva, K. (2007). Developing benchmarks for consumer-oriented life cycle assessment-based environmental information on products, services and consumption patterns. *Journal* of cleaner production, 15(6), 538-549.
- Bonner, J. M., & Walker, O. C. (2004). Selecting influential business-tobusiness customers in new product development: relational embeddedness and knowledge heterogeneity considerations. *Journal* of Product Innovation Management, 21(3), 155-169.
- Smith, S. M., Haugtvedt, C. P., & Petty, R. E. (1994). Attitudes and recycling: Does the measurement of affect enhance behavioral prediction?. *Psychology & Marketing*, 11(4), 359-374.
- Hedlund, T. (2011). The impact of values, environmental concern, and willingness to accept economic sacrifices to protect the environment on tourists' intentions to buy ecologically sustainable tourism alternatives. *Tourism and Hospitality Research*, 11(4), 278-288.
- Menon, A., Menon, A., Chowdhury, J., & Jankovich, J. (1999). Evolving paradigm for environmental sensitivity in marketing programs: a synthesis of theory and practice. *Journal of Marketing Theory and Practice*, 7(2), 1-15.
- Mathwick, C., Malhotra, N., & Rigdon, E. (2001). Experiential value: conceptualization, measurement and application in the catalog and Internet shopping environment☆. *Journal of retailing*, 77(1), 39-56.

- Leonidou, C. N., & Leonidou, L. C. (2011). Research into environmental marketing/management: a bibliographic analysis. *European Journal of Marketing*, 45(1/2), 68-103.
- Bravo Gil, R., Fraj Andres, E., & Martinez Salinas, E. (2007). Family as a source of consumer-based brand equity. *Journal of product & brand management*, 16(3), 188-199.
- Clayton, S. D. (Ed.). (2012). *The Oxford handbook of environmental and conservation psychology*. Oxford University Press.
- Bogner, F. X. (1998). The influence of short-term outdoor ecology education on long-term variables of environmental perspective. *The Journal of Environmental Education*, 29(4), 17-29.
- Delafrooz, N., Taleghani, M., & Nouri, B. (2014). Effect of green marketing on consumer purchase behavior. *QScience Connect*, 5.
- Biswas, A., & Roy, M. (2015). Green products: an exploratory study on the consumer behaviour in emerging economies of the East. *Journal of Cleaner Production*, 87, 463-468.
- Yazdanifard, R., & Mercy, I. E. (2011). The impact of green marketing on customer satisfaction and environmental safety. In 2011 International Conference on Computer Communication and Management (Vol. 5, pp. 637-641).
- Vermillion, L. J., & Peart, J. (2010, January). Green marketing: Making sense of the situation. In Allied Academies International Conference. Academy of Marketing Studies. Proceedings (Vol. 15, No. 1, p. 68). Jordan Whitney Enterprises, Inc.
- Rezai, G., Teng, P. K., Mohamed, Z., & Shamsudin, M. N. (2013). Is it easy to go green? Consumer perception and green concept. *American Journal of Applied Sciences*, 10(8), 793.

Chamorro, A., Rubio, S., & Miranda, F. J. (2009). Characteristics of research

on green marketing. Business Strategy and the Environment, 18(4), 223-239.

- Pujari, D. (2006). Eco-innovation and new product development: understanding the influences on market performance. *Technovation*, 26(1), 76-85.
- Kirchoff, J. F., Koch, C., & Satinover Nichols, B. (2011). Stakeholder perceptions of green marketing: the effect of demand and supply integration. *International Journal of Physical Distribution & Logistics Management*, 41(7), 684-696.
- Prothero, A., Peattie, K., & McDonagh, P. (1997). Communicating greener strategies: a study of on-pack communication. *Business Strategy and the Environment*, 6(2), 74-82..
- Shamdasani, P., Chon-Lin, G. O., & Richmond, D. (1993). Exploring green consumers in an oriental culture: Role of personal and marketing mix factors. *ACR North American Advances*.
- Murray, K. B. (1991). A test of services marketing theory: consumer information acquisition activities. *The journal of marketing*, 10-25.
- Vinodh, S., & Rathod, G. (2011). Application of ECQFD for enabling environmentally conscious design and sustainable development in an electric vehicle. *Clean Technologies and Environmental Policy*, 13(2), 381-396.
- Sezen, B., & Çankaya, S. Y. (2013). Effects of green manufacturing and ecoinnovation on sustainability performance. *Procedia-Social and Behavioral Sciences*, 99, 154-163.
- Amores-Salvadó, J., Martín-de Castro, G., & Navas-López, J. E. (2014). Green corporate image: moderating the connection between environmental product innovation and firm performance. *Journal of cleaner production*, 83, 356-365.

- Teisl, M. F., Roe, B., & Hicks, R. L. (2002). Can eco-labels tune a market? Evidence from dolphin-safe labeling. *Journal of Environmental Economics and Management*, 43(3), 339-359.
- Sekaran, U., & Bougie, R. (2016). Research methods for business: A skill building approach. John Wiley & Sons.
- Espelage, D. L., Holt, M. K., & Henkel, R. R. (2003). Examination of peergroup contextual effects on aggression during early adolescence. *Child development*, 74(1), 205-220.
- Duan, H., Hou, K., Li, J., & Zhu, X. (2011). Examining the technology acceptance for dismantling of waste printed circuit boards in light of recycling and environmental concerns. *Journal of Environmental Management*, 92(3), 392-399.
- Van Dam, Y. K., & De Jonge, J. (2015). The positive side of negative labelling. *Journal of consumer policy*, 38(1), 19-38.
- Schlossberg, H. (1990). "Environmental concerns lead some consumers to change buying habits", *Marketing News*, No. 24, p. 7.
- Schrum, L.J., McCarty, J.A. and Lowrey, T.M. (1995), Buyer characteristics of the green consumer and their implications for advertising strategy, *Journal of Advertising*, Vol. 24 No. 2, pp. 71-82.
- Schultz, P. W. (2000). Empathizing with nature: The effects of perspective taking on concern for environmental issues. *Journal of Social Issues*, 56(3), 391-406.
- Schultz, P. W., Shriver, C., Tabanico, J. J, & Khazian, A. M. (2004). Implicit connections with nature. *Journal of Environmental Psychology*, 24(1), 31-42.
- Schwartz, J. and Miller, T. (1991), "The earth's best friends", American Demographics, 13 February, pp. 26-35.

- Schwartz, S. H. (1977). Normative influences on altruism. In advances in experimental social psychology. New York: Academic Press.
- Schwepker, C. H., & Cornwell, T. B. (1991). An examination of ecologically concerned consumers and their intention to purchase ecologically packaged products. Journal of Public Policy and Marketing, 10(2), 77-101.
- Sekaran, U. (2003). Research methods for business: A skill building approach (4th ed.). New York: John Wiley & Sons, Inc.
- Sinnappan, P. & Abd Rahman, A. (2011). Antecedents of green purchasing behaviour among Malaysian conumers. *International Business Management*, 5(3), 129-139.
- Smith, S. M., Haugtvedt, C. P., & Petty, R. E. (1994). Attitudes and recycling: Does the measurement of affect enhance behavioral prediction?, *Psychology & Marketing*, 11, 359-374.
- Sparks, P., & Shepherd, R. (1992). Self-identity and the theory of planned behavior: Assessing the role of identification with green consumerism. Social Psychology Quarterly, 55, 388-399.
- Squires, L., Juric, B., & Cornwell, T. (2001). Level of market development and intensity of organic food consumption: cross-cultural study of Danish and New Zealand consumers. *Journal of Consumer Marketing*, 31(4), 349-356.
- Stanton, W.J. and Futrell, C. (1987), Fundamentals of Marketing, McGraw-Hill, New York, NY.
- Stern, P.C. & Dietz, T. (1994). The value basis of environmental concern. Journal of Social Issues, 50(3), 65-84.
- Straughan, R. D., and Roberts, J. A. (1999), "Environmental segmentation alternatives: a look at green consumer behavior in the new millennium", *Journal of Consumer Marketing*, Vol, 16 No. 6, pp. 558-

575.

- Strong, C. (1996). Features contributing to the growth of ethical consumerism: A preliminary investigation. *Marketing Intelligence & Planning*, 14(5), 5-13.
- Suchard, H. T., & Polonski, M. J. (1991). A theory of environmental buyer behavior and its validity: The environmental action-behavior model, in Gilly, M.C. et al. (Eds), AMA Summer Educators' Conference Proceedings, American Marketing Association, Chicago, IL, Vol. 2, pp. 187- 201.
- Sukhdial, I., & Venice, J. (1990). An analysis of green purchasing behavior: Hybrid-electric vehicle adoption at the state level. *Economics & Business Journal*, 39(1).
- Tadajewski, M. and S.W. Tsukamoto (2006). Anthropology and consumer research: Qualitative insights into green consumer bahavior. *Qualitative Market Res. Int. J.*, 9, 8-25.
- Tanner, C., & Kast, S.W. (2003). Promoting sustainable consumption: Determinants of green purchases by Swiss consumers. *Psychology & Marketing*, 20(10), 883-902.
- Tarkiainen, A. & Sundqvist, S. (2005). Subjective norms, attitudes and intentions of Finnish consumers in buying organic food. *British Food Journal*, 107 (11), 808 – 822.
- Tsen, C. H., Phang, G., & Hasan, H., & Buncha, M. R. (2006).Going Green: A Study of Consumers' Willingness to Pay for Green Products in Kota Kinabalu. *International Journal of Business and Society*, 7(2), 40-54.
- Van Liere, K., D. & Dunlap, R. E. (1981). Environmental concern: Does it make a difference how it's measured?, *Environment and Behavior 13*, 651-676.

- Verhoef, P. C. (2005). Explaining purchases of organic meat by Dutch consumers. *European Review of Agricultural Economics*, 32(2), 245-267.
- Vermeir, I., & Verbeke, W. (2006). Sustainable food consumption among young adults in Belgium: Theory of planned behavior and role of confidence and values. *Ecological Economics*, 64, 542-553.
- Vermeir, I., & Verbeke, W. (2006). Sustainable food consumption: Exploring the consumer attitude-behaviour gap. *Journal of Agricultural and Environmental Ethics*, 19(2), 169-194.
- Vining, J., & Ebreo, A. (1992). Predicting recycling behaviour from global and specific environmental attitudes and changes in recycling opportunities. *Journal of Applied Social Psychology*, 22(20), 1580-1607.
- Walter, C. (1990). How to green up your marketing mix. Advertising Age, 61,
  30 Allport, G.W. (1935). *Attitudes. In handbook of social psychology*,
  Worcester, MA: Clark University Press.
- Ward, J. & Reingen, P. (1990). Sociocognitive analysis of group decision making among consumers. *Journal of Consumer Research*, 17, 245-260.
- Wasik, J. F. (1992). Green marketing: Market is confusing, but patience will pay off. *Marketing News*, 26, 6-17.
- Whitson, D. and Henry, W. (1996), What's in a Label? Environmental Issues in Product Packaging, *The Haworth Press*, New York, NY, pp. 29-43.
- Wustenhagen, R. and Bilharz, M. (2006), Green energy market development in Germany: effective public policy and emerging customer demand, *Energy Policy*, Vol. 34, pp. 1681-96.
- Yam-Tang, E.P.Y. and Chan, R.Y.K. (1998), Purchasing behaviours and perceptions of environmentally harmful products, *Marketing*

Intelligence & Planning, Vol. 16 No. 6, pp. 356-63.

- Yeung, S. P. M. (2004). Teaching approaches in geography and students' environmental attitudes. *The environmentalist*, 24(2), 101-117.
- Zand Hessami, H., & Yousefi (2013). Investigation of major factors influencing green purchasing behavior: Interactive approach. *European Online Journal of Natural and Social Sciences*, 2(4), 584-596.
- Zelezny, L., Chua, P., & Alrich, C. (2000). Elaborating on gender differences in environmentalism. Journal of Social Issues, 56(3), 443-457.
- Zikmund, W. G. (2003). Business research methods (7th ed.). South-westhern Publishing.



## APPENDIX QUESTIONNAIRE PHIÉU KHẢO SÁT

| Section 1. Social influence (Ảnh hưởng của xã hội)   | I   |                      | of agro<br>độ hài      | eement<br>lòng)   | t                                   |
|--|-----|----------------------|------------------------|-------------------|-------------------------------------|
| Hãy đọc những câu hỏi khảo sát liên quan đến ảnh hưởng<br>của xã hộidưới đây, sau đó chọn mức độ đồng ý của bạn<br>cho từng câu hỏi dựa trên ý kiến cá nhân.<br>Please take a short look on the questions below related with<br>the <b>Social influence</b> , and then <b>CIRCLE</b> the level of<br>agreement on each of the items below base on your opinion |     | Disagree<br>(Đồng ý) | Neutral<br>(Trung lập) | Agree<br>(Đồng Ý) | Stongly agree<br>(Hoàn toàn đồng ý) |
| <ol> <li>How much do you learn about environmental products<br/>from your friends (Ban hiểu biết được bao nhiêu về các<br/>sản phẩm thân thiện môi trường từ bạn bè )</li> </ol>   | 1   | 2                    | 3                      | 4                 | 5                                   |
| 2. How much do you learn about environmental products<br>from your friends (Bạn hiểu biết được bao nhiêu về các<br>vấn đề môi trường từ bạn bè )   | 1   | 2                    | 3                      | 4                 | 5                                   |
| 3. How much do you discuss with your friends about<br>environmental products (Bạn thảo luận bao nhiêu với<br>bạn bè về các sản phẩm thân thiện với môi trường )  | 1   | 2                    | 3                      | 4                 | 5                                   |
| <ol> <li>How much do you discuss with your friends about<br/>environmental issues (Ban thảo luận bao nhiêu với bạn<br/>bè về các vấn đề môi trường)</li> </ol>   | 1 2 |                      | 3                      | 4                 | 5                                   |
| <ol> <li>How often do you buy environmental products with<br/>your friends (Mức độ thường xuyên mà bạn mua các<br/>sản phẩm môi trường với bạn bè )</li> </ol>   | 1   | 2                    | 3                      | 4                 | 5                                   |
| 6. How often do you share information regarding<br>environmental products with your friend (Mức độ<br>thường xuyên mà bạn chia sẻ thông tin về các sản phẩm<br>thân thiện môi trường với bạn bè)   | 1   | 2                    | 3                      | 4                 | 5                                   |

| Section 2. Environmental attitude (Thái độ đối với môi   | I | Levels               | 0                      |                   |                                     |
|--|---|----------------------|------------------------|-------------------|-------------------------------------|
| trường)  |   | (Mức                 | độ hài                 | lòng)             |                                     |
| <ul> <li>Hãy đọc những câu hỏi khảo sát liên quan đến thái độ đối rới môi trường dưới đây, sau đó chọn mức độ đồng ý của bạn cho từng câu hỏi dựa trên ý kiến cá nhân.</li> <li>Please take a short look on the questions below related vith the Environmental attitude, and then CIRCLE the evel of agreement on each of the items below base on rour opinion.</li> </ul> |   | Disagree<br>(Đồng ý) | Neutral<br>(Trung lập) | Agree<br>(Đồng Ý) | Stongly agree<br>(Hoàn toàn đồng ý) |
| <ol> <li>It is essential to promote green living in Vietnam (Rất<br/>cần thiết để xúc đẩy sống xanh ở Việt Nam )</li> </ol>  | 1 | 2                    | 3                      | 4                 | 5                                   |
| <ol> <li>I strongly agree that more environmental protection<br/>works are needed in Viet Nam (Tôi cực kỳ đồng ý rắng<br/>Việt Nam đang rất cần những công tác bảo vệ môi<br/>trường)</li> </ol>   | 1 | 2                    | 3                      | 4                 | 5                                   |
| <ol> <li>It is very important to raise environmental awareness<br/>among Vietnam people (Rất quan trọng để tăng nhận<br/>thức môi trường cho người Việt nam)</li> </ol>  | 1 | 2                    | 3                      | 4                 | 5                                   |
| 4. Environmental protection works are simply a waste of money and resources (Công việc bảo vệ môi trường đơn giản là lãng phí tiền và nguồn lực).  | Ŭ | 2                    | 3                      | 4                 | 5                                   |
| <ol> <li>Environmental protection works are simply a waste of<br/>money and resources (Vấn đề bảo vệ môi trường<br/>không phải là việc của tôi )</li> </ol>  | 1 | 2                    | 3                      | 4                 | 5                                   |
| 6. I think environmental protection is meaningless (Tôi nghĩ bảo vệ môi trường là vô nghĩa )   | 1 | 2                    | 3                      | 4                 | 5                                   |
| 7. It is unwise for VN to spend a vast amount of money<br>on promoting environmental protection (Thật là không<br>khôn ngoan khi Việt Nam dành một khoản tiền lớn để<br>thúc đây công tác bảo vệ môi trường )  | 1 | 2                    | 3                      | 4                 | 5                                   |
| Section 3. Environmental concern (Quan tâm đến môi   | I | Levels (<br>(Mýra    | 0                      |                   |                                     |
| trường)  |   | (IVIUC               | độ hài                 | iong)             |                                     |

| <ul> <li>Hãy đọc những câu hỏi khảo sát liên quan đến quan tâm đến môi trường dưới đây, sau đó chọn mức độ đồng ý của bạn cho từng câu hỏi dựa trên ý kiến cá nhân.</li> <li>Please take a short look on the questions below related with the Environmental concern, and then CIRCLE the level of agreement on each of the items below base on your opinion.</li> </ul>   | Strongly disagree<br>(Hoàn toàn không đồng ý) | Disagree<br>(Đồng ý) | Neutral<br>(Trung lập) | Agree<br>(Đồng ý)                           | Stongly agree<br>(Hoàn toàn đồng ý)               |
|---|---|----------------------|------------------------|---|---|
| <ol> <li>I am worried about the worsening of the quality of<br/>Vietnam's environment (Tôi lo lắng về sự xấu đi của<br/>chất lượng môi trường Việt nam ).</li> </ol>  | 1   | 2                    | 3                      | 4   | 5   |
| 2. Viet Nam's environment is my major concern(Môi trường Việt Nam là mối quan tâm chính của tôi)  | 1   | 2                    | 3                      | 4   | 5   |
| <ol> <li>I am emotionally involved in environmental protection<br/>issues in Viet Nam (Tôi rất háo hức tham gia vào vấn<br/>đề báo vệ môi trường ở Việt Nam)</li> </ol>   | 1   | 2                    | 3                      | 4   | 5   |
| 4. I often think about how the environmental quality in<br>Viet Nam can be improved (Tôi thường nghĩ cách để<br>môi trường Việt Nam có thể được cải thiện)  |   | 2                    | 3                      | 4   | 5   |
| Section 4. Perceived seriousness of environmental<br>problems (Nhận thức sự nghiêm trọng các vấn đề môi<br>trường)  | U I   | Levels (<br>(Mức (   | 0                      |   |   |
| Hãy đọc những câu hỏi khảo sát liên quan đến nhận thức  |   |                      |                        |   | ·ee<br>ing ý)                                     |
| sự nghiêm trọng các vấn đề môi trường dưới đây, sau đó<br>chọn mức độ đồng ý của bạn cho từng câu hỏi dựa trên ý<br>kiến cá nhân.<br>Please take a short look on the questions below related<br>with the <b>Perceived seriousness of environmental</b><br><b>problems</b> and then <b>CIRCLE</b> the level of agreement on<br>each of the items below base on your opinion.   | Strongly disagree<br>(Hoàn toàn không         | Disagree<br>(Đồng ý) | Neutral<br>(Trung lập) | Agree<br>(Đồng ý)                           | Stongly agr<br>(Hoàn toàn đồ                      |
| sự nghiêm trọng các vấn đề môi trường dưới đây, sau đó<br>chọn mức độ đồng ý của bạn cho từng câu hỏi dựa trên ý<br>kiến cá nhân.<br>Please take a short look on the questions below related<br>with the <b>Perceived seriousness of environmental</b><br><b>problems</b> and then <b>CIRCLE</b> the level of agreement on  |   | Disagree (Đồng ý)    |                        | <ul> <li>Agree</li> <li>(Dông ý)</li> </ul> | <ul> <li>Stongly agr<br/>(Hoàn toàn đồ</li> </ul> |
| <ul> <li>sự nghiêm trọng các vấn đề môi trường dưới đây, sau đó chọn mức độ đồng ý của bạn cho từng câu hỏi dựa trên ý kiến cá nhân.</li> <li>Please take a short look on the questions below related with the Perceived seriousness of environmental problems and then CIRCLE the level of agreement on each of the items below base on your opinion.</li> <li>1. How serious do you think the environmental problems are?( Bạn nghĩ các vấn đề môi trường nghiêm trọng đến mức nào?)</li> <li>2. How urgently do you think Vietnam's environmental problems need to be dealt with?( Bạn nghĩ là các vấn đề môi trường nghi là các vấn đề môi trường nào?)</li> </ul>  | Strongly<br>(Hoàn toà                         |                      | Neu<br>(Trun           | P     A       Agree       (Dông ý)          | H)  |
| <ul> <li>sự nghiêm trọng các vấn đề môi trường dưới đây, sau đó chọn mức độ đồng ý của bạn cho từng câu hỏi dựa trên ý kiến cá nhân.</li> <li>Please take a short look on the questions below related with the Perceived seriousness of environmental problems and then CIRCLE the level of agreement on each of the items below base on your opinion.</li> <li>1. How serious do you think the environmental problems are?( Bạn nghĩ các vấn đề môi trường nghiêm trọng đến mức nào?)</li> <li>2. How urgently do you think Vietnam's environmental problems need to be dealt with?( Bạn nghĩ là các vấn đề môi trường của Việt nam cần giải quyết cấp bách</li> </ul> | 1<br>(Hoàn toề                                | 2                    | C Neu                  |   | <b>H</b> )  |

| sức khỏe chúng ta )   |   |                      |                        |                   |                                     |  |
|---|---|----------------------|------------------------|-------------------|-------------------------------------|--|
| 5. Vietnam's environmental problems are threatening the   |   |                      |                        |                   |                                     |  |
| reputation of VN (Vấn để môi trường của Việt Nam<br>đang đe dọa đến danh tiếng của Việt Nam)  | 1   | 2                    | 3                      | 4                 | 5                                   |  |
| Section 5. Perceived environmental responsibility<br>(Nhận thức trách nhiệm với môi trường)   | ity Levels of agreement<br>(Mức độ hài lòng)  |                      |                        |                   |                                     |  |
| Hãy đọc những câu hỏi khảo sát liên quan đến nhận thức<br>về trách nhiệm đối với môi trường dưới đây, sau đó chọn<br>mức độ đồng ý của bạn cho từng câu hỏi dựa trên ý kiến cá<br>nhân.<br>Please take a short look on the questions below related<br>with the <b>Perceived environmental responsibility</b> and<br>then <b>CIRCLE</b> the level of agreement on each of the items<br>below base on your opinion. | Strongly disagree<br>(Hoàn toàn không đồng ý) | Disagree<br>(Đồng Ý) | Neutral<br>(Trung lập) | Agree<br>(Đồng ý) | Stongly agree<br>(Hoàn toàn đồng ý) |  |
| <ol> <li>I should be responsible for protecting our environment<br/>(Tôi nên có trách nhiệm bảo vệ môi trường)</li> </ol>   | 1   | 2                    | 3                      | 4                 | 5                                   |  |
| 2. Environmental protection starts with me (Tôi tự giác bảo vệ môi trường)  | 1   | 2                    | 3                      | 4                 | 5                                   |  |
| 3. How much responsibility do you think you have in protecting the environment in Vietnam? (Bạn nghĩ trách nhiệm của bạn như thế nào trong việc bảo vệ môi trường?)   |   | 2                    | 3                      | 4                 | 5                                   |  |
| 4. I have taken responsibility for environmental protection since I was young (Tôi nhận thức trách nhiệm bảo vệ môi trường từ khi còn nhỏ)  | 1   | 2                    | 3                      | 4                 | 5                                   |  |
| 5. How willing are you to take up responsibility to<br>protect the environment in Vietnam? (Ban sẽ sẵn sàng<br>nhận lấy trách nhiệm bảo vệ môi trường ở Việt Nam?)  | 1   | 2                    | 3                      | 4                 | 5                                   |  |
| <ol> <li>Environmental protection is the responsibility of the<br/>Vietnam government, not me (Bảo vệ môi trường là<br/>trách nhiệm của chính phủ, không phải tôi)</li> </ol>   |   | 2                    | 3                      | 4                 | 5                                   |  |
| <ol> <li>Environmental protection is the responsibility of the<br/>environmental organizaitons, not me (Båo vệ môi<br/>trường là trách nhiệm của các tổ chức mổi trường,<br/>không phải tôi)</li> </ol>   | 1   | 2                    | 3                      | 4                 | 5                                   |  |

| Section 6. Perceived effectiveness of environmental behaviour (Nhận thức hiệu quả hành vi bảo vệ môi  | I   |                      | of agr<br>độ hài       | eement<br>lòng)   | ţ                                   |
|---|---|----------------------|------------------------|-------------------|-------------------------------------|
| trường)   |   |                      |                        |                   |                                     |
| Hãy đọc những câu hỏi khảo sát liên quan đến nhận thức về<br>hiệu quả của hành vi bảo vệ môi trường dưới đây, sau đó<br>chọn mức độ đồng ý của bạn cho từng câu hỏi dựa trên ý<br>kiến cá nhân.<br>Please take a short look on the questions below related with<br>the <b>Perceived effectiveness of environmental behaviour</b><br>and then <b>CIRCLE</b> the level of agreement on each of the<br>items below base on your opinion. | Strongly disagree<br>(Hoàn toàn không đồng ý) | Disagree<br>(Đồng Ý) | Neutral<br>(Trung lập) | Agree<br>(Đồng ý) | Stongly agree<br>(Hoàn toàn đồng ý) |
| 1. I think if I carry out some pro-environmental<br>behaviours in my everyday life, I would contribute a lot<br>to our environment. (Tôi nghĩ là nếu tôi thực hiện các<br>hành vi bảo vệ môi trường hằng ngày, tôi sẽ đóng góp<br>nhiều cho môi trường của chúng ta)  |   | 2                    | 3                      | 4                 | 5                                   |
| <ol> <li>I think my participation in environmental protection<br/>would influence my family and friends to participate<br/>too (Tôi nghĩ là sự tham gia bảo vệ môi trường của tôi<br/>sẽ ảnh hưởng đến gia đình và bạn bè tham gia cùng)</li> </ol>   | 1   | 2                    | 3                      | 4                 | 5                                   |
| <ol> <li>The environmental quality of VN will be better if I<br/>engage in some pro-environmental behaviours (Chất<br/>lượng môi trường của Việt nam sẽ cải thiện nếu tôi có<br/>các hành vi bảo vệ môi trường)</li> </ol>  | 1   | 2                    | 3                      | 4                 | 5                                   |
| 4. When I recycle and reuse things, the environmental<br>quality of VN will improve so much(Nếu tôi tái chế và<br>tái sử dụng sản phẩm, chất lượng môi trường của Việt<br>Nam sẽ tốt hơn)   | 1   | 2                    | 3                      | 4                 | 5                                   |
| Section 7. Perception of eco-label (Nhận thức về nhãn<br>hiệu xanh)   |   |                      | of agre<br>độ hài      | eement<br>lòng)   | ţ                                   |

| nhâ<br>bạr<br>Ple<br>the | y đọc những câu hỏi khảo sát liên quan đến nhận thức về<br>án hiệu xanh dưới đây, sau đó chọn mức độ đồng ý của<br>a cho từng câu hỏi dựa trên ý kiến cá nhân.<br>ase take a short look on the questions below related with<br><b>Perception of eco-label</b> and then <b>CIRCLE</b> the level of<br>eement on each of the items below base on your opinion. | Strongly disagree<br>(Hoàn toàn không đồng ý) | Disagree<br>(Đồng Ý) | Neutral<br>(Trung lập) | Agree<br>(Đồng Ý) | Stongly agree<br>(Hoàn toàn đồng Ý) |
|--------------------------|--|---|----------------------|------------------------|-------------------|-------------------------------------|
| 1.                       | When the green products are mentioned, I will firstly<br>think of the green labels (Khi đề cập đến các sản phẩm<br>xanh, tôi sẽ nghĩ đến các nhãn hiệu xanh đầu tiên)  | 1   | 2                    | 3                      | 4                 | 5                                   |
| 2.                       | I can think of at least one kind of the green labels now.<br>(Tôi có thể nghĩ đến ít nhất 1 loại nhãn hiệu xanh bây<br>giờ)  | 1   | 2                    | 3                      | 4                 | 5                                   |
| 3.                       | I will pay attention on the green labels when buying products.(Tôi sẽ chú ý đến nhãn hiệu xanh khi mua sản phẩm )  | 1   | 2                    | 3                      | 4                 | 5                                   |
| 4.                       | I get most knowledge of the green labels from the<br>information of products' packagings and<br>instructions(Tôi sẽ có nhiều kiến thức về nhãn hiệu<br>xanh từ thông tin trên bao bì và hướng dẫn sử dụng của<br>sản phẩm)   | EX  | 2                    | 3                      | 4                 | 5                                   |
| 5.                       | I think the categories of the green labels are too much,<br>making me feel difficult to remember and classify them<br>(Tôi nghĩ là có quá nhiều danh mục về nhãn hiệu xanh,<br>khiến tôi cảm thấy khó khăn để nhớ và phân biệt<br>chúng)   | 1   | 2                    | 3                      | 4                 | 5                                   |
| 6.                       | I believe that the information about the green labels on<br>the packaging or instruction is accurate (Tôi tin rắng<br>thông tin về nhãn hiệu xanh trên bao bì hay hướng dẫn<br>sử dụng là chính xác).  | 1   | 2                    | 3                      | 4                 | 5                                   |

| Section 8. Perception of eco-brand (Nhận thức về | Levels of agreement |
|--|---------------------|
| thương hiệu xanh)                                | (Mức độ hài lòng)   |

| <ul> <li>Hãy đọc những câu hỏi khảo sát liên quan đến nhận thức về thương hiệu xanh dưới đây, sau đó chọn mức độ đồng ý của bạn cho từng câu hỏi dựa trên ý kiến cá nhân.</li> <li>Please take a short look on the questions below related with the <b>Perception of eco-brand</b> and then <b>CIRCLE</b> the level of agreement on each of the items below base on your opinion.</li> </ul> | Strongly disagree<br>(Hoàn toàn không đồng ý) | Disagree<br>(Đồng ý) | Neutral<br>(Trung lập) | Agree<br>(Đồng ý) | Stongly agree<br>(Hoàn toàn đồng ý) |
|--|---|----------------------|------------------------|-------------------|-------------------------------------|
| 1. I am aware of eco-brands. (Tôi nhận biết được thương hiệu xanh)   | 1   | 2                    | 3                      | 4                 | 5                                   |
| 2. I know all kinds of relevant information about the eco-<br>brand.(Tôi biết tất cả các thông tin liên quan về thương<br>hiệu xanh)   | 1   | 2                    | 3                      | 4                 | 5                                   |
| 3. I believe in any products owning eco-brand.(Tôi tin tưởng vào bất cứ sản phẩm nào có thương hiệu xanh)  | 1   | 2                    | 3                      | 4                 | 5                                   |
| 4. I have special preference on the eco-brand of certain kind of products (Tôi thường tham khảo về thương hiệu xanh của một số loại sản phẩm nhất định)  | 1   | 2                    | 3                      | 4                 | 5                                   |
| 5. I have special preference on the eco-brand of certain kind of products (Thương hiệu xanh chưa chắc là biểu tượng của sản phẩm đáng tin cậy)   | 1   | 2                    | 3                      | 4                 | 5                                   |
| 6. I believe that the eco-brand are not truthful, which means they can not reach the green standard(Tôi cho rằng thương hiệu xanh là không đáng tin, có nghĩa là sản phẩm không thể nào đạt tới tiêu chuẩn xanh)   | 1   | 2                    | 3                      | 4                 | 5                                   |
| Section 9. Environmental advertisement (Quang cao  |   | Levels of            | 0                      |                   |                                     |
| <b>môi trường</b> )<br>Hãy đọc những câu hỏi khảo sát liên quan đến quảng cáo  |   | (Mức d               | độ hải                 | lóng)             |                                     |
| <ul> <li>môi trường dưới đây, sau đó chọn mức độ đồng ý của bạn cho từng câu hỏi dựa trên ý kiến cá nhân.</li> <li>Please take a short look on the questions below related with the Environmental advertisement and then CIRCLE the level of agreement on each of the items below base on your opinion.</li> </ul>   | Strongly disagree<br>(Hoàn toàn không đồng ý) | Disagree<br>(Đồng ý) | Neutral<br>(Trung lâp) | Agree<br>(Đồng Ý) | Stongly agree<br>(Hoàn toàn đồng ý) |
| <ol> <li>Environmental advertisement enhance my knowledge<br/>about green products (Quảng cáo môi trường nâng cấp<br/>kiến thức của tôi về sản phẩm xanh)</li> </ol>   | 1   | 2                    | 3                      | 4                 | 5                                   |
| 2. I enjoy watching broadcast environmental advertisement (Tôi thích xem các chương trình quảng cáo môi trường)  | 1   | 2                    | 3                      | 4                 | 5                                   |

| 3. | Environmental advertisement guide customers to<br>making an informed purchasing decision (Quảng cáo<br>môi trường hướng dẫn khách hàng đưa ra quyết định<br>mua hàng) |   | 2 | 3 | 4 | 5 |
|----|---|---|---|---|---|---|
| 4. | I think eviromental advertisement is essential and effect<br>(Tôi nghĩ quảng cáo môi trường là cần thiết và hiệu<br>quả)  | 1 | 2 | 3 | 4 | 5 |

| Section 10. Green purchasing behaviour (Hành vi<br>mua hàng xanh)  | (Mức độ hài lòng) |                      |                        |                   |                                     |
|--|-------------------|----------------------|------------------------|-------------------|-------------------------------------|
| Hãy đọc những câu hỏi khảo sát liên quan đến hành vi<br>mua hàng xanh dưới đây, sau đó chọn mức độ đồng ý<br>của bạn cho từng câu hỏi dựa trên ý kiến cá nhân.<br>Please take a short look on the questions below related<br>with the <b>Green purchasing behaviour</b> and then<br><b>CIRCLE</b> the level of agreement on each of the items<br>below base on your opinion. |                   | Disagree<br>(Đồng ý) | Neutral<br>(Trung lập) | Agree<br>(Đồng ý) | Stongly agree<br>(Hoàn toàn đồng ý) |
| When I want to buy a product, I look at the ingredients<br>label to see if it contains things that are<br>environmentally-damaging (Khi tôi muốn mua 1 sản<br>phẩm, tôi nhìn vào nhãn nguyên liệu để xem liệu nó có<br>chứa những thứ gây hại cho môi trường)  | 1                 | 2                    | 3                      | 4                 | 5                                   |
| I prefer green products over non-green products when<br>their product qualities are similar. (Tôi thích sản phẩm<br>xanh hơn các sản phẩm không xanh khi phẩm chất của<br>chúng tương tự)  | 1                 | 2                    | 3                      | 4                 | 5                                   |
| I choose to buy products that are environmentally-<br>friendly(Tôi chọn mua sản phẩm thân thiện với môi  | 1                 | 2                    | 3                      | 4                 | 5                                   |

| trường )   |   |   |   |   |   |
|--|---|---|---|---|---|
| I buy green products even if they are more expensive<br>than the non-green ones (Tôi mua sản phẩm xanh ngay<br>cả khi chúng đắt hơn những mặt hàng không xanh) | 1 | 2 | 3 | 4 | 5 |

## Section 11. Cosmetics Preference

| x · 1                |  | 00                    | 1 0 11 1 1 1 1 1                      |
|----------------------|--|-----------------------|---------------------------------------|
| v 11                 | and the second s |                       | he following questions. Your answer   |
| will be treated in   | strict confidential.   | For our informat      | tion, would you please indicate your  |
| response             | on   | the                   | following questions:                  |
| Chân thành cảm       | ơn các ban đã dành   | thời gian hoàn th     | ành phiếu khảo sát. Những thông tin   |
|                      |  |                       | u của tôi. Mời bạn vui lòng cung cấp  |
|                      | · · · · · · · · · · · · · · · · · · ·  | no bay nginen eu      | u của tới. Nhôi bản vũi tổng cũng cấp |
| thêm những thông     | <u> </u>   | enterining Commission | ×//                                   |
| Gender (giới tính    | ) $\Box$ Male (  | nam) 🛛 🗆 Femal        | $e(n\tilde{u})$                       |
|                      |  |                       |                                       |
| Age (tuổi)           |  |                       |                                       |
| $\Box$ Less than 20  | □ From 21-30   | □ From 31-40          | $\square$ More than 40                |
| Dưới 20              | Từ 21-30   | Từ 31-40              | Trên 40                               |
| Income USD/mon       | th (Thu nhập mỗi th  | láng)                 |                                       |
| $\Box$ Less than 300 | □ From 301-600   | □ From 601-900        | □ From 901-1200 □ More than 1200      |
| Dưới 300             | Từ 301-600   | Từ 601-900            | Từ 901-1200 Trên 1200                 |
|                      |  |                       |                                       |
| Education (Giáo      | dục)   |                       |                                       |
| □ High school        | □ University   | □ Master              | $\square$ Master above                |
| Phổ thông            | -  |                       | Thạc sĩ trở lên                       |
| Do you have expe     | erience about buying   | g Green product? (    | Bạn có từng mua Sản phẩm xanh? )      |
| · 1                  |  |                       |                                       |
| □ Yes                | □ No   |                       |                                       |
| Có                   | Không  |                       |                                       |