

CONSUMERS BEHAVIORAL INTENTION TO USE BIODEGRADABLE  
PLASTIC BAGS BY USING THEORY OF PLANNED BEHAVIOUR

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This thesis is submitted in partial fulfilment of the requirements for the award of  
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**SUPERVISOR VALIDATION**

I/ We\* hereby declare that have read this works and in my/ our\* this works is sufficient in terms scope and quality for the submission Bachelor of Technopreneurship

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## DECLARATION

This report to fulfilled part of requirements for the award  
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## **DEDICATION**

I would like to dedicate this work to my lovely parents who have given me various supports such as financial and moral support. They also encouraged me to accomplish the task even it is tough and thought me to done it one step at a time. It is also dedicated to my friends who have always encouraged and support me throughout the process of completing this study.

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Deepest thanks and appreciation to my parents, family, friends and other for their cooperation, encouragement and full of support for the report completion, from the beginning till the end. Lastly, I would like to thank everyone who involved directly in the completion of this final year project.

## ABSTRACT

**Purpose** - The purpose of this study is to analyse attitude and behavioural people intention to use biodegradable plastic bags around Melaka by using Theory of Planned Behaviour

**Methodology** - By using questionnaire and respondents has given to who are lived in Melaka. The respondents target is 160 around Melaka Tengah. The researcher used this method because she already has a target sample and the number of respondent and also the list of questionnaire to be distributed.

**Result** - Attitude towards behaviour and Subjective norms are significant effect on Behavioural Intention to use Biodegradable Plastic Bags in Melaka.

**Research Limitations** – The lack of of time, causing researchers could not find more people to assist as the sample.

**Value** - This paper can be a reference or give the best resolution to change consumer perception biodegradable bag to helping Melaka achieve the vision of Melaka green technology state by 2020.

**Keywords** -Theory Planned Behaviour, Melaka State, Biodegradable, Melaka Green Technology

**Paper Type** Research Paper

## **ABSTRAK**

**Tujuan** - Tujuan kajian ini adalah untuk menganalisis sikap dan tingkah laku orang niat untuk menggunakan beg plastik mesra alam sekitar Melaka dengan menggunakan Teori Tingkahlaku Dirancang

**Metodologi** - Dengan menggunakan soal selidik dan responden telah diberikan kepada yang tinggal di Melaka. Responden sasaran adalah 160 sekitar Melaka Tengah. Penyelidik menggunakan kaedah ini kerana dia sudah mempunyai sampel sasaran dan bilangan responden dan juga senarai soal selidik untuk diedarkan.

**Keputusan** - Sikap terhadap tingkah laku dan subjektif norma adalah kesan yang besar ke atas Niat Behavioral untuk menggunakan beg plastik mesra alam di Melaka. Penyelidikan Had - Kekurangan masa, menyebabkan penyelidik tidak dapat mencari lebih ramai orang untuk membantu sebagai sampel.

**Nilai** - kertas ini boleh menjadi rujukan atau memberikan penyelesaian yang terbaik untuk mengubah persepsi pengguna beg mesra alam untuk membantu Melaka mencapai wawasan negeri teknologi hijau Melaka pada tahun 2020.

**Kata kunci** *Kelakuan Planned* -Theory, Melaka State, Biodegradable, Teknologi Hijau Melaka

**Kertas Jenis** Kertas Penyelidikan

## TABLES OF CONTENT

CHAPTER	TITLE	PAGES
	<b>SUPERVISOR VALIDATION</b>	<b>ii</b>
	<b>DECLARATION</b>	<b>iii</b>
	<b>DEDICATION</b>	<b>iv</b>
	<b>ACKNOWLEDGEMENT</b>	<b>v</b>
	<b>ABSTRACT</b>	<b>vi</b>
	<b>ABSTRAK</b>	<b>vii</b>
	<b>TABLE OF CONTENTS</b>	<b>vii</b>
	<b>LIST OF TABLE</b>	<b>xii</b>
	<b>LIST OF FIGURES</b>	<b>xiii</b>
	<b>LIST OF APPENDICS</b>	<b>xiv</b>
<b>CHAPTER 1</b>	<b>INTRODUCTION</b>	
	1.1 Background of the study	1-2
	1.2 Problem Statement	2-3
	1.3 Research Question	3
	1.4 Research Objective	3
	1.5 Scope, Limitation and Key Assumption of Study	4
	1.6 Importance of the Study	4



1.7	Summary	5
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## **CHAPTER 2                    LITERATURE REVIEW**

2.1	Conventional Plastic Bags	6-7
2.2	Effect of Conventional Plastic Bags	7-10
2.3	Ban of Plastic Bag	10-11
2.4	Program No Plastic Day in Malaysia	11-12
2.5	Implement ban of Plastic Bags in Melaka	13
2.6	Introduction of Biodegradable Plastic bags	14
2.7	Type of Biodegradable Plastic Bags	14-15
2.8	Implement Biodegradable Plastic Bags in Melaka	16
2.9	Theory Planned Behaviour	17
2.10	Relate issues with biodegradable plastic bags	
	2.10.1 Attitude towards Behaviour on ‘No Plastic Bags Day’ in Malaysia	18
	2.10.2 Subjective Norms on ‘No Plastic Bags Days’ in Malaysia	18
	2.10.3 Perceived Behavioural Control on ‘No Plastic Bags Day’ in Malaysia	19
2.11	K-Chart	19-20
2.12	Summary	20

## **CHAPTER 3                    RESEARCH METHODOLOGY**

3.1	Introduction	21
3.2	Theoretical Framework	22
3.3	Hypothesis	23

3.4	Research Design	24
3.5	Research Flow Chart	25
3.6	Methodology Choices	26
3.7	Quantitative Research Method	26
3.8	Primary Data	26-27
3.9	Research Approach	28
3.10	Research Time Horizon	29
3.11	Target Population	29
3.12	Sampling Technique	29
3.13	Location of Research	30
3.14	Scientific Canon	30
	3.14.1 Reliability Test	30-31
	3.14.2 Validity	31-32
3.15	Pilot Test	32
3.16	Descriptive Analysis	33
3.17	Multiple Regression Analysis	33
3.18	Summary	34

## **CHAPTER 4**

## **RESULT AND DISCUSSION**

4.1	Introduction	35
4.2	Pilot Test	36-41
4.3	Descriptive Statistics on Demographic	42-50
4.4	Descriptive Statistics on Variables	50
4.5	Scale Measurement	
	4.5.1 Reliability Test	51
4.6	Objective and hypothesis test	
	4.6.1 Pearson Analysis	52-53
	4.6.2 Multiple Regression Analysis	54-59

4.7	Hypothesis Testing	60-61
4.8	Sumamry	62

**CHAPTER 5****CONCLUSION AND RECOMMENDATION**

5.1	Introduction	63
5.2	Summary Statistics Analysis	64-65
5.3	Discussion on Objective and Hypothesis	66-67
5.4	Limitation of Stusy	68
5.5	Recommendation	69
5.6	Conclusion	70
	<b>REFERENCES</b>	71-74
	<b>APPENDICS</b>	75-105

## LIST OF TABLES

TABLE	TITLE	PAGES
4.1	Case Processing of Attitude Behavior	37
4.2	Pilot Test Attitude	37
4.3	Case Processing Subjective Norms	38
4.3	Pilot Test Subjective Norms	38
4.5	Case Processing Perceived Behavior Control	39
4.6	Pilot Test Perceived Behavioral Control	39
4.7	Case Processing Behavioral Intention	40
4.8	Pilot Test Behavioral Intention	40
4.9	Case Processing All Variable	41
4.10	Pilot Test All Variable	41
4.11	Gender of Respondents	43
4.12	Race of Respondents	44
4.13	Age of Respondents	45
4.14	Education Level	46
4.15	Where do you know Biodegradable Plastic Bags	47
4.16	Which Biodegradable Plastic Bags You Know	48

<b>4.17</b>	<b>Best Approach to Know Biodegradable Plastic Bags</b>	<b>49</b>
<b>4.18</b>	<b>Do you Support Ban of Plastic bags</b>	<b>50</b>
<b>4.19</b>	<b>Descriptive Statistics on Variable</b>	<b>50</b>
<b>4.20</b>	<b>Reliability Test</b>	<b>51</b>
<b>4.21</b>	<b>Interpretation of Correlation Coefficient</b>	<b>52</b>
<b>4.22</b>	<b>Pearson Correlation Analysis</b>	<b>53</b>
<b>4.23</b>	<b>Model Summary</b>	<b>54</b>
<b>4.24</b>	<b>ANOVA</b>	<b>55</b>
<b>4.25</b>	<b>Coefficients</b>	<b>56</b>
<b>4.26</b>	<b>Durbin Watson Table</b>	<b>57</b>
<b>4.27</b>	<b>Durbin Watson Test</b>	<b>58</b>
<b>4.28</b>	<b>VIF</b>	<b>59</b>
<b>4.29</b>	<b>Hypothesis and Result</b>	<b>61</b>

## LIST OF FIGURES

FIGURE	TITLE	PAGES
2.1	Conventional Plastic Bags	7
2.2	Causes of Plastic Bags-Wildlife	9
2.3	Causes of Plastic Bags-Cancer	9
2.4	Causes of Plastic Bags-Birth Cancer	10
2.5	Plastic Bags Ban	11
2.6	No Plastic Bags Day in Sarawak	12
2.7	No Plastic Bags Day in Selangor and Penang	12
2.8	Ban of Plastic Bags in Melaka	13
2.9	Melaka Implement Biodegradable Plastic Bags	16
2.10	K-Chart	20
3.1	Theoretical Framework	22
3.2	Research Flow	25
4.1	Gender of Respondents	42
4.2	Race of Respondents	43
4.3	Age of Respondents	44
4.4	Education Level	45
4.5	Where do you Know Biodegradable Plastic Bags	46

<b>4.6</b>	<b>Which Biodegradable Plastic Bags You Know</b>	<b>47</b>
<b>4.7</b>	<b>Best Approach to Know Biodegradable Plastic Bags</b>	<b>48</b>
<b>4.8</b>	<b>Do you Support Ban of Plastic Bags</b>	<b>49</b>

### LIST OF APPENDICES

<b>APPENDIXS</b>	<b>TITLE</b>	<b>PAGES</b>
<b>A</b>	<b>Gantt Chart FYP 1</b>	<b>75</b>
<b>B</b>	<b>Gantt Chart FYP 2</b>	<b>76</b>
<b>C</b>	<b>Output SPSS</b>	<b>77-96</b>
<b>D</b>	<b>Questionnaire</b>	<b>97-103</b>
<b>E</b>	<b>Table of Durbin Watson</b>	<b>104</b>

## CHAPTER 1

### INTRODUCTION

#### 1.1 BACKGROUND OF STUDY

Nowadays, earth are facing of global warming from littering plastic bags by human being. This is a serious problems to earth because the plastic bags made from toxic that can be wasteful and unnecessary way to deplete our oil supply and contribute to CO<sub>2</sub> build up in atmosphere. Plastic bags also can be impacts on wildlife, natural scenery and waste management. From the impacts many of country are ban of plastic bags such as Bangladesh, Perancis, Taiwan and Kanada. Green plastic bags was introduced to replace the conventional plastic bags.

However, Melaka Green Corporation Technology finds other alternative to replace the plastic bags by using biodegradable plastic bags. (Melaka Hari Ini, Jan 2016). Melaka is the first state produces products biodegradable. (Melaka Hari Ini, 2015). Biodegradable plastic bags are make from of organic substance such as starch, corn, cassava and sugarcane. (Jiang et al., 2002). It's degraded though water and carbon dioxide when exposed to microorganisms. (Ying Zheng, 2005). This biodegradable of plastic bags is are made from natural resources can eco-friendly to earth.

This biodegradable plastic bags is the one of alternative to conventional plastic bags. Melaka are ban of plastic bags started 1 January 2016, which all supermarket we used biodegradable plastic bags to replace the current plastic bags. The purpose of this study is to analyse consumer behavioural intention to use biodegradable plastic bags around Melaka by using theory of Planned Behaviour (TPB; Ajzen, 1985) and the



result will to be a reference to helping Melaka achieve the vision of Melaka green technology state by 2020.

This study was conducted by using questionnaire survey. Respondents were obtained from people who are stay in Melaka. It's about 160 respondents were collected. The findings of this model indicated that consumer attitude, subjective norm and perceived behavioural control have significant effect on the behavioural intention to use biodegradable plastic bags.

The main body of this thesis comprises of three chapters. Chapter 1 gives the general overview of plastic bags, biodegradable plastic bags, country that ban plastic bags, theory planned behaviour model and effect plastic bags on earth and wildlife. Chapter 2 explains overall of this study and the real case that happen in others country about ban of plastic bags. It's also explain the k-chart that reader can be clearer about this study. Chapter 3 describes the methodology research. It will explain why used questionnaire survey method in this research and explain the overall about methodology. The empirical finding is presented in chapter 4 and chapter 5 consists of conclusion together with some recommendations.

## **1.2 Problem Statement / Research Questions**

Melaka produce between 1,300 tonnes and 1,400 tonnes of waste that come comes from houses, apartments, schools, Universities and prisons. Moreover, the landfills in Sungai Udang can only last another five years and have to be replaced with new sites. (Siti Noorain Roslan, 2013). Waste from plastic bags are represents 24% of total solid waste. (Shahariah Asmun, 2015). From the problems, Melaka has gone through the program without "No Plastic Bag Day" starting in 2011 (Ybhg. Datuk Haji Kamarudin bin Md Shah, 2016). Plastic bags is commonly used in ours daily life. Every single days, people used of plastic bags to buy food or others. The uses of plastic bags can causes environmental effect and landfills. (Girum Bahri, 2005)

Malaysia has taken action in ban of plastic bag. The ban of plastic bag was implemented in Melaka at 1 January 2016. Melaka is the second state which implement the ban of plastic bag. However, Melaka Green Corporation Technology finds other alternative to replace the plastic bags by using biodegradable plastic bags. Melaka is the first state produces products biodegradable. (Melaka Hari Ini, 2015). Biodegradable plastic bags are make from of organic substance such as starch, corn, cassava and sugarcane. (Jiang et al., 2002). It's degraded though water and carbon dioxide when exposed to microorganisms. (Ying Zheng, 2005). This biodegradable of plastic bags is are made from natural resources can eco-friendly to earth.

From observation, conventional plastic bags is still using around Melaka and awareness about biodegradable plastic bags is low.

So, from this problems it come outs of three research question. The research question are:

### **1.3 Research Question**

1. What are the factors that influence consumer behavioral intention to use biodegradable plastic bags in Melaka?
2. What is the relationship between factors that can influence consumer behavioral intention to use biodegradable plastic bags in Melaka?
3. What is the most important factors that influence consumer behavioral intention to use biodegradable plastic bags in Melaka?

### **1.4 Research Objective**

1. To identify the factors influence the consumer behavioral intention to use biodegradable plastic bags in Melaka
2. To analyze the relationship between factors that can influence consumer behavioral intention to use biodegradable plastic bags
3. To determine the most important factors that influence consumers behavioral intention to use biodegradable plastic bags

### **1.5 Scope, limitation and key assumption of the study**

The scope of this study is Melaka because Melaka is the one of the state that going green. According to Melaka Green Book, 2016, Melaka was established a vision to become a Green Technology State by 2020. Melaka Green Technology Corporation is the government company that be bench mark to Melaka State. I choose this scope because Melaka was going to do program to ban plastic bags.

Almost every study has some limitations and so as in our study. One of the limitations in this study is time limit. More than, other limitations of this study is the researcher assume that the respondents has equate knowledge to be a part of respondents to primary data collection.

### **1.6 Importance of the study**

My research aims to identify consumers behavioural intention to use biodegradable plastic bags and want to know that three factors can influence attitude people to use biodegradable bags. The purpose of this study is to analyse consumers' behavioural intention to use biodegradable plastic bags.

## 1.7 Summary

The conclusion is chapter 1 is describe about introduction or background of the study. From the top, we can see that, researcher talk the general about her project. For background of study, it's explain about a little information about plastic bags, effect plastic bags on environment, human and wildlife and definition of biodegradable plastic bags. More than, it's also explain country that are ban of plastic bags. After that, researcher provides the research questions and also research objective.

Then, chapter 1 also explains about scope, limitations and key assumption on this study. Melaka was be chosen on this research because Melaka is the one of state that are going Green Technology State by 2020. The significant of this study is to analyse consumers behavioural intention to use biodegradable plastic bags Melaka State. The problem that researcher will face in this research is the limit of time to complete this report.

## CHAPTER 2

### LITERATURE REVIEW

#### 2.1 Conventional Plastic Bags

Plastic carrier bags or well-known as conventional plastic bags are made from polyethylene or polythene film that are shown at figure 2.1. Polyethylene is a polymer that consists a long chains of ethylene monomer. Ethylene is derived from natural gas and petroleum. Plastic bags is usually stable and resistant to degradation but it can take many decades to do this. Conventional plastic bags usually buy from shoppers to give their customers to carry home their purchases. (Rohana Kamaruddin, 2012). Conventional plastic bags is a relatively cheap, durable and versatile material. Plastic products have brought benefits to society in terms of economic activity, jobs and quality of life. Plastics can even help reduce energy consumption and greenhouse gas emissions in many circumstances, even in some packaging applications when compared to the alternatives. The global plastic production was 230 million tons in 2009, and more than 99% was due to polymeric materials obtained from fossil resources (Rose and Palkovits, 2011). At the end of their life they become waste generating additional pollution, which can induce negative impacts on the environment and human health, because of their composition. Plastic bags can harm environment, animals and human systems. Environmental groups such as Friends of the Earth have also been prominent in campaigning for reduced plastic bag use (Friends of the Earth, 2004). There is also evidence of ‘bottom-up’ community action with notable recent initiatives within the UK towns of Modbury in Devon [British Broadcasting Company

(BBC) Devon, 2007] and Selkirk in the Scottish Borders (Scotsman, 2008) to make these towns plastic bag free.



Figure 2.1: Conventional Plastic Bags (Rohana Kamaruddin, 2012).

## 2.2 Effect of Conventional Plastic Bags

Their love to littered plastic shopping bags and this is a bigger problem to waste management issues with end of life plastics accumulating in landfill and in natural habitats (Thompson, 2009). However, awareness about the litter and environmental health problems caused by plastic waste is growing in several parts of the world. Yet, in many places the potential costs of plastic litter continue to be not well recognized, especially important in developing countries. Such debris is particularly evident in marine environments where items of plastic have been reported from the poles to the equator such as turtle that shown at figure 2.2, with 60–80 percent of marine litter being plastic (Murray R. Gregory, 2009). The Mumbai floods in India in which about a thousand people died was blamed in several quarters to drains being clogged from plastic bags. Plastic bags also can harm human healthy. According to Cancer Society of New Zealand 2012, plastic bags are commonly made from polyethylene that consists BPA chemical. BPA chemical is found from bottle plastic, tupperware and all kinds of plastic. BPA might affect the hormone system in people bodies but there is

disagreement amongst scientists about the effect of low level BPA on health. BPA also can causes cancer that shown in figure 2.3 is currently unknown, so scientists recommended to reduce the uses of BPA in all kinds plastic. (Cancer Society of New Zealand, 2012). More than, conventional plastic bags also can causes birth defects that shown at figure 2.4. According to journal by Chemical and Pharmaceutical Sciences from P.Pavani, 2014 stated that plastic bags also have material phthalates chemical when to produces it, so the function of phthalates is to soften plastics and to carry fragrance in many everyday products, and this chemical have been linked to birth and are harmful to the reproductive system. (P.Pavani, 2014).

Every year, approximately 500 billion plastic bags are applied worldwide. Five hundred followed by nine zeros. That's a lot of carrier glory plastic bags. Thus many that complete one million bags are being practiced every minute and they're damaging our environment. (Jacobsen). Today between 500 billion and 1.5 trillion plastic shopping bags are used each year worldwide (Spokas 2007). In China, estimates that 300 billion to 1 trillion billion plastic shopping bags are used per annum while in Bangladesh estimates about 3.3 billion used plastic shopping bag per annum. In Hong Kong, the plastic bag was used is about 9.8 billion per annum and 4.3 billion in Australia (Environment Australia 2002, Dumas 2007, ABC 2008). Estimated every people in Malaysia also produce 19,000 metric tons of solid waste per year and 24 percent of it is plastic (Kementerian Perdagangan Dalam Negeri, Koperasi dan Kepenggunaan).



Figure 2.2: Causes of Plastic Bags – Wildlife (Murray R. Gregory, 2009)



Figure 2.3: Causes of Plastic Bags – Cancer (Cancer Society of New Zealand, 2012)