

FACTORS INFLUENCE CONSUMER ACCEPTANCE TOWARDS THE
PROHIBITION OF CONVENTIONAL PLASTIC BAG IN CITY CENTRE OF
MELAKA

CHAN JI YAN

Faculty of Technology Management and Technopreneurship
UNIVERSITI TEKNIKAL MALAYSIA MELAKA

SUPERVISOR’S APPROVAL

‘I hereby declared that I had read through this thesis and in my opinion that this thesis is adequate in terms of scope and quality which fulfill the requirements for the award of Bachelor of Technology Management (Technology Innovation)

SIGNATURE :
NAME OF SUPERVISOR : DR. MOHAMMED HARIRI BIN BAKRI
DATE :

SIGNATURE :
NAME OF PANEL : PN. MISLINA BINTI ATAN@MOHD SALLEH
DATE :

**FACTORS INFLUENCE CONSUMER ACCEPTANCE TOWARDS THE
PROHIBITION OF CONVENTIONAL PLASTIC BAG IN CITY CENTRE OF
MELAKA**

CHAN JI YAN

**The thesis is submitted in partial fulfillment of the requirements for the award of
Bachelor of Technology Management (Technology Innovation)**

Faculty of Technology Management and Technopreneurship

(Technology Innovation)

Universiti Teknikal Malaysia Melaka

Jun 2017

DECLARATION OF ORIGINAL WORK

“I declared that this project is the result of my own research except as cited in the references. This research project has not been any degree and is not concurrently submitted in candidature of any other degree.”

Signature :

Name : CHAN JI YAN

Date :

DEDICATION

This research paper is exclusively dedicated to my parents who give me their endless of love, support, motivation and concern when I am conducting this research. Thank you for always being my support and motivation in my life all the time. Finally, I am desired to place on record and my sense of gratefulness to everyone who have lent their helping hand to me in a direct or indirect way. Thank you to everyone.

ACKNOWLEDGEMENT

First of all, I would like to express my deep sense and sincere gratitude to my PSM supervisor, Dr. Mohammed Hariri Bin Bakri because he has spent a lot of time to provide me many necessary guidance, beneficial suggestion, appropriate advices, and motivated concern in completing my final year project and logbook.

Furthermore, I also owe a debt of appreciation to the lecturer who teaches me Research Method, Dr Chew Boon Cheong. He always shares his ideas, valuable experiences and supportable knowledge to help me get a better understanding on conducting a research in a proper way. Besides that, I am also very thankful to Pn Mislina Binti Atan@Mohd Salleh who assigned as my panel during presentation of final year project.

Last but not least, I am also grateful to my family and friends who give me their love, concern and personal support for being my source of motivation in completing the final year project. Finally, I am desired to place on record and my sense of gratefulness to everyone who have lent their helping hand to me in a direct or indirect way.

ABSTRACT

Nowadays, public has begun to emphasize on the environmental issue, especially for the pollution of plastic waste. Thus, prohibition of conventional plastic bag is a public concern that needs to be discussed in deeply. Due to lack of past of published researches were found, so this is a good time to conduct a research that identify the factors influence the consumer acceptance towards the prohibition of conventional plastic bag. Based on Theory of Planned Behavior (TPB), the main objective of this research is to identify the factors that influence the consumer acceptance towards the prohibition of conventional plastic bag, including attitude, subjective norm, perceived behavioral control and awareness. This quantitative research is conducted in form of questionnaire within the survey strategy in order to meet this main research objective. Besides that, the questionnaire has been distributed to respondent for data collection in order to analyze and integrate the result findings by using different statistical test of analysis. According to the result findings, this study indicates that all factors (attitude, subjective norm, perceived behavioral control and awareness) have a positive and significant relationship with consumer acceptance towards the prohibition of conventional plastic bag. Besides that, this study shows that subjective norm has the most influence with consumer acceptance towards this green program whereas perceived behavioral control has the least influence with consumer acceptance towards this green program. Furthermore, this study does not only act a reference that provides Malaysian the valuable information, but also contributes some suggestion and recommendation for future researchers who interested for the related topic of environmental issue. Therefore, this study can be conducted deeply and be more comprehensive in the future.

ABSTRAK

Pada masa kini, orang ramai telah memberi penekanan kepada isu alam sekitar, terutamanya bagi pencemaran sisa plastik. Oleh itu, larangan beg plastik konvensional adalah satu kebimbangan awam yang perlu dibincangkan secara mendalam. Disebabkan oleh kekurangan penyelidikan yang diterbitkan, jadi ini adalah masa yang baik untuk menjalankan penyelidikan yang mengenal pasti faktor-faktor yang mempengaruhi penerimaan pengguna ke arah larangan beg plastik konvensional. Berdasarkan Theory of Planned Behavior (TPB), objektif utama dalam kajian ini adalah untuk mengenal pasti faktor-faktor yang mempengaruhi penerimaan pengguna ke arah larangan beg konvensional plastik, termasuk sikap, norma subjektif, kawalan tingkah laku dilihat dan kesedaran. Kajian kuantitatif ini dijalankan dengan bentuk soal selidik untuk memenuhi objektif utama kajian tersebut. Selain itu, soal selidik telah diedarkan kepada responden untuk pengumpulan data supaya menganalisis dan mengintegrasikan keputusan yang dihasilkan daripada kajian ini berdasarkan pelbagai ujian statistik dan analisis. Menurut penemuan hasil kajian ini, kajian ini menunjukkan bahawa semua faktor (sikap, norma subjektif, tanggapan kawalan tingkah laku dan kesedaran) mempunyai hubungan yang positif dan signifikan dengan penerimaan pengguna terhadap larangan beg plastik konvensional. Selain itu, kajian ini menunjukkan bahawa norma subjektif mempunyai pengaruh yang paling besar manakala dilihat kawalan tingkah laku mempunyai pengaruh yang paling kecil dengan penerimaan pengguna terhadap program hijau ini. Selain itu, kajian ini bukan sahaja dianggap sebagai rujukan yang hanya memberi Malaysian maklumat yang bermanfaat, tetapi juga menyumbang beberapa cadangan dan pendapat untuk pengkaji akan datang yang berminat untuk topik yang berkaitan isu alam sekitar. Oleh itu, kajian ini boleh dijalankan secara mendalam dan lebih menyeluruh pada masa hadapan.

TABLE OF CONTENT

CHAPTER	CONTENT	PAGES
	DECLARATION OF ORIGINAL WORK	ii
	DEDICATION	iii
	ACKNOWLEDGEMENT	iv
	ABSTRACT	v
	ABSTRAK	vi
	TABLE OF CONTENT	vii
	LIST OF TABLE	xii
	LIST OF FIGURES	xiii
	LIST OF ABBREVIATION	xiv
	LIST OF APPENDIX	xv
CHAPTER 1	INTRODUCTION	
	1.1 Background of Study	1
	1.2 Problem Statement	4
	1.3 Research Questions	6
	1.4 Research Objectives	6
	1.5 Scope and Limitation	6
	1.5.1 Scope of Study	6
	1.5.2 Limitation of Study	7
	1.6 Significance of Study	7
	1.7 Contribution of Study	8
	1.8 Summary	10

CHAPTER 2	LITERATURE REVIEW	
2.1	Introduction	11
2.2	Overview	11
2.2.1	Consumer Acceptance	12
2.2.1.1	Consumer Behavior	13
2.2.2	No Plastic Bag Day (NPBD) Program	13
2.2.3	Evolution of NPBD Program into Ban on Conventional Plastic Bag Campaign	14
2.2.4	Ban on Conventional Plastic Bag Campaign	14
2.2.5	Conventional Plastic Bag	15
2.2.6	Biodegradable Bag	16
2.3	Theory of Planned Behavior	17
2.4	Factors Influence the Consumer Acceptance Towards the Ban on Plastic Bag	19
2.4.1	Attitude	19
2.4.2	Subjective Norm	20
2.4.3	Perceived Behavioral Control	21
2.4.4	Awareness	22
2.5	Theoretical Framework	23
2.6	Research Hypothesis	25
2.7	Summary	26
CHAPTER 3	RESEARCH METHODOLOGY	
3.1	Introduction	27

3.2 Research Method	27
3.3 Research Design	28
3.3.1 Explanatory Research	29
3.4 Methodological Choice	29
3.4.1 Quantitative Research	30
3.5 Data Sources	31
3.5.1 Primary Data Source	31
3.6 Sampling Design	32
3.6.1 Sample Size	32
3.7 Location of the Research	34
3.8 Research Strategy	34
3.8.1 Survey Research	35
3.8.2 Questionnaires	35
3.8.3 Questionnaires Design	36
3.8.4 Pilot Test	37
3.9 Time Horizon	38
3.10 Validity	39
3.10.1 Internal Validity	39
3.10.2 Construct Validity	39
3.10.3 External Validity	40
3.11 Reliability	40
3.12 Data Analysis	41
3.12.1 Descriptive Statistic	42
3.12.2 Pearson Correlation Coefficient	42
3.12.3 Multiple Regression Analysis	43
3.12.4 Statistical Package for Social Science (SPSS)	44

3.12 Summary	45
CHAPTER 4 RESULT AND DATA ANALYSIS	
4.1 Introduction	46
4.2 Pilot Test	47
4.2.1 Reliability Test	47
4.2.2 Validity Test	49
4.3 Descriptive Analysis	50
4.3.1 Demographic Profile	50
4.3.1.1 Gender	53
4.3.1.2 Race	54
4.3.1.3 Age	55
4.3.1.4 Educational Level	56
4.3.1.5 How often do you obtain plastic bag per day	57
4.3.1.6 What is the next of the plastic bag/(s) you obtained after the first used	58
4.3.1.7 How often do you bring your own carrier bag to put items purchased from store	59
4.3.2 Independent Variable Descriptive Analysis	60
4.3.2.1 Independent Variable I: Attitude	60
4.3.2.2 Independent Variable II: Subjective Norm	61

4.3.2.3 Independent Variable III: Perceived Behavioral Control	62
4.3.2.4 Independent Variable IV: Awareness	63
4.3.3 Descriptive Statistics	64
4.4 Inferential Statistics	65
4.4.1 Pearson Correlation Coefficient	65
4.5 Multiple Regression Analysis	67
4.6 Hypothesis Testing	70
4.7 Summary	75
CHAPTER 5 CONCLUSION AND RECOMMENDATION	
5.1 Introduction	77
5.2 Summary of Findings	77
5.3 Conclusion	80
5.4 Limitation of Study	82
5.5 Significance of Study	83
5.6 Suggestion of Study	84
5.7 Recommendation for Future Research	85
REFERENCE	87
APPENDICES	91
Questionnaire	91
Gantt Chart PSM 1	98
Gantt Chart PSM 2	99

LIST OF TABLES

TABLES	TITLE	PAGES
2.1	Additional Day of ‘No Plastic Bag Day’ Program in whole Melaka	14
3.1	Sample sizes for different sizes of population at a 95 per cent confidence level (assuming data are collected from all cases in sample)	33
3.2	Likert Scale	37
3.3	Cronbach’s Alpha Coefficient Range	41
3.4	Rule of Thumb about Correlation Coefficient Size	43
4.1	Interpretation of Reliability based on Cronbach’s Alpha for Pilot Test	48
4.2	Validity Test based on Pearson Correlation Coefficient for Pilot Test	49
4.3	Demographic Profile of 384 Target Respondents	51
4.4	Descriptive Statistics	64
4.5	Result of Pearson Correlation Coefficient	65
4.6	Strength of Pearson Correlation Coefficient	66
4.7	Model Summary of Multiple Regression	67
4.8	Anova of Multiple Regression	67
4.9	Coefficient of Multiple Regression	68
4.10	Result of Hypothesis Testing	75

LIST OF FIGURES

FIGURES	TITLE	PAGES
2.2	Theory of Planned Behavior (TPB)	17
2.3	Theoretical Framework	24
4.1	Gender	53
4.2	Race	54
4.3	Age	55
4.4	Educational Level	56
4.5	How often do you obtain plastic bag per day	57
4.6	What is the next of the plastic bag/(s) you obtained after the first used	58
4.7	How often do you bring your own carrier bag to put items purchased from store	59
4.8	Independent Variable I (Attitude)	60
4.9	Independent Variable II (Subjective Norm)	61
4.10	Independent Variable III (Perceived Behavioral Control)	62
4.11	Independent Variable IV (Awareness)	63

LIST OF ABBREVIATIONS

ABBREVIATION	TITLE	PAGES
UTeM	Universiti Teknikal Malaysia Melaka	
HDPE	High-density polyethylene	1
LDPE	Low-density polyethylene	1
MPMA	Malaysian Plastics Manufacturers Association	2
MDTCC	Ministry of Domestic Trade, Cooperative and Consumerism	3
NPBD	No Plastic Bag Day	3
TPB	Theory of Planned Behavior	8
UTAUT	Unified Theory of Acceptance and Use of Technology	12
TRA	Theory of Reasoned Action	18
SPSS	Statistical Package for Social Sciences	44

LIST OF APPENDICES

APPENDICES	TITLE	PAGES
A	Questionnaires	91
B	Gantt Chart PSM I	98
C	Gantt Chart PSM II	99

CHAPTER ONE

INTRODUCTION

1.1 Background of Study

Theoretically, plastic bags are made up of natural gas and petroleum (Lajeunesse, 2004). In more scientific term, plastic bags are composed of polyethylene which is made from a sequence chain of ethylene monomers. All of these ethylene monomers can be extracted from the natural gas and petroleum (Cool Australia, 2014). Basically, there are 2 different types of plastic bags are existed in the current market, such as high-density polyethylene (HDPE) and low-density polyethylene (LDPE) (Planet Ark, 2012). Due to demand of consumer, plastic bags have been started to widespread use since 1982 (Morris and Christensen, 2014). In Malaysia, plastic bag plays an important role in carrying goods for Malaysians when making purchases on their shopping trips. The business on retailer sectors usually provide plastic bags to the customers because they are light, cheap, clean and high sustainability to carry many or heavy items when used it during the first time (Jalil, Mian, and Rahman, 2013).

Based on the viewpoint of consumers, free plastic bag should be provided as a general provision to the consumers when they are making purchases. This is because it is considered as a consumer's right and a critical determinant in shopping convenience (Tan and Mehta, 1994). According to Environmental Protection Agency, it estimates that people annually have consumed around 500 billion to trillion plastic bags

everywhere in the whole world (Conserving Now, 2016). According to the Malaysian Plastics Manufacturers Association (MPMA), a Malaysian average consumes around 300 plastic bags per year. Hence, it shows a terrible result which determines around nine billion plastic bags are consumed by Malaysians within a population of 30 million per year (The Star Online, 2016).

Due to enjoy the short term convenience, usage of plastic bag will cause a long term effect to destroy the natural environment and ecosystem around the whole world. This is because plastic waste requires long time to degrade or decompose around 400 until 1000 years when it has been thrown in the landfill. Even though plastic bags have totally degraded in landfill, it also will cause the enormous burden to the environmental impact (Musa et al., 2013). Besides that, the plastic waste will cause problem of air, water and soil pollution. The result shows that plastic waste annually occupied 80% from over 6 million tonnes of rubbish is thrown into the worldwide of ocean. This issue will give the crucial threat to the marine life. Experts demonstrate that over 100,000 sea mammals and 1 million sea birds are annually killed by plastic waste within an estimated 46,000 pieces for every square mile of ocean (Clean Up Australia Ltd, 2010).

Since plastic pollution continues to be a globally enormous obstacle, so total ban on plastic bag is being encouraged to minimize the consumption of plastic bag and eliminate the negative of environmental impact, especially for the marine world. There are many countries have begun this green initiative in the early period of time, especially for Denmark is the oldest country which has started to prohibit of usage of plastic bag in 1993. In Africa, it enforces strictly to widespread bans and charges exist on plastic bag across in the whole region of Africa. Especially for South Africa, Uganda, Somalia, Rwanda, Botswana, Kenya and Ethiopia, all of these cities of Africa have totally prohibit the usage of plastic bag. Due to serious problem of flood was happened between 1988 and 1998, Bangladesh was aware to enforce a strict ban on plastic bag in 2002. In addition, China and Australia have begun to execute ban on plastic bag since 1st June 2008 and October 2008 respectively.

Compared with other countries which strictly enforce prohibition of plastic bag, Malaysian can be considered as a beginner even Malaysia has conducted some steps to reduce the consumption of plastic bag, such as ‘No Plastic Bag Day’ (NPBD) Program. In effort to minimize the plastic bag consumption, the federal government through the Ministry of Domestic Trade, Cooperative and Consumerism (MDTCC) launched the ‘No Plastic Bag Day’ (NPBD) Program throughout Malaysia for each Saturday in 2011. This program aims to reduce the huge consumption of plastic bags and minimize the negative impact on environment. This program has been implemented to nationwide over selected super/hypermarkets, major retailers and major shopping malls every Saturday at customer-end level. The campaign imposes a MYR 20 (USD 0.6) cents charge per plastic bag (MDTCC, 2012).

According to Melaka Green Technology Corporation (2014), ‘Green Technology City State’ blueprint between 2011 and 2020 is established to encourage all Melaka’s citizens to transform Melaka into ‘Green Technology City State’ by 2020. Therefore, prohibition of conventional plastic bag is one of the green initiative would be implemented to create a green city. Previously, all shopping premises in Melaka had enforced the “No Plastic Bag Day” program on Fridays, Saturdays and Sundays only but now Melaka state government has declared to enforce prohibition of conventional plastic bag effective from 1st January 2016. Besides that, Melaka Bio-Technology Corporation has started to supply biodegradable bag which is an eco-friendly product to shopping premises and eateries (The Star Online, 2015).

By implementing total ban on conventional plastic bag, consumers play a critical role for the conjunction of this program and making purchase in groceries, eateries and shopping malls. This is because consumers who have their own responsibility to bring their own recyclable bag or own shopping bag. Malaysian is cited lack of such practices in daily routine (Haron et al., 2005; Ooi et al., 2012). There are several consumer behavioral studies on the impact of reducing usage of plastic bag (Dikgang and Visser 2010), inconvenience (Convery et al. 2007) and anti-consumption behavior and attitudes (Sharp et al. 2010). Therefore, this study can minimize the gaps of previous research on

effectiveness of plastic bag reduction because it aims to identify the factors influence the consumer acceptance towards the prohibition of conventional plastic bag in city centre of Melaka.

1.2 Problem Statement

The prohibition of plastic bag is strictly enforced in various countries in the early period of time, especially for the Denmark which is the first country to enforce the ban on plastic bag in 1993. However, Malaysian now still consumes the plastic bag every day except the day which launches the program of 'No Plastic Bag Day'. According to Ramaswamy and Sharma (2011) states that lack of awareness towards the negative effects of plastic bag used is one of the issues to cause the people still consume the plastic bag. Therefore, Malaysian can be treated that we still has a less awareness of plastic pollution that cause the negative impact of environment in the whole world.

According to Hickman (2009) states that plastic bag is one of the most significant recognizable representations of our modern throwaway culture which means throw it away after the first used. Therefore, this issue builds a bad attitude towards the reduction of plastic bag used. Due to irresponsible of consumer's habit, 90% of plastic bags are thrown away after first usage. Therefore, it results that around 8 billion bags will be turned into plastic waste per year.

According to State Education, Higher Education, Science and Green Technology and Innovation, Datuk Wira Md Yunos Husin states that Melaka has generated around 900 to 1200 tons of waste in landfills in Sungai Udang per day. Based on this result, it examines that each citizen of Melaka average has produced around 1 to 2 kg of waste per day. Consequently, Melaka state government has declared to enforce to total ban on conventional plastic bag and encourage Melaka's citizens to use biodegradable bag

instead of conventional plastic bag in Melaka (Melaka Biotechnology Corporation, 2015).

Due to the enforcement 'No Plastic Bag Day' Program, the consumers' behavior-changing process will be determined the degree of consumer acceptance towards the 'No Plastic Bag Day (NPBD) Program. It will be classified in the 3 kinds of anti-consumer behavior, such as (1) fully anti-consumption (67 %), (2) partial anti-consumption (33 %) and (3) no anti-consumption. The first group of fully anti-consumption behavior represents the positive behavior to participate the program by recycling the shopping bags and bringing their own shopping bags whereas the last group of no anti-consumption behavior represents the negative behavior that dissatisfy to participate the program of 'No Plastic Bag Day' (Zen, Ahamad and Omar, 2013). It involves behavioral change processes that need a specific attitude and knowledge on the subject matter (Hines et al. 1987; Wright and Klyn 1998).

Based on these previous researches, the majority of researchers investigate the behavioral changing process of without using plastic bag, so I would like to make a research which emphasizes the factors that influence the changing of consumer acceptance. Besides that, prohibition of conventional plastic bag has been declared to implement by Melaka state government since 1st January 2016 and I am so proud I have this opportunity to participate this green initiative. Consequently, I am inspired to do this study because this study can be considered as 'new' because this green initiative has been only implemented in state of Melaka less than 1 year. In other words, this research is deserved to be investigated deeply because there are lack of published studies can be found. Therefore, the purpose of this study is to identify the factors influence the consumer acceptance towards the prohibition of conventional plastic bag in city centre of Melaka.

1.3 Research Questions

Specifically, there are 2 major research questions of this study have been formulated:

1. What are the relationship between the influencing factor and consumer acceptance towards the prohibition of conventional plastic bag in city centre of Melaka?
2. What is the most significant influencing factor of consumer acceptance towards the prohibition of conventional plastic bag in city centre of Melaka?

1.4 Research Objectives

1. To identify the relationship between the influencing factor and consumer acceptance towards the prohibition of conventional plastic bag in city centre of Melaka.
2. To examine the most significant influencing factor of consumer acceptance towards the prohibition of conventional plastic bag in city centre of Melaka.

1.5 Scope and Limitation

1.5.1 Scope of Study

This study emphasizes the scope of identifying the factors that influence the consumer acceptance towards the prohibition of conventional plastic bag. There are 4 factors are identified, such as attitudes, subjective norms, perceived behavioral control and awareness. This research has been conducted in Melaka because Melaka is a green

technology city state which has begun to ban on conventional plastic bag in Malaysia since 1st January 2016. This research has been emphasized on the region of city centre of Melaka (area of Melaka Tengah) as the significant location for this research. The target respondents I selected are residents who live in city centre of Melaka. This is because this region covers a higher population and there are a lot of shopping premises, eateries and the others. Therefore, the residents there will have a higher spending power and desire compared with other regions in Melaka. Simultaneously, they also have a higher demand of plastic bag while making a purchase.

1.5.2 Limitation of Study

This study has been conducted systematically based on enormous of related information. However, there are 4 critical limitations are encountered to affect the finding's accuracy of this research. First, the finding of this research has been obtained from a selected sample size cannot represent the overall picture of this study because sample size is only a part from a sizeable population of city centre of Melaka. Second, the researcher assumed that the respondents will provide an honest answer while answering questionnaire. Third, the researcher assumed the respondents have the adequate knowledge to be a part of respondent for primary data collection. Lastly, the researcher assumed that the respondents who have more experiences in handling the research topic when they provide a justifiable answer.

1.6 Significance of Study

No Plastic Bag Day (NPBD) Program has been enforced by Malaysia's government since 2011 and this green program has become a significant public concern of environmental protection in Malaysia. Since the Malaysian has begun to adapt to this