



**THE STUDY OF CONSUMER ATTITUDES
TOWARDS “NO PLASTIC BAG” SHOPPING DAY
AT SUPERMARKET STORES IN BANGKOK**

BY

MR. CHOLAVITH JIRAWANCHAIKUL

AN INDEPENDENT STUDY SUBMITTED IN PARTIAL

FULFILLMENT OF

**THE REQUIREMENTS FOR THE DEGREE OF
MASTER OF SCIENCE PROGRAM IN MARKETING
(INTERNATIONAL PROGRAM)**

FACULTY OF COMMERCE AND ACCOUNTANCY

THAMMASAT UNIVERSITY

ACADEMIC YEAR 2015

COPYRIGHT OF THAMMASAT UNIVERSITY

**THE STUDY OF CONSUMER ATTITUDES
TOWARDS “NO PLASTIC BAG” SHOPPING DAY
AT SUPERMARKET STORES IN BANGKOK**

BY

MR. CHOLAVITH JIRAWANCHAIKUL

**AN INDEPENDENT STUDY SUBMITTED IN PARTIAL
FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE
OF MASTER OF SCIENCE PROGRAM IN MARKETING
(INTERNATIONAL PROGRAM)
FACULTY OF COMMERCE AND ACCOUNTANCY
THAMMASAT UNIVERSITY
ACADEMIC YEAR 2015
COPYRIGHT OF THAMMASAT UNIVERSITY**



THAMMASAT UNIVERSITY
FACULTY OF COMMERCE AND ACCOUNTANCY

INDEPENDENT STUDY

BY

MR. CHOLAVITH JIRAWANCHAIKUL

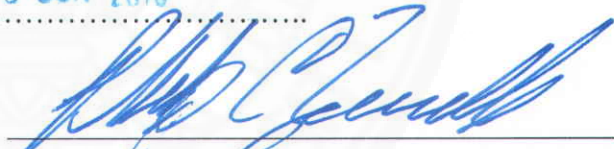
ENTITLED

THE STUDY OF CONSUMER ATTITUDES TOWARDS "NO PLASTIC BAG"
SHOPPING DAY AT SUPERMARKET STORES IN BANGKOK

was approved as partial fulfillment of the requirements for
the degree of Master of Science Program in Marketing (International Program)

on..... 6 JUN 2016

Chairman



(Professor Phillip C. Zerrillo, Ph.D.)

Member and Advisor



(Associate Professor James E. Nelson, Ph.D.)

Dean



(Professor Siriluck Rotchanakitumnuai, Ph.D.)

Independent Study Title	THE STUDY OF CONSUMER ATTITUDES TOWARDS “NO PLASTIC BAG” SHOPPING DAY AT SUPERMARKET STORES IN BANGKOK
Author	Mr. Cholavith Jirawanchaikul
Degree	Master of Science Program in Marketing (International Program)
Major Field/Faculty/University	Faculty of Commerce and Accountancy Thammasat University
Independent Study Advisor	Professor James E. Nelson
Academic Years	2015

ABSTRACT

Plastic bags used in many industries because the advantages of lighter weight and easier to carry. But the main problem is the disposal, it will take more than 100 years for degradation. Regarding to the ministry of municipal waste management of Thailand, Thai people consume plastic bags more than 2 million tons per year or average about 5,300 tons per day. Thai governments tried to encourage retailers to create the sustainability campaigns with their consumers. Now, there are 15 major retailers collaborate and apply this activity in their store in order to increase awareness of sustainability, cost reduction and increase brand image of stores.

This study is a contemporary topic in applied marketing under the area of society issue. The purpose of this study is to understand the relationship between consumer attitudes towards environment concern and rejecting plastic bags behavior in supermarket stores in Bangkok. Also to understand consumers attitude towards “No Plastic Bag” shopping day and incentives offered by each supermarket stores.

A total of 214 respondents who age between 18-60 participated in the survey. They were divided into three groups. First group was rejecting group (very often and always reject plastic bags within 6 months). Second group was sometime rejecting group (sometimes reject plastic bags). The last group was not rejecting group (never and

rarely reject plastic bags within 6 months). Most of respondents were female 121 respondents and male 93 respondents. The result showed that most of respondents understand the current situation of environment today but some group still consuming plastic bags because they thought that the effect was far away from their daily life. Female tended to have rejecting behavior more than male.

Key findings from this study can be used to improve plastic bag reduction campaign more effective for the marketer who have plan to held this campaign. In addition, this research aimed to understand key variable that were effect plastic bags reduction from consumers.



ACKNOWLEDGEMENTS

I would like to take this opportunity to thank you to Professor James E. Nelson for his supervise and consult during my individual study process. His advice given by him through several meetings is really helpful for me to complete this project.

Moreover, I also would like to deeply appreciate to MIM program for giving me the valuable experience in the past 2 years, giving me to know how valuable of the time and encourage me to pass through any obstacles. I would like to thank you the good hospitality from MIM office. Everyone have a good coordinating and also delicate your time to support us.

I also would like to express my special thanks to all respondents for my individual projects who dedicated their time to answer my questionnaire and in depth interviews. I would like to let them know that this project could not finish without them.

Lastly, I would like to express my love to my family, my parents and my friend who always support and encourage me to complete this project and my master degree program.

Mr. Cholavith Jirawanchaikul

TABLE OF CONTENT

	Page
ABSTRACT	(1)
ACKNOWLEDGEMENTS	(3)
LIST OF CONTENT	(4)
LIST OF TABLES	(5)
CHAPTER 1 INTRODUCTION	1
CHAPTER 2 REVIEW OF LITERATURE	3
CHAPTER 3 RESEARCH METHODOLOGY	6
3.1 Research Objectives	6
3.2 Research Design	6
3.2.1 Exploratory Research	6
3.2.2 Descriptive Research	8
CHAPTER 4 RESEARCH FINDINGS AND RESULTS	10
4.1 Qualitative Results	10
4.1.1 Secondary	10
4.1.2 In-depth interview	11
4.1.2 Observation	13
4.2 Quantitative Results	14
CHAPTER 5 CONCLUSIONS AND RECOMMENDATIONS	24
REFERENCES	26
APPENDICES	
APPENDIX A Questionnaire Design	28
APPENDIX B Summary of respondents' profile	36
APPENDIX C Summary of Frequency Distribution Tables	37
APPENDIX D ANOVA Results	37
APPENDIX E T-Test Results	40
BIOGRAPHY	41

LIST OF TABLES

Tables	Page
4.1 Summary of Type of bag reduction group among respondents	14
4.2 Summary the factors of receiving plastic bags for not rejecting plastic bags group and sometime reject plastic bags group	15
4.3 Summary the factors of rejecting plastic bags for rejecting plastic bags group	16
4.4 Summary of campaign from each supermarket stores	17
4.5 Summary of satisfaction rate of each campaign from supermarket stores	17
4.6 Summary of plastic bag reduction behavior by gender	18
4.7 Summary of plastic bag reduction behavior by Education	18
4.8 Summary of plastic bag reduction behavior by Age	19
4.9 Summary of different between groups of factors encourage reject plastic bags	19
4.10 Summary of different between groups for attitude towards environmental awareness.	21

CHAPTER 1

INTRODUCTION

Sustainability trend has become common for many business organizations and many of them try to apply the sustainability into their strategy area in order to reduce the cost of production and create a good image among consumers. Good example is the reduced consumption of plastic bags in retail business which try to persuade consumers to save natural resources and reduce pollution.

In worldwide a trillion single-uses plastic bags are used each year or average 2 million bags each minute and plastic bag can't be dispose easily, it will take more than hundred years to dispose from the earth (Earth-policy.org, 2015). Plastic bags caused many problems to environment issue for example Global warming and damaged sea creatures. Now many countries around the world have banned the use of plastic bags. In 2002, Ireland was the first nation which charge money from consumers who receive plastic bag in stores

Thai people consume both plastic bags and foam more than 2.7 million tons per year (PCD.go.th, 2015). Thai government noticed that the increasing of plastic consumption need to be solved immediately, so Thai government tried to encourage supermarket stores to promote the sustainability campaign to their consumers. As of October 2015, Department of environmental quality promotion of Thailand and big 15 supermarket chains have agreed on "No Plastic Bag" shopping day on the 15th and 30th of each month.

During "No Plastic Bag" shopping day, each supermarket stores will provide the incentive to motivate consumer to reject plastic bags when shopping, for example Tesco offers extra points in member card when consumers reject to receive plastic bag or bring THEIR own reusable bag. Big C offers special price 1 Baht when buying items reach 200 Baht. Central persuade consumers donate money to environmental organization when receiving plastic bag.

This study is a contemporary topic in applied marketing under the area of society issue. The purpose of this study is to understand the relationship between consumer attitudes towards environment concern and rejecting plastic bags behavior

in supermarket stores in Bangkok. Also to understand consumers attitude towards “No Plastic Bag” shopping day and incentives offered by each supermarket stores. Specific objectives of this research are as follows.

1. To study the attitudes towards environment concern among people who live in Bangkok and shopping at supermarket stores.
2. To understand and study the relationship between attitudes toward environment concern and rejecting plastic bags behavior.
3. To investigate consumers insight towards “No Plastic Bag” shopping day from supermarket stores.
4. To understand and study incentives offered by super market stores and identify which incentive the most influential is for motivate consumer to rejecting plastic bags.

CHAPTER 2

REVIEW OF LITERATURE

A large number of articles and website provide useful background to the topic of “No Plastic Bag” shopping days. The first section begins with a definition of sustainability, benefit of sustainability programs for business organizations. The second section is how consumer thinks about plastic bag reduction activity, what their behavior toward plastic bag reduction. The last section is worldwide and Thailand situation of using plastic bags and sustainability program from supermarket stores in Thailand.

Regarding to the increasing of total population and rapid consumption of resources that caused many natural disasters for example, Global warming and flooding because of deforest. These disasters made consumers and large business organizations aware and concerned more about environmental issue and respond with their actions. There isn't a direct definition of Sustainability but generally sustainability reflects under three concepts of environment, economy and society (Young, 2013) and many business organizations apply these three concepts to their activities in order to improve the benefits both society and environment.

Many business organizations likely to create sustainability programs to their own consumers because it can create cost savings, revenue growth, competitive advantage and environmental benefits (Anon, 2015). Large business organizations which interest in environmental quality and fairness to society are likely to be durable in the long run than business organization which not concerned (Soyka, 2012). Moreover the profit and revenue growth in the business organizations which invest in sustainability have a capacity to create value for customers, shareholder and other stakeholders (Lubin and Esty, 2010). Thus many business organizations have introducing their sustainability campaign, For example private retailers like supermarket stores create sustainability campaign in stores which is bags reduction campaign.

Marconi, (2002) investigated that mostly consumers likely to buy and use the service from the organization which has high social responsibility, so many business

organizations also use these tools to increase good brand perception towards consumers. But there isn't an evidence to prove that when consumers have a good attitude towards organization, they trend to change their behavior towards that organization. Because the consumption behavior is very complex and involved with many factors related (Kotler, 2000) for example, believe, attitude and perception to drive the change of behavior.

Majority of consumers have a good attitude towards plastic bag reduction and also know the effect of plastic bags issue but they still consuming plastic bags because the good attitude don't reflect the behavior to reject plastic bag when shopping. But in reality many research found that the stimulus like incentives or rewards provided from retailers can attractive the consumers to reject plastic bags consumption. (Elizabeth Miller, 2011)

There are many different behaviors from consumers to react with the plastic bags consumption because consumers have a different attitude, demographic and perception towards plastic bags. Female are more likely to take their own "green" shopping bags because they can be stored in handbag. The point of action (the cashier) is achieving the best recall to drive consumer awareness about bag reduction campaign (Sharp, Høj and Wheeler, 2010). Mostly, consumer aware of reusable bags because its durability and good for environment. To encourage the consumers to use reusable bags, retailers need to promote with the attractive reward scheme. (Cherrier, 2006)

Average 2 million plastic bags were consumed each minute or reach a trillion single uses per year. In 2002, Ireland was the first nation which charge consumers directly 15 euro cents per plastic bags. Within 5 months, plastic bags consumption dropped more than 90%. (Earth-policy.org, 2015)

Thai people consume both plastic bags and foam more than 2.7 million tons per year. Plastic bags contribute more than 80% of total waste which is 5,300 tons per day. It will take more than 100 years to disposal plastic bags. (PCD.go.th, 2015)

Thailand government tried to encourage retailers to promote the sustainability campaign to their consumers. As of October 2015, Department of environmental quality promotion of Thailand and big fifteen super market chains have agreed on "No plastic Bag" shopping day on the 15th and 30th of each month. (PCL., 2015)

To summarize all 8 literature reviews, we found that nowadays many large supermarket stores try to apply this sustainability concept to their core strategy which is reducing plastic bags consumption. The problem is not all consumers concern about environment and still consuming plastic bags. So that private retailers have to create attractive stimulus to motivate consumer to change their behavior.



CHAPTER 3

RESEARCH METHODOLOGY

3.1 Research Objectives

The main objective of this study is to understand the relationship between consumer attitudes towards environmental concern and rejecting plastic bags behavior. And attitude towards the current incentive offered by supermarket stores in Bangkok. The exploratory research and descriptive research would apply in this research study as a collection and analysis methodology.

3.2 Research Design

In this study, both exploratory and descriptive researches were conducted.

3.2.1 Exploratory Research:

Three methods were conducted including:

3.2.1.1 Secondary Research: The objective is to understand the world situation of plastic bags issue and movement of Thailand about plastic bags solution in supermarket stores. Gather information about “No Plastic Bag” shopping day from the key super market stores in Bangkok. Moreover, the key variables of this study will gather from literature review. Data was gather information from published sources and website for example, Pollution Control Department (PCD.go.th), Ministry of Natural Resources and Environment (MNRE.go.th), Earth-policy.org and online newspapers.

3.2.1.2 In-depth interview: Objective is to understand the insights of the consumer towards plastic bags consumption and “No Plastic Bag” shopping day. To identify the key motivations which lead them to reject plastic bags. To evaluate the current incentives offered by super market stores. These data was used to design the survey questionnaire on the target respondents. Interviews were conducted with four respondents in order to find out and compare the key differences in behaviors and motivation of people who often reject plastic bags and people who not reject plastic bags. Sampling

Method: The procedure was convenience sampling. Collection Method: The interview sessions were based on telephone. Sample Size: four respondents were divided into two groups. The first group was “Not rejecting plastic bags” who sometimes and often use plastic bags and rarely to reject. The second group was “Rejecting plastic bags” who very often and always reject plastic bags when shopping at supermarket stores. Interviewee Characteristics: There were three females and one male participated age 25, 30, 31 and 35. All interviewees worked as officer worker and used to shopping at supermarket stores and living in the Bangkok area.

Interview guide: Open-ended questions and avoid leading questions.

Part 1: Screening

“Have you ever shopping at supermarket stores?”

Part2: Attitude towards environment concern.

“What do you think about environment issue today?” “Do you concern about environment today?”

Part3: Actual behavior towards rejection of plastic bags and “No Plastic Bag” shopping day’s campaign.

“Do you know “No Plastic Bag” shopping day?” What do you think about it?

What is your opinion towards bags reduction campaign today?

Why do you still use plastic bag when shopping or rejecting plastic bags?

3.2.1.3 Observation: Objective is to observe the current “No Plastic Bag” shopping days that provide from each super market stores in Bangkok area. To observe what kind of the incentives that each super market stores use to motivate consumer to rejecting plastic bags. Data Collection: Fifth stores around Bangkok were observed during November 1, 2015 to November 20, 2015 such as Tesco lotus, Big C, Tops, The Malls group and Central Marketing Group. The selection of stores was based on convenience stores.

3.2.2 Descriptive Research

3.2.2.1 Questionnaire design: Objective is to quantify there are the relationship between attitudes toward environment concern and rejecting plastic bags behavior in supermarket stores. To investigate the level of motivation of each incentives offered by supermarket stores. The questionnaire divided into four parts as the following. (See Appendix A for a copy of the questionnaire.)

Objective of the first part is to ensure that respondents matched with the sampling criteria which were people age 18-60 years old, lived in Bangkok and shopping at supermarket stores. If respondents weren't fall to these criteria, the questionnaire would not process to the next part.

Objective of the second part is to divide the respondents into "not rejecting plastic bags", "sometimes rejecting plastic bags" and "rejecting plastic bags", to understand consumers' actual behaviors towards bag reduction in supermarket stores among three groups, what were the factors that important for "rejecting plastic bags" group to refuse plastic bags and what were the factors that important for "not rejecting plastic bags" group still consume plastic bags. The respondents must answer with 5-point Likert scale to measure the level of opinion which are 1 = unimportant, 2 = somewhat important, 3 = quite important, 4 = very important and 5 = extremely important.

Objective of the third part is to evaluate the "No Plastic Bag" shopping days that provide from each supermarket stores, to measure the level of satisfactions of each campaign. To measure the influential factors that could motivate both "rejecting plastic bags" and "not rejecting plastic bags" groups to refuse plastic bags when shopping at supermarket stores in Bangkok. The respondents must answer with 5-point Likert scale to measure the level of opinion which are 1 = not at all influential, 2 = somewhat not influential, 3 = Neutral, 4 = somewhat influential and 5 = very influential.

Objective of the fourth part was to understand consumers' attitude towards environmental awareness, how environment issued important to their life. The respondents must answer with 5-point Likert scale to measure the level of opinion which are 1 = strongly disagree, 2 = Disagree, 3 = Neutral, 4 = agree and 5 = strongly agree.

The last part aimed to collect demographic and lifestyles information of the survey respondents including age, gender and education level. In order to identify what were the characteristics of “not rejecting plastic bags” and “rejecting plastic bags” groups.



CHAPTER 4

RESEARCH FINDINGS AND RESULTS

4.1 Qualitative Results

4.1.1 Secondary

Regarding to the increasing of total population and rapid consumption of resources that caused many natural disasters for example, Global warming and flooding because of deforest. Plastic technology has been discovered and used in various industries but it takes many years to dispose. These issue made consumers and large business organizations aware and concerned more about environmental issue and respond with their actions. Many business organizations apply sustainability concepts to their activities in order to improve the benefits both society and environment.

From government report (PCD.go.th, 2015) found that Thai people consume both plastic bags and foam more than 2.7 million tons per year or average 7,000 tons per day. More than 80% of 2.7 million tons is plastic bags or equal 5,300 tons per day and the trend of consumption is increasing every year. Moreover, the disposal of plastic bag will take more than 100 year.

There have been increasing trends to reduce plastic bags which are retail stores across many countries. In Thailand government has not announce any regulations on prohibiting using plastic bags different from other countries as Japan, Taiwan, Iceland and etc. But mostly Thailand government tries to collaborate with local retailer to held campaign together.

In October 2015, big fifteen supermarket chains and Thailand government decided to held “No Plastic Bags” shopping day on the 15th and 30th of each month (PCL., 2015) in order to motivate and encourage their consumers to reduce the plastic bags consumption.

During “No Plastic Bag” shopping day, each supermarket stores will provide the incentive to motivate consumer to reject plastic bags when shopping, for example Tesco offers extra points in member card when consumers reject to receive plastic bag or bring their own reusable bags.

4.1.2 In-depth interview

In order to compare behaviors and motivation between “Behavior of Not rejecting plastic bags” group versus “Behavior of Rejecting plastic bags”. The first group is people who sometime and often use plastic bags and rarely to reject within 6 months. The second group is people who very often and always reject plastic bags within 6 months. Both of them live in Bangkok and shopping in supermarket stores. The questions included the attitude towards environment concern, factors that influence them to reject plastic bags in supermarkets and how they perceive with “No Plastic Bag” shopping day on the 15th and 30th of each month.

“Behavior of Not rejecting plastic bags” group

Attitude towards environment

Most of them understand the current situation of environment today. “I know the situation of global warming” – Arisara, 35. But most of them still ignore to react to help environment because they feel that the effect of environment today won’t affect their daily live. “I think the environment doesn’t involve and effect my life” - Nadda, 25. Some respondents feel that they no need to concern environment.

Actual Behavior toward plastic bags reduction and influence factor

Actual behavior, they receive plastic bags because it is convenience for them to carry items when buying at supermarket .None of them carry the own bags to supermarket stores to receive the discount because they will feel distinctive with other people because many people ask for plastic bags as a norm. “I feel uncomfortable to use my own bag at pubic place to get the discount” – Arisara, 35.

Influence factor, not rejecting plastic bags group feel that the attractive rewards from supermarket stores can motivate them to have a chance to rejecting plastic bags. “Offer a high point in membership card is attractive for me”- Arisara, 35. By the way, most of them admit that charging bag fee can influence to reject plastic consumption but they feel that it will solve problem only short term.

“No Plastic Bag” shopping day’s campaign

Most of them don't aware of "No Plastic Bag" shopping day at supermarket store. Some respondents think that this campaign is an ordinary campaign from each supermarket stores. "I don't know that this campaign already existing in the market and didn't know this campaign came from government". – Nadda, 25. Most of respondents suggest that government should promote this campaign more by using mass media or online to gain more awareness.

"Behavior of Rejecting Plastic bags" group

Attitude towards environment

Similar with not rejecting plastic bags they understand the situation of environment today and feel that environment became worst. These people are more concerned about their behavior affect environment. For example, turn off the light after using, buying recycle products, separate recycle trash and etc. "I try to switch off the light to save electric consumption or always separate recycle trash" – Kittituch, 30.

Actual Behavior toward plastic bags reduction and influence factor

Actual behavior, they reject to receive plastic bags because they willing to reduce waste and buying with small items. They trend to use their own bags during shopping and don't afraid to be distinctive with others because they have a strong attitude to help environment. They feel good and proud when rejecting plastic bags during shopping and also have a good attitude towards any party which persuading people to reduce plastic bags reduction consumption. "I feel good every time when I rejecting plastic bags" – Sujitra, 31.

Influence factors, most of them feel that the rewards scheme from retailer not much influence them to reject plastic bags because they believe that their behavior came from education and good reference group ex, friend, family and society. "I usually reject plastic bags because my parent teach me" - Kitituch, 30.

"No Plastic Bag" shopping day's campaign

Similar with the first group, they also don't aware that his campaign already existed in the market even they joined this campaign every time. They feel the rewards from each retailers in this campaign is very good and attractive for

not rejecting plastic bags group but government should take seriously action to promote and increase more awareness of this campaign. They suggest that by using rewards or scheme is the short term solution, government should find the way to increase rejecting behavior in long term ex, educate people about environment today or roadshow and etc. “I think that this campaign is very good but I worry that it is only short term motivation” – Kittituch, 35.

To summarize in-depth interview part, demographic has impact on consumption plastic bags and the attitude towards environment has the effect of behavioral. Therefore, using questionnaire survey is required to prove the assumption of the target respondents.

4.1.3 Observation

The “No Plastic Bag” shopping day campaign from each supermarket stores as the followings:

1. Tesco Lotus and Tops offers extra points in member card when consumers reject to receive plastic bag or bring their own reusable bags.
2. Big C offers price discount 1 Baht per 200 baht purchase items in Big C when consumer bring their own reusable bags.
3. Central Marketing Group persuades consumers to donate 1 Baht per sales slip when receiving plastic bags.
4. The Malls group persuades consumers to donate their money to environment organization when receiving plastic bags.
5. Robinson department store offer 10 points for “The 1 Card”.

4.2 Quantitative Results

Quantitative Research Survey

The quantitative questionnaire (Appendix A) was distributed on the 15th March 2016 by online survey. The survey was finish on 31th march 2016 for data collected input.

Respondents profile and characteristic as following;

Part 1: Analyze the demographic, bags reduction behavior and factors of rejecting and not rejecting plastic bags. (Appendices B) (n = 214)

The gender characteristics of the respondents, female contribute 56% of the data (n = 121) and male contribute 44% of the data (n = 93). The education level are master's degree level which contribute 121 persons (56.5%), Bachelor's degree contribute 81 persons (37.9%). Only 7 persons (3.3%) is high school, 4 persons (1.9%) is associate degree and 1 person (0.5%) is PHD level. The majority of age between 26-40 years old contribute 80.4% (n = 172), age between 18-25 years old contribute 10.7% (n = 23), age between 41-55 years old 6.5% (n = 14) and age between 56 or higher contribute 2.3% (n = 5).

Fore household income, more than 100,000 baht contribute 26.2% (n = 56), less than 40,000 baht contribute 26.2% (n = 56), 40,001 – 60,000 baht contribute 20.1% (n=43), 60,001 – 80,000 baht contribute 17.8% (n = 38) and 80,001 – 100,000 baht contribute 9.8% (n=21).

For frequency shopping at department stores, twice a week contribute 40.7% (n=87), everyday contribute 31.8% (n=68), once a week contribute 22.9% (n= 49) and once a month 4.7% (n=10).

Table 4.1 Summary of Type of bag reduction group among respondents (n = 214)

Type of bag reduction group	N	%
Not Rejecting Plastic Bags	77	35.6%
Sometime Reject Plastic Bags	79	36.6%
Rejecting Plastic Bags	58	26.9%

For total 214 respondents are divided into 3 groups which are 77 (35.6%) for Not rejecting plastic bags, 79 (36.6%) are sometime reject plastic bag and 58 (26.9%) are rejecting plastic bags.

Table 4.2 Summary the factors of receiving plastic bags for Not rejecting plastic bags group and sometime reject plastic bags group (n=156)

Factors	Unimportant	Somewhat Important	Quite Important	Very Important	Extremely Important	Mean	SD	Rank
Free	50	21	29	21	35	2.80	1.55	6
Convenience	7	20	30	46	53	3.75	1.18	1
Light Weight and easy to carry	16	20	41	40	39	3.42	1.27	3
Reusable	14	27	32	35	48	3.48	1.32	2
Attractive Design	86	30	21	10		1.88	1.20	7
No need to plan buying lists	25	33	23	30	45	3.23	1.46	4
Large size	29	35	38	32	22	2.89	1.31	5

Table 4.2 represents the factors why respondents still consume plastic bags while shopping at supermarket stores. Respondents are asked to rate the important level of each factors. By the result, respondents rate convenience as the most important factor (mean = 3.75), reusable (mean = 3.48), light weight and easy to carry (mean = 3.42), No need to plan buying lists (mean = 3.23), the large size of plastic bags (mean = 2.89), plastic bag is free (mean = 2.80) and the least factor is attractive design (mean = 1.88).

Table 4.3 Summary the factors of rejecting plastic bags for rejecting plastic bags group (n=58)

Factors	Unimportant	Somewhat Important	Quite important	Very important	Extremely important	Mean	SD	Rank
Get Incentive/Rewards	34	7	4	8	5	2.07	1.42	6
Save Natural Resources	3	7		14	26	3.91	1.24	2
No extra items to carry	7	7	13	12	19	3.50	1.37	4
Reduce waste	3	6	3	14	32	4.13	1.22	1
Have own bags	13	4	15	8	18	3.24	1.52	5
Small size of items	5	8	4	14	27	3.86	1.36	3

Table 4.3 represents the factors why respondents always reject plastic bags while shopping at supermarket stores. Respondents are asked to rate the important level of each factors. By the result, respondents rate reduce waste as the most important factor (mean = 4.10), save natural resources (mean = 3.91), small size of items when shopping (mean = 3.86), no extra items to carry (mean = 3.50), have the own bags (mean = 3.24), and the least factor is get incentive or rewards (mean = 2.07).

Part 2: Analyze the “No plastic bags” shopping days campaign on each 15th and 30th in each month and analyze satisfaction rate of each campaign from each department stores.

From Appendix C, the participation rate of 214 respondents as following. Most of respondents never participate in this campaign 69.6% (n = 149), rarely 15.9% (n=34), sometimes 9.8% (n=21), very often 3.3% (n=7) and always 1.4% (n=3).

Table 4.4 Summary of campaign from each supermarket stores. (n = 65)

Campaign from each super market stores	N	%	Rank
TESCO LOTUS offer "Green points" from 20 points to 170 points when rejecting plastic bags.	13	20.0%	3
BIGC offer 1 Baht discount when reject plastic bags.	4	6.2%	5
Tops Supermarket offer 8 points of "The 1 Card" when rejecting plastic bags.	19	29.2%	2
The Mall persuades to donate money to environment project when receiving plastic bags.	2	3.1%	6
Robinsons offer 10 points of "The 1 Card" when rejecting plastic bags.	7	10.8%	4
Others	20	30.8%	1

Respondents have participated in others campaign 30.7% (n = 20) from other supermarket stores. However, Tops supermarket is the second campaign which respondents participated in 29.2% (n=19), TESCO Lotus 20% (n = 13), Robinson 10.7% (n = 10.7%), BIGC 6.1% (n=4) and The Mall 3.0% (n=2).

Table 4.5 Summary of satisfaction rate of each campaign from supermarket stores (n=45)

Supermarket Stores	Not at all like	Not much like	Natural	Somewhat Like	Very much like	Mean	SD	Rank
Lotus		1	10	1	1	3.15	0.69	3
BIGC		1	3			2.75	0.50	4
TOPS			10	2	7	3.84	0.96	1
The Mall	1		1			2.00	1.41	5
Robinsons			6		1	3.28	0.76	2

Figure 4.5, the highest satisfaction score is TOPs supermarket which mean is 3.84, Robinson mean is 3.28, Lotus mean is 3.15, BigC mean is 2.75 and the lowest satisfaction score is The Mall mean is 2.00.

Part 3: Compare mean score among different group by gender, education level and age group and also test the significant between of mean difference.

Table 4.6 Summary of plastic bag reduction behavior by gender (n = 214)

Bag reduction in supermarket in past 6 months	Mean		t-statistic	P-Value (Sig 2-tailed)
	Male (n = 93)	Female (n = 121)		
Gender	2.58	2.97	2.89	0.00

Female respondents have a higher average of plastic bag reduction behavior than male. The mean of female is 2.97 while the mean of male is 2.58. The difference between means of gender is significant. ($t = -2.88, p < 0.05$, two tailed)

Table 4.7 Summary of plastic bag reduction behavior by Education (n = 202)

Bag reduction in supermarket in past 6 months	Mean		t-statistic	P-Value (Sig 2-tailed)
	Bachelor's degree (n = 81)	Master's degree (n = 121)		
Education	2.67	2.90	1.63	0.11

Respondents with master's degree and above have a higher mean (2.90) than respondents with bachelor degree (2.67). However, means for these two groups aren't significant. ($t = -1.629, p > 0.05$, two tailed)

Table 4.8 Summary of plastic bag reduction behavior by Age (n = 214)

Bag reduction in supermarket in past 6 months	Mean				t-statistic	P-Value (Sig 2-tailed)
	18-25 (n=23)	26-40 (n=172)	41-55 (n=14)	56 or higher (n = 5)		
Age Group	2.73	2.84	2.74	1.80	1.87	0.14

Respondents which age 26-40 years old have a higher mean (2.84) than other groups. However, means for these fourth groups aren't significant. ($t=-1.869, p > 0.05$, two tailed)

Part 4: Compare means score among difference between three groups of type of bag reduction by influential factors encourage rejecting plastic bags and attitude & behavior towards environments.

Table 4.9 Summary of different between groups of factors encourage reject plastic bags.

No.	Statements	Mean			t-statistic	P-Value (Sig 2-tailed)
		Not Rejecting group N = 77	Sometime Rejecting group N = 79	Rejecting group N = 58		
1	Offer a membership card points	3.33	3.30	3.15	0.44	0.64
2	Give rebate when bringing own shopping bags	3.92	3.82	3.82	0.18	0.83
3	Persuade consumers to donate money to environmental projects	2.88	3.31	3.31	3.27	0.04

4	Give away reusable bag.	3.80	3.72	3.65	0.26	0.78
5	Let store clerks ask shoppers need plastic bags or not.	3.01	3.29	3.25	1.23	0.29
6	Sell reusable bag with special discount	2.96	2.94	2.89	0.04	0.96
7	Charge bag fee	4.10	4.24	4.51	0.29	0.75

From the result, mean of the statement “*Persuade consumers to donate money to environmental projects*” was significantly different between three groups of respondents ($F= 3.266, p < 0.05$). It meant that three groups give the donate money to environmental projects differently , from mean score, rejecting group (3.31)and sometime rejecting group (3.31) think that donate money to environmental projects are influential than not rejecting group (2.88).

To summarize, all respondents did not think differently in other statements. They thought that “Charge bag fee” is the most influential factors above 4.00 to motivate them to rejecting plastic bags when shopping. While “Sell reusable bag with special discount” is the less influential factors motivate them to rejecting plastic bags, even rejecting group rate has the lowest mean score 2.89.

Table 4.10 Summary of different between groups for attitude towards environmental awareness.

No.	Statements	Mean			F-statistic	P-Value (Sig 2-tailed)
		Not Rejecting group N = 77	Sometime Rejecting group N = 79	Rejecting group N = 58		
1	The balance of nature is very delicate and easily upset by human activities	4.06	4.24	4.51	3.69	0.03
2	The earth is like a spaceship with only limited room and resources.	3.94	4.16	4.25	1.74	0.18
3	Plants and animals do not exist primarily for human use.	3.54	3.46	3.70	0.72	0.49
4	Modifying the environment for human use seldom causes serious problems.	2.48	1.94	1.87	4.45	0.01
5	There are no limits to growth for nations like the U.S.	3.41	3.29	3.53	0.71	0.49
6	Humankind was created to rule over the rest of nature.	2.88	2.34	2.37	3.78	0.24
7	I turn off the light when not use.	3.96	4.05	4.25	1.55	0.21
8	I walk, bike or using transportation to the places.	2.93	3.07	3.29	1.74	0.18
9	I buy products made from recycle materials.	2.88	2.77	3.18	2.74	0.07
10	I worry about environment issue today.	3.84	3.97	4.27	3.37	0.04

11	I try to avoid buying product that will harmful environment.	3.36	3.48	3.79	3.10	0.05
----	--	------	------	------	------	------

From the result, mean of the statement *“The balance of nature is very delicate and easily upset by human activities”* was significantly different between three groups of respondents ($F= 3.69$, $p < 0.05$). It meant that three groups thought about the balance of nature is very delicate differently, from mean score, rejecting group (mean = 4.51) thought nature is very delicate and easily upset more than sometime rejecting (mean = 4.25) and not rejecting group (mean = 4.06) thought. The result of statement *“Modifying the environment for human use seldom causes serious problems”* was significantly different between three groups of respondents ($F = 4.45$, $p < 0.05$). It meant that three groups thought differently that human actions don't cause serious problems to the environment. From mean score, not rejecting group (mean = 2.48) think human actions don't cause problems to environment more than sometime rejecting group (mean = 1.94) and rejecting group (mean = 1.87). The result of statement *“I worry about environment issue today”* was significantly different between three groups of respondents ($F= 3.37$, $p < 0.05$). It meant that three groups thought differently about environmental issue, from mean score, rejecting group (mean = 4.27) worry in environment issue more than sometime rejecting group (mean = 3.48) and not rejecting group (mean = 3.84). The last result is statement *“I try to avoid buying product that will harmful environment”* was significantly different between three groups of respondents ($F= 3.10$, $p < 0.05$). It meant that three groups behavior differently about avoid for buying product that harmful environment. From mean score, rejecting group (mean = 3.79) tend to avoid buying product that will harmful environment more than sometime rejecting group (mean = 3.48) and not rejecting group (mean = 3.36).

To summarize, all respondents did not think differently in other statements. They agree with the attitude that *“The balance of nature is very delicate and easily upset by human activities”* with the mean above 4.00. From statement number 1-6, all three groups have a good attitude and understand the situation of environment today. From

behavior statement number 7-11, “ I turn off the light when not use” is the proper behavior with the highest mean score above 3.95 and these three groups have an opportunity to avoid buying that will harmful environment with statement number 11 with mean above 3.00.



CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

From the research finding and data analysis, the results can be concluded that “No Plastic Bag” shopping day has a very low awareness and not quite successful. Most of consumers didn’t notice that this campaign existing in the market and was held by government which collaborates with the big chain supermarket stores to reduce plastic bags consumption. Because of there are only few website and point of purchase at each supermarket stores for communications. However, the rewards that provide from each supermarket stores are the right approach to motivate consumers to rejecting plastic bags. Most people already knew and became awareness of environmental today but there are some people think that the affect is far away from their daily life.

This research summarized key success factors with implications for plastic bags reduction campaign. The key success factors based on qualitative and quantitative results as follows;

5.1 Key success factors of “No Plastic Bag” campaign

- Benefits from retailer: from both in-depth interview and survey found the benefits that provide from each retailer can motivate them to reduce plastic bags consumption both that always reject plastic bags and not rejecting plastic bags. From the survey, giving rebate back when consumers have their own bags is the attractive scheme for consumers. However, charging bag fee shown is the most influence factors to encourage them to reject plastic bag because consumers don’t want to pay more extra money for the bag. But charging bag fee will increase negative impact to consumers and they will have negative perception towards retailer. Because of other retailers won’t charge bag fee. To implement charging bag fee, government should motivate all retailers apply together by increasing tax fee to retailers who still provide plastic bags.

- Education: from both in-depth interview and survey found that the bag reduction behavior can educate from academic theory or families background. The education can solve plastic bags consumption from the insight. From rejecting group

found that their rejecting behavior came from inside motivation than outside motivation because they have a positive attitude and concern more about environmental. From the results, most of people aware about environment today but some people think that it won't affect to their daily life. Therefore, retailer & government should take the actions to educate people to understand the impact of consumption plastic bags to their daily life by create the roadshow campaign around Bangkok area.

- Awareness and Reference group: from both in-depth interview and survey found that “No plastic bag” shopping bag is not quite successful because it has a low awareness, thus marketer should promote and communicate through mass media (for example, newspaper, magazines and radio etc.) and social networking (for example, Facebook, twitter, Youtube and other online channel). Online channel is suitable for communications because nowadays consumer became familiar with online device. Moreover, being a sponsor in some activated related to consumer lifestyle such as running day, car free day, etc. The communication should target on female because the results show that female segment has more opportunity to rejecting plastic bags than male because of their lifestyle that prefer shopping at supermarket. Using a reference group is another choice, from the results show that some not rejecting plastic bag group think that using their own bag in the public areas make them distinctive from other people. Because of Thai always receive plastic bags as a norm during their shopping. Marketer should consider using good reference people, ex famous celebrity in order to encourage people to follow their reference group and also can increase awareness of the campaign as well.

5.2 Research Utilization

This independent study would useful for the current retailers and new retailers which plan to promote plastic bags reduction campaign to improve their strategy to motivate consumers to rejecting plastic bags when shopping at supermarket stores.

5.3 Limitations

There are limitations in this report. First, the limitation of time constraint on data collection and the limitation of sample group who live in Bangkok. This sample size might not represent the whole entire population.

REFERENCES

- Cherrier, H. (2006). Consumer identity and moral obligations in non-plastic bag consumption: a dialectical perspective. *International Journal of Consumer Studies*, 30(5), pp.515-523.
- Earth-policy.org, (2015). *Plan B Updates - 123: The Downfall of the Plastic Bag: A Global Picture | EPI*. [online] Available at: http://www.earth-policy.org/plan_b_updates/2014/update123 . [Accessed 26 Oct. 2015].
- Kotler, P. (2000). *Marketing management*. Upper Saddle River, N.J.: Prentice Hall.
- Lubin, David A. and Daniel C. Esty. (2010) "The Sustainability Imperative". *Harvard Business Review*. N.p., 2010. Web. 7 May 2016.
- Marconi, J. (2002). *Cause marketing*. Chicago: Dearborn Trade Pub.
- Miller, K. (2011). *STUDENT ATTITUDE AND ACTION REGARDING THE SINGLE-USE PLASTIC SHOPPING BAG ON THE UNIVERSITY OF ALABAMA CAMPUS*. Master of Science in the Department of Geography. Alabama.
- Pcd.go.th, (2015). *PCD: Municipal Waste Management; Manual for Local Administration*. [online] Available at: http://www.pcd.go.th/info_serv/waste_garbage.html [Accessed 7 Oct. 2015].
- PCL., P. (2015). *Shoppers to pay for plastic bags*. [online] <http://www.bangkokpost.com>. Available at: <http://www.bangkokpost.com/news/general/694528/shoppers-to-pay-for-plastic-bags> [Accessed 26 Oct. 2015].
- Sharp, A., Høj, S. and Wheeler, M. (2010). Proscription and its impact on anti-consumption behaviour and attitudes: the case of plastic bags. *Journal of Consumer Behaviour*, 9(6), pp.470-484.
- Soyka, A. P. (2012). *Creating a Sustainable Organization: approaches for Enhancing Corporate Value through Sustainability*. New Jersey: FT Press.
- Young, T. S., Kawalroop, K.D. (2013). *Sustainability: Essentials for Business*. California
- Anon,(2015).[online] Available at: <http://www.environmentalleader.com/2013/11/27/sustainability-leads-to-costsavings-revenue-growth/> [Accessed 17 Dec. 2015].



APPENDICED

Appendices A Questionnaire Design

SURVEY QUESTIONNAIRE

The Study of consumer attitudes towards “No Plastic Bag” shopping day at supermarket stores in Bangkok.

Instructions

- This survey is part of course MK 703: Independent Study of Master Degree in Marketing (International Program), MIM, Thammasat University.
- The questionnaire seeks to find out the relationship between attitudes toward environment issue and rejecting plastic bags behavior in supermarket stores where Bangkok is the frame of research location. To evaluate the “No Plastic Bag” shopping days that provides from each supermarket stores and measures the level of satisfactions of each campaign.
- In most cases, please choose the answer that applies most to you (choose only one number for each statement or question).
- There is no “right” or “wrong” answers, we are simply interested in your opinion, which is important to us. The survey will require approximately 5-10 minutes completing. Please answer all questions truthfully. Your responses shall be kept confidential.

Thank you for your cooperation.

*****Begin of Questionnaire*****

Part 1: Screening Questions

In order to check if you are eligible for the survey, please answer the few questions below

1: Are you age between 18-60 ? ___Yes ___No

2: Do you live in Bangkok? ___Yes ___No

3: Do you usually shopping in supermarkets? ___Yes ___No

If respondents answer is “NO” in either one of the above questions, you characters are not matching our sample requirements.

Thank you very much for your time and terminate the interview.

Part 2: Actual Behaviors of respondents about bag reduction in supermarket stores.

4. How often do you reject plastic bags when shopping at supermarkets in past 6 months?

(Please circle a number for each statement which best reflects your responses)

1	2	3	4	5
Never	Rarely	Sometimes	Very Often	Always

5. Please rate the reasons why you would **“Receiving plastic bag”** when shopping at supermarkets?

(Rate Unimportant 1 – 5 Extremely Important)

Sentences	Unimportant	Somewhat Important	Quite Important	Very Important	Extremely Important
1. Free					
2. Convenience					
3. Light Weight and easy to carry					
4. Reusable					
5. Attractive Design					
6. No need to plan buying lists					
7. Large Size					

6. Please rate the reasons why you would **“Rejecting plastic bag”** when shopping at supermarkets?

(Rate Unimportant 1 – 5 Extremely Important)

Sentences	Unimportant	Somewhat Important	Quite Important	Very Important	Extremely Important

1. Get Incentive / Rewards					
2. Save Natural Resources					
3. No extra Items to carry					
4. Reduce waste					
5. Have my own bags					
6. Small size of items					

Part 3: Evaluate the “No Plastic Bag” shopping days and incentive provide from each supermarket stores.

7. Have you ever participated in “No Plastic Bag” shopping days on the 15th and 30th of each month?

(Please circle a number for each statement which best reflects your responses)

1 Never	2 Rarely	3 Sometimes	4 Very Often	5 Always
------------	-------------	----------------	-----------------	-------------

8. From which supermarket stores campaign have you participated in "No Plastic Bag" shopping days?

_____ TESCO LOTUS offer "Green point" increase point from 20 points to 170 points when reject plastic bags or bring own bags.

_____ BIGC Store offer price discount 1 baht for every 200 baht purchase items in Big C when bring your own bag or reject plastic bags.

_____ Tops Supermarket offer 8 points of "The 1 Card" when rejecting plastic bags.

_____ The Mall group persuades consumers to donate money to environmental project when receiving plastic bag.

_____ Robinson Department Store offer 10 points "The 1 Card".

_____ Never participated the above campaigns.

9. Please rate your satisfaction score for the campaigns that you participated in

9.1 TESCO LOTUS offer "Green point" increase point from 20 points to 170 points when reject plastic bags or bring own bags.

1	2	3	4	5
Not at all like	Not much like	Neutral	Somewhat like	Very much like

9.2 BIGC Store offer price discount 1 baht for every 200 baht purchase items in Big C when bring your own bag or reject plastic bags.

1	2	3	4	5
Not at all like	Not much like	Neutral	Somewhat like	Very much like

9.3 Tops Supermarket offer 8 points of "The 1 Card" when rejecting plastic bags.

1	2	3	4	5
Not at all like	Not much like	Neutral	Somewhat like	Very much like

9.4 The Mall group persuades consumers to donate money to environmental project when receiving plastic bag.

1	2	3	4	5
Not at all like	Not much like	Neutral	Somewhat like	Very much like

9.5 Robinson Department Store offer 10 points "The 1 Card"

1	2	3	4	5
Not at all like	Not much like	Neutral	Somewhat like	Very much like

				like
--	--	--	--	------

10. How influential levels are each of the following factors to encourage you to reject plastic bag when shopping at supermarkets?

(Please rate 1 = Not at all influential, 2 = somewhat not influential, 3 = Neutral, 4 = somewhat influential 5 = very influential)

Sentences	Not at all influential	Somewhat not Influential	Neutral	Somewhat Influential	Very influential
1. Offer a Membership Card points					
2. Give rebate when bringing own shopping bags or self-carry					
3. Persuade consumers to donate some money to environmental projects.					
4. Give away reusable or clothes bag.					
5. Let store clerks ask shoppers need plastic bags or not					
6. Sell reusable bag with special discount					

when rejecting plastic bags.					
7. Charge bag fee for each plastic bags userebad.					

Part 4: Attitude towards environment awareness.

11. Please circle a number for each statement which reflects your responses where 1 = strongly disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree)

Sentences	Strongly disagree	Disagree	Neutral	Agree	Strongly Agree
1. The balance of nature is very delicate and easily upset by human activities.					
2. The earth is like a spaceship with only limited room and resources.					
3. Plants and animals do not exist primarily for human use.					
4. Modifying the environment for human use seldom causes serious problems.					
5. There are no limits to growth for nations like the U.S.					
6. Humankind was					

created to rule over the rest of nature.					
7. I turn off the light when not use.					
8. I walk, bike or using transportation to the places.					
9. I buy products made from recycle materials.					
10. I worry about environment issue today.					
11. I try to avoid buying product that will harmful environment.					

Part 5: Demographic

1. Age ____ years old

2. Gender

___ Male ___ Female

3. Marital Status

___ Single ___ Married, No children ___ Married, with Children

4. Education Level

___ High School ___ Certificates ___ Bachelor ___ Master ___ PHD

5. Household Income per month

___ Less than 40,000 baht

___ 40,000-60,000 baht

___ 60,001-80,000 baht

___ 80,001-100,000 baht

___ More than 100,000 baht

6. Frequency in Shopping at Department Stores

- Everyday
- Twice a Week
- Once a Week
- Once a month
- Once in a couple months

*****End of Questionnaire*****



Appendices B Summary of respondents' profile

Respondent Demographic (N = 214)		N	%
Gender	Male	93	44.0
	Female	121	56.0
Education	High School	7	3.3
	Associate Degree	4	1.9
	Bachelor Degree	81	37.9
	Master Degree	121	56.5
	PHD	1	0.5
Age	18-25	23	10.7
	26-40	172	80.4
	41-55	14	6.5
	56 and Above	5	2.3
Household Income	Less Than 40,000 baht	56	26.2
	40,001 – 60,000 baht	43	20.1
	60,001 – 80,000 baht	38	17.8
	80,001 – 100,000 baht	21	9.8
	More than 100,000 baht	56	26.2
Marital Status	Single	164	76.6
	Married No Children	20	9.3
	Married with Children	30	14.0
Frequency of shopping at department stores	Everyday	68	31.8
	Twice a Week	87	40.7
	Once a Week	49	22.9
	Once A Month	10	4.7

Appendices C Summary of Frequency Distribution Tables

Participation in "No Plastic Bags" Shopping on 15th and 30th

	Frequency	Percent	Cumulative Percent
Never	149	69.0	69.6
Rarely	34	15.7	85.5
Sometimes	21	9.7	95.3
Very Often	7	3.2	98.6
Always	3	1.4	100.0

Appendices D ANOVA Results

Result of One Way ANOVA for attitude and behavior toward environment						
		Sum of Squares	df	Mean Square	F	Sig.
How often you reject plastic bags in 6 months? By Age	Between Groups	5.403	3	1.801	1.869	.136
	Within Groups	202.354	210	.964		
	Total	207.757	213			

Result of One Way ANOVA for Factor encourage to reject plastic bags

		Sum of Squares	df	Mean Square	F	Sig.
Offer a membership card points	Between Groups	1.201	2	.600	.444	.642
	Within	285.533	211	1.353		
	Total	286.734	213			
Give rebate when bringing own shopping bags	Between Groups	.467	2	.234	.184	.832
	Within	267.327	211	1.267		
	Total	267.794	213			
Persuade consumers to donate money to environmental projects	Between Groups	9.148	2	4.574	3.266	.040
	Within	295.450	211	1.400		
	Total	304.598	213			
Give away reusable bag.	Between Groups	.763	2	.381	.255	.775
	Within	315.055	211	1.493		
	Total	315.818	213			
Let store clerks ask shoppers need plastic bags or not.	Between Groups	3.481	2	1.741	1.231	.294
	Within	298.412	211	1.414		
	Total	301.893	213			
Sell reusable bag with special discount	Between Groups	.150	2	.075	.044	.957
	Within	360.060	211	1.706		
	Total	360.210	213			
Charge bag fee	Between Groups	.870	2	.435	.287	.751
	Within	320.014	211	1.517		
	Total	320.883	213			

Result of One Way ANOVA for attitude and behavior toward environment						
		Sum of Squares	df	Mean Square	F	Sig.
The balance of nature is very delicate and easily upset by human activities	Between Groups	6.785	2	3.393	3.698	.026
	Within Groups	193.588	211	.917		
	Total	200.374	213			
The earth is like a spaceship with only limited room and resources.	Between Groups	3.535	2	1.767	1.744	.177
	Within Groups	213.774	211	1.013		
	Total	217.308	213			
Plants and animals do not exist primarily for human use.	Between Groups	1.931	2	.966	.715	.490
	Within Groups	284.779	211	1.350		
	Total	286.710	213			
Modifying the environment for human use seldom causes serious problems.	Between Groups	15.668	2	7.834	4.453	.013
	Within Groups	371.173	211	1.759		
	Total	386.841	213			
There are no limits to growth for nations like the U.S.	Between Groups	2.003	2	1.002	.711	.493
	Within Groups	297.436	211	1.410		
	Total	299.439	213			
Humankind was created to rule over the rest of nature.a	Between Groups	13.657	2	6.829	3.778	.024
	Within Groups	381.375	211	1.807		
	Total	395.033	213			
I turn off the light when not use.	Between Groups	3.002	2	1.501	1.554	.214
	Within Groups	203.801	211	.966		
	Total	206.804	213			
I walk, bike or using transportation to the places.	Between Groups	4.249	2	2.125	1.736	.179
	Within Groups	258.237	211	1.224		
	Total	262.486	213			
I buy products made from recycle materials.	Between Groups	6.043	2	3.022	2.739	.067
	Within Groups	232.761	211	1.103		
	Total	238.804	213			
I worry about environment issue today.	Between Groups	6.316	2	3.158	3.371	.036
	Within Groups	197.665	211	.937		
	Total	203.981	213			
I try to avoid buying product that will harmful environment.	Between Groups	6.326	2	3.163	3.103	.047
	Within Groups	215.057	211	1.019		
	Total	221.383	213			

Appendices E T-Test Results

Results of Independent Sample T-Test by Education (Bachelor & Master Degree)										
		Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	of the Difference	
									Lower	Upper
How often you reject plastic bags in 6 months?	Equal variances assumed	.382	.537	-1.629	200	.105	-.23008	.14127	-.50864	.04848
	Equal variances not assumed			-1.628	171.427	.105	-.23008	.14132	-.50904	.04888

Results of Independent Sample T-Test by Gender										
		Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	of the Difference	
									Lower	Upper
How often you reject plastic bags in 6 months?	Equal variances assumed	12.664	.000	-2.949	212	.004	-.39456	.13380	-.65831	-.13081
	Equal variances not assumed			-2.887	180.113	.004	-.39456	.13665	-.66419	-.12493

BIOGRAPHY

Name	Mr. Cholavith Jirawanchaikul
Date of Birth	1th September 1985
Educational Attainment	Bachelor of Business Administrative Marketing Program ABAC University
Work Position	Marketer Hitachi Sales Thailand Co.,Ltd.

