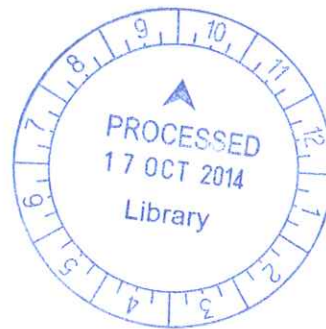


INTI INTERNATIONAL UNIVERSITY

MASTER OF BUSINESS ADMINISTRATION

Factors Influencing Recycling Behavior among Generation Y Population:
A Study in Nilai, Malaysia



Author: Lin Jing
Student Number: I12002121
Supervisor: Ms. Cherish Liew Peh Ting
Submission Date: 27th August 2014
Ethics Number: cBUS/PG/CP/00185
Final Word Count: 14,587

Faculty of Business, Communications and Law

ABSTRACT

With the development of city, the population in the cities also increases. Huge amount of garbage is generated daily in the city, causing great damage to the environment. In order to protect the environment better, to recovery and utilization of municipal waste is essential. But if there is no support and participation of the public, waste recycling is very difficult. As a developing country, Malaysia faces problems of waste generation. Management of municipal solid waste becomes a major environmental problem because of rapid population growth, inadequate expertise and infrastructure. In order to achieve sustainable waste management, recycling is one of the main key factors. Therefore, the objective of this study is to find out the factors influencing recycling behavior among Generation Y in Nilai, Malaysia. Generation Y are people who were born between 1977 and 1994. In this study, quantitative method will be used. 200 questionnaires will be distributed to the respondents in public areas. The respondents are individuals from Generation Y who lived or studied in Nilai, Malaysia. The data will be analyzed using SPSS software version 2.0; reliability testing and factor analysis would be used to determine the reliability and validity of the questions before analysis of the data.

Key words: Recycling behavior; Municipal solid waste; Generation Y

ACKNOWLEDGEMENT

My master's career is coming to an end. As I review my academic life in INTI International University, I harvest a lot and feel gratitude. I would like to thank INTI International University which provides a platform for students like me who want to do postgraduate study. In the process of learning, I met a lot of difficulties and once thought of giving up, but I am so lucky that I am surrounded by a group of lovely and selfless people who constantly helped and encouraged me.

In the first place, I want to thank my supervisor MS. Cherish Liew Peh Ting who gave me great help in my thesis. She is a warm, friendly and patient person. When I was perplexed by the study, she guided me and gave me helpful advices. Through discussion with her, my train of thoughts and direction of my thesis become clearer. At the same time, I also want to thank my examiner Mr. Ponusamy, Dr. Cheah Sin Chye and other lecturers in INTI, who gave me invaluable advice when I need it.

I also want to thank my good friends, Yang Yu, Woon Tah Therk and Huang Meijuan, because without their assistance, my thesis could not be completed so smoothly. While they were busy with their business, they did not hesitate to give me support and help. Besides, I would like to express my gratitude to my classmates and friends because we could learn from each other and progress during the process of our studies.

Finally, I would like to thank my parents for their spiritual support and encouragement. They are my pillars. When I felt doubt about my ability, they always express their faith in me. Due to their trust, I had the confidence and

perseverance to overcome all difficulties. I am so proud and happy to be their daughter and I hope they can be proud of me.

Thank you all.

Lin Jing

Date: 27/10/2014

DECLARATION

"I hereby declare that this research project is of my own effort except for those summaries and information of which the sources are clearly specified"

Lin Jing

Date: 27/08/2014

Lin Jing

Table of Contents

ABSTRACT	I
ACKNOWLEDGEMENT	II
DECLARATION	IV
LIST OF ABBREVIATIONS	IX
LIST OF FIGURES	X
LIST OF TABLES	XI
 CHAPTER 1: INTRODUCTION	 1
1.1 Research Background	1
1.1.1 Recycling Development in the World	1
1.1.2 Recycling Development in Malaysia.....	2
1.2 Problem Statement.....	3
1.3 Research Objectives	5
1.4 Significance of the Research.....	5
1.5 Limitation of the Study.....	6
1.6 Scope of the Study	6
1.7 Structure of the Report	7
 CHAPTER 2: LITERATURE REVIEW	 9
2.1 Generation Y	9
2.2 The Theory of Planned Behavior.....	9
2.3 Predictors of Recycling Behavior.....	13
2.3.1 Attitude.....	14

2.3.2 Subjective Norm.....	16
2.3.3 Perceived Behavior Control	17
2.3.4 Perceived Moral Obligation	18
2.4 Hypotheses Development	19
2.5 Conceptual Framework	21
 CHAPTER 3: METHODOLOGY	 22
3.1 Research Design.....	22
3.2 Research Approach.....	22
3.3 Measuring Instrument.....	23
3.4 Questionnaire Design.....	23
3.5 Study Population, Unit of Analysis, Sample Selection and Sampling Techniques.....	26
3.6 Validity and Reliability Test	27
3.7 Data Collection and Analysis Method	28
3.7.1 Data Collection.....	28
3.7.2 Analysis Method.....	29
 CHAPTER 4: RESEARCH FINDINGS	 30
4.1 Introduction	30
4.2 Response Rate.....	30
4.3 Descriptive Analysis	30
4.4 Factor Analysis.....	32
4.4.1 Measurements and Interpretation of KMO Value and Bartlett's Test	32
4.4.2 Factor Analysis on Independent Variables.....	34

4.4.3 Factor Analysis on Dependent Variable of Recycling Behavior	44
4.5 Reliability Analysis.....	45
4.5.1 Reliability Testing on All Variables	45
4.5.2 Reliability Testing on Independent Variables	46
4.5.3 Reliability Testing on Dependent Variable	47
4.6 Correlation Analysis	47
4.6.1 Correlation of Attitude with Recycling Behavior	48
4.6.2 Correlation of Subjective Norm with Recycling Behavior	49
4.6.3 Correlation of Convenience of Available Recycling Infrastructure with Recycling Behavior	50
4.6.4 Correlation of Cost of Recycling with Recycling Behavior.....	51
4.6.5 Correlation of Perceived Moral Obligation with Recycling Behavior..	52
4.7 Multiple Regressions	53
4.8 Summary of Hypothesis Results	56
CHAPTER 5: CONCLUSION AND RECOMMENDATIONS	57
5.1 Introduction	57
5.2 Conclusion	57
5.3 Recommendations	58
5.4 Contribution.....	59
5.5 Implications for Future Research.....	60
5.6 Personal Reflection	60
REFERENCE	62
APPENDIX	74
Appendix 1: Questionnaire	74

Appendix 2: SPSS Output	77
Appendix 3: Initial Research Paper Proposal	99
Appendix 4: Project Paper.....	105
Appendix 5: Ethic Form	112
Appendix 6: Permission Letter	139
Appendix 7: Turnitin Result	143

LIST OF ABBREVIATIONS

MSW: Municipal Solid Waste

Gen Y: Generation Y

SPSS: Statistical Package for Social Science

3R's: Reduce; Reuse; Recycle

TRA: Theory of Reasoned Action

TPB: Theory of Planned Behaviors

SN: Subjective Norm

PBC: Perceived Behavior Control

CARI: Convenience of Available Recycling Infrastructure

CR: Cost of Recycling

PMO: Perceived Moral Obligation

LIST OF FIGURES

Figure 1.1: Framework of Research	8
Figure 2.1: The Theory of Reasoned Action (TRA).....	10
Figure 2.2: The Theory of Planned Behavior (TPB).....	11
Figure 2.3: Research Framework	21
Figure 3.1: Research Design Flow	22

LIST OF TABLES

Table 3.1: Summary of Questionnaire	24
Table 3.2: Questionnaire Design Structure	24
Table 4.1: Summary of Demographic Profile	31
Table 4.2: Acceptance Level of KMO Value.....	33
Table 4.3: Summary of Factor Analysis on Attitude	34
Table 4.4: Summary of Factor Analysis on Subjective Norm	36
Table 4.5: Summary of Factor Analysis on Convenience of Available Recycling Infrastructure.....	38
Table 4.6: Summary of Factor Analysis on Cost of Recycling.....	40
Table 4.7: Summary of Factor Analysis on Perceived Moral Obligation.....	42
Table 4.8: Summary of Factor Analysis on Recycling Behavior.....	44
Table 4.9: Reliability Testing on All Variables.....	46
Table 4.10: Reliability Testing on Independent Variables.....	46
Table 4.11: Reliability Testing on Dependent Variable	47
Table 4.12: Correlation of Attitude with Recycling Behavior.....	48
Table 4.13: Correlation of Subjective Norm with Recycling Behavior	49
Table 4.14: Correlation of CARI and RB	50
Table 4.15: Correlation of Cost of Recycling with Recycling Behavior.....	51
Table 4.16: Correlation of Perceived Moral Obligation with Recycling Behavior	52
Table 4.17: Model Summary of Attitude, SN, CARI, CR, and PMO on RB	53
Table 4.18: Anova test of Attitude, SN, CARI, CR and PMO on RB.....	54
Table 4.19: Attitude, SN, CARI, CR and PMO on RB	54
Table 4.20: Summary of Hypothesis Results.....	56

CHAPTER 1: INTRODUCTION

1.1 Research Background

1.1.1 Recycling Development in the World

The rapid development of the world, growing prosperity and mounting urbanization of the population result in the generation of huge quantity of “municipal solid waste” (MSW) is increasing every year. According to Waste Management World (2012), the volume of MSW will double in 2025, from current 1.3 billion tons to 2.6 billion tons per year. Eco Friend News (2012) defines MSW as “a subset of the larger universe of waste and typically does not include waste collected outside of formal municipal programs”. MSW includes paper, organic material, metals, plastic, glass, and so on. It is mainly from offices, homes and commercial institutions. The size of urban populations and the consumption lifestyles both influence the volume of MSW. Meanwhile, the income and urbanization levels also are factors that influence the kind of waste produced. For example, the rate of inorganic materials in the waste stream, such as paper, aluminum and plastics will be increased as people move to cities and become more prosperous.

In this world, nearly a quarter of waste is transformed into composting, recycling, or digestion. These options in waste management are environmentally better than incinerators and landfills. However, the development degree of recycling is different in different countries. In America, the recycled rate of MSW was lower than 12% in 1980, but it increased to 35% in 2010 (Eco Friend News, 2012). Similarly, the recycled rate of MSW also increased in other nations, particularly in industrial ones. The “circular economy” is a good criterion for MSW to

integrate into a materials management, including many laws to decrease using a few materials as well as to reuse or recycle most of the rest (EPA, 2010). Japan is a leader of circular economy in the world. The country has carried out a stable development of waste reduction policies since the early 1990s, and it has achieved remarkable success. According to Waste Management World (2012), resource productivity is expected to exceed double in 2015, compared with 1990 levels. Meanwhile, the recycled share is planned to almost more than twice at the same time. Besides, the usage of landfills to deal with the materials might be reduced to around a fifth of 1990 levels in 2015.

1.1.2 Recycling Development in Malaysia

The population of Malaysia is more than 30 million in 2014 (World Population Review, 2014) with a per capita GDP of USD6990 in 2013 (Trading Economics, 2014). According to Index Munidi (2013), Malaysia's urban population accounts for over 72% of the whole population. In the past 10 years, waste generation has increased by over 90% because of rural-urban migration, the rapid development of the cities, rising personal income and the change in consumption patterns (Peria, et.al, 2009). It is therefore important and timely to deal with the solid waste issue in a sustainable and effective manner.

Currently, the main waste disposal method is landfill in Malaysia which is also the world's most common waste disposal method. It is considered a main choice in the present and the near future, particularly for low and middle income countries. Landfill is an easy and inexpensive technique. But due to limitation, financial or technology, landfill usually lack environmental abatement measures. As a result, it causes a lot of pollution to the environment. In addition, even with the appropriate landfill abatement measures, it cannot guarantee that pollution

will be prevented. According to Waste Management Policy of Malaysia 10th Plan (2010), landfilling is a major waste disposal method which will account for about 65% of waste in 2020. By contrast, intermediate processing and recycling will account for only 15% and 20% of waste in 2020.

At present, Malaysia has more than 150 disposal sites but less than 10 are sanitary landfills. Beside those sanitary landfills, others are open dumps. Meanwhile nearly 85 percent of them have already piled up to the edge and they must be shut down in 2 years (Kian-Ghee, et al., 2012). The concept of 3R's includes "Reduce", "Reuse", "Recycle" makes sense as an environmental friendly and sustainable way. Recycling is a good method to resolving difficulties due to lack of sanitary landfill. In another aspect, composting is a widespread practice in other developing countries. In Malaysia, over 40% of domestic waste generated is organic waste that could be processed by composters to produce fertilizer. Besides, it can also decrease the amount of waste sent to the sanitary landfill (Ismail, 2013).

1.2 Problem Statement

During the period from 1996 to 2006, waste generated rapidly from 13,000 to 19,100 tonnes (Peria, et al., 2009). In 2008, the average amount of MSW generated was 0.6 to 0.9 kg/per/day in Malaysia. Meanwhile, the big cities showed a further increase of 1.7 kg/per/day (Manaf, et al., 2009). In 2011, the amount increased to 24,000 tonnes per day (Utusan Malaysia, 2011) and the quantities of municipal solid waste generated were estimated to rise to 31,000 tonnes in 2020 (Manaf, et al., 2009). Malaysia currently spends about RM860 million annually and this will double into approximately RM1.6 billion by 2020. Without drastic management measure, the actual amount will inevitably be more