



THE EFFECT OF GREEN MARKETING CONCEPTS  
AND TOOLS ON MALAYSIAN CONSUMERS'  
ENVIRONMENTAL PROTECTION BEHAVIOUR

BY

NORHIZAN ROSLI

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## ABSTRACT

Over the last three decades, the term ‘green marketing’ has become a serious subject in marketing literature. Understanding green marketing concepts and tools have been significant in encouraging consumers’ behaviour towards environmental protection, as well as increasing the spectrum of green marketing’s role, consumers’ awareness and greater responsibility to protect the environment. Yet, research on this subject, particularly on the effect of green marketing concepts and tools on consumers’ environmental protection behaviour in Malaysia remains limited. This research aims to address the research gap on the practices of green marketing concepts and tools, particularly in the context of consumers’ understanding, attitude, awareness, intention, and the resulting behaviours towards environmental protection. Theoretical framework of this research is based on the Theory of Planned Behaviour comprising of components such as attitude, subjective norm, and perceived behavioural control. Constructs of this study include attitude towards green marketing concepts and tools, attitude towards environmental protection, social influence, government’s role, and green product price. Two mediators (awareness and intention) and one moderator (gender) forms the area of focus, while environmental protection behaviour acts as the sole dependent construct. Analysis of data was conducted through descriptive, exploratory and confirmatory factor analysis using SPSS and Structural Equation Modelling (SEM). A total of 600 questionnaires were distributed through convenience sampling, specifically in and around the Klang Valley and Selangor areas. In summary, 12 hypotheses links were supported, while eight were rejected. Results obtained from the SEM underlined the five significant constructs. Firstly, social influence, government’s role and green product price does have a direct relationship with environmental protection behaviour (EPB), while consumers’ attitude towards green marketing concepts and tools, and attitude towards environmental protection have no direct influence on consumers’ EPB. Secondly, awareness does mediate the relationships between social influence, government’s role, green product price and EPB, but does not mediate the relationships between attitude towards green marketing concepts and tools, attitude towards environmental protection, and EPB. Thirdly, intention only mediate the relationship between social influence and EPB. Finally, the moderation analysis indicates that except for relationship between attitude towards environmental protection and awareness, where there is no difference between male and female, all other items are different between genders. The theoretical implication contributes to the behavioural perspective as it provides an empirical evidence with regards to improving consumers’ attitude through green marketing concepts and tools, while understanding consumers’ awareness and attitude towards EPB. Practical implications firstly provide reference material for marketers to understand the current environmental issues based on consumers interest for green products. Heightened awareness among consumers contribute to the development of positive attitudes, and hence, further improvement in consumers’ EPB. Secondly, robust implementation of government’s role, adequate facilities and information, and eco-literacy in Malaysian education syllabus may influence consumers’ understanding of individual’s responsibility to environmental protection. Finally, consumers’ own interest and involvement in social interaction brings about improved awareness and intention, stronger commitment, and attitude towards EPB.

## ملخص البحث

على مدى العقود الثلاثة الماضية، أصبح مصطلح "التسويق الأخضر" موضوعا مهما في الأدب التسويقي. إن فهم التسويق الأخضر وأدواته كان له دور كبير في تشجيع سلوك المستهلكين نحو حماية البيئة، فضلا عن زيادة دور التسويق الأخضر، ووعي المستهلكين، ومسؤولية أكبر لحماية البيئة. ومع ذلك، لا تزال البحوث حول هذا الموضوع محدودة، خصوصا تأثير مفاهيم وأدوات التسويق الأخضر على سلوك المستهلكين نحو حماية البيئة في ماليزيا. ويهدف هذا البحث إلى معالجة الفجوة البحثية في ممارسات مفاهيم وأدوات التسويق الأخضر، خصوصا في سياق فهم المستهلكين، ومواقفهم، وتوعيتهم، ونواياهم، ونتائج السلوكيات نحو حماية البيئة. ويستند الإطار النظري لهذا البحث على نظرية السلوك المخطط التي تشتمل على مكونات مثل الموقف، والمعيير الشخصي، وتصور السيطرة السلوكية. وتشتمل هذه الدراسة على الموقف نحو مفاهيم وأدوات التسويق الأخضر، والموقف نحو حماية البيئة، والتأثير الاجتماعي، ودور الحكومة، وسعر المنتج الأخضر. ويمثل الوسيطان (الوعي والعزم) ووسيط آخر هو (الجنس) المجال الرئيس، في حين يعتبر سلوك حماية البيئة العامل التابع. وتم تحليل البيانات من خلال التحليل الوصفي والاستكشافي والعامل التوكيدي باستخدام إس بي إس إس (SPSS) و نمذجة المعادلات الهيكلية (SEM). وتم توزيع 600 استبانة على عينة ملائمة، في كلانغ فالي ومناطق وسيلانجور. وباختصار، تم دعم روابط 12 فرضية، ورفض ثمانية. وأوضحت نتائج تحليل نمذجة المعادلات الهيكلية خمسة اعتبارات هامة، هي: أولا، أن التأثير الاجتماعي، ودور الحكومة، وسعر المنتج الأخضر لها علاقة مباشرة بسلوك حماية البيئة، في حين أن موقف المستهلكين تجاه مفاهيم وأدوات التسويق الأخضر، والموقف من حماية البيئة ليس له تأثير مباشر على المستهلكين في حماية البيئة. ثانيا، أن التوعية تتوسط في العلاقات بين النفوذ الاجتماعي ودور الحكومة وسعر المنتج الأخضر في حماية البيئة، ولكنها لا تتوسط في العلاقات بين المواقف تجاه مفهوم وأدوات التسويق الأخضر، والموقف من حماية البيئة. ثالثا، أن العزم يتوسط فقط في العلاقة بين النفوذ الاجتماعي وحماية البيئة. وأخيرا، يشير تحليل الاعتدال إلى أنه فيما عدا العلاقة بين الموقف نحو حماية البيئة والتوعية، فإنه لا يوجد فرق بين الذكور والإناث، وأنه يوجد اختلاف بين الجنسين في جميع البنود الأخرى. ويساهم التطبيق النظري في التصور السلوكي لأنه يوفر دليلا تجريبيا فيما يتعلق بتحسين موقف المستهلكين من خلال مفاهيم وأدوات التسويق الأخضر، مع فهم ووعي المستهلكين ومواقفهم تجاه حماية البيئة. وأما التطبيقات العملية فإنها أولا، توفر المواد المرجعية للمسوقين لفهم القضايا البيئية الحالية على أساس اهتمام المستهلكين للمنتجات الخضراء. وأن زيادة الوعي بين المستهلكين يساهم في تطوير المواقف الإيجابية، وبالتالي زيادة التحسين في حماية البيئة من المستهلكين. ثانيا، أن التنفيذ السليم لدور الحكومة، والمرافق والمعلومات الكافية، ومحو الأمية البيئية في المناهج التعليمية الماليزية قد تؤثر على فهم المستهلكين لمسؤولية الفرد عن حماية البيئة. وأخيرا، فإن اهتمام المستهلكين ومشاركتهم في التفاعل الاجتماعي يؤدي إلى تحسين الوعي والعزم والالتزام القوي والموقف تجاه حماية البيئة.

## **APPROVAL PAGE**

The dissertation of Norhizan Rosli has been approved by the following:

---

Kalthom Abdullah  
Supervisor

---

A.K.M. Ahasanul Haque  
Co-Supervisor

---

Wan Jamaliah Wan Jusoh  
Internal Examiner

---

David Yong Gun Fie  
External Examiner

---

Arun Kumar Tarofder  
External Examiner

---

Mohammad Naqib S/O Ishan Jan  
Chairperson

## DECLARATION

I hereby declare that this dissertation is the result of my own investigation, except where otherwise stated. I also declare that it has not been previously or concurrently submitted as a whole for any other degrees at IIUM or other institutions.

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*In The Name of Allah, the Most Beneficent, the Most Merciful*

*To my Beloved Husband,  
Tuan Haji Sulaiman Bin Haji Husain*

*My Beloved Mother,  
Allahyarhamah Norlia Binti Haji Lamsah*

*My Beloved Father,  
Allahyarham Rosli Bin Dato' Ahmad*

*And*

*My Precious,  
Noor Nadiatul Nadia Binti Haji Sulaiman  
Muhammad Asyraf Bin Haji Sulaiman*

*May Allah bless us and keep us together until Jannah*

*Ameen*

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# TABLE OF CONTENTS

Abstract .....	ii
Abstract in Arabic .....	iii
Approval Page.....	iv
Declaration .....	v
Copyright .....	vi
Dedication .....	vii
Acknowledgements.....	viii
List of Tables .....	xv
List of Figures .....	xviii
List of Abbreviations .....	xxi
<b>CHAPTER ONE: INTRODUCTION .....</b>	<b>1</b>
1.1 Overview.....	1
1.2 Research Background .....	1
1.3 Problem Statement.....	8
1.4 Research Questions.....	12
1.5 Research Objectives.....	13
1.6 Significance of the Study.....	14
1.6.1 Practical Contribution .....	15
1.6.1.1 To the Green Marketers .....	15
1.6.1.2 To the Government Bodies/Policy Makers .....	17
1.6.1.3 To the Consumers .....	20
1.6.2 Theoretical Contribution .....	22
1.6.2.1 Behavioural Perspectives.....	22
1.7 Definition of Terms .....	22
1.7.1 Attitude towards Green Marketing Concepts and Tools:.....	22
1.7.2 Attitude toward Environmental Protection: .....	23
1.7.3 Social Influence – Effect towards Environmental Protection Behaviour: .....	23
1.7.4 Government’s Role – Effect toward Environmental Protection Behaviour: .....	23
1.7.5 Green Product Price – Effect toward Environmental Protection Behaviour: .....	24
1.7.6 Consumer’s Awareness.....	24
1.7.7 Consumer’s Intention.....	24
1.7.8 Environmental Protection Behaviour.....	25
1.8 Structure of the Thesis .....	25
<b>CHAPTER TWO: LITERATURE REVIEW .....</b>	<b>28</b>
2.1 Introduction.....	28
2.2 Green Marketing - Definitions.....	29
2.2.1 Definition of Green Marketing Concepts.....	30
2.2.2 Definition of Green Marketing Tools .....	31
2.3 Green Marketing Concepts and Tools .....	32
2.4 Other Constructs .....	36

2.4.1 Attitude towards Green Marketing Concepts and Tools.....	37
2.4.2 Attitude towards Environmental Protection.....	39
2.4.3 Social Influence.....	42
2.4.4 Government's Role .....	43
2.4.5 Green Product Price .....	48
2.4.6 Environmental Protection Behaviour.....	51
2.4.7 Consumers' Awareness.....	52
2.4.8 Consumer's Intention.....	53
2.4.9 Demographic Profile as Moderator.....	53
2.4.9.1 Age.....	55
2.4.9.2 Gender .....	55
2.4.9.3 Ethnicity.....	57
2.4.9.4 Education Level/Environmental Knowledge.....	58
2.4.9.5 Occupation/Employment .....	63
2.4.9.6 Income Level .....	63
2.4.9.7 Beliefs, Values and Religion .....	64
2.5 Chapter Summary .....	69
<b>CHAPTER THREE: CONCEPTUAL FRAMEWORK .....</b>	<b>71</b>
3.1 Introduction.....	71
3.2 The Proposed Conceptual Framework.....	71
3.3 Underlying Theories .....	74
3.3.1 Hypothesised Relationship amongst the Main Constructs.....	77
3.3.2 Awareness and Intention as Mediators .....	78
3.3.3 Gender as Moderator.....	80
3.4 Research Hypotheses .....	83
3.4.1 Attitude towards Green Marketing Concepts and Tools.....	84
3.4.2 Attitude towards Environmental Protection.....	85
3.4.3 Social Influence towards Environmental Protection Behaviour .....	85
3.4.4 Government's Role towards Environmental Protection Behaviour.....	86
3.4.5 Green Product Price Effect towards Environmental Protection Behaviour.....	86
3.4.6 Consumers' Awareness as Mediator.....	87
3.4.7 Consumers' Intention as Mediator.....	88
3.4.8 Gender as a Moderator .....	89
3.5 Chapter Summary .....	92
<b>CHAPTER FOUR: RESEARCH METHODOLOGY .....</b>	<b>96</b>
4.1 Introduction.....	96
4.2 Research Paradigm: Philosophical Assumptions of the Study.....	96
4.3 Research Design .....	100
4.3.1 Justification for Exploratory Research.....	105
4.3.2 Justification for Survey Method.....	106
4.4 Data Collection Design.....	108
4.4.1 Self-Administered Questionnaire.....	110
4.5 Sampling Design.....	112
4.5.1 Step 1: Define the Target Population, and STEP 2: Identify the Sampling Frame.....	113

4.5.2 Step 3: Sampling Techniques.....	113
4.5.3 Step 4: Determine the Sampling Process – Sample Size .....	114
4.5.4 Step 5: Select the Sample Elements.....	117
4.5.5 Step 6: Collect the Data from Designated Elements.....	117
4.6 Instrument Development and Pilot Testing .....	118
4.6.1 Step 1: Specify What Information is Sought .....	120
4.6.2 Step 2: Determine Types of Questionnaire and Methods of Administration .....	121
4.6.3 Step 3: Determine Content of Individual Questions .....	123
4.6.3.1 Demographic Information .....	124
4.6.3.2 Consumers’ Attitude towards Green Marketing Concepts and Tools (ATT-GMKTG).....	125
4.6.3.3 Consumer’s Attitude towards Environmental Protection (ATT-EP) .....	126
4.6.3.4 Social Influence towards Environmental Protection Behaviour (SI) .....	126
4.6.3.5 Government’s Role towards Environmental Protection Behaviour (GR) .....	127
4.6.3.6 Green Product Price Effect towards Environmental Protection Behaviour.....	128
4.6.3.7 Effect of Awareness (Mediator) towards Environmental Protection Behaviour .....	129
4.6.3.8 Effect of Intention (Mediator) towards Environmental Protection Behaviour .....	130
4.6.3.9 Behaviour Relating to Environmental Protection (EPB).....	131
4.6.4 Step 4: Determine Form of Response to Each Question (Scale Development) .....	132
4.6.5 Step 5: Determine Wording of Each Question.....	135
4.6.6 Step 6: Determine Sequence of Questions (Questionnaire Format) .....	136
4.6.7 Step 7: Determine Layout and Physical Characteristics of Questionnaire.....	137
4.6.7.1 Questionnaire Translation.....	137
4.6.8 Step 8: Re-Examine STEP 1-7 and Revise if Necessary .....	138
4.6.9 Step 9: Pre-Test Questionnaire and Revise if Necessary .....	138
4.6.9.1 Pre-Test Results .....	138
4.6.9.2 Pilot Test Results .....	139
4.7 Data Analysis and Interpretation .....	140
4.7.1 Descriptive Analysis .....	141
4.7.1.1 Data Coding.....	141
4.7.1.2 Data Screening.....	141
4.7.1.3 Missing Data.....	142
4.7.2 Stage 1: Exploratory Factor Analysis .....	143
4.7.2.1 Factor Analysis .....	144
4.7.2.2 Average Variance Extracted (AVE).....	147
4.7.3 Stage 2: Structural Equation Modelling (SEM).....	147
4.7.3.1 Statistical Justification.....	149
4.7.3.2 Philosophical Justification.....	154

4.7.4 Measurement Model .....	155
4.7.5 Confirmatory Factor Analysis (CFA) .....	156
4.7.6 Procedural for SEM .....	157
4.7.6.1 Stage 1: Defining the Individual Constructs.....	157
4.7.6.2 Stage 2: Developing and Specifying the Measurement Model .....	159
4.7.6.3 Stage 3: Choosing the Input Matrix Type and Estimating the Proposed Model .....	159
4.7.6.4 Stage 4: Assessing Measurement Model Validity .....	160
4.7.6.5 Stage 5: Specify the Structural Model .....	162
4.7.6.6 Stage 6: Assess Structural Model Validity .....	162
4.8 Data Quality, Validity and Reliability .....	165
4.8.1 Internal Consistency.....	166
4.8.2 Validation of Measures .....	167
4.8.2.1 Face or Content Validity of Measures .....	169
4.8.2.2 Construct Validity.....	170
4.8.2.3 Convergent Validity .....	172
4.8.2.4 Discriminant Validity of Measures.....	179
4.9 Research Reporting.....	181
4.10 Chapter Summary .....	183

**CHAPTER FIVE: DATA ANALYSIS AND RESULTS..... 185**

5.1 Introduction.....	185
5.1.1 Data Preparation and Screening.....	186
5.1.1.1 Missing Data.....	187
5.1.1.2 Outliers .....	187
5.1.1.3 Normality.....	197
5.1.1.4 Multicollinearity .....	198
5.2 Stage 1: Descriptive Analysis .....	200
5.2.1 Demographic Profile of the Respondents .....	201
5.2.1.1 Response Rate.....	202
5.2.2 Reliability: Attributes of the Questionnaires .....	205
5.2.2.1 Attitude towards Green Marketing Concepts and Tools .....	208
5.2.2.2 Attitude towards Environmental Protection .....	210
5.2.2.3 Social Influence towards Environmental Protection Behaviour .....	210
5.2.2.4 Government's Role towards Environmental Protection Behaviour .....	212
5.2.2.5 Green Product Price towards Environmental Protection Behaviour.....	213
5.2.2.6 Effect of Awareness (Mediator) towards Environmental Protection Behaviour .....	214
5.2.2.7 Effect of Intention (Mediator) towards Environmental Protection Behaviour.....	216
5.2.2.8 Environmental Protection Behaviour .....	217
5.3 Stage 2: Exploratory Factor Analysis .....	219
5.3.1 Attitude towards Green Marketing Concepts and Tools.....	224
5.3.2 Attitude towards Environmental Protection.....	225
5.3.3 Social Influence.....	227

5.3.4 Government's Role .....	228
5.3.5 Green Product Price .....	231
5.3.6 The Effect of Awareness .....	233
5.3.7 The Effect of Intention .....	235
5.3.8 Environmental Protection Behaviour .....	236
5.4 Stage 3: Confirmatory Factor Analysis (CFA).....	238
5.5 Development and Assessment of the Measurement Model.....	244
5.6 Evaluation of the Structural Model.....	252
5.7 Hypotheses Testing.....	258
5.7.1 Structural Model One.....	258
5.7.1.1 Direct Relationship between Independent and Dependent Variables .....	262
5.7.2 Structural Model Two .....	264
5.7.2.1 Awareness as a Mediator .....	266
5.7.2.2 Intention as a Mediator .....	273
5.7.3 Gender as a Moderator .....	279
5.7.3.1 Comparing the Group Effect of Moderator Variable .....	282
5.8 Summary of the Results of Hypotheses Testing.....	288
5.9 Chapter Summary .....	292
<b>CHAPTER SIX: CONCLUSION AND RESEARCH IMPLICATIONS.....</b>	<b>294</b>
6.1 Introduction.....	294
6.2 Research Questions Addressed.....	294
6.2.1 Does Consumers' Attitude towards Green Marketing Concepts and Tools have any Effect on Consumers' Environmental Protection Behaviour?.....	295
6.2.2 Does Consumers' Attitude Towards Environmental Protection have any Effect on Consumers' Environmental Protection Behaviour?.....	297
6.2.3 Does Social Influence have any Effect on Consumers' Environmental Protection Behaviour?.....	298
6.2.4 Does Government's Role have any Effect on Consumers' Environmental Protection Behaviour?.....	299
6.2.5 Does Green Product Price have any Effect on Consumers' Environmental Protection Behaviour?.....	302
6.2.6 Does Awareness Mediate the Relationship Between Consumers' Attitude towards Green Marketing Concepts and Tools, Attitude towards Environmental Protection, Social Influence, Government's Role, Green Product Price and Environmental Protection Behaviour?.....	304
6.2.7 Does Intention Mediate the Relationship between Consumers' Attitude towards Green Marketing Concepts and Tools, Attitude towards Environmental Protection, Social Influence, Government's Role, Green Product Price and Environmental Protection Behaviour? .....	308
6.2.8 Does Gender Moderates the Relationship between Consumers' Attitude towards Green Marketing Concepts and Tools, Attitude towards Environmental Protection, Social	

Influence, Government's Role, Green Product Price and Environmental Protection Behaviour?.....	312
6.3 Significance for Theory and Practice .....	315
6.3.1 Theoretical Perspective:.....	315
6.3.2 Behavioural Perspective:.....	316
6.3.3 Green Marketing Literature: .....	317
6.4 Practical Implications .....	317
6.4.1 Implication to the Green Marketers .....	317
6.4.2 Implication to the Government Bodies / Policy Makers.....	319
6.4.3 Implication to the Consumers .....	322
6.5 Limitations and Directions for Future Research.....	324
<b>REFERENCES.....</b>	<b>330</b>
<b>LIST OF ARTICLES SUBMITTED TO CONFERENCES .....</b>	<b>353</b>
<b>APPENDIX 1: DECLARATION OF DATA COLLECTION.....</b>	<b>354</b>
<b>APPENDIX 2: DEMOGRAPHIC PROFILES .....</b>	<b>355</b>
<b>APPENDIX 3: SURVEY INSTRUMENTS.....</b>	<b>356</b>
<b>APPENDIX 4: FACTOR ANALYSIS .....</b>	<b>369</b>

## LIST OF TABLES

Table 1.1	Generation of Municipal Solid Waste in Malaysia by State (1996-2009)	3
Table 3.1	Summary of Research Hypotheses	94
Table 4.1	Total Number of Measurement Items Used in this Research	124
Table 4.2	Measure of Consumers' Attitude towards Green Marketing Concepts and Tools	125
Table 4.3	Measure of Consumers' Attitude towards Environmental Protection	126
Table 4.4	Measure of Social Influence towards Environmental Behaviour	127
Table 4.5	Measure of Government's Role towards Environmental Protection Behaviour	128
Table 4.6	Measure of Green Product Price Effect towards Environmental Protection Behaviour	129
Table 4.7	Measure of Effect of Awareness (Mediator) towards Environmental Protection Behaviour	130
Table 4.8	Measure of Effect of Intention (Mediator) towards Environmental Protection Behaviour	131
Table 4.9	Measure of Behaviour Relating to Environmental Protection	132
Table 4.10	Correlations between Major Constructs	161
Table 4.11	Summary of Alternative Goodness-Of-Fit Indices	164
Table 4.12	Summary of Research Objectives and Related Statistical Analysis	183
Table 5.1	Trimmed Mean For Attitude towards Green Marketing	190
Table 5.2	Trimmed Mean for Attitude towards Environmental Protection	191
Table 5.3	Trimmed Mean for Social Influence towards Environmental Protection Behaviour	192
Table 5.4	Trimmed Mean For Government's Role towards Environmental Protection Behaviour	193

Table 5.5	Trimmed Mean for Green Product Price towards Environmental Protection Behaviour	194
Table 5.6	Trimmed Mean for Effect of Awareness towards Environmental Protection Behaviour	195
Table 5.7	Trimmed Mean for Effect of Intension towards Environmental Protection Behaviour	196
Table 5.8	Trimmed Mean for Behaviour Relating to Environmental Protection	197
Table 5.9	Coefficients: Multicollinearity Test	200
Table 5.10	Response Rate of the Distributed Questionnaires	202
Table 5.11	Profiles of Respondents	206
Table 5.12	Reliability Statistics of the Questionnaire	207
Table 5.13	Descriptive Statistics: Attitude towards Green Marketing Concepts and Tools	209
Table 5.14	Descriptive Statistics: Attitude towards Environmental Protection	210
Table 5.15	Descriptive Statistics: Social Influence	211
Table 5.16	Descriptive Statistics: Government's Role	213
Table 5.17	Descriptive Statistics: Green Product Price	214
Table 5.18	Descriptive Statistics: Awareness	216
Table 5.19	Descriptive Statistics: Intention	217
Table 5.20	Descriptive Statistics: Environmental Protection Behaviour	218
Table 5.21	KMO and Bartlett's Test	220
Table 5.22	Exploratory Factor Analysis for Attitude towards Green Marketing Concepts and Tools	225
Table 5.23	Exploratory Factory Analysis for Attitude towards Environmental Protection	227
Table 5.24	Exploratory Factor Analysis for Social Influence	228
Table 5.25	Exploratory Factor Analysis for Government's Role	231
Table 5.26	Exploratory Factor Analysis for Green Product Price	232

Table 5.27	Exploratory Factor Analysis for Awareness	234
Table 5.28	Exploratory Factor Analysis for Intention	235
Table 5.29	Exploratory Factor Analysis for Environmental Protection Behaviour	237
Table 5.30	Summary of Reliability Coefficient of the Extracted Factors	238
Table 5.31	Summary of Confirmatory Factor Analysis (CFA) Limits	247
Table 5.32	Estimates of the Structural Model for Direct Effect between Independent and Dependent Variables (Standard Regression Weight)	260
Table 5.33	Bootstrapping Test: Overall Results of Mediation Analysis for Awareness as Mediator	273
Table 5.34	Boostrapping Method: Overall Results of Mediation Analysis for Intention as Mediator	279
Table 5.35	Gender as a Moderator: Comparison of Chi-Square for Both Groups' Data (Constrained & Unconstrained)	282
Table 5.36	Gender as a Moderator: Chi-Square Comparison Test for Direct Relationships for Structural Model (Constrained & Unconstrained)	283
Table 5.37	Gender as a Moderator: Invariant Analysis - Chi-Square Test for Relationships at Individual Path Level (Constrained & Unconstrained)	288
Table 5.38	Results of Hypotheses Testing	290

## LIST OF FIGURES

Figure 2.1	Conceptual Framework of Previous Research	37
Figure 2.2	Tri-Component Model	38
Figure 3.1	Proposed Conceptual Framework	73
Figure 3.2	Theory of Planned Behaviour	75
Figure 3.3	Summary of Research Hypotheses within the Research Framework	79
Figure 4.1	Research Design Strategy	103
Figure 4.2	Frame of the Research and Data Analysis Procedure	104
Figure 4.3	Six-Step Procedures for Drawing a Sample	112
Figure 4.4	Instrument Development Process	120
Figure 4.5	Data Analysis Procedure	140
Figure 4.6	Six-Stage Process for Structural Equation Modelling	158
Figure 5.1	Outliers Analysis for Attitude towards Green Marketing	189
Figure 5.2	Outliers Analysis for Attitude towards Environmental Protection	190
Figure 5.3	Outliers Analysis for Social Influence towards Environmental Protection Behaviour	191
Figure 5.4	Outliers Analysis for Government's Role towards Environmental Protection Behaviour	192
Figure 5.5	Outliers Analysis for Green Product Price towards Environmental Protection Behaviour	193
Figure 5.6	Outliers Analysis for Effect of Awareness Towards Environmental Protection Behaviour	194
Figure 5.7	Outliers Analysis for Effect of Intention towards Environmental Protection Behaviour	195
Figure 5.8	Outliers Analysis for Behaviour Relating to Environmental Protection	196

Figure 5.9	Assessment of Normality	198
Figure 5.10	Confirmatory Factor Analysis for Attitude towards Green Marketing Concepts and Tools	240
Figure 5.11	Confirmatory Factor Analysis for Attitude towards Environmental Protection	241
Figure 5.12	Confirmatory Factor Analysis for Social Influence	241
Figure 5.13	Confirmatory Factor Analysis for Government's Role	242
Figure 5.14	Confirmatory Factor Analysis for Green Product Price	242
Figure 5.15	Confirmatory Factor Analysis for Awareness	243
Figure 5.16	Confirmatory Factor Analysis for Intention	243
Figure 5.17	Confirmatory Factor Analysis for Environmental Protection Behaviour	244
Figure 5.18	Illustration of Measurement Model	246
Figure 5.19	Initial Combined Measurement Model	250
Figure 5.20	Revised Combined Measurement Model	251
Figure 5.21	Illustration of Structural Model	253
Figure 5.22	Initial Structural Model	255
Figure 5.23	Improved Structural Model	257
Figure 5.24	Illustration of Structural Model One for Direct Effect	259
Figure 5.25	Structural Model One: Results of Direct Effect between Independent and Dependent Variables	261
Figure 5.26	Illustration of Structural Model Two for Mediation Effect	264
Figure 5.27	Structural Model of Awareness as Mediator between Att-GMKtg and EPB	269
Figure 5.28	Structural Model of Awareness as Mediator between Att-Ep and EPB	270
Figure 5.29	Structural Model of Awareness as Mediator Between SocInf and EPB	271
Figure 5.30	Structural Model of Awareness as Mediator between GovRol and EPB	272

Figure 5.31	Structural Model of Awareness as Mediator between ProPri and EPB	273
Figure 5.32	Structural Model of Intention as Mediator between Att-GMKtg and EPB	275
Figure 5.33	Structural Model of Intention as Mediator between Att-Ep and EPB	276
Figure 5.34	Structural Model of Intention as Mediator between SocInf and EPB	277
Figure 5.35	Structural Model of Intention as Mediator between GovRol and EPB	278
Figure 5.36	Structural Model of Intention as Mediator between ProPri and EPB	279
Figure 5.37	Illustration of Structural Model of Gender as a Moderator	281

## LIST OF ABBREVIATIONS

AMOS	Analysis of Moment Structure
Att-GMktg	Attitude towards Green Marketing Concepts and Tools
Att-Ep	Attitude towards Environmental Protection
SI, SocInf	Social Influence towards Environmental Protection Behaviour
GR, GovRol	Government's Role towards Environmental Protection Behaviour
PP, ProPri	Green Product Price Effect towards Environmental Protection Behaviour
AW	Awareness towards Environmental Protection Behaviour
INT	Intention towards Environmental Protection Behaviour
BEH	Behaviour Relating to Environmental Protection
CFA	Confirmatory Factor Analysis
et al.	And others
EFA	Exploratory Factor Analysis
S.A.W.	Sallallahu Alaihi Wa Sallam (Peace Be Upon Him)
S.W.T.	Subhanahu Wa Ta'ala (Praise be to Allah and The Most High)
SEM	Structural Equation Modelling
SPSS	Statistical Package for Social Sciences

# **CHAPTER ONE**

## **INTRODUCTION**

### **1.1 OVERVIEW**

An overview of this chapter presents the scope of the research which consists of six sections. The following section provides the background of this study, highlighting the objectives and importance of green marketing to the business organizations. The next section outlines the research problem in the context of green marketing in Malaysia, particularly from the perspective of environmental protection behaviour among Malaysian consumers. In the following section, the chapter provides a series of research background, problem statement, research questions and objectives. Also discussed was the significance of this research to the green marketers, the government and the consumers. Thereafter, this chapter concludes by providing a summary of the research's overall structure.

### **1.2 RESEARCH BACKGROUND**

Environmental issues have been a concern since the early days of the 19<sup>th</sup> century. Back in the 90s, scholars have raised their concern over the future state of the world's state of environment, anticipating the effect of over consumption and over production of commercial products, overuse and depletion of resources, as well as the issues of solid waste disposal (Banerjee & McKeage, 1994). After two decades of environmental dilemma, the issues of environmental degradation never seems to end. Although public concern over the environmental wellbeing has gradually increased over the past three decades since the inception of Earth Day, however, environmental degradation still persist (Kim & Choi, 2005).

Numerous environmental studies have been carried out in various different countries in search of consumers' attitude-behaviour relationships between consumers and their pro-environmental behaviour. These studies include those written by Salequzzman and Stocker (2001), Carrigan and Attala (2001), De Pelsmacker, Driesen and Glenn (2005); IshaSwini and Datta (2011); Mostafa (2009), Kaufmann, Panni, Ali Khan and Orphanidou (2012), Laroche, Bergeron and Barbaro-Forleo (2001), and Martin and Simintiras (1995), to name a few.

Before we proceed to discuss about green marketing, this research would try to understand the environmental issues in relation to consumers' environmental protection behaviour. In the Malaysian context, studies has been carried out to determine the criticality of the natural environment through the challenges of managing the municipal solid waste and its effect on the natural environment. Apart from the worsening of the air and water pollution (Ahmad Fariz, Wan Zuhairi, Mohd. Raihan & Abdul Rahim, 2009), the uncontrollable consumption, increasing population, and the high living cost has an effect on the increase in the amount of solid waste generated by consumers, which was found to be alarming (Mohamed Osman, Mohd. Nasir & Abdul Mujeebu, 2009). Equally worrying is the lack of solid waste planning and financial investment in recent years that has led to inadequate and poorly operated facilities (Mohd Dinie & Mashitah, 2012).

Table 1.1 provides the statistics on the amount of waste generated per day between the years 1996 to 2009. The state of Selangor followed by Kuala Lumpur have the highest amount of waste generated tons per day. The composition of waste generated comprised of a combination of organics as well as solid wastes (Agamuthu & Fauziah, 2011).

Table 1.1 Generation of Municipal Solid Waste in Malaysia by State (1996-2009)

State	Municipal Solid Waste Generation (tons/day)							
	1996	1998	2000	2002	2004	2006	2008	2009
Johor	1613	1786	1915	2093	2255	2430	2578	2655
Kedah	1114	1215	1324	1447	1559	1680	1782	1835
Kelantan	871	950	1034	1131	1213	1302	1382	1423
Melaka	433	480	515	563	605	650	690	711
Negeri Sembilan	637	695	757	828	890	957	1015	1046
Pahang	806	879	957	1046	1125	1210	1284	1322
Perak	1284	1402	1527	1669	1795	1930	2048	2109
Perlis	165	180	196	214	230	247	262	270
Pulau Pinang	916	999	1088	1089	1278	1375	1458	1502
Selangor	2380	2595	2827	3090	3322	3573	3790	3904
Terrengganu	743	811	883	965	1038	1116	1184	1219
Kuala Lumpur	2105	2305	2520	2755	3025	3323	3525	3631
WP Labuan	NA	NA	46	70	74.3	81.2	86.1	88.7
Sabah	NA	NA	NA	1905	2021	2208	2343	2413
Sarawak	NA	NA	NA	1905	2021	2208	2343	2413
Total	13070	14589	15587	21452	23073	24969	26489	27284

Note: NA - Not available.

Source: Agamuthu and Fauziah (2011)

Zeeda and Keng (2013) believed that the most critical challenge in sustaining waste management in Malaysia is to change the public attitude. They are in the opinion that although Malaysians are aware of the environmental issues, however, their concerns for the actual environmental impacts are generally low. Behzad, Rodzi, Saied, Elmira and Mokhtar (2011) also agreed that solid waste management has evolved into the most challenging task and this problem is further compounded by the rapid growth in urban population and changes in the consumers' consumption patterns. Lack of regulations and guidelines are one of the most serious problems that hinder the success of recycling programme in Malaysia (Hassan, Chong, Rahman, Salleh, Zakaria & Awang, 2001; Behzad et al., 2011). Generally, the greater the economic prosperity and the higher percentage of urbanization, the greater the amount of solid waste produced. As of 2016, the population of Kuala Lumpur city area reached 1.79 million people, while the