

**DETERMINANTS OF GREEN PRACTICES ADOPTION BEHAVIOURS  
AMONGST AIRLINE PASSENGERS IN MALAYSIA**

**WONG LIM JIN**

A thesis submitted in partial full fulfilment of the requirements for the degree of  
Doctor of Philosophy (Business Administration)

Cluster of Business and Management  
Open University Malaysia

2019

## DECLARATION

Name : Wong Lim Jin

Matric Number : CGS00850710

I hereby declare that this dissertation is the result of my own work, except for quotations and summaries which have been duly acknowledged.

Signature:

Date: 14/4/2019

# DETERMINANTS OF GREEN PRACTICES ADOPTION BEHAVIOURS AMONGST AIRLINE PASSENGERS IN MALAYSIA

WONG LIM JIN

April 2019

## ABSTRACT

Previous studies on green practices in airline industry have been devoted to observing efforts to reduce cost, drivers influencing environmental commitment and passenger perceptions of the green image associated with airlines. Scant research exists on addressing airline passenger's attitude and behaviour towards green practices adoption. Therefore, passenger's attitude towards green practices adoption and the relationship to green practices adoption behaviour is worthy for empirical studies. Furthermore, Theory of Planned Behaviour (TPB) has yet been employed to investigate green practices adoption in airline industry. TPB was thus employed as a theoretical underpinning in this study and was modified by adding two independent constructs of perceived consumer effectiveness and perceived sacrifice. This study attempts to investigate the influence of TPB components on voluntary green practices adoption amongst airline passengers in Malaysia. Furthermore, this study aims to investigate the distinct contribution of perceived consumer effectiveness and perceived sacrifice on green practices adoption behaviour. Subsequently, a model will be proposed to explain green practices adoption behaviour. This study employed intercept survey to collect data. Self-administered questionnaires were distributed to respondents who have travelled by air and have flown from or to Kuala Lumpur International Airport or Kuala Lumpur International Airport 2 in the past 12 months. A total sample size of 400 was determined by employing convenience sampling. 400 questionnaires had been distributed and 379 were deemed usable. Results obtained from data screening indicated that missing data, outlier and normality were not substantial problems for the collected data. Besides, validity, reliability and unidimensionality had been established for this study. Results of hypotheses testing indicated that two hypotheses were not supported. Perceived behavioural control and perceived consumer effectiveness were found not to influence green practices adoption behaviour. Findings of this study are expected to enable effective and efficient implementation of green practices. Successful implementation of green practices subsequently helps airline companies, government and policymakers to reduce wastes, costs and minimize negative impacts to the environment.

**Keywords:** Airline, Green Practices Adoption, Perceived Consumer Effectiveness, Perceived Sacrifice, Theory of Planned Behaviour

# FAKTOR-FAKTOR YANG MENENTUKAN PELAKSANAAN AMALAN HIJAU OLEH PENUMPANG-PENUMPANG PENERBANGAN DI MALAYSIA

WONG LIM JIN

April 2019

## ABSTRAK

Kajian-kajian sebelum ini tentang amalan hijau dalam industri penerbangan telah memberi tumpuan kepada usaha dalam mengurangkan kos, faktor mempengaruhi tanggungjawab terhadap alam sekitar dan persepsi penumpang tentang imej hijau berkaitan dengan syarikat penerbangan. Penyelidikan untuk menangani sikap dan tingkah laku penumpang-penumpang penerbangan terhadap pelaksanaan amalan hijau adalah kurang. Oleh itu, kajian empirikal tentang sikap penumpang terhadap pelaksanaan amalan hijau dan hubungannya dengan tingkah laku pelaksanaan amalan hijau harus dijalankan. Tambahan pula, Teori Tingkah Laku Terancang (TPB) belum pernah digunakan untuk menyiasat pelaksanaan amalan hijau dalam industri penerbangan. Oleh itu, TPB telah digunakan sebagai teori asas dan diubahsuaikan dengan menambah dua pembolehubah bebas iaitu persepsi terhadap keberkesanan pengguna dan persepsi terhadap pengorbanan. Dengan itu, matlamat kajian ini adalah membuat analisis mengenai pengaruh komponen-komponen TPB terhadap pelaksanaan amalan hijau oleh penumpang-penumpang penerbangan. Kajian ini juga berusaha untuk menyelidik sumbangan persepsi terhadap keberkesanan pengguna dan persepsi terhadap pengorbanan dalam meramalkan pelaksanaan amalan hijau. Seterusnya, satu model untuk meramalkan pelaksanaan amalan hijau akan dicadangkan. Kajian ini telah menggunakan soal selidik pantas untuk mengumpul data. Borang soal selidik telah diagihkan kepada penumpang-penumpang penerbangan yang pernah berlepas atau tiba di Lapangan Terbang Antarabangsa Kuala Lumpur atau Lapangan Terbang Antarabangsa Kuala Lumpur 2 dalam tempoh 12 bulan yang lalu. Saiz sampel sebanyak 400 telah ditentukan dengan menggunakan persampelan mudah, dan 379 borang yang dipulangkan boleh digunakan dalam data analisis. Hasil pemeriksaan data menunjukkan bahawa data yang dikumpulkan adalah sah dan boleh dipercayai. Selain itu, ujian hipotesis menunjukkan bahawa dua hipotesis tidak disokong. Oleh itu, persepsi terhadap kawalan tingkah laku dan persepsi terhadap keberkesanan pengguna didapati tidak mempengaruhi pelaksanaan amalan hijau. Penemuan kajian ini akan membolehkan pelaksanaan amalan hijau yang berkesan dan cekap. Lebih-lebih lagi, keberkesanan dan kecekapan dalam pelaksanaan amalan hijau membantu syarikat penerbangan, kerajaan dan pembuat polisi dalam mengurangkan sampah-sarap, kos dan kesan-kesan buruk terhadap alam sekitar.

**Kata Kunci:** Syarikat Penerbangan, Pelaksanaan Amalan Hijau, Persepsi terhadap Keberkesanan Pengguna, Persepsi terhadap Pengorbanan, Teori Tingkah Laku Terancang

## ACKNOWLEDGEMENTS

Foremost, I would like to express my sincere gratitude to my first supervisor, Associate Professor Dr. Zorah Abu Kassim for her continuous support of my Ph.D. study. I am grateful for her enthusiasm, patience and immense of knowledge in guiding me through writing of this thesis. I could not have imagined having a better supervisor for my Ph.D. study.

Besides, this work would not have been possible without the endless support of Dr. Joseph Sia Kee Ming, second supervisor for my Ph.D. study. He has been a tremendous mentor for me. I would like to thank him for encouraging and guiding my research and writing of this thesis. His advice on both research as well as my career have been priceless.

I would also like to extend my thankfulness to Professor Loo, Associate Professor Dr. Santhi, Associate Professor Dr. Tih, Dr. Shishi and Dr. Faizah for their constructive comments, suggestions and supports on my model and questionnaire developments. Moreover, I would like to acknowledge the Ministry of Higher Education Malaysia for granting me the MyPhD scholarship in December 2013 to assist my studies.

Finally, I would like to thank my family, whose love and guidance are with me in the pursuit of this Ph.D. study. I would also like to thank all my friends who supported me in writing of this thesis, and encouraged me to strive towards my goal.

# TABLE OF CONTENTS

<b>TITLE PAGE</b>		
<b>DECLARATION</b>	ii	
<b>ABSTRACT</b>	iii	
<b>ABSTRAK</b>	iv	
<b>ACKNOWLEDGEMENTS</b>	v	
<b>TABLE OF CONTENTS</b>	vi	
<b>LIST OF TABLES</b>	xii	
<b>LIST OF FIGURES</b>	xiii	
<b>CHAPTER 1</b>	<b>INTRODUCTION</b>	
1.1	Introduction	1
1.2	Green Practices	4
1.3	Green Practices by Airlines	5
1.4	Green Practices Adoption by Airline Passengers	8
1.5	Problem Statement	11
1.6	Objectives of the Study	17
1.7	Research Questions	18
1.8	Significance of the Study	19
1.9	Limitations of the Study	23
1.10	Scope of the Study	24
1.11	Definitions of Terms	24
1.12	Conclusion	28
<b>CHAPTER 2</b>	<b>LITERATURE REVIEW</b>	
2.1	Introduction	29
2.2	Aviation History in Malaysia	30
2.3	Airline Industry in Malaysia	32
2.4	Airport Network in Malaysia	37
2.5	Consumer Behaviour	39
2.5.1	Definitions of Consumer Behaviour	39

2.5.2	History of Consumer Behaviour Movement	40
2.5.3	Theories in Consumer Behaviour	41
2.6	Green Practices Adoption Behaviour	43
2.6.1	Definitions of Green Practices	43
2.6.2	Consumer's Green Practices Adoption Behaviour	43
2.7	Theory of Reasoned Action (TRA)	45
2.7.1	Dimensions of TRA	45
2.7.2	Limitations of TRA	49
2.8	Theory of Planned Behaviour (TPB)	51
2.8.1	Dimensions of TPB	52
2.8.2	Limitations of TPB	55
2.8.3	Studies of TPB	56
2.9	Extended Theory of Planned Behaviour	58
2.10	Perceived Consumer Effectiveness	60
2.10.1	Definitions of Perceived Consumer Effectiveness	60
2.10.2	Studies in Perceived Consumer Effectiveness	62
2.10.3	Perceived Consumer Effectiveness as a Construct	62
2.11	Perceived Sacrifice	64
2.11.1	Definitions of Perceived Sacrifice	64
2.11.2	Types of Perceived Sacrifice	65
2.11.3	Perceived Sacrifice as a Construct	66
2.12	Conceptual Framework	67
2.13	Research Hypotheses	69
2.13.1	Behavioural Beliefs Influence Attitude towards Green Practices Adoption	70
2.13.2	Normative Beliefs Influence Subjective Norm to Adopt Green Practices	71
2.13.3	Control Beliefs Influence Perceived Behavioural Control to Adopt Green Practices	72
2.13.4	Attitude towards Green Practices Adoption Influences Behavioural Intention to Adopt Green Practices	73

2.13.5 Subjective Norm to Adopt Green Practices Influences Behavioural Intention to Adopt Green Practices	74
2.13.6 Perceived Behavioural Control to Adopt Green Practices Influences Behavioural Intention to Adopt Green Practices	75
2.13.7 Perceived Behavioural Control to Adopt Green Practices Influences Green Practices Adoption Behaviour	76
2.13.8 Behavioural Intention to Adopt Green Practices Influences Green Practices Adoption Behaviour	77
2.13.9 Perceived Consumer Effectiveness Influences Attitude towards Green Practices Adoption	78
2.13.10 Perceived Consumer Effectiveness Influences Green Practices Adoption Behaviour	79
2.13.11 Perceived Sacrifice Influences Behavioural Intention to Adopt Green Practices	80
2.13.12 Perceived Sacrifice Influences Green Practice Adoption Behaviour	81
2.14 Conclusion	82

### **CHAPTER 3 METHODOLOGY**

3.1 Introduction	83
3.2 Research Design	84
3.2.1 Purpose of Study	84
3.2.2 Research Setting	86
3.3 Sampling Techniques	87
3.4 Data Collection Procedures	90
3.4.1 Ethical Issues	92
3.5 Questionnaire Design	93
3.5.1 Questionnaire Items Generation	93
3.5.2 Rating Scales of Items	95
3.5.3 Pre-test and Pilot Test	100
3.6 Data Preparation	102
3.6.1 Missing Data	102
3.6.2 Outliers	103

3.6.3	Normality	104
3.7	Validation of Measures	105
3.7.1	Validity	105
3.7.2	Reliability	108
3.7.3	Unidimensionality	110
3.8	Data Analysis	110
3.8.1	Descriptive Analysis	111
3.8.2	Confirmatory Factor Analysis (CFA)	111
3.8.3	Structural Equation Modelling (SEM)	112
3.9	Conclusion	118

## **CHAPTER 4 DATA ANALYSIS AND RESULTS**

4.1	Introduction	119
4.2	Pilot Test Results	120
4.3	Data Preparation and Screening	121
4.3.1	Missing Data Analysis	124
4.3.2	Outlier Analysis	125
4.3.3	Normality Analysis	126
4.4	Demographic Profile of Respondents	129
4.5	Descriptive Analysis of Measurement Scales	132
4.6	Assessment of Common Method Variance	134
4.7	Measurement Model Evaluation (CFA)	139
4.7.1	Goodness-of-Fit Assessment	142
4.7.2	Assessment of Convergent Validity	144
4.7.3	Assessment of Discriminant Validity	147
4.7.4	Assessment of Reliability	149
4.7.5	Assessment of Unidimensionality	150
4.8	Structural Model Evaluation	151
4.8.1	Structural Model 1	152
4.8.2	Structural Model 2	155
4.8.3	Structural Model 3	157
4.9	Hypotheses Testing	159

4.10	Conclusion	161
<b>CHAPTER 5</b>	<b>DISCUSSION AND CONCLUSION</b>	
5.1	Introduction	163
5.2	Summary of Findings	164
5.3	Discussion of the Findings	170
5.3.1	Behavioural Beliefs and Attitude towards Green Practices Adoption	170
5.3.2	Normative Beliefs and Subjective Norm to Adopt Green Practices	172
5.3.3	Control Beliefs and Perceived Behavioural Control to Adopt Green Practices	174
5.3.4	Attitude towards Green Practices Adoption and Behavioural Intention to Adopt Green Practices	175
5.3.5	Subjective Norm to Adopt Green Practices and Behavioural Intention to Adopt Green Practices	177
5.3.6	Perceived Behavioural Control to Adopt Green Practices and Behavioural Intention to Adopt Green Practices	178
5.3.7	Perceived Behavioural Control to Adopt Green Practices and Green Practices Adoption Behaviour	180
5.3.8	Behavioural Intention to Adopt Green Practices and Green Practices Adoption Behaviour	183
5.3.9	Perceived Consumer Effectiveness and Attitude towards Green Practices Adoption	185
5.3.10	Perceived Consumer Effectiveness and Green Practices Adoption Behaviour	187
5.3.11	Perceived Sacrifice and Behavioural Intention to Adopt Green Practices	190
5.3.12	Perceived Sacrifice and Green Practices Adoption Behaviour	191
5.3.13	Proposed Model for Green Practices Adoption	194
5.4	Implications of the Study	196
5.4.1	Theoretical Implications	196
5.4.2	Managerial Implications	202
5.5	Limitations of the Study	208

5.6	Suggestions for Future Research	210
5.7	Conclusion	212
	<b>REFERENCES</b>	215
	<b>APPENDICES</b>	279
	Appendix A: Pilot Test Questionnaire	280
	Appendix B: Final Questionnaire	286

## LIST OF TABLES

Table 2.1:	Total Passenger Traffics in Malaysian Airports (2007-2016)	35
Table 3.1:	Passenger Traffics at Major Airports in Malaysia Years 2015 and 2016	87
Table 3.2:	Summary of Set of Questions for Each Construct	97
Table 3.3:	Summary of Analytical Framework	114
Table 4.1:	Cronbach's Alpha Coefficients for Each Construct in Pilot Test	120
Table 4.2:	Coding Procedures	122
Table 4.3:	Extract of Mahalanobis Distance	126
Table 4.4:	Skewness and Kurtosis Values for Each Item	127
Table 4.5:	Demographic Profile of Respondents	130
Table 4.6:	Descriptive Statistics for Each Construct	133
Table 4.7:	Summary of Herman's Single Factor Test for Common Method Variance	136
Table 4.8:	Goodness-of-Fit Indices of Measurement Model	143
Table 4.9:	Factor Loadings, AVE and Composite Reliability for Each Construct	146
Table 4.10:	Discriminant Validity of Constructs	148
Table 4.11:	Cronbach's Alpha Coefficients for Each Construct	150
Table 4.12:	Standardized Betas of All Hypothesized Paths in Structural Model 1	154
Table 4.13:	Standardized Betas of All Hypothesized Paths in Structural Model 2	157
Table 4.14:	Standardized Betas of All Hypothesized Paths in Structural Model 3	159
Table 4.15:	Results of Hypotheses Testing	160
Table 5.1:	Summary of the Findings	168

## LIST OF FIGURES

Figure 2.1:	Relationship between Attitude towards the Behaviour and behavioural intention in Theory of Reasoned Action (Fishbein & Ajzen, 1975)	47
Figure 2.2:	Relationship between Subjective Norm and Behavioural Intention in Theory of Reasoned Action (Fishbein & Ajzen, 1975)	48
Figure 2.3:	Theory of Reasoned Action (Fishbein & Ajzen, 1975)	49
Figure 2.4:	Theory of Planned Behaviour (Ajzen, 1985; 1991)	53
Figure 2.5:	Conceptual Framework	68
Figure 4.1:	Confirmatory Factor Analysis for Common Method Variance	138
Figure 4.2:	Pooled Measurement Model	141
Figure 4.3:	Structural Model 1	153
Figure 4.4:	Structural Model 2	156
Figure 4.5:	Structural Model 3	158
Figure 5.1:	Proposed Model for Green Practices Adoption	195

## CHAPTER 1

### INTRODUCTION

#### 1.1 Introduction

Malaysia registered an increase of 4.7 per cent in total passenger traffic in year 2014 when compared to year 2013 (MAHB, 2015). However, Malaysia Airlines (MAS) registered a net loss of 430.74 million Malaysian Ringgit for the financial year 2012 (Malaysia Airlines, 2013). In year 2013, the airline's net losses increased to 1.17 billion Malaysian Ringgit (Malaysia Airlines, 2014). AirAsia meanwhile, had its net profit dropped by 54.14 per cent to 362.12 million Malaysian Ringgit for the financial year 2013 (AirAsia, 2014). In year 2014, AirAsia's net profit further dropped by 77.12 per cent to 82.84 million Malaysian Ringgit when compared to year 2013 (AirAsia, 2015). Moreover, AirAsia's medium and long haul subsidiary, AirAsia X incurred net losses of MYR 88.27 million and MYR 519.34 million respectively in year 2013 and year 2014 (Chin, 2015). Airline companies therefore have to implement various green practices to reduce their operating costs in order to stay competitive and profitable in Malaysian airline industry.

According to Lenzen, Sun, Faturay, Ting, Geschke and Malik (2018), tourism is accountable for around eight per cent of the world's carbon emissions, with aviation one of the significant contributors of global greenhouse gas emissions such as carbon dioxide, carbon monoxide and nitrogen oxides. Moreover, aviation is responsible for five per cent of global warming, and there is an increasing demand from travellers worldwide to travel by air (Gabbatiss, 2018). Airline companies can implement various green practices in their daily operations such as electronic ticketing, web check-in, the use of electronic boarding pass, recycling and rubbish collection in the cabin to minimize negative impacts brought by air travel to the environment.

Previous studies indicated that green practices when adopted successfully by business organizations, can help to reduce cost and maximize profit (Borchardt, Wendt, Pereira & Sellitto, 2011; Cervera & Flores, 2012; Gonzalez-Prida & Raman, 2015; Jayaraman, Singh & Anandnarayan, 2012; Mattison-Schupnick, 2013; Younis, Sundarakani & Vel, 2016; Zokaei, Lovins, Wood & Hines, 2013). In addition to reducing cost, the adoption of green practices can reduce waste, prevent pollution and minimize damage to the environment (Borchardt et al., 2011; Harrison, 2013; Lee, Abdul Wahid & Goh, 2013; Molla & Abareshi, 2012; Pickard-Whitehead, 2017; Tidy, Wang & Hall, 2016; Tuttle, 2015).

This study therefore investigates factors that influence attitudes, behavioural intentions and green practices adoption behaviours of airline passengers in Malaysia to warrant an effective and efficient implementation of green practices by airline companies. However, a review of literature indicates that limited studies have been conducted to

investigate airline passenger's attitude and behaviour towards green practices adoption. Most of the researchers have studied efforts to reduce costs, drivers that influence airline's environmental commitment and passenger's perceptions of the green image associated with airlines (Cowper-Smith & de Grosbois, 2011; Mayer, Ryley & Gillingwater, 2015; Springer, 2017). Furthermore, this study employed Ajzen's Theory of Planned Behaviour (TPB) to investigate determinants of green practices adoption behaviours amongst airline passengers in Malaysia. Although TPB has been widely used to investigate green practices adoption such as recycling behaviours and environmental behaviours in the workplace (Chan & Bishop, 2013; de Leeuw, Valois, Ajzen & Schmidt, 2015; Greaves, Zibarras & Stride, 2013; Liao, Zhao & Zhang, 2018), research on green practices adoption in the airline industry using TPB is limited and has not been widely conducted.

Therefore, TPB was chosen as the underpinning theory for this study and was extended by adding two independent constructs of perceived consumer effectiveness and perceived sacrifice to investigate airline passenger's attitude and behaviour towards green practices adoption in Malaysia. This chapter provides background of study, problem statement, research objectives and questions, significance and limitations of the study, and operational definitions of key terms. The next section provides background of study, starting with an overview of green practices.

## 1.2 Green Practices

Manaktola and Jauhari (2007) defined green practices as practices that are less damaging to the environment such as water saving, energy saving and waste reduction. Mohindra (2008) further defined that green practices consist of the 3Rs: reduce, reuse and recycle. Montabon, Sroufe and Narasimhan (2007) categorized reducing pollution, conserving energy and using environmentally friendly materials as green practices. Kruger and Seville (2012) on the other hand, defined green practices as practices that minimize environmental impact. Furthermore, Smith and Perks (2010) suggested that green practices are practices that are environmentally sound such as the use of organic products. Hence, green practices are defined to be eco-friendly practices that pose no or little harm to the environment and contribute towards conserving, preserving and protecting Mother Nature. In the context of this study, green practices are practices implemented by airline companies that can minimize negative impacts to the environment such as web check-in and the use of electronic boarding pass.

Studies have shown that adoption of green practices is an effective cost reduction strategy implemented by airlines (Coles, 2015; Davies, 2015; Johnson & Gonzalez, 2013; Lynes & Dredge, 2006; McCormick, 2013), food services and restaurants (Alois, 2017; Chiu & Hsieh, 2016; Lee et al., 2013; Ma & Ghiselli, 2016; Mealy, 2018), hotels (Chen & Tung, 2014; Jackson, 2010; Ng, 2011; Nicholls & Kang, 2012; Pereira-Moliner, Font, Tari, Molina-Azorin, Lopez-Gameiro & Pertusa-Ortega, 2015), hospitals (Rico & Oruezabala, 2012), manufacturing companies (Borchardt et al., 2011; Gahm, Denz, Dirr & Tuma, 2016; Jayaraman et al., 2012; Zhou, 2016) and logistics

companies (Blanco & Sheffi, 2017; Ramirez, Morales & Bendito, 2011; Younis et al., 2016). Subsequently, cost reduction leads to sustainability and survival in business (Norton, 2010) and better reputation for the firm (Lee et al., 2013; Lynes & Dredge, 2006; Mayer, Ryley & Gillingwater, 2012). Furthermore, adoption of green practices saves the environment through recycling, reusing, minimizing waste and noise, preventing pollution, reducing the consumption of energy, water and natural resources (Jackson, 2010; Johnson, 2010; Lee et al., 2013; Molla & Abareshi, 2012; Tidy et al., 2016).

### **1.3 Green Practices by Airlines**

Escalating oil prices, high operating costs, increasing competition within the industry and air disasters are reasons that contribute to Malaysia Airlines (MAS) and AirAsia struggling to compete in Malaysian airline industry. For example, MAS registered a net loss of 1.17 billion Malaysian Ringgit for the financial year 2013 (Malaysia Airlines, 2014). Furthermore, MAS had its net losses increased by another 59 per cent in the first quarter of year 2014 when compared to the same period a year ago, following the disappearance of flight MH370 on March 8, 2014 (“Missing Airplane Mystery Deepens Malaysia Airlines Losses by 59%”, 2014). Khazanah Nasional Berhad, the major shareholder of MAS then made decision to delist the airline from Kuala Lumpur Stock Exchange on August 8, 2014 (Ng, 2014). Khazanah Nasional Berhad planned to achieve profitability three years after delisting and relist the airline between three to five years after delisting (Khazanah Nasional Berhad, 2014). Recently, Chief Executive Officer of MAS, Izham Ismail announced that the airlines will likely report profit by

the first quarter of year 2019 (“Malaysia Airlines Likely to be Profitable in Q1 of 2019”, 2018).

One strategy to stay profitable in the airline industry is for airlines to reduce costs (Vazquez Sampere, 2017). For example, Southwest Airlines, an United States based low cost carriers, have remained profitable consecutively for the past 39 years through various cost reduction strategies such as operating a standardized fleet and a point-to-point routing system (Schlanger, 2012). Furthermore, Dubai based Emirates Airlines have achieved high profit margins through reducing the fuel costs and break-even seat load factor (Rahman, 2010). Another example is AirAsia. The airline group’s net profit for the financial year 2016 was 2.05 billion Malaysian Ringgit, representing an increase of 278.73 per cent when compared to the group’s net profit of 541.28 million Malaysian Ringgit in year 2015. This was achieved through fuel cost savings as 31 per cent of AirAsia’s operating costs in year 2016 were related to fuel (AirAsia, 2017).

Cost reductions can be achieved through implementation of various green practices (Borchardt et al., 2011; Cervera & Flores, 2012; Jayaraman et al., 2012; Mattison-Schupnick, 2013; Pereira-Moliner et al., 2015; Younis et al., 2016). Furthermore, cost reductions in the airline industry can be achieved through recycling (Springer, 2017). In year 2013, fuel efficiency had contributed a savings of 114 million Malaysian Ringgit for MAS. Furthermore, cost reductions from implementation of green practices had contributed another savings of 16.4 million Malaysian Ringgit (Malaysia Airlines, 2014). Although the result in cost reductions may not be significant yet, but green practices implementation by airlines is still in its infancy stage.

Electronic ticketing, web check-in, the use of electronic boarding pass and baggage limits are common green practices implemented by airline companies worldwide. Electronic ticketing, web check-in and the use of electronic boarding pass allow airlines to reduce cost by saving paper. Many airlines such as United Airlines have implemented paperless ticketing to cut operational costs (O'Connell & Williams, 2016). Ryanair is another example of an airline's initiatives in reducing waste that has resulted in increasing efficiency (McCormick, 2013). The baggage limits imposed on every passenger meanwhile, allows airlines to reduce fuel cost because the lighter the load, less fuel will be consumed. Besides, energy saving lightings by use of sensors and timer switches and water saving facilities such as self-closing taps can be installed in the airport buildings to save on energy and water and subsequently reduce operational costs. A few airports in the world have achieved the green building certification. For example, San Francisco International Airport's Terminal Two received Leadership in Energy and Environment Design (LEED) Gold Certificate Award in year 2011 for sustainability features such as water saving and waste reducing ("San Francisco International Airport: Green buildings", n.d.). Airlines have also started to use biofuel as a cheaper alternative to diesel for aircrafts. One example is Qantas that uses biofuel manufactured from mustard seeds for aircrafts to reduce carbon emissions and operational costs (Zhou, 2018).

In addition to reducing cost, the adoption of green practices can help to preserve our environment. Examples of green practices conducted by many airlines to reduce waste are rubbish collection by cabin crews, waste collection for recycling and the use of recycled materials in the cabin such as newspapers, in-flight magazines and food packaging. For example, Singapore Airlines collect bottles and aluminium cans in the

cabin for recycling purposes (Singapore Airlines, 2010). Japan Airlines recycle newspapers, in-flight magazines, old crew uniforms, aluminium cans and water bottles (“Japan Airlines: CSR activities: Environmental activities: For water, air and the earth: Waste materials”, n.d.). US Airways meanwhile, use recycled materials to produce tissue papers, toilet papers and paper towels since April 2011, resulting in reduced amount of paper used and saves trees (“US Airways: Company info: Press room: Going green”, n.d.). Another airline that implements green practices is Virgin America. Virgin America does not provide in-flight magazines. The airline recycles waste from their flights. Meals on board are served in biodegradable containers with minimal packaging. Furthermore, environmentally-friendly soap is used in lavatories in cabins on board Virgin America’s flights. (“Smarter Travel: Editors’ Choice Awards 2010: Most eco-friendly airline”, 2010).

#### **1.4 Green Practices Adoption by Airline Passengers**

Green practices adoption is different from green practices acceptance. There is a paucity of study conducted to compare adoption of green practices with acceptance of green practices. However, a few studies have been conducted to compare adoption of technology with acceptance of technology. According to Renaud and van Biljon (2008), technology adoption is defined to be a process where the user embraces and makes full use of technology after the user becomes aware of the technology. Technology acceptance on the other hand, is an attitude towards using technology influenced by various factors such as ease of use of such technology. Therefore, green practices adoption can be derived in the context of this study as the actual adoption of green

practices by airline passengers, whereas green practices acceptance is favourable attitudes of airline passengers towards green practices adoption.

Research into consumer's green practices adoption or green consumer behaviour has commenced as early as 1970s (Hartmann & Ibáñez, 2006). In recent years, however, there is a resurgence in interest among society on consumer's green practices adoption. This is due to social public's perception that human activities are having adverse effects on the environment such as global warming (Appenzeller & Dimick, 2004). Climate change has become a major concern, with the earth's surface temperature in year 2017 was the second warmest since year 1880 (Aggarwal & Sreevatsan, 2018). The world community has begun to show concern. For example, 196 nations attended the 21<sup>st</sup> session of the Conference of the Parties (COP21) in Paris in year 2015 have voted to take actions to limit the temperature increase (Chappell, 2015).

The concern about the environment has resulted in environmentally responsible behaviours amongst consumers. For example, Canadian travellers are inclined to adopt green practices while traveling around the globe (Dhawan, 2013). Furthermore, 80 per cent of Europeans are concerned about the nature, and thus are more likely to adopt green practices (WWF, BirdLife International, Friends of the Earth Europe, and European Environmental Bureau, 2015). Examples of green practices adopted by consumers that have become subjects of interest to researchers include recycling (Chan & Bishop, 2013; de Leeuw et al., 2015; Greaves et al., 2013; Nigbur, Lyons & Uzzell, 2010; Nordlund, Eriksson & Garvill, 2013), water saving (Cooper, 2017; Dolnicar, Hurlimann & Grün, 2012) and green products or services purchasing (Chen & Tung,

2014; Hossain & Lim, 2016; Kim, Njite & Hancer, 2013; Moons & De Pelsmacker, 2012; Reimers, Magnuson & Chao, 2017).

In the context of airline passengers, they still want to travel and are not willing to give up air travel even though they are aware of negative environmental impacts caused by air travel and are showing concern towards environmental issues such as global warming (Mayer et al., 2012). This has created an opportunity for airlines to communicate their environmental initiatives to consumers through green marketing. Moravcikova, Krizanova, Kliestikova and Rypakova (2017) described green marketing as the effort of a business organization to produce and promote products or services with minimal negative environmental impact. Subsequently, airlines are able to gain reputation as social responsible corporations that could be attractive to consumers (Lee et al., 2013; Mayer et al., 2012). Furthermore, this has resulted in favourable attitudes of airline passengers towards green practices adoption.

According to consumer's perception, green practices such as using newer aircraft, reducing waste by not offering food on board and using biofuels are particularly effective in addressing environmental issues caused by air transport (Mayer et al., 2012). Green practices implemented by airlines are categorized into mandatory and voluntary green practices in this study. Mandatory green practices such as reduced carbon dioxide emissions, fuel efficiency and electronic ticketing are enforced by either International Air Transport Organization (IATA), International Civil Aviation Organization (ICAO) or airline companies. Airline passengers have to adopt these green practices under all circumstances. For example, IATA set May 31, 2008 deadline for the issuance of

electronic or paperless tickets to all member airlines (Deveau, 2008). Starting this day, all systems used to print paper tickets at airline offices and travel agencies will be disabled and replaced with new electronic ticketing systems (Deveau, 2008). In the Malaysian context, MAS introduced electronic ticketing effective May 30, 2007 (“Malaysian Airlines Introduces eTicketing”, 2007).

On the other hand, airline passengers have no obligation to adopt green practices that are categorized as voluntary. Performing web check-in and using electronic boarding passes are considered as voluntary green practices. Airline passengers therefore, may or may not adopt these green practices even though they have favourable attitudes towards green practices adoption. The adoption of voluntary green practices is influenced by factors such as amount of effort required to adopt green practices, amount of comfort and convenience airline passengers are willing to sacrifice during adoption of green practices. This study therefore attempts to investigate factors that influence voluntary green practices adoption amongst airline passengers in Malaysia.

### **1.5 Problem Statement**

Both major airlines (MAS and AirAsia) have suffered either net losses or reduced profits from year 2009 to year 2014. Therefore, the airline industry has proven to be a challenging and highly competitive industry to be in. One strategy to stay competitive and profitable in the airline industry is for airlines to reduce costs. Porter and van der Linde (1995) indicated that a firm’s competitiveness in an industry can be attained by incurring lower costs than competitors. Sahajwani (2012) stated cost reductions in

airline companies can be achieved through reducing fleet size, laying off employees, terminating pension plans and reducing wages of existing employees. For example, Qantas has started to freeze pay and stop paying out bonuses to the company's executives in year 2014 as a cost reduction strategy (Paterson, 2013). Furthermore, airlines have shut down some uneconomical routes due to low passenger loads to cut losses. For example, MAS suspended the Kuala Lumpur – Los Angeles air route effective from April 30, 2014 as the route was no longer economically viable due to low passenger loads ("Malaysia Airlines to Suspend Flights to Los Angeles", 2014). Besides, AirAsia has decided to suspend flights to Kalibo, Surat Thani and Tehran at different points in time in year 2018 until further notice (Thiagarajan, 2018).

Although laying off and downsizing of employees are effective cost reduction strategies, these strategies can only be used as a last resort when all other cost reduction strategies fail (Sirota & Klein, 2014). For example, National Union of Flight Attendants Malaysia (NUFAM) threatened to stage a protest and launch a strike after MAS sent out termination letters to the company's 6,000 employees (Lee, 2015). Therefore, airline companies need to seriously consider encouraging green practices adoption amongst passengers as one initiative for reducing costs. This study thus attempts to investigate determinants of green practices adoption behaviours amongst airline passengers in Malaysia.

Over the years, environmental issues such as global warming and pollution have become a major concern in the tourism industry (Cohen & Cohen, 2012; Laroche, Bergeron & Barboro-Forleo, 2001; Packer, Ballantyne & Hughes, 2014; Roberts, 1996).

Furthermore, research on environmental issues caused by air travel has assumed greater significance over the last few years (Mayer et al., 2012). High level of carbon emissions and fuel consumption, waste production, air and noise pollution are some of the most significant environmental impacts caused by air travel (Becken, 2002; Moores, 2013). In essence, air travel is accountable for around five per cent of global warming (Gabbatiss, 2018).

One of the goals set during the 2015 Paris Agreement was to avoid racing past warming of 1.5 degrees Celsius over pre-industrial levels. The goal looks increasingly unlikely to achieve and the world has just 12 years to keep global warming under control to save earth from major climate change catastrophe (Mooney & Dennis, 2018). Effective and efficient adoption of green practices such as web check-in, the use of electronic boarding pass and recycling by airline passengers can help to keep global warming to moderate levels and minimize damage to the environment. Therefore, it is important for this study to get an insight into perceptions of airline passengers towards green practices implemented by airlines such as web check-in and the use of electronic boarding pass.

Ajzen's Theory of Planned Behaviour (TPB) has been widely used in the contexts of green practices adoption such as recycling behaviour (Chan & Bishop, 2013; de Leeuw et al., 2015; Greaves et al., 2013; Nordlund et al., 2013), intention to save water (Cooper, 2017; Fielding, Russell, Spinks & Mankad, 2012), intention to buy green products or services (Chen & Tung, 2014; Hossain & Lim, 2016; Kim et al., 2013), intention to use alternative transportation (Afroz, Masud, Akhtar, Islam & Duasa, 2015; Gardner &

Abraham, 2010; Moons & De Pelsmacker, 2012; Nordlund et al., 2013) and environmental behaviour in the workplace (Blok, Wesselink, Studynka & Kemp, 2015; Cordano & Frieze, 2000; Greaves et al., 2013; Liao et al., 2018). However, research on green practices adoption in the airline industry using TPB is limited and has not been widely conducted. This is the first research gap this study attempts to address. Therefore, conducting a study on green practices adoption in airline industry using TPB is considered timely.

Although TPB has been widely used to predict a wide range of behavioural intentions or behaviours, existing constructs in the model may not be sufficient when predicting certain behaviours such as green practices adoption behaviour (Bagozzi, 2007; Perugini & Bagozzi, 2001). Therefore, Pavlou and Fygenson (2006) suggested extending the TPB with other constructs. Furthermore, Ajzen (1991) argued that TPB can be extended by adding new variables into original model or by altering the existing paths of the original model. In order to address this research gap, TPB was therefore chosen as the underpinning theory and was extended in this study by adding two independent constructs of perceived consumer effectiveness and perceived sacrifice to investigate green practices adoption behaviours amongst airline passengers in Malaysia.

Perceived consumer effectiveness is an individual's beliefs in the results of own actions in stopping environmental issues (Kinnear, Taylor & Ahmed, 1974). Perceived consumer effectiveness has been used in previous studies to predict environmentally friendly behaviours such as socially responsible purchasing behaviour (Nguyen, Lobo, Nguyen, Phan & Cao, 2016; Tucker, Rifon, Lee & Reece, 2015; Wesley, Lee & Kim,

2012; Zhao, Gao, Wu, Wang & Zhu, 2014). For example, Nguyen et al. (2016) in a study to investigate conservation behaviours amongst Vietnamese consumers, indicated that perceived consumer effectiveness is the most influential determinant of consumers' pro-environmental behaviours. As green practices adoption behaviour can be considered as environmentally friendly behaviour, perceived consumer effectiveness can thus be used in this study to predict airline passenger's green practices adoption behaviour.

Therefore, perceived consumer effectiveness as a construct was included in this study to investigate green practices adoption behaviours amongst passengers in the airline industry. Perceived consumer effectiveness is postulated to directly influence attitude (Kang, Liu & Kim, 2013; Ng & Law, 2015; Reimers et al., 2017; Tan, 2011; Tang, Wang & Lu, 2014; Tucker et al., 2015; Weeden, 2013; Wesley et al., 2012) and behaviour (Akehurst, Afonso & Gonçalves, 2012; Boey, Goh & Ramasamy, 2015; Cojuharenco, Cornelissen & Karelala, 2016; Hossain & Lim, 2016; Kim, Palakurthi & Hancer, 2012a; Kim, Yeo, Sohn, Rha, Choi, Choi & Shin, 2012b; Lin & Hsu, 2015; Nguyen et al., 2016; Tucker et al., 2015; Zhao et al., 2014) in this study. For example, Wesley et al. (2012) stated in a study in South Korea, if consumers perceive that they are effective in solving environmental problems, this will positively influence attitudes of the consumers towards having socially responsible purchasing behaviours. On the other hand, Lin and Hsu (2015) indicated that perceived consumer effectiveness has a significant influence on green consumer behaviour.

Perceived sacrifice as a construct works as a barrier towards green practices adoption in this study. Perceived sacrifice is defined as costs given up with the purpose of receiving benefits such as to acquire a product or service (Grewal, Monroe & Krishnan, 1998; Shukla, 2010; Zeithaml, 1988). While monetary costs such as price is not relevant in the context of green practices adoption by airline passengers, it can be argued that nonmonetary sacrifices such as convenience and effort could have negative influences on green practices adoption behaviours. Consumers may not prepare to sacrifice comfort and convenience when adopting green practices (Gleim, Smith, Andrews & Cronin Jr., 2013; Horner & Swarbrooke, 2016; Joshi & Rahman, 2015; Miafodzyeva & Brandt, 2013; Miao & Wei, 2016; Nittala, 2014; Wang, Lin & Li, 2018; Welfens, Nordmann & Seibt, 2016; Young, Hwang, McDonald & Oates, 2010; Zhu, Li, Geng & Qi, 2013). Furthermore, amount of cognitive effort required in decision making, researching and searching are significant barriers when purchasing green products or services (Bray, Johns & Kilburn, 2011; Cronin Jr., Brady & Hult, 2000; Dagiliūtė & Liobikienė, 2015; Joshi & Rahman, 2015; Miao & Wei, 2016; Nittala, 2014). Therefore, perceived sacrifice as a construct is postulated to negatively influence behavioural intention to adopt green practices and green practices adoption behaviour amongst airline passenger in this study.

Furthermore, existing studies on green practices adoption in the airline industry focus on efforts to reduce cost (O'Connell & Williams, 2016; Springer, 2017; Johnson & Gonzalez, 2013; Lynes & Dredge, 2006; McCormick, 2013), drivers that influence the airline's environmental commitment (Cowper-Smith & de Grosbois, 2011; Lynes & Dredge, 2006) and passenger's perceptions of the green image associated with airlines (Mayer et al., 2012; Mayer et al., 2015). The number of studies on airline passenger's

attitude and behaviour towards green practices adoption is limited and has yet to be fully investigated. In order to address this research gap, this study thus attempts to investigate airline passenger's attitude and behaviour towards green practices adoption. Specifically, this study aims to investigate the influence of TPB components on green practices adoption behaviour. Moreover, this study aims to investigate the distinct contribution of proposed additional constructs (perceived consumer effectiveness and perceived sacrifice) on green practices adoption behaviour.

### **1.6 Objectives of the Study**

The general objective of this study is to explain green practices adoption behaviours amongst airline passengers in Malaysia. In this respect, the researcher explored the determinants that are most likely to influence green practices adoption behaviour, and developed a model to explain and predict the adoption of green practices by airline passengers in Malaysia.

Specifically, this study pursues the following objectives:

1. To examine the relationship between normative beliefs and subjective norm to adopt green practices.
2. To examine the relationship between control beliefs and perceived behavioural control to adopt green practices.
3. To investigate the factors (behavioural beliefs and perceived consumer effectiveness) influencing attitude towards green practices adoption.

4. To investigate the factors (perceived sacrifice, attitude, subjective norm, perceived behavioural control) influencing behavioural intention to adopt green practices.
5. To investigate the factors (perceived consumer effectiveness, perceived sacrifice, perceived behavioural control and behavioural intention) influencing green practices adoption behaviour.
6. To propose a conceptual model that helps to explain green practices adoption behaviour.

Therefore, accomplishment of the above-mentioned research objectives are likely to explain airline passengers' green practices adoption behaviours when green practices are implemented by airline companies.

### **1.7 Research Questions**

In alignment with the research objectives, the following research questions were formulated:

1. Is there a relationship between normative beliefs and subjective norm to adopt green practices?
2. Is there a relationship between control beliefs and perceived behavioural control to adopt green practices?

3. Do behavioural beliefs and perceived consumer effectiveness influence attitude towards green practices adoption?
4. Do perceived sacrifice, attitude, subjective norm and perceived behavioural control influence behavioural intention to adopt green practices?
5. Do perceived consumer effectiveness, perceived sacrifice, perceived behavioural control and behavioural intention influence green practices adoption behaviour?
6. Is the proposed model appropriate in explaining green practices adoption behaviour?

### **1.8 Significance of the Study**

The findings of this study are expected to contribute to the body of literature on airline passenger's attitude and behaviour towards green practices adoption. Scant research exists on addressing airline passenger's attitude and behaviour towards green practices adoption in the airline industry to this point. For example, previous studies on consumer attitude and behaviour towards green practices have been focusing on the hotel sector (Chen & Tung, 2014; Levy & Duverger, 2010; Ng, 2011; Nicholls & Kang, 2012; Ogbeide, 2012; Robinot & Giannelloni, 2010). Moreover, research on green practices in airline industry has so far been devoted to observing efforts to reduce cost (O'Connell & Williams, 2006; Springer, 2017; Johnson & Gonzalez, 2013; Lynes & Dredge, 2006; McCormick, 2013), drivers influencing airline's environmental commitment (Cowper-Smith & de Grosbois, 2011; Lynes & Dredge, 2006) and passenger perceptions of the green image associated with airlines (Mayer et al., 2012; Mayer et al., 2015). It is

therefore considered timely that this study investigates on green practices adoption by passengers in the airline industry.

Attitude towards an act does not always translate into actual behaviour (Blake, 1999; Gabler, Butler & Adams, 2013; Gupta & Ogden, 2009; Han & Kim, 2010; Hossain & Lim, 2016; Joshi & Rahman, 2015; Kollmuss & Agyeman, 2002). Research into the observed gap between environmental attitude and behaviour has become an increasingly important topic for marketing and management scholars, with implications to business owners and policy makers (Davies, Foxall & Pallister, 2002; Moraes, Carrigan & Szmigin, 2012). Furthermore, green practices adoption amongst consumers has been slow despite they show concern to the environmental issues coupled with introduction of green technologies such as electric cars and solar panels to protect the environment (Lin & Chang, 2012). Therefore, passenger's attitude towards green practices adoption and the relationship to green practices adoption behaviour is worthy for empirical studies.

This study adopted Ajzen's TPB as the theoretical underpinning to investigate factors that influence attitudes, behavioural intentions and green practices adoption behaviours of airline passengers in Malaysia. TPB was further extended by adding two independent constructs of perceived consumer effectiveness and perceived sacrifice. An individual who has shown concern about environmental issues (favourable attitude) may feel that adoption of green practices is not effective in abating the environmental issues (low perceived consumer effectiveness). This would lead to the individual not adopting any green practices (Roberts, 1996). Therefore, perceived consumer effectiveness was

included in this study as a distinct construct to investigate green practices adoption behaviours amongst passengers in the airline industry. On the other hand, an individual may not prepare to comfort (Johnstone & Tan, 2015; Miao & Wei, 2016), convenience (Horner & Swarbrooke, 2016; Nittala, 2014) and effort (Joshi & Rahman, 2015; Miao & Wei, 2016) when adopting green practices. Perceived sacrifice was therefore included in this study to investigate green practices adoption behaviour. The extension of TPB by adding perceived consumer effectiveness and perceived sacrifice will not only provide additional insights into factors that influence attitudes, behavioural intentions and green practices adoption behaviours of airline passengers in Malaysia, but will also contribute to better understanding of the TPB.

As adoption of green practices has become common practices amongst a large section of society, there are multiple perspectives from which to consider the managerial contributions of this study. From the perspective of the airline passengers, this study attempts to investigate determinants of green practices adoption behaviours amongst passengers in the airline industry. Better understanding of green practices adoption behaviour will enable an effective and efficient implementation of green practices by airline companies.

From the perspective of airline companies, effective and efficient implementation of green practices help airlines to reduce costs by using less resources and generating less wastes (Coles, 2015; Davies, 2015; Gilley, Worrell & El-Jelly, 2000; Johnson & Gonzalez, 2013; McCormick, 2013). For example, electronic ticketing, web check-in and the use of electronic boarding pass enable airlines to reduce costs through paper

saving. Furthermore, baggage limits imposed on every airline passenger reduces fuel costs. A study has shown that every kilogram of additional weight on board the aircraft burns approximately 0.15 kilograms of fuel (AirAsia X, 2016). Consequently, a reduction of operational costs should assist airline's survival and sustains airline's competitiveness in the industry.

Furthermore, effective and efficient implementation of green practices enables airlines to gain reputation as social responsible corporations actively practicing green activities and meeting green needs of the consumers (Khanna & Anton, 2002; Lee et al., 2013; Mayer et al., 2012). Mayer et al. (2012) in a study conducted in England, revealed that about 50 per cent of airline passengers could differentiate between environmentally friendly and non-environmentally friendly airlines. Moreover, a study conducted by Niu, Liu, Chang and Ye (2016) discovered that airline passengers prefer to travel with environmentally friendly airlines. Therefore, effective and efficient implementation of green practices in daily operations enables airlines to capitalize on the increasing trend of green consumerism and subsequently attract more passengers.

From the government perspective, findings of this study can serve as guidelines for government to introduce environmentally friendly policies to public individuals and industries across Malaysia. Strategies can be formulated to encourage public individuals and industries to adopt green practices such as energy and water saving, waste reducing and recycling. This will improve quality of air, water, food and shelter. The availability and quality of air, water, food and shelter are considered as the ecological foundations for sustainable development (White, Terry & Hogg, 2013).

According to Brundtland Commission (1987), a development is considered as sustainable development if the present development goals can be met without compromising the ability of natural environment to continue providing natural resources that meet the needs of future generations. Moreover, effective and efficient implementation of green practices in airlines, such as electronic ticketing, web check-in, the use of electronic boarding pass, recycling and rubbish collection in the cabin, helps to reduce waste and minimize negative impact to the environment.

### **1.9 Limitations of the Study**

Findings of this study may be useful in predicting attitudes and behaviours of airline passengers toward green practices adoption, the proposed framework in this study should be employed to predict green practices adoption behaviour in other sectors within tourism industry such as hotels, food services and restaurants as well. Furthermore, the framework should also be employed in future research to predict green practices adoption behaviour in industries other than tourism such as healthcare and manufacturing. A more holistic framework should be proposed if the framework in this study cannot be generalized to predict green practices adoption behaviour in sectors other than airline industry.

This study attempts to investigate factors that influence green practices adoption behaviours amongst domestic and international airline passengers in Malaysia. This study was confined to only four factors: perceived consumer effectiveness, perceived sacrifice, perceived behavioural control and behavioural intention. Therefore,

conclusions and recommendations in this study had been drawn based on these four factors. This study did not consider other factors that can determine attitudes and behaviours of airline passengers toward green practices adoption such as demographic factors and environmental values of airline passengers.

### **1.10 Scope of the Study**

The scope of this study was based in Kuala Lumpur for data collection. This is because Kuala Lumpur is home to the largest airport in Malaysia, the KLIA. Furthermore, total passenger traffics at KLIA for the year 2016 represented 57.45 per cent of total passenger traffics at all 22 airports in Malaysia (MAHB, 2017; Senai International Airport, 2018). Therefore, the unit of analysis for this study is airline passengers who arrive, depart and transit at Kuala Lumpur International Airport (KLIA). Furthermore, the scope of this study was limited to the investigation of the influence of TPB components, perceived consumer effectiveness and perceived sacrifice on voluntary green practices adoption behaviours amongst airline passengers in Malaysia.

### **1.11 Definitions of Terms**

These terms are conceptually and operationally defined in this study as follows.

**Airline passengers** - Any person, except members of airline crew, who is carried on an aircraft and covered by an air ticket (IATA, n.d.). In the context of this study, airline passengers are consumers that have arrived, departed and transited at KLIA and KLIA2, and represent the population in this study.

**Green practices** - Practices that have minimum negative impacts on environment (Kruger & Seville, 2012). In the context of this study, it refers to green practices implemented by airline companies such as web check-in.

**Behavioural beliefs** - An individual's beliefs about the outcomes of performing a particular behaviour (Fishbein & Ajzen, 1975). In the context of this study, it refers to beliefs of airline passengers on whether adopting green practices such as web check-in would enable them to help save the environment, to be more socially responsible, to perform environmentally friendly practices, to enjoy environmentally friendly products or services and to learn to implement green ideas in life (Kim & Han, 2010).

**Attitude towards the behaviour** – An individual's favourable or unfavourable feeling about performing a certain behaviour (Fishbein & Ajzen, 1975). In the context of this study, attitude towards green practices adoption refers to whether airline passengers feel that adoption of green practices such as web check-in to protect the environment would be good, foolish, useful, positive, wrong or suitable (Kim et al., 2013).

**Normative beliefs** - An individual's beliefs about the opinions of those who are significant to the individual think the individual should behave in a given situation (Fishbein & Ajzen, 1975). In the context of this study, it refers to beliefs of airline passengers on whether other airline passengers, their family, friends and colleagues agree or disagree to the adoption of green practices such as web check-in (Kim & Han, 2010).

**Subjective norm** - An individual's perception on the social pressures on the individual to perform or not to perform a particular behaviour (Ajzen, 1985; 1991). In the context of this study, subjective norm to adopt green practices refers to perceptions of airline passengers about the social pressures by parents, friends, colleagues and partner on whether or not to perform green practices such as web-check-in and whether or not other airline passengers who they are familiar with adopt green practices on a regular basis when traveling by air (Kim et al., 2013).

**Control beliefs** - An individual's beliefs about the presence of factors such as skills, resources and time that may facilitate or impede the performance of a behaviour (Ajzen, 1991). In the context of this study, it refers to airline passenger's beliefs on whether the presence of factors such as time, basic computer and internet knowledge are necessary to perform green practices such as web check-in (Kim & Han, 2010).

**Perceived behavioural control** - An individual's perception on how easy or difficult of performing the behaviour (Ajzen & Madden, 1986). In the context of this study, perceived behavioural control to adopt green practices refers to perceptions of airline

passengers about how confident they are in adopting green practices such as web check-in and whether or not they have enough time to check-in their flights online (Kim et al., 2013).

**Behavioural intention** – An indication of an individual’s likelihood to perform a particular behaviour, and is the immediate antecedent of actual behaviour (Ajzen, 1985). In the context of this study, behavioural intention to adopt green practices refers to airline passengers’ plan or likelihood to adopt green practices, and including whether they will recommend other airline passengers to adopt green practices such as web check-in (Kim & Han, 2010).

**Behaviour** - An individual’s observable response with respect to a given input or stimuli (Ajzen, 2002). In the context of this study, it refers to adoption of web check-in amongst airline passengers (Afroz et al., 2015).

**Perceived consumer effectiveness** - An individual’s perception about the effectiveness of the individual’s environmentally friendly effort in reducing negative impacts to the environment (Roberts, 1996). In the context of this study, it refers to perceptions of airline passengers about effectiveness of adopting green practices such as web check-in rectifying environmental issues and saving the environment (Wesley et al., 2012).

**Perceived sacrifice** - Costs given up with the purpose of receiving benefits such as to acquire a product or service (Grewal et al., 1998; Shukla, 2010). In the context of this study, it refers to the amount of nonmonetary cost such as comfort, convenience and effort airline passengers are willing to surrender when adopting green practices implemented by airline companies such as web check-in (Cronin Jr. et al., 2000).

## **1.12 Conclusion**

This chapter provided background of the study that includes a review of green practices, implementation of green practices by current airlines and green practices adoption by airline passengers. Following this, the problem statement, research objectives and research questions were clearly defined. Finally, significance and limitations of the study were discussed and operational definitions of key terms used in this study were presented. Chapter two reviews literature on Theory of Reasoned Action (TRA), Theory of Planned Behaviour (TPB), perceived consumer effectiveness and perceived sacrifice. Chapter three describes and justifies the methodology based on the context and nature of this study. Data collected is analysed in chapter four and findings are discussed in chapter five.

- Ahtola, O. T. (1975). The vector model of preferences: An alternative to the Fishbein model. *Journal of Marketing Research*, 12(1), 52-59. <https://doi.org/10.2307/3150658>
- AirAsia. (2014). *Annual Report 2013*. Retrieved from <http://www.airasia.com/docs/common-docs/investor-relations/annual-report-2013.pdf>
- AirAsia. (2015). *Annual Report 2014 (Financials)*. Retrieved from <http://www.airasia.com/docs/common-docs/investor-relations/annual-report-financials-2014.pdf>
- AirAsia. (2017). *Annual report 2016*. Retrieved from <https://www.airasia.com/cdn/docs/common-docs/investor-relations/airasia-annual-report-2016.pdf>
- AirAsia: KLIA2: Overview*. (2015). Retrieved from <http://www.airasia.com/my/en/klia2/overview.page>
- AirAsia X. (2016). *Annual report 2015*. Retrieved from <http://airasiax.listedcompany.com/misc/ar/ar2015.pdf>
- Ajzen, I. (1985). From intentions to action: A theory of planned behaviour. In J. Kuhl & J. Beckmann (Eds.), *Action control: From cognition to behaviour* (pp. 11-39). Heidelberg: Springer.
- Ajzen, I. (1991). The theory of planned behaviour. *Organizational Behaviour & Human Decision Processes*, 50(2), 179-211. [https://doi.org/10.1016/0749-5978\(91\)90020-T](https://doi.org/10.1016/0749-5978(91)90020-T)

- Ajzen, I. (2002). Perceived behavioural control, self-efficacy, locus of control, and the theory of planned behaviour. *Journal of Applied Social Psychology*, 32(4), 665-683. <https://doi.org/10.1111/j.1559-1816.2002.tb00236.x>
- Ajzen, I. (2005). *Attitudes, personality, and behaviour* (2<sup>nd</sup> ed.). Berkshire: Open University Press.
- Ajzen, I. (2006). *Constructing a theory of planned behaviour questionnaire*. Retrieved from <https://people.umass.edu/aizen/pdf/tpb.measurement.pdf>
- Ajzen, I., & Fishbein, M. A. (1980). *Understanding attitudes and predicting social behaviour*. Englewood Cliffs, NJ: Prentice-Hall.
- Ajzen, I., & Madden, T. J. (1986). Prediction of goal-directed behaviour: Attitudes, intentions and perceived behavioural control. *Journal of Experimental Social Psychology*, 22(5), 453-474. [https://doi.org/10.1016/0022-1031\(86\)90045-4](https://doi.org/10.1016/0022-1031(86)90045-4)
- Akehurst, G., Afonso, C., & Gonçalves, H. M. (2012). Re-examining green purchase behaviour and the green consumer profile: New evidences. *Management Decision*, 50(5), 972-988. <http://doi.org/10.1108/00251741211227726>
- Albarraçin, D., Johnson, B. T., Fishbein, M., & Muellerleile, P. A. (2001). Theories of reasoned action and planned behaviour as models of condom use: A meta-analysis. *Psychological Bulletin*, 127(1), 142-161. <https://doi.org/10.1037//0033-2909.127.1.142>
- Albayrak, T., Aksoy, S., & Caber, M. (2013). The effect of environmental concern and scepticism on green purchase behaviour. *Marketing Intelligence & Planning*, 31(1), 27-39. <https://doi.org/10.1108/02634501311292902>

- Allen, C. T. (1982). Self-perception based strategies for stimulating energy conservation. *Journal of Consumer Research*, 8(4), 381-390. <https://doi.org/10.1086/208878>
- Alois, E. (2017). *20 cost-saving tricks for your restaurant*. Retrieved from <https://www.lavu.com/blog/success-tips/20-cost-saving-tricks-your-restaurant.html>
- A Look at the aviation industry. (2014, March 8). *Borneo Post Online*. Retrieved from <http://www.theborneopost.com/2014/03/08/a-look-at-the-aviation-industry/>
- Amaro, S., & Duarte, P. (2015). An integrative model of consumers' intentions to purchase travel online. *Tourism Management*, 46, 64-79. <https://doi.org/10.1016/j.tourman.2014.06.006>
- Ambali, A. R., & Bakar, A. N. (2014). *ICT adoption and application in the Malaysian public sector*. Hershey, PA: IGI Global
- Anastasi, A. (1986). Evolving concepts of test validation. *Annual Review of Psychology*, 37, 1-16. <https://doi.org/10.1146/annurev.ps.37.020186.000245>
- Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modelling in practice: A review and recommended two-step approach. *Psychological Bulletin*, 103(3), 411-423. <https://doi.org/10.1037/0033-2909.103.3.411>
- Anderson, J. C., & Gerbing, D. W. (1992). Assumptions and comparative strengths of the two-step approach: Comment on Fornell and Yi. *Sociological Methods & Research*, 20(3), 321-333. <https://doi.org/10.1177/0049124192020003002>

- Antil, J. H. (1984). Socially responsible consumers: Profile and implications for public policy. *Journal of Macromarketing*, 4(2), 18-39.  
<https://doi.org/10.1177/027614678400400203>
- Appenzeller, T., & Dimick, D. R. (2004). *Signs from earth*. Retrieved from <http://ngm.nationalgeographic.com/ngm/0409/feature1/>
- Armitage, C. J., & Conner, M. (2001). Social cognitive determinants of blood donation. *Journal of Applied Social Psychology*, 31(7), 1431-1457.  
<https://doi.org/10.1111/j.1559-1816.2001.tb02681.x>
- Arnold, J., Randall, R., Patterson, F., Silvester, J., Robertson, I., Cooper, C., Burnes, B., Harris, D., Axtell, C., & Den Hartod, D. (2010). *Work psychology: Understanding human behaviour in the workplace* (5<sup>th</sup> ed.). Harlow, Essex: Pearson Education.
- Ashley, C., & Tuten, T. (2014). Creative strategies in social media marketing: An exploratory study of branded social content and consumer engagement. *Psychology & Marketing*, 32(1), 15-27. <https://doi.org/10.1002/mar.20761>
- Aziz, M. (2013). *ASEAN open skies: What it is, what it means to us?* Retrieved from [http://research.maybank-ib.com/pdf/document/ASEAN\\_Open\\_Skies\\_20130621\\_MIB\\_v1\\_4516.pdf](http://research.maybank-ib.com/pdf/document/ASEAN_Open_Skies_20130621_MIB_v1_4516.pdf)
- Backman, D. R., Haddad, E. H., Lee, J. W., Johnston, P. K., & Hodgkin, G. E. (2002). Psychosocial predictors of healthful dietary behaviour in adolescents. *Journal of Nutrition Education and Behaviour*, 34(4), 184-193.  
[https://doi.org/10.1016/S1499-4046\(06\)60092-4](https://doi.org/10.1016/S1499-4046(06)60092-4)

- Bagozzi, R. P. (2007). The legacy of the technology acceptance model and a proposal for a paradigm shift. *Journal of the Association for Information Systems*, 8(4), 244-254. Retrieved from <http://aisel.aisnet.org/jais/vol8/iss4/12>
- Bagozzi, R. P., Gurhan-Canli, Z., & Priester, J. R. (2002). *The social psychology of consumer behaviour*. Milton Keynes: Open University Press.
- Bagozzi, R. P., & Yi, Y. (1988). On the evaluation of structural equation models. *Journal of the Academy of Marketing Science*, 16(1), 74-94. <https://doi.org/10.1007/BF02723327>
- Bagozzi, R. P., Yi, Y., & Philips, L. W. (1991). Assessing construct validity in organizational research. *Administrative Science Quarterly*, 36(3), 421-458. <https://doi.org/10.2307/2393203>
- Baines, P., & Chansarkar, B. (2002). *Introducing marketing research*. West Sussex: John Wiley & Sons.
- Baker, J., Parasuraman, A. P., Grewal, D., & Voss, G. B. (2002). The influence of multiple store environment cues on perceived merchandise value and patronage intentions. *Journal of Marketing*, 66(2), 120-141. <https://doi.org/10.1509/jmkg.66.2.120.18470>
- Bandura, A. (1982). Self-efficacy mechanism in human agency. *American Psychologist*, 37(2), 122-147. <https://doi.org/10.1037/0003-066X.37.2.122>
- Bandura, A. (1994). Self-efficacy. In V. S. Ramachandran (Ed.), *Encyclopedia of Human Behaviour*. (Vol. 4, pp. 71-81). New York: Academic Press.

- Bang, H. K., Ellinger, A. E., Hadjimarcou, J., & Traichal, P. A. (2000). Consumer concern, knowledge, belief, and attitude toward renewable energy: An application of the reasoned action theory. *Psychology & Marketing*, *17*(6), 449-468. [https://doi.org/10.1002/\(SICI\)1520-6793\(200006\)17:6<449::AID-MAR2>3.0.CO;2-8](https://doi.org/10.1002/(SICI)1520-6793(200006)17:6<449::AID-MAR2>3.0.CO;2-8)
- Baum, L. M. (2012). It's not easy being green... or is it? A content analysis of environmental claims in magazine advertisements from the United States and United Kingdom. *Environmental Communication*, *6*(4), 423-440. <https://doi.org/10.1080/17524032.2012.724022>
- Becken, S. (2002). Analysing international tourist flows to estimate energy used associated with air travel. *Journal of Sustainable Tourism*, *10*(2), 114-131. <https://doi.org/10.1080/09669580208667157>
- Bennett, P. D. (1995). *AMA Dictionary of Marketing Terms* (2<sup>nd</sup> ed.). Lincolnwood, Illinois: NTC Business Books.
- Bentler, P. M. (1990). Comparative fit indexes in structural models. *Psychological Bulletin*, *107*(2), 238-246. <https://doi.org/10.1037/0033-2909.107.2.238>
- Betts, K. R., Hinsz, V. B., & Heimerdinger, S. R. (2011). Predicting intentions of romantic partner abuse with the theory of planned behaviour. *Current Psychology*, *30*(2), 130-147. <https://doi.org/10.1007/s12144-011-9105-2>
- Blackwell, R. D., Miniard, P. W., & Engel, J. F. (2006). *Consumer Behaviour* (10<sup>th</sup> ed.). Mason, Ohio: South-Western.
- Blair, J., Czaja, R. F., & Blair, E. A. (2014). *Designing surveys: A guide to decisions and procedures* (3<sup>rd</sup> ed.). Thousand Oaks, CA: SAGE Publications.

- Blake, J. (1999). Overcoming the 'value-action gap' in environmental policy: Tensions between national policy and local experience. *Local Environment: The International Journal of Justice and Sustainability*, 4(3), 257-278.  
<https://doi.org/10.1080/13549839908725599>
- Blanco, E. E., & Sheffi, Y. (2017). Green logistics. In Y. Bouchery, C. J. Corbett, J. C. Fransoo, & T. Tan (Eds.). *Sustainable supply chains*. (pp. 147-187). Switzerland: Springer International Publishing.
- Blok, V., Wesselink, R., Studynka, O., & Kemp, R. (2015). Encouraging sustainability in the workplace: A survey on the pro-environmental behaviour of university employees. *Journal of Cleaner Production*, 106, 55-67.  
<https://doi.org/10.1016/j.jclepro.2014.07.063>
- Boey, H. M., Goh, G. G. G., & Ramasamy, S. (2015). The role of concern for the environment and perceived consumer effectiveness on investors' willingness to invest in environmentally-friendly firms. *Journal of Malaysian Studies*, 33(1), 173-190. Retrieved from [http://web.usm.my/km/33\(Supp.1\)2015/Art.11%20\(173-190\).pdf](http://web.usm.my/km/33(Supp.1)2015/Art.11%20(173-190).pdf)
- Bollen, K. A. (1987). Outliers and improper solutions: A confirmatory factor analysis example. *Sociological Methods & Research*, 15(4), 375-384.  
<https://doi.org/10.1177/0049124187015004002>
- Bollen, K. A. (1989). *Structural equations with latent variables*. New York: John Wiley & Sons.

- Borchardt, M., Wendt, M. H., Pereira, G. M., & Sellitto, M. A. (2011). Redesign of a component based on ecodesign practices: Environmental impact and cost reduction achievements. *Journal of Cleaner Production*, 19(1), 49-57. <https://doi.org/10.1016/j.jclepro.2010.08.006>
- Bozionelos, G., & Bennett, P. (1999). The theory of planned behaviour as predictor of exercise: The moderating influence of beliefs and personality variables. *Journal of Health Psychology*, 4(4), 517-529. <https://doi.org/10.1177/135910539900400406>
- Bray, J., Johns, N., & Kilburn, D. (2011). An exploratory study into the factors impeding ethical consumption. *Journal of Business Ethics*, 98(4), 597-608. <https://doi.org/10.1007/s10551-010-0640-9>
- Brown, L. G. (1990). Convenience in services marketing. *Journal of Services Marketing*, 4(1), 53-59. <https://doi.org/10.1108/EUM0000000002505>
- Brown, M., & Cudeck, R. (1993). Alternative ways of assessing model fit. In K. A. Bollen & J. S. Long (Eds.). *Testing structural equation models* (pp. 136-162). Newbury Park, CA: SAGE Publications.
- Brundtland Commission. (1987). *Report of the World Commission on environment and development*. Retrieved from <http://www.un.org/documents/ga/res/42/ares42-187.htm>
- Bryman, A., & Cramer, D. (2005). *Quantitative data analysis with SPSS release 12 and 13: A guide for social scientist*. East Sussex: Routledge.
- Burns, A. C., & Bush, R. F. (2002). *Marketing research: Online research applications* (4th ed.). New Jersey: Prentice Hall.

- Byrne, B. M. (2009). *Structural equation modelling with AMOS: Concepts, applications, and programming* (2<sup>nd</sup> ed.). New York: Routledge.
- Cairncross, F. (1995). *Green Inc.: A guide to business and the environment*. London: Earthscan.
- Carrus, G., Passafaro, P., & Bonnes, M. (2008). Emotions, habits and rational choices in ecological behaviours: The case of recycling and use of public transportation. *Journal of Environmental Psychology*, 28(1), 51-62. <https://doi.org/10.1016/j.jenvp.2007.09.003>
- Cervera, C. M., & Flores, J. L. M. (2012, June). *A conceptual model for a green supply chain strategy*. Paper presented at Global Conference on Business and Finance. Retrieved from <http://eds.a.ebscohost.com/newdc.oum.edu.my/eds/pdfviewer/pdfviewer?sid=97b68a88-6329-490c-9c14-1ccbb325d48f%40sessionmgr4005&vid=2&hid=4208>
- Chan, D. K. C., Hardcastle, S., Dimmock, J. A., Lentillon-Kaestner, V., Donovan, R. J., Burgin, A., & Hagger, M. S. (2015). Modal salient belief and social cognitive variables of anti-doping behaviours in sport: Examining an extended model of the theory of planned behaviour. *Psychology of Sport and Exercise*, 16(2), 164-174. <https://doi.org/10.1016/j.psychsport.2014.03.002>
- Chan, E. K., Kwortnik, R., & Wansink, B. (2017). McHealthy: How marketing incentives influence healthy food choices. *Cornell Hospitality Quarterly*, 58(1), 6-22. <https://doi.org/10.1177/1938965516668403>
- Chan, K., & Tsang, L. (2011). Promote healthy eating among adolescents: A Hong Kong study. *Journal of Consumer Marketing*, 28(5), 354-362. <https://doi.org/10.1108/07363761111150008>

- Chan, L., & Bishop, B. (2013). A moral basis for recycling: Extending the theory of planned behaviour. *Journal of Environmental Psychology*, 36, 96-102.  
<https://doi.org/10.1016/j.jenvp.2013.07.010>
- Chang, C. C. (2011). Feeling ambivalent about going green: Implications for green advertising processing. *Journal of Advertising*, 40(4), 19-32.  
<https://doi.org/10.2307/23208833>
- Chang, S. J., van Witteloostuijn, A., & Eden, L. (2010). From the editors: Common method variance in international business research. *Journal of International Business Studies*, 41(2), 178-184. <https://doi.org/10.1057/jibs.2009.88>
- Chao, Y. L. (2012). Predicting people's environmental behaviour: Theory of planned behaviour and model of responsible environmental behaviour. *Environmental Education Research*, 18(4), 437-461.  
<https://doi.org/10.1080/13504622.2011.634970>
- Chappell, B. (2015). *Nearly 200 nations adopt climate agreement at COP21 talks in Paris*. Retrieved from <http://www.npr.org/sections/thetwo-way/2015/12/12/459464621/final-draft-of-world-climate-agreement-goes-to-a-vote-in-paris-saturday>
- Chau, P. Y. K., & Hu, P. J. H. (2001). Information technology acceptance by individual professionals: A model comparison approach. *Decision Sciences*, 32(4), 699-719.  
<https://doi.org/10.1111/j.1540-5915.2001.tb00978.x>
- Chaudhuri, A., Aboulnasr, K., & Ligas, M. (2010). Emotional responses on initial exposure to a hedonic or utilitarian description of a radical innovation. *Journal of Marketing Theory and Practice*, 18(4), 339-359.  
<https://doi.org/10.2753/MTP1069-6679180403>

- Chen, Y. S., & Chang, C. H. (2012). Enhance green purchase intentions: The roles of green perceived value, green perceived risk, and green trust. *Management Decision*, 50(3), 502-520. <https://doi.org/10.1108/00251741211216250>
- Chen, H. S., Tsai, B. K., & Hsieh, C. H. (2017). Determinants of consumers' purchasing intentions for the hydrogen-electric motorcycle. *Sustainability*, 9(8), 1447-1458. <https://doi.org/10.3390/su9081447>
- Chen, M. F., & Tung, P. J. (2014). Developing an extended theory of planned behaviour model to predict consumers' intention to visit green hotels. *International Journal of Hospitality Management*, 36, 221-230. <https://doi.org/10.1016/j.ijhm.2013.09.006>
- Chen, Y. S., & Chang, C. H. (2012). Enhance green purchase intentions: The roles of green perceived value, green perceived risk, and green trust. *Management Decision*, 50(3), 502-520. <https://doi.org/10.1108/00251741211216250>
- Cheng, C. M., & Huang, J. H. (2017). Moderating effects of sexual orientation and gender characteristic on condom use intentions among boys' senior high school students in Taiwan: An exploration based on the theory of planned behaviour. *The Journal of Sex Research*, 1-13. <https://doi.org/10.1080/00224499.2017.1372354>
- Cheng, H. H., & Huang, S. W. (2013). Exploring antecedents and consequence of online group-buying intention: An extended perspective on theory of planned behaviour. *International Journal of Information Management*, 33(1), 185-198. <https://doi.org/10.1016/j.ijinfomgt.2012.09.003>

- Cheng, N., & Yu, J. (2013, February 2). MAS joins Oneworld alliance. *The Star Online*. Retrieved from <http://www.thestar.com.my/News/Nation/2013/02/02/MAS-joins-oneworld-alliance.aspx/>
- Cheng, T. M., & Wu, H. C. (2015). How do environmental knowledge, environmental sensitivity, and place attachment affect environmentally responsible behaviour? An integrated approach for sustainable island tourism. *Journal of Sustainable Tourism*, 23(4), 557-576. <https://doi.org/10.1080/09669582.2014.965177>
- Cheung, S. F., Chan, D. K. S., & Wong, Z. S. Y. (1999). Reexamining the theory of planned behaviour in understanding wastepaper recycling. *Environment and Behaviour*, 31(5), 587-612. <https://doi.org/10.1177/00139169921972254>
- Chin, J. (2015, February 24). AirAsia X posts RM529mil net losses in FY14. *The Star Online*. Retrieved from <http://www.thestar.com.my/Business/Business-News/2015/02/24/AirAsia-X-posts-RM529m-net-losses-in-FY14/?style=biz>
- Chin, W. W., & Newsted, P. R. (1999). Structural equation modeling analysis with small samples using partial least square. In R. H. Hoyle (Ed.). *Statistical strategies for small sample research* (pp. 307-341). Thousand Oaks, CA: SAGE Publications.
- Chiu, J. Z., & Hsieh, C. C. (2016). The impact of restaurants' green supply chain practices on firm performance. *Sustainability*, 8(1), 1-14. <https://doi.org/10.3390/su8010042>
- Chong, A. Y. L., Ooi, K. B., Lin, B. S., & Tan, B. I. (2010). Online banking adoption: An empirical analysis. *International Journal of Bank Marketing*, 28(4), 267-287. <https://doi.org/10.1108/02652321011054963>

- Chu, P., & Chiu, J. (2003). Factors influencing household waste recycling behaviour: Test of an integrated model. *Journal of Applied Social Psychology*, 33(3), 604-626. <https://doi.org/10.1111/j.1559-1816.2003.tb01915.x>
- Cohen, E., & Cohen, S. A. (2012). Current sociological theories and issues in tourism. *Annals of Tourism Research*, 39(4), 2177-2202. <https://doi.org/10.1016/j.annals.2012.07.009>
- Cohen, J., Cohen, P., West, S. G., & Aiken, L. S. (2003). *Applied multiple regression/correlation analysis for the behavioural sciences* (3<sup>rd</sup> ed.). Mahwah, NJ: Lawrence Erlbaum Associates.
- Cohen, J. B., Pham, M. T., & Andrade, E. B. (2008). The nature and role of affect in consumer behaviour. In C. P. Haugtvedt, P. M. Herr & F. R. Kardes (Eds.), *Handbook of consumer psychology* (pp. 297-348). New York: Lawrence Erlbaum Associates.
- Cohen, M. R. (1973). Environmental information versus environmental attitudes. *The Journal of Environmental Education*, 5(2), 5-8. <https://doi.org/10.1080/00958964.1973.10801804>
- Cojuharenco, I., Cornelissen, G., & Karelala, N. (2016). Yes, I can: Feeling connected to others increases perceived effectiveness and socially responsible behaviour. *Journal of Environmental Psychology*, 48, 75-86. <https://doi.org/10.1016/j.jenvp.2016.09.002>

- Coles, S. (2015). *Low cost airlines: How they cut costs*. Retrieved from <https://www.aol.co.uk/travel/2015/02/24/low-cost-airlines-how-they-cut-costs/>
- Collins, H. (2010). *Creative research: The theory and practice of research for the creative industries*. AVA Publishing, Lausanne.
- Conner, M., Godin, G., Sheeran, P., & Germain, M. (2013). Some feelings are more important: Cognitive attitudes, affective attitudes, anticipated affect, and blood donation. *Health Psychology, 32*(3), 264-272. <https://doi.org/10.1037/a0028500>
- Connolly, J., & Prothero, A. (2008). Green consumption: Life-politics, risk and contradictions. *Journal of Consumer Culture, 8*(1), 117-145. <https://doi.org/10.1177/1469540507086422>
- Cook, J. D., Hepworth, S. J., Wall, T. D., & Warr, P. B. (1981). *The experience of work*. San Diego: Academic Press.
- Cooper, B. (2017). What drives compliance? An application of the theory of planned behaviour to urban water restrictions using structural equation modelling. *Applied Economics, 49*(14), 1426-1439. <https://doi.org/10.1080/00036846.2016.1218430>
- Cordano, M., & Frieze, I. H. (2000). Pollution reduction preferences of U.S. environmental managers: Applying Ajzen's theory of planned behaviour. *Academy of Management Journal, 43*(4), 627-641. <https://doi.org/10.2307/1556358>
- Cowper-Smith, A., & de Grosbois, D. (2011). The adoption of corporate social responsibility practices in the airline industry. *Journal of Sustainable Tourism, 19*(1), 59-77. <https://doi.org/10.1080/09669582.2010.498918>

- Creswell, J. W. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches* (3<sup>rd</sup> ed.). Thousand Oaks, CA: SAGE Publications.
- Cronin Jr., J. J., Brady, M. K., & Hult, G. T. M. (2000). Assessing the effects of quality, value and customer satisfaction on consumer behavioural intentions in service environments. *Journal of Retailing*, 76(2), 193-218. [https://doi.org/10.1016/S0022-4359\(00\)00028-2](https://doi.org/10.1016/S0022-4359(00)00028-2)
- Crowther, D., & Lancaster, G. (2008). *Research methods: A concise introduction to research in management and business consultancy* (2<sup>nd</sup> ed.). Elsevier Butterworth-Heinemann, Oxford.
- Dagher, G. K., & Itani, O. (2014). Factors influencing green purchasing behaviour: Empirical evidence from the Lebanese consumers. *Journal of Consumer Behaviour*, 13(3), 188-195. <https://doi.org/10.1002/cb.1482>
- Dagiliūtė, R., & Liobikienė, G. (2015). University contributions to environmental sustainability: Challenges and opportunities from the Lithuanian case. *Journal of Cleaner Production*, 108(Part A), 891-899. <https://doi.org/10.1016/j.jclepro.2015.07.015>
- Davies, H. (2015). *Five ways airlines can reduce operating costs*. Retrieved from <http://blog.rusada.com/blog/five-ways-airlines-can-reduce-operating-costs>
- Davies, J., Foxall, G. R., & Pallister, J. (2002). Beyond the intention-behaviour mythology: An integrated model of recycling. *Marketing Theory*, 2(1), 29-113. <https://doi.org/10.1177/1470593102002001645>

- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319-339.  
<https://doi.org/10.2307/249008>
- De Leeuw, A., Valois, P., Ajzen, I., & Schmidt, P. (2015). Using the theory of planned behaviour to identify key beliefs underlying pro-environmental behaviour in high-school students: Implications for educational interventions. *Journal of Environmental Psychology*, 42, 128-138.  
<https://doi.org/10.1016/j.jenvp.2015.03.005>
- Deveau, S. (2008, May 30). Airlines switching to paperless ticketing system. *National Post*. Retrieved from  
<http://www.nationalpost.com/airlines+switching+paperless+ticketing+system/552777/story.html>
- DeVellis, R. F. (2017). *Scale development: Theory and Applications* (4<sup>th</sup> ed.). Thousand Oaks, CA: SAGE Publications.
- De Wilde, K., Maes, L., Boudrez, H., Tency, I., Temmerman, M., & Clays, L. (2017). Analysis of smoking cessation beliefs in pregnant smokers and ex-smokers using the theory of planned behaviour. *Journal of Public Health*, 25(3), 267-274.  
<https://doi.org/10.1007/s10389-016-0784-x>
- Dhawan, S. (2013). *Sustainable tourism ideas from Bruce Poon Tip, founder of G Adventures*. Retrieved from  
[http://www.huffingtonpost.ca/2013/05/26/sustainable-tourism-ideas-bruce-poon-tip\\_n\\_3328111.html](http://www.huffingtonpost.ca/2013/05/26/sustainable-tourism-ideas-bruce-poon-tip_n_3328111.html)

- Dolnicar, S., Hurlimann, A., & Grün, B. (2012). Water conservation behaviour in Australia. *Journal of Environmental Management*, 105, 44-52. <https://doi.org/10.1016/j.jenvman.2012.03.042>
- Doran, R., Hanss, D., & Larsen, S. (2015). Attitudes, efficacy beliefs, and willingness to pay for environmental protection when travelling. *Tourism and Hospitality Research*, 15(4), 281-292. <https://doi.org/10.1177/1467358415580360>
- Downey, R. G., & King, C. V. (1998). Missing data in Likert ratings: A comparison of replacement methods. *The Journal of General Psychology*, 125(2), 175-191. <https://doi.org/10.1080/00221309809595542>
- D'Souza, C., & Taghian, M. (2005). Green advertising effects on attitude and choice of advertising themes. *Asia Pacific Journal of Marketing and Logistics*, 17(3), 51-66. <https://doi.org/10.1108/13555850510672386>
- D'Souza, C., Taghian, M., Lamb, P., & Peretiatko, R. (2007). Green decisions: Demographics and consumer understanding of environmental labels. *International Journal of Consumer Studies*, 31(4), 371-376. <https://doi.org/10.1111/j.1470-6431.2006.00567.x>
- Elgaaied, L. (2012). Exploring the role of anticipated guilt on pro-environmental behaviour – A suggested typology of residents in France based on their recycling patterns. *Journal of Consumer Marketing*, 29(5), 369-377. <https://doi.org/10.1108/07363761211247488>

- Ellen, P. S., Wiener, J. L., & Cobb-Walgren, C. (1991). The role of perceived consumer effectiveness in motivating environmentally conscious behaviours. *Journal of Public Policy & Marketing*, 10(2), 102-117. Retrieved from <http://eds.b.ebscohost.com.newdc.oum.edu.my/eds/viewarticle?data=dGJyMPPp44rp2%2fdV0%2bnjisfk5Ie46bBMt6yyTLCk63nn5Kx94umrfPDr7nnqtrZHR6%2btSq6nsjivsK5QuKqzOL%2fDpIzw1%2byL39nyge3k53y7o7RLs6quULossT7q1%2bx%2fu9vsPuLYu3ry3qSM3927Wcyc34a7r7RIsKe0SLOsrz7k5fCF3%2bq7iOLcxI3q4tJ99uoA&hid=116>
- Elliott, R. (2013). The taste for green: The possibilities and dynamics of status differentiation through “green” consumption. *Poetics*, 41(3), 294-322. <https://doi.org/10.1016/j.poetic.2013.03.003>
- European Commission. (2014). *Consumer market study on environmental claims for non-food products*. Retrieved from [http://ec.europa.eu/consumers/consumer\\_evidence/market\\_studies/environmental\\_claims/index\\_en.htm](http://ec.europa.eu/consumers/consumer_evidence/market_studies/environmental_claims/index_en.htm)
- Fang, W. T., Ng, E., Wang, C. M., & Hsu, M. L. (2017). Normative beliefs, attitudes and social norms: People reduce waste as an index of social relationships when spending leisure time. *Sustainability*, 9(10), 1696. <https://doi.org/10.3390/su9101696>
- Fawcett, J., & Downs, F. S. (1992). *The relationship of theory and research* (2<sup>nd</sup> ed.). Philadelphia: F.A. Davis Company.

- Fielding, K. S., Russell, S., Spinks, A., & Mankad, A. (2012). Determinants of household water conservation: The role of demographic, infrastructure, behaviour, and psychosocial variables. *Water Resources Research*, 48(10), 1-12. <https://doi.org/10.1029/2012WR012398>
- Fishbein, M. A. (1967). A behaviour theory approaches to the relations between beliefs about an object and attitude toward an object. In M. A. Fishbein (ed.), *Readings in attitude theory and measurement*. (pp. 389-400). New York: Wiley.
- Fishbein, M. A., & Ajzen, I. (1975). *Belief, attitude, intention and behaviour: An introduction to theory and research*. Reading, MA: Addison-Wesley.
- Fisher, R. J. (1993). Social desirability bias and the validity of indirect questioning. *Journal of Consumer Research*, 20(2), 303-315. <https://doi.org/10.1086/209351>
- Fisher, R. J., & Tellis, T. J. (1998). Removing social desirability bias with indirect questioning: Is the cure worse than the disease? *Advances in Consumer Research*, 25(1), 563-567. Retrieved from [https://www.researchgate.net/profile/Robert\\_Fisher12/publication/285311893\\_Removing\\_social\\_desirability\\_bias\\_with\\_indirect\\_questioning\\_Is\\_the\\_cure\\_worse\\_than\\_the\\_disease/links/5723ae6708aef9c00b811af7/Removing-social-desirability-bias-with-indirect-questioning-Is-the-cure-worse-than-the-disease.pdf](https://www.researchgate.net/profile/Robert_Fisher12/publication/285311893_Removing_social_desirability_bias_with_indirect_questioning_Is_the_cure_worse_than_the_disease/links/5723ae6708aef9c00b811af7/Removing-social-desirability-bias-with-indirect-questioning-Is-the-cure-worse-than-the-disease.pdf)
- Forbes: Four reasons why airlines are always struggling*. (2010). Retrieved from <http://www.forbes.com/2010/06/03/airlines-struggling-bankrupt-personal-finance-carriers.html>

- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobserved variables and measurement error. *Journal of Marketing Research*, 18(1), 39-50. <https://doi.org/10.2307/3151312>
- Foxall, G. (1990). *Consumer psychology in behavioural perspective*. London: Routledge.
- French, D. P., & Cooke, R. (2012). Using the theory of planned behaviour to understand binge drinking: The importance of beliefs for developing interventions. *British Journal of Health Psychology*, 17(1), 1-17. <https://doi.org/10.1111/j.2044-8287.2010.02010.x>
- Fullerton, R. A. (2013). The birth of consumer behaviour: Motivation research in the 1940s and 1950s. *Journal of Historical Research in Marketing*, 5(2), 212-222. <https://doi.org/10.1108/17557501311316833>
- Gabbatiss, J. (2018). 'Electrofuels' that increase plane ticket price by 60% only way to clean up air travel, report finds. *Independent*. Retrieved from <https://www.independent.co.uk/environment/air-travel-aeroplane-fuel-climate-change-carbon-emissions-electrofuels-kerosene-a8595946.html>
- Gabler, C. B., Butler, T. D., & Adams, F. G. (2013). The environment-belief behaviour gap: Exploring barriers to green consumerism. *Journal of Customer Behaviour*, 12(2/3), 159-176. <https://doi.org/10.1362/147539213X13832198548292>
- Gahm, C., Denz, F., Dirr, M., & Tuma, A. (2016). Energy-efficient scheduling in manufacturing companies: A review and research framework. *European Journal of Operational Research*, 248(3), 744-757. <https://doi.org/10.1016/j.ejor.2015.07.017>

- Gardner, B., & Abraham, C. (2010). Going green? Modelling the impact of environmental concerns and perceptions of transportation alternatives on decisions to drive. *Journal of Applied Social Psychology, 40*(4), 831-849. <https://doi.org/10.1111/j.1559-1816.2010.00600.x>
- Gerbing, D. W., & Anderson, J. C. (1988). An updated paradigm for scale development incorporation unidimensionality and its assessment. *Journal of Marketing Research, 25*(2), 186-192. <https://doi.org/10.2307/3172650>
- Gilley, K. M., Worrell, D. L., & El-Jelly, A. (2000). Corporate environmental initiatives and anticipated firm performance: The differential effects of process-driven versus product-driven greening initiatives. *Journal of Management, 26*(6), 199-216. [https://doi.org/10.1016/S0149-2063\(00\)00079-9](https://doi.org/10.1016/S0149-2063(00)00079-9)
- Gleim, M. R., Smith, J. S., Andrews, D., & Cronin Jr., J. J. (2013). Against the green: A multi-method examination of the barriers to green consumption. *Journal of Retailing, 89*(1), 44-61. <https://doi.org/10.1016/j.jretai.2012.10.001>
- Gonzalez-Prida, V., & Raman, A. (2015). *Promoting sustainable practices through energy engineering and asset management*. Hershey, PA: IGI Global.
- Gorsuch, R. L. (1983). *Factor analysis* (2<sup>nd</sup> ed.). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Gössling, S. (2018). Tourism, tourist learning and sustainability: An exploratory discussion of complexities, problems and opportunities. *Journal of Sustainable Tourism, 26*(2), 292-306. <https://doi.org/10.1080/09669582.2017.1349772>

- Graham, J. W., Hofer, S. M., Donaldson, S. L., MacKinnon, D. P., & Schafer, J. L. (1997). Analysis with missing data in prevention research. In K. J. Bryant, M. W. Windle, & S. J. West (Eds.). *The science of prevention: Methodological advances from alcohol and substance abuse research* (pp. 325-366). Washington, DC: American Psychological Association.
- Greaves, M., Zibarras, L. D., & Stride, C. (2013). Using the theory of planned behavior to explore environmental behavioral intentions in the workplace. *Journal of Environmental Psychology*, *34*, 109-120. <https://doi.org/10.1016/j.jenvp.2013.02.003>
- Greenslade, J. H., & White, K. M. (2005). The prediction of above regular participation in volunteerism: A test of the theory of planned behaviour and the volunteers functions inventory. *Journal of Social Psychology*, *145*(2), 155-172. Retrieved from <http://eprints.qut.edu.au/3783/1/3783.pdf>
- Grewal, D., Monroe, K. B., & Krishnan, R. (1998). The effects of price-comparison advertising on buyers' perceptions of acquisition value, transaction value, and behavioural intention. *Journal of Marketing*, *62*(2), 46-59. <https://doi.org/10.2307/1252160>
- Guagnano, G. A., Stern, P. C., & Dietz, T. (1995). Influences on attitude-behaviour relationships: A natural experiment with curbside recycling. *Environment and Behaviour*, *27*(5), 699-718. <https://doi.org/10.1177/0013916595275005>
- Guerrero, L. K., Andersen, P. A., & Afifi, W. A. (2017). *Close encounters: Communication in relationships* (5<sup>th</sup> ed.). Thousand Oaks, CA: SAGE Publications.

- Gul, M. C. (2013). Long-term orientation, perceived consumer effectiveness, and environmentally conscious consumer behaviour: The case of Turkey. *International Journal of Marketing Studies*, 5(5), 24-30. <https://doi.org/10.5539/ijms.v5n5p24>
- Gupta, S., & Ogden, D. T. (2009). To buy or not to buy? A social dilemma perspective on green buying. *Journal of Consumer Marketing*, 26(6), 376-391. <https://doi.org/10.1108/07363760910988201>
- Ha, J. (2013). Factors influencing Korean consumers' ethical decision making. *Advances in Management*, 6(7), 52-56. Retrieved from <https://ideas.repec.org/a/mgn/journal/v6y2013i7a8.html>
- Hair Jr., J. F., Black, W. C., Babin, B. J., & Anderson R. E. (2014). *Multivariate data analysis* (Pearson New International Edition). Harlow: Pearson Education.
- Hair Jr., J. F., Bush, R., & Ortinau, D. (2006). *Marketing research: Within a changing information environment* (3<sup>rd</sup> ed.). New York: McGraw-Hill/Irwin.
- Hale, J. L., Householder, B. J., & Greene, K. L. (2002). The theory of reasoned action. In J. P. Dillard & M. Pfau (Eds.), *The persuasion handbook: Developments and practice in theory* (pp. 259-286). Thousand Oaks, CA: SAGE Publications.
- Ham, M, Jeger, M., & Ivkovic, A. F. (2015). The role of subjective norm in forming the intention to purchase green food. *Economic Research-Ekonomska Istraživanja*, 28(1), 738-748. <https://doi.org/10.1080/1331677X.2015.1083875>

- Han, H., Hsu, L., & Lee, J. (2010). Application of the theory of planned behaviour to green hotel choice: Testing the effect of environmental friendly activities. *Tourism Management*, 31(3), 325-334. <https://doi.org/10.1016/j.tourman.2009.03.013>
- Han, H., & Kim, Y. (2010). An investigation of green hotel consumers' decision formation: Developing an extended model of the theory of planned behaviour. *International Journal of Hospitality Management*, 28(4), 519-528. <https://doi.org/10.1016/j.ijhm.2010.01.001>
- Hargreaves, T. (2011). Practice-ing behaviour change: Applying social practice theory to pro-environmental behaviour change. *Journal of Consumer Culture*, 11(1), 79-99. <https://doi.org/10.1177/1469540510390500>
- Harland, P., Staats, H., & Wilke, H. A. M. (1999). Explaining proenvironmental intention and behaviour by personal norms and the theory of planned behaviour. *Journal of Applied Social Psychology*, 29(12), 2505-2528. <https://doi.org/10.1111/j.1559-1816.1999.tb00123.x>
- Harris, M. M., & Schaubroeck, J. (1990). Confirmatory modelling in in organizational behaviour/human resource management: Issues and applications. *Journal of Management*, 16(2), 337-360. <https://doi.org/10.1177/014920639001600206>
- Harrison, K. (2013). *10 ways to green your business and save money*. Retrieved from <https://www.forbes.com/sites/kateharrison/2013/02/07/10-ways-to-green-your-business-and-save-money/#2944cb343753>
- Hartmann, P., & Ibáñez, V. A. (2006). Green value added. *Marketing Intelligence & Planning*, 24(7), 673-680. <https://doi.org/10.1108/02634500610711842>

- Harvey, R. J., Billings, R. S., & Nilan, K. J. (1985). Confirmatory factor analysis of the job diagnostic survey: Good news and bad news. *Journal of Applied Psychology*, 70 (3), 461-468. <https://doi.org/10.1037/0021-9010.70.3.461>
- Henion, K., & Wilson, W. (1976). The ecologically concerned consumer and locus of control. In K. Henion & T. Kinnear (Eds.), *Ecological Marketing* (pp. 131-144). Austin, Texas: American Marketing Association.
- Hernández, B., Jiménez, J., & Martin, M. J. (2010). Customer behaviour in electronic commerce: The moderating effect of e-purchasing experience. *Journal of Business Research*, 63(9-10), 964-971. <https://doi.org/10.1016/j.jbusres.2009.01.019>
- Hinkin, T. R., Tracey, J. B., & Enz, C. A. (1997). Scale construction: Developing reliable and valid measurement instruments. *Journal of Hospitality & Tourism Research*, 21(1), 100-120. <https://doi.org/10.1177/109634809702100108>
- Hogg, M. A., & Vaughan, G. M. (2005). *Social psychology* (4<sup>th</sup> ed.). London: Prentice Hall.
- Holmes-Smith, P., Cunningham, E., & Coote, L. (2006). *Structural equation modeling: From the fundamentals to advanced topics*. Melbourne: Statsline.
- Horner, S., & Swarbrooke, J. (2016). *Consumer behaviour in tourism* (3<sup>rd</sup> ed.). London: Routledge.
- Hossain, M. T., & Lim, P. X. (2016). Consumers' buying behaviour towards organic foods: Evidence from the emerging market. *Malaysian Management Review*, 51(2), 7-25. Retrieved from <http://www.mim.org.my/wp-content/uploads/2017/06/MMR-Sample-Article-23.5.2017-bw.pdf>

- Hsu, C. L., Chang, C. Y., & Yansritakul, C. (2017). Exploring purchase intention of green skincare products using the theory of planned behaviour: Testing the moderating effects of country of origin and price sensitivity. *Journal of Retailing and Consumer Services*, 34, 145-152.  
<https://doi.org/10.1016/j.jretconser.2016.10.006>
- Hussey, J. C., & Hussey, R. (2013). *Business research* (4<sup>th</sup> ed.). London: Palgrave Macmillan.
- Hutching, K., Lac, A., & LaBrie, J. W. (2008). An application of the theory of planned behaviour to sorority alcohol consumption. *Addictive Behaviour*, 33(4), 538-551.  
<https://doi.org/10.1016/j.addbeh.2007.11.002>
- Iacobucci, D., Churchill, G. A. (2015). *Marketing research: Methodological foundations* (11<sup>th</sup> edn.). Nashville, TN: Earlie Lite Books.
- International Air Transport Association. (n.d). *Passenger Glossary of Terms*. Retrieved from <https://www.iata.org/whatwedo/passenger/Documents/passenger-glossary-of-terms.xls>
- International Civil Aviation Organization. (2017). *Annual report of the council: 2016*. Retrieved from <https://www.icao.int/annual-report-2016/Pages/default.aspx>
- International Civil Aviation Organization. (2005). *The economic benefits of air transport*. Retrieved from [http://www.icao.int/Meetings/wrdss2011/Documents/JointWorkshop2005/ATA\\_G\\_SocialBenefitsAirTransport.pdf](http://www.icao.int/Meetings/wrdss2011/Documents/JointWorkshop2005/ATA_G_SocialBenefitsAirTransport.pdf)
- International Civil Aviation Organization: About ICAO*. (2015). Retrieved from <http://www.icao.int/about-icao/Pages/default.aspx>

- International Civil Aviation Organization: Dataplus: Glossary.* (2015). Retrieved from <http://www.icao.int/dataplus/Documents/GLOSSARY.docx>
- Jackson, L. A. (2010). Toward a framework for the components of green lodging. *Journal of Retail & Leisure Property*, 9(3), 211-230. <https://doi.org/10.1057/rlp.2010.6>
- Jaiswal, D., & Kant, R. (2018). Green purchase behaviour: A conceptual framework and empirical investigation of Indian consumers. *Journal of Retailing and Consumer Services*, 41, 60-69. <https://doi.org/10.1016/j.jretconser.2017.11.008>
- Japan Airlines: CSR activities: Environmental activities: For water, air and the earth: Waste materials.* (n.d.). Retrieved from <http://www.jal.com/en/csr/environment/conservation/detail03.html>
- Jayaraman, V., Singh, R., & Anandnarayan, A. (2012). Impact of sustainable manufacturing practices on consumer perception and revenue growth: An emerging economy perspective. *International Journal of Production Research*, 50(5), 1395-1410. <https://doi.org/10.1080/00207543.2011.571939#.VGxNQfmUdUU>
- Johnson, M. E., & Gonzalez, A. (2013). Estimating cost savings for aviation fuel and CO2 emission reduction strategies. *Collegiate Aviation Review*, 31(2), 79-102. Retrieved from <http://www.imis100us1.com/uaa/CMDownload.aspx?ContentKey=228b6bfa-9cfa-4980-b88a-324a050d5363&ContentItemKey=9c5e8e62-53f4-4f7b-b2e6-f2a27db95ad2>
- Johnson, S. W. (2010). Summarizing green practices in U. S. hospitals. *Hospital Topics*, 88(3), 75-81. <https://doi.org/10.1080/00185868.2010.507121>

- Johnstone, M., & Tan, L. P. (2015). Exploring the gap between consumers' green rhetoric and purchasing behaviour. *Journal of Business Ethics*, 132(2), 311-328. <https://doi.org/10.1007/s10551-014-2316-3>
- Joshi, Y., & Rahman, Z. (2015). Factors affecting green purchase behaviour and future research directions. *International Strategic Management Review*, 3(1/2), 128-143. <https://doi.org/10.1016/j.ism.2015.04.001>
- Kahle, L. R., & Gurel-Atay, E. (Eds.). (2014). *Communicating sustainability for the green economy*. New York: M. E. Sharpe.
- Kang, J., Liu, C., & Kim, S. H. (2013). Environmentally sustainable textile and apparel consumption: The role of consumer knowledge, perceived consumer effectiveness and perceived personal relevance. *International Journal of Consumer Studies*, 37(4), 442-452. <https://doi.org/10.1111/ijcs.12013>
- Kaos Jr., J. (2013, October 2). Malaysia successfully defends seat on ICAO council. *The Star Online*. Retrieved from <http://www.thestar.com.my/News/Nation/2013/10/02/msia-icao-seat/>
- Khanna, M., & Anton, W. R. (2002). What is driving corporate environmentalism: Opportunity or threat? *Corporate Environmental Strategy*, 9(4), 409-417. [https://doi.org/10.1016/S1066-7938\(02\)00118-5](https://doi.org/10.1016/S1066-7938(02)00118-5)
- Khazanah Nasional Berhad. (2014). *Media statement: Khazanah announces 12-point MAS recovery plan*. Retrieved from <http://www.khazanah.com/docs/140829%20Khazanah%20announces%2012-point%20MAS%20Recovery%20Plan.pdf>

- Kim, H. W., Chan, H. C., & Chan, Y. P. (2007). A balanced thinking-feelings model of information systems continuance. *International Journal of Human-Computer Studies*, 65(6), 511-525. <https://doi.org/10.1016/j.ijhcs.2006.11.009>
- Kim, Y., & Han, H. (2010). Intention to pay conventional-hotel prices at a green hotel – A modification of the theory of planned behaviour. *Journal of Sustainable Tourism*, 18(8), 997-1014. <https://doi.org/10.1080/09669582.2010.490300>
- Kim, Y. J., Njite, D., & Hancer, M. (2013). Anticipated emotion in consumers' intentions to select eco-friendly restaurants: Augmenting the theory of planned behaviour. *International Journal of Hospitality Management*, 34, 255-262. <https://doi.org/10.1016/j.ijhm.2013.04.004>
- Kim, Y. J., Palakurthi, R., & Hancer, M. (2012a). The environmentally friendly programs in hotels and customers' intention to stay: An online survey approach. *International Journal of Hospitality & Tourism Administration*, 13(3), 195-214. <https://doi.org/10.1080/15256480.2012.698169>
- Kim, Y. J., Yeo, J., Sohn, S., Rha, J. Y., Choi, S., Choi, A. Y., & Shin, S. (2012b). Toward a composite measure of green consumption: An exploratory study using a Korean sample. *Journal of Family and Economic Issues*, 33(2), 199-214. <https://doi.org/10.1007/s10834-012-9318-z>
- King, M. F., & Bruner, G. C. (2000). Social desirability bias: A neglected aspect of validity testing. *Psychology and Marketing*, 17(2), 79-103. [https://doi.org/10.1002/\(SICI\)1520-6793\(200002\)17:2<79::AID-MAR2>3.0.CO;2-0](https://doi.org/10.1002/(SICI)1520-6793(200002)17:2<79::AID-MAR2>3.0.CO;2-0)
- Kinney, T. C., & Taylor, J. R. (1996). *Marketing research: An applied approach* (5<sup>th</sup> ed.). New York: McGraw-Hill.

- Kinnear, T. C., Taylor, J. R., & Ahmed, S. A. (1974). Ecologically concerned consumers: Who are they? *Journal of Marketing*, 38(2), 20-24. <https://doi.org/10.2307/1250192>
- Klaus, P., & Maklan, S. (2013). Towards a better measure of customer experience. *International Journal of Market Research*, 55(2), 227-246. <https://doi.org/10.2501/IJMR-2013-021>
- Kleijnen, M., de Ruyter, K., & Wetzels, M. (2007). An assessment of value creation in mobile service delivery and the moderating role of time consciousness. *Journal of Retailing*, 83(1), 33-46. <https://doi.org/10.1016/j.jretai.2006.10.004>
- Kline, R. B. (2016). *Principles and practice of structural equation modelling* (4<sup>th</sup> ed.). New York: The Guilford Press.
- Knowles, S. R., Hyde, M. K., & White, K. M. (2012). Predictors of young people's charitable intentions to donate money: An extended theory of planned behaviour perspective. *Journal of Applied Social Psychology*, 42(9), 2096-2110. <https://doi.org/10.1111/j.1559-1816.2012.00932.x>
- Kollmuss, A., & Agyeman, J. (2002). Mind the gap: Why do people act environmentally and what are the barriers to pro-environmental behaviour? *Environmental Education Research*, 8(3), 239-260. <https://doi.org/10.1080/13504620220145401>
- Kong, Y., & Zhang, A. H. (2013). Consumer response to green advertising: The influence of product involvement. *Asian Journal of Communication*, 23(4), 428-447. <https://doi.org/10.1080/01292986.2013.774433>

- Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement, 30*(3), 607-610. <https://doi.org/10.1177/001316447003000308>
- Krosnick, J., & Presser, S. (2010). Question and questionnaire design. In J. D. Wright & P. V. Marsden (Eds.), *Handbook of survey research* (pp. 263-314). Bingley: Emerald Group Publishing.
- Kruger, A., & Seville, C. (2012). *Green building: Principles and practices in residential construction*. Clifton Park, NY: Cengage Learning.
- Lai, H. J. (2017). Examining civil servants' decisions to use web 2.0 tools for learning, based on the decomposed theory of planned behaviour. *Interactive Learning Environments, 25*(3), 295-305. <https://doi.org/10.1080/10494820.2015.1121879>
- Lai, I. K. W. (2013). Traveler acceptance of an app-based mobile tour guide. *Journal of Hospitality & Tourism Research, 39*(3), 401-432. <https://doi.org/10.1177/1096348013491596>
- Lam, S. P., & Chen, J. K. (2006). What makes customers bring their bags or buy bags from the shop? A survey of customers at a Taiwan hypermarket. *Environment and Behaviour, 38*(3), 318-332. <https://doi.org/10.1177/0013916505278327>
- Lam, T., & Hsu, C. H. C. (2004). Theory of planned behaviour: Potential travellers from China. *Journal of Hospitality & Tourism Research, 28*(4), 463-482. <https://doi.org/10.1177/1096348004267515>
- Laroche, M., Bergeron, J., & Barbaro-Forleo, G. (2001). Targeting consumers who are willing to pay more for environmental friendly products. *Journal of Consumer Marketing, 18*(6), 503-520. <https://doi.org/10.1108/EUM00000000006155>

- Laufer, W. S. (2003). Social accountability and corporate greenwashing. *Journal of Business Ethics*, 43(3), 253-261. <https://doi.org/10.1023/A:102296271>
- Law, C. (2017). The study of customer relationship management in Thai airline industry: A case of Thai travelers in Thailand. *Journal of Airline and Airport Management*, 7(1), 13-42. <https://doi.org/10.3926/jairm.86>
- Lee, C. H., Abdul Wahid, N., & Goh, Y. N. (2013). Perceived drivers of green practices adoption: A conceptual framework. *The Journal of Applied Business Research*, 29(2), 351-360. Retrieved from <http://www.cluteinstitute.com/ojs/index.php/JABR/article/download/7643/7708>
- Lee, M. C. (2009). Factors influencing the adoption of internet banking: An integration of TAM and TPB with perceived risk and perceived benefit. *Electronic Commerce Research and Applications*, 8(3), 130-141. <https://doi.org/10.1016/j.elerap.2008.11.006>
- Lee, M. J., & Back, K. J. (2007). Association members' meeting participation behaviours: Development of meeting participation model. *Journal of Travel & Tourism Marketing*, 22(2), 15-33. [https://doi.org/10.1300/J073v22n02\\_02](https://doi.org/10.1300/J073v22n02_02)
- Lee, P. (2015, June 9). Nufam: Rehire MAS staff or we will strike. *The Star Online*. Retrieved from <http://www.thestar.com.my/News/Nation/2015/06/09/MAS-nufam-strike-threat/>
- Lenzen, M., Sun, Y. Y., Faturay, F., Ting, Y. P., Geschke, A., & Malik, A. (2018). The carbon footprint of global tourism. *Nature Climate Change*, 8(6), 522-528. <https://doi.org/10.1038/s41558-018-0141-x>

- Leong, H. Y. (2013, July 24). Cost of KLIA2 capped at RM4bil. *The Star Online*. Retrieved from <http://www.thestar.com.my/Business/Business-News/2013/07/24/Cost-of-KLIA2-capped-at-RM4bil-MAHB-optimistic-of-RM751mil-earnings-in-FY13/?style=biz>
- Leonidou, C. N., & Leonidou, L. C. (2010). Research into environmental marketing/management: A bibliographic review. *European Journal of Marketing*, 45(1/2), 68-103. <https://doi.org/10.1108/03090561111095603>
- Levitt, T. (1960). Marketing myopia. *Harvard Business Review*, 38(4), 45-56.
- Levy, S. E., & Duverger, P. (2010, July). *Consumer perceptions of sustainability in the lodging industry: Examination of sustainable tourism criteria*. Paper presented at International ICHRIE Conference, University of Massachusetts-Amherst. Retrieved from [http://scholarworks.umass.edu/refereed/CHRIE\\_2010/Friday/31/](http://scholarworks.umass.edu/refereed/CHRIE_2010/Friday/31/)
- Liao, C. H., Zhao, D. T., & Zhang, S. (2018). Psychological and conditional factors influencing staff's takeaway waste separation intention: An application of the extended theory of planned behaviour. *Sustainable Cities and Society*, 41, 186-194. <https://doi.org/10.1016/j.scs.2018.05.046>
- Lin, C. T. (2010). Examining e-travel sites: An empirical study in Taiwan. *Online Information Review*, 34(2), 205-228. <https://doi.org/10.1108/14684521011036954>
- Lin, Y. C., & Chang, C. C. A. (2012). Double standard: The role of environmental consciousness in green product usage. *Journal of Marketing*, 76(5), 125-134. <https://doi.org/10.2307/41714513>

- Lin, H. Y., & Hsu, M. H. (2015). Using social cognitive theory to investigate green consumer behaviour. *Business Strategy and the Environment*, 24, 326-343. <https://doi.org/10.1002/bse.1820>
- Lissitz, R. W., & Green, S. B. (1975). Effect of the number of scale points on reliability: A Monte Carlo approach. *Journal of Applied Psychology*, 60(1), 10-13. <https://doi.org/10.1037/h0076268>
- Litwin, M. S. (1995). *How to measure survey reliability and validity*. Thousand Oaks: SAGE Publications.
- Loewenstein, G., & Lerner, J. S. (2003). The role of affect in decision making. In R. J. Davidson, K. R. Scherer & H. H. Goldsmith (Eds.), *Handbook of affective sciences* (pp. 619-642). New York: Oxford University Press.
- López-Mosquera, N., Garcia, T., & Barrena, R. (2014). An extension of the theory of planned behaviour to predict willingness to pay for the conservation of an urban park. *Journal of Environmental Management*, 135, 91-99. <https://doi.org/10.1016/j.jenvman.2014.01.019>
- Lynes, J. K., & Dredge, D. (2006). Going green: Motivations for environmental commitment in the airline industry. A case study of Scandinavian Airlines. *Journal of Sustainable Tourism*, 14(2), 116-138. <https://doi.org/10.1080/09669580608669048>
- Ma, J., & Ghiselli, R. (2016). Measuring, monitoring, and managing the green practices in mid-size restaurants in China. *Journal of Foodservice Business Research*, 19(1), 64-76. <https://doi.org/10.1080/15378020.2016.1129221>

- Malaysia Airlines. (2013). *Annual report 2012*. Retrieved from <http://ir.chartnexus.com/mas/doc/ar/ar2012.pdf>
- Malaysia Airlines. (2014). *Annual report 2013*. Retrieved from <http://ir.chartnexus.com/mas/doc/ar/ar2013.pdf>
- Malaysia Airlines: Corporate info: Our story*. (2015). Retrieved from [http://www.malaysiaairlines.com/my/en/corporate-info/our\\_story/about-us.html](http://www.malaysiaairlines.com/my/en/corporate-info/our_story/about-us.html)
- Malaysian Airlines introduces eTicketing*. (2007). Retrieved from <http://www.livemint.com/Companies/1xubeElZdqgKhHkkyYn22O/Malaysian-Airlines-introduces-eTicketing.html>
- Malaysia Airlines likely to be profitable in Q1 of 2019. (2018, February 9). *The Star Online*. Retrieved from <https://www.thestar.com.my/business/business-news/2018/02/09/malaysia-airlines-to-be-profitable-in-q1-of-2019/>
- Malaysia Airlines to suspend flights to Los Angeles. (2014, January 28). *The Sun Daily*. Retrieved from <http://www.thesundaily.my/news/941610>
- Malaysia Airports: Corporate info: Corporate profile*. (2015). Retrieved from [http://www.malaysiaairports.com.my/index.php?m=corp\\_info&c=brand](http://www.malaysiaairports.com.my/index.php?m=corp_info&c=brand)
- Malaysia Airports Holdings Berhad. (2015). *Annual report 2014: The centre of excitement*. Retrieved from <http://ir.chartnexus.com/malaysiaairports/doc/ar/ar2014.pdf>
- Malaysia Airports Holdings Berhad. (2017). *Annual report 2016: An immerse airport experience*. Retrieved from <http://ir.chartnexus.com/malaysiaairports/doc/ar/ar2016.pdf>

*Malaysia Airports: KLIA: KLIA2: About KLIA2: The rise of a new titan.* (2015).

Retrieved from <http://www.klia.com.my/index.php?m=klia2&c=info&id=1>

Malaysia is ninth most visited in the world in UNWTO list. (2012, February 17). *The*

*Star Online.* Retrieved from

<http://www.thestar.com.my/News/Nation/2012/02/17/Msia-is-ninth-most-visited-in-the-world-in-UNWTO-list/>

Malhotra, N. K. (1987). Analyzing marketing research data with incomplete information on the dependent variables. *Journal of Marketing Research*, 24(1), 74-84. <https://doi.org/10.2307/3151755>

Malhotra, N. K. (2010). *Marketing research: An applied orientation* (6<sup>th</sup> ed.). Harlow: Pearson Education.

Malhotra, N. K., & Birks, D. F. (2008). *Marketing research: An applied approach* (3<sup>rd</sup> ed.). Harlow: Pearson Education.

Malhotra, N. K., Kim, S. S., & Patil, A. (2006). Common method variance in IS research: A comparison of alternative approaches and a reanalysis of past research. *Management Science*, 52(12), 1865-1883. <https://doi.org/10.1287/mnsc.1060.0597>

Manaktola, K., & Jauhari, V. (2007). Exploring consumer attitude and behaviour towards green practices in the lodging industry in India. *International Journal of Contemporary Hospitality Management*, 19(5), 364-377. <https://doi.org/10.1108/09596110710757534>

- Mannetti, L., Pierro, A., & Livi, S. (2004). Recycling: Planned and self-expressive behaviour. *Journal of Environmental Psychology*, 24(2), 227-236. <https://doi.org/10.1016/j.jenvp.2004.01.002>
- Manstead, A. S. R. (2011). The benefits of a critical stance: A reflection on past papers on the theories of reasoned actions and planned behaviour. *British Journal of Social Psychology*, 50(3), 366-373. <https://doi.org/10.1111/j.2044-8309.2011.02043.x>
- Martins, C., Oliveira, T., & Popovič, A. (2014). Understanding the internet banking adoption: A unified theory of acceptance and use of technology and perceived risk application. *International Journal of Information Management*, 34(1), 1-13. <https://doi.org/10.1016/j.ijinfomgt.2013.06.002>
- Maslen, R. (2013). *Malaysia and UK agree open skies, but will it bring new services?* Retrieved from <http://www.routesonline.com/news/29/breaking-news/205903/malaysia-and-uk-agree-open-skies-but-will-it-bring-new-services/>
- Mattison-Shupnick, M. (2013). *Become a green practice and see your business bloom.* Retrieved from <http://www.2020mag.com/ce/TTViewTest.aspx?LessonId=109198>
- Mayer, R., Ryley, T., & Gillingwater, D. (2012). Passenger perceptions of the green image associated with airlines. *Journal of Transport Geography*, 22, 179-186. <https://doi.org/10.1016/j.jtrangeo.2012.01.007>
- McCormick, T. (2013). *Five practical approaches to cost reduction.* Retrieved from <http://www.accountancyireland.ie/Documents/digital/2013/April/files/52.html>

- McMillan, B., & Conner, M. (2003). Using the theory of planned behaviour to understand alcohol and tobacco use in students. *Psychology, Health & Medicine*, 8(3), 317-328. <https://doi.org/10.1080/1354850031000135759>
- Mealy, L. (2018). *Save money at your restaurant with these easy tips*. Retrieved from <https://www.thebalance.com/save-money-at-restaurants-2888447>
- Miafodzyeva, S., & Brandt, N. (2013). Recycling behaviour among householders: Synthesizing determinants via a meta-analysis. *Waste and Biomass Valorization*, 4(2), 221-235. <https://doi.org/10.1007/s12649-012-9144-4>
- Miao, L., & Wei, W. (2016). Consumers' pro-environmental behaviour and its determinants in the lodging segment. *Journal of Hospitality & Tourism Research*, 40(3), 319-338. <https://doi.org/10.1177/1096348013495699>
- Ministry of Transport, Malaysia: *Aviation: Air Services Agreements*. (2015). Retrieved from <http://www.mot.gov.my/my/udara/perkhidmatan-penerbangan/perjanjian-perkhidmatan-udara>
- Ministry of Transport, Malaysia. (2013). *Malaysia: A vital hub in the Asia Pacific region*. Retrieved from <http://www.mot.gov.my/my/Publication/Official/Profil%20Malaysia%20Dalam%20Jurnal%20ICAO%20Edisi%20Mac%20dan%20April%20Tahun%202013.pdf>
- Missing airplane mystery deepens Malaysia Airlines losses by 59%. (2014, May 15). Toronto Star Online. Retrieved from [http://www.thestar.com/business/2014/05/15/missing\\_airplane\\_mystery\\_deepens\\_malaysia\\_airlines\\_losses\\_by\\_59.html](http://www.thestar.com/business/2014/05/15/missing_airplane_mystery_deepens_malaysia_airlines_losses_by_59.html)

- Mohindra, K. S. (2008). Greening public health conferences: Educating ourselves. *Health Education, 108*(4), 269-271. <https://doi.org/10.1108/09654280810884151>
- Moisander, J. (2007). Motivational complexity of green consumerism. *International Journal of Consumer Studies, 31*(4), 404-409. <https://doi.org/10.1111/j.1470-6431.2007.00586.x>
- Molla, A., & Abareshi, A. (2012). Organizational green motivations for information technology: Empirical study. *Journal of Computer Information Systems, 52*(3), 92-102. <https://doi.org/10.1080/08874417.2012.11645562>
- Mondelaers, K., Verbeke, W., & Van Huylenbroeck, G. (2009). Importance of health and environment as quality traits in the buying decision of organic products. *British Food Journal, 111*(10), 1120-1139. <https://doi.org/10.1108/00070700910992952>
- Montabon, F., Sroufe, R., & Narasimhan, R. (2007). An examination of corporate reporting, environmental management practices and firm performance. *Journal of Operations Management, 25*(5), 998-1014. <https://doi.org/10.1016/j.jom.2006.10.003>
- Mooney, C., & Dennis, B. (2018). The world has just over a decade to get climate change under control, U.N. scientists say. *The Washington Post*. Retrieved from [https://www.washingtonpost.com/energy-environment/2018/10/08/world-has-only-years-get-climate-change-under-control-un-scientists-say/?utm\\_term=.71947fd4f3ae](https://www.washingtonpost.com/energy-environment/2018/10/08/world-has-only-years-get-climate-change-under-control-un-scientists-say/?utm_term=.71947fd4f3ae)

- Moons, I., & De Pelsmacker, P. (2012). Emotions as determinants of electric car usage intention. *Journal of Marketing Management*, 28(3/4), 195-237. <https://doi.org/10.1080/0267257X.2012.659007>
- Moore, V. (2013, March 12). *Not just hot air*. Retrieved from <http://atwonline.com/eco-aviation/not-just-hot-air>
- Moraes, C., Carrigan, M., & Szmigin, I. (2012). The coherence of inconsistencies: Attitude-behaviour gaps and new consumption communities. *Journal of Marketing Management*, 28(1/2), 103-128. <https://doi.org/10.1080/0267257X.2011.615482>
- Moravcikova, D., Krizanova, A., Klietkova, J., & Rypakova, M. (2017). Green marketing as the source of the competitive advantage of the business. *Sustainability*, 9(12), 2218. <https://doi.org/10.3390/su9122218>
- Morris, J. D., Woo, C., Geason, J. A., & Kim, J. (2002). The power of affect: Predicting intention. *Journal of Advertising Research*, 42(3), 7-17. <https://doi.org/10.2501/JAR-42-3-7-17>
- Mowen, J. C. (1995). *Consumer behaviour* (4<sup>th</sup> ed.). Englewood Cliffs: Prentice-Hall.
- Murnaghan, D. A., Blanchard, C. M., Rodgers, W. M., LaRosa, J. N., MacQuarrie, C. R., MacLellan, D. L., & Gray, B. J. (2010). Predictors of physical activities, healthy eating and being smoke-free in teens: A theory of planned behaviour approach. *Psychology & Health*, 25(8), 925-941. <https://doi.org/10.1080/08870440902866894>

- Nam, C., Dong, H., & Lee, Y. (2017). Factors influencing consumers' purchase intention of green sportswear. *Fashion and Textiles*, 4(1), 19-36. <https://doi.org/10.1186/s40691-017-0091-3>
- Nasri, W., & Charfeddine, L. (2012). Factors affecting the adoption of internet banking in Tunisia: An integration theory of acceptance model and theory of planned behaviour. *The Journal of High Technology Management Research*, 23(1), 1-14. <https://doi.org/10.1016/j.hitech.2012.03.001>
- Ng, K. M. (2011). The potential of hotel's green products in Penang: An empirical study. *Journal of Global Business & Economics*, 3(1), 196-213. Retrieved from [http://www.globalresearch.com.my/journal/business\\_v03n01/0015\\_Article\\_176\\_Final\\_PG196\\_213.pdf](http://www.globalresearch.com.my/journal/business_v03n01/0015_Article_176_Final_PG196_213.pdf)
- Ng, E. (2014, August 8). Malaysia Airlines: State fund plans overhaul of national airline. *The Independent*. Retrieved from <http://www.independent.co.uk/news/world/asia/malaysia-airlines-state-fund-plans-overhaul-of-national-airline-9655896.html>
- Ng, M. (2014). *KLIA2 opens with inaugural flights by Malindo Air and Cebu Pacific Air*. Retrieved from [http://www.moodiereport.com/document.php?doc\\_id=39339](http://www.moodiereport.com/document.php?doc_id=39339)
- Ng, M. C. H., & Law, M. (2015). Encouraging green purchase behaviours of Hong Kong consumers. *Asian Journal of Business Research*, 5(2), 1-17. <https://doi.org/10.14707/ajbr.150013>
- Nguyen, T. N., Lobo, A., Nguyen, H. L., Phan, T. T. H., & Cao, T. K. (2016). Determinants influencing conservation behaviour: Perceptions of Vietnamese consumers. *Journal of Consumer Behaviour*. <https://doi.org/10.1002/cb.1594>

- Nicholls, S., & Kang, S. (2012). Going green: The adoption of environmental initiatives in Michigan's lodging sector. *Journal of Sustainable Tourism*, 20(7), 953-974. <https://doi.org/10.1080/09669582.2011.645577>
- Nigbur, D., Lyons, E., & Uzzell, D. (2010). Attitudes, norms, identity and environmental behaviour: Using an expanded theory of planned behaviour to predict participation in a kerbside recycling programme. *British Journal of Social Psychology*, 49, 259-284. <https://doi.org/10.1348/014466609X449395>
- Nilsson, J. (2008). Investment with a conscience: Examining the impact of pro-social attitudes and perceived financial performance on socially responsible investment behaviour. *Journal of Business Ethics*, 83(2), 307-325. <https://doi.org/10.1007/s10551-007-9621-z>
- Nittala, R. (2014). Green consumer behaviour of the educated segment in India. *Journal of International Consumer Marketing*, 26(2), 138-152. <https://doi.org/10.1080/08961530.2014.878205>
- Niu, S. Y., Liu, C. L., Chang, C. C., & Ye, K. D. (2016). What are passenger perspectives regarding airlines' environmental protection? An empirical investigation in Taiwan. *Journal of Air Transport Management*, 55(C), 84-91. <https://doi.org/10.1016/j.jairtraman.2016.04.012>
- Nordlund, A., Eriksson, L., & Garvill, J. (2013). Barriers and facilitators for pro-environmental behaviour. In P. Söderholm (Ed.). *Environmental policy and household behaviour: Sustainability and everyday life* (pp. 99-128). Gateshead, UK: Earthscan.
- Norman, D. A. (2004). *Emotional design: Why we love (or hate) everyday things*. New York: Basic Books.

- Norman, P. (2011). The theory of planned behaviour and binge drinking among undergraduate students: Assessing the impact of habit strength. *Addictive Behaviours*, 36(5), 502-507. <https://doi.org/10.1016/j.addbeh.2011.01.025>
- Norton, J. (2010). Interview with Gareth Kane, author of the Three Secrets of Green Business. *Strategic Decision*, 26(8), 37-39. <https://doi.org/10.1108/02580541011055733>
- Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric theory* (3<sup>rd</sup> ed.). New York: McGraw-Hill.
- O'Connell, J. F., & Williams, G. (2016). *Air transport in the 21<sup>st</sup> century: Key strategic developments* (2<sup>nd</sup> ed.). New York: Routledge.
- Ogbeide, G. C. (2012). Perception of green hotels in the 21<sup>st</sup> century. *Journal of Tourism Insights*, 3(1), 1-9. <https://doi.org/10.9707/2328-0824.1032>
- Oh, H., & Hsu, C. H. C. (2001). Volitional degrees of gambling behaviours. *Annals of Tourism Research*, 28(3), 618-637. [https://doi.org/10.1016/S0160-7383\(00\)00066-9](https://doi.org/10.1016/S0160-7383(00)00066-9)
- Onel, N. (2017). Pro-environmental purchasing behaviour of consumers: The role of norms. *Social Marketing Quarterly*, 23(2), 103-121. <https://doi.org/10.1177/1524500416672440>
- Oneworld: About Oneworld.* (2015). Retrieved from <http://www.oneworld.com/general/about-oneworld>
- Oneworld: Oneworld at a glance.* (2015). Retrieved from <http://www.oneworld.com/news-information/oneworld-fact-sheets/oneworld-at-a-glance/>

- Oppenheim, A. N. (2000). *Questionnaire design, interviewing and attitude measurement* (2<sup>nd</sup> ed.). London: Continuum.
- Oxford Economics. (2016). *The importance of air transport to Malaysia*. Retrieved from <https://www.iata.org/policy/Documents/benefits-of-aviation-malaysia-2017.pdf>
- Packer, J., Ballantyne, R., & Hughes, K. (2014). Chinese and Australian tourists' attitudes to nature, animals and environmental issues: Implications for the design of nature-based tourism experiences. *Tourism Management, 44*, 101-107. <https://doi.org/10.1016/j.tourman.2014.02.013>
- Parguel, B., Benoit-Moreau, F., & Russell, C. A. (2015). Can evoking nature in advertising mislead consumers? The power of 'executional greenwashing'. *International Journal of Advertising, 34*(1), 107-134. <https://doi.org/10.1080/02650487.2014.996116>
- Pallant, J. (2016). *SPSS survival manual: A step by step guide to data analysis using IBM SPSS* (6<sup>th</sup> ed.). London: McGraw-Hill Education.
- Parasuraman, A., Grewal, D., & Krishnan, R. (2007). *Marketing research* (2<sup>nd</sup> ed.). New York: Houghton Mifflin.
- Park, N. K., Rhoads, M., Hou, J. H., & Lee, K. M. (2014). Understanding the acceptance of teleconferencing systems among employees: An extension of the technology acceptance model. *Computers in Human Behaviour, 39*(3), 118-127. <https://doi.org/10.1016/j.chb.2014.05.048>

- Park, N. K., & Yang, A. M. (2012). Online environmental community members' intention to participate in environmental activities: An application of the theory of planned behaviour in the Chinese context. *Computers in Human Behaviour*, 28(4), 1298-1306. <https://doi.org/10.1016/j.chb.2012.02.013>
- Paterson, J. (2013). *Qantas to freeze pay and bonuses for executives*. Retrieved from <http://www.employeebenefits.co.uk/benefits/pay/-/bonus-and-reward/qantas-to-freeze-pay-and-bonuses-for-executives/103741.article>
- Pavlou, P. A., & Fygenson, M. (2006). Understanding and predicting electronic commerce adoption: An extension of the theory of planned behaviour. *MIS Quarterly*, 30(1), 115-143. <https://doi.org/10.2307/25148720>
- Pearson, M. R., Hustad, J. T. P., Neighbors, C., Conner, B. T., Bravo, A. J. (2018). Personality, marijuana norms, and marijuana outcomes among college students. *Addictive Behaviours*, 76, 291-297. <https://doi.org/10.1016/j.addbeh.2017.08.012>
- Pelling, E. L., & White, K. M. (2009). The theory of planned behaviour applied to young people's use of social networking web sites. *Cyberpsychology & Behaviour*, 12(6), 755-759. <https://doi.org/10.1089/cpb.2009.0109>
- Pereira-Moliner, J., Font, X., Tari, J. J., Molina-Azorin, J. F., Lopez-Gameiro, M. D., & Pertusa-Ortega, E. (2015). The holy grail: Environmental management, competitive advantage and business performance in the Spanish hotel industry. *International Journal of Contemporary Hospitality Management*, 27(5), 714-738. <https://doi.org/10.1108/IJCHM-12-2013-0559>

- Perugini, M., & Bagozzi, R. P. (2001). The role of desires and anticipated emotions in goal-directed behaviours: Broadening and deepening the theory of planned behaviour. *British Journal of Social Psychology*, 40(1), 79-98. <https://doi.org/10.1348/014466601164704>
- Peters, K., Chen, Y. B., Kaplan, A. M., Ognibeni, B., & Pauwels, K. (2013). Social media metrics – A framework and guidelines for managing social media. *Journal of Interactive Marketing*, 27(4), 281-298. <https://doi.org/10.1016/j.intmar.2013.09.007>
- Peterson, R. A. (2000). *Constructing effective questionnaires*. Thousand Oaks, CA: SAGE Publishing.
- Pham, M. T. (2004). The logic of feeling. *Journal of Consumer Psychology*, 14(4), 360-369. [https://doi.org/10.1207/s15327663jcp1404\\_5](https://doi.org/10.1207/s15327663jcp1404_5)
- Pickard-Whitehead, G. (2017). *The ultimate guide to green practices for your small business*. Retrieved from <https://smallbiztrends.com/2017/04/green-practices-small-business.html>
- Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioural research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5), 879-903. <https://doi.org/10.1037/0021-9010.88.5.879>
- Podsakoff, P. M., & Organ, D. (1986). Self-reports in organizational research: Problems and prospects. *Journal of Management*, 12(4), 531-544. <https://doi.org/10.1177/014920638601200408>

- Polacsek, M., Moran, A., Thorndike, A. N., Boulos, R., Franckle, R. L., Greene, J. C., Blue, D. J., Block, J. P., & Rimm, E. B. (2018). A supermarket double-dollar incentive program increases purchases of fresh fruits and vegetables among low-income families with children: The healthy double study. *Journal of Nutrition Education and Behaviour*, *50*(3), 217-228. <https://doi.org/10.1016/j.jneb.2017.09.013>
- Porter, M. E. (1985). *Competitive advantage: Creating and sustaining superior performance*. New York: The Free Press.
- Porter, M. E., & van der Linde, C. (1995). Toward a new conception of the environment-competitiveness relationship. *Journal of Economic Perspectives*, *9*(4), 97-118. Retrieved from [http://www.academia.edu/2917979/Toward\\_a\\_new\\_conception\\_of\\_the\\_environment-competitiveness\\_relationship](http://www.academia.edu/2917979/Toward_a_new_conception_of_the_environment-competitiveness_relationship)
- Povey, R., Conner, M., Sparks, P., James, R., & Shepherd, R. (2000). Application of the theory of planned behaviour to two dietary behaviours: Roles of perceived control and self-efficacy. *British Journal of Health Psychology*, *5*, 121-139. <https://doi.org/10.1348/135910700168810>
- Prati, G., Mazzoni, D., & Zani, B. (2014). Perceived behavioural control, subjective norms, attitudes and intention to use condom: A longitudinal cross-lagged design. *Psychology & Health*, *29*(10), 1119-1136. <https://doi.org/10.1080/08870446.2014.913043>
- Presser, S., & Blair, J. (1994). Survey pretesting: Do different methods produce different results? *Sociological Methodology*, *24*, 73-104. <https://doi.org/10.2307/270979>

- Putra, M. (2005). Linking perceived value and loyalty in location-based mobile services. *Managing Service Quality: An International Journal*, 15(6), 509-538. <https://doi.org/10.1108/09604520510634005>
- Quintal, V. A., Lee, J. A., & Soutar, G. N. (2010). Risk, uncertainty and the theory of planned behaviour: A tourism example. *Tourism Management*, 31(6), 797-805. <https://doi.org/10.1016/j.tourman.2009.08.006>
- Raaijmakers, Q. A. W. (1999). Effectiveness of different missing data treatments in surveys with Likert-type data: Introducing the relative mean substitution approach. *Educational & Psychological Measurement*, 59(5), 725-748. <https://doi.org/10.1177/0013164499595001>
- Rahman, S. (2010). *How does Emirates remain profitable?* Retrieved from <https://gulfnews.com/business/aviation/how-does-emirates-remain-profitable-1.626057>
- Ramayah, T., Lee, J. W. C., & Mohamed, O. (2010). Green product purchase intention: Some insights from a developing country. *Resources Conservation and Recycling*, 54(12), 1419-1427. <https://doi.org/10.1016/j.resconrec.2010.06.007>
- Ramirez, A., Morales, V., & Bendito, V. (2011). The influence of environment and green logistics: Towards good corporate practices in Europe. *Economics and Management*, 16, 589-596. Retrieved from <http://www.ktu.lt/lt/mokslas/zurnalai/ekovad/16/1822-6515-2011-0589.pdf>
- Raymond, M. R., & Roberts, D. M. (1987). A comparison of methods for treating incomplete data in selection research. *Educational and Psychological Measurement*, 47(1), 13-26. <https://doi.org/10.1177/0013164487471002>

- Redman, L., Friman, M., Gärling, T., & Hartig, T. (2013). Quality attributes of public transport that attract car users: A research review. *Transport Policy*, *25*, 119-127. <https://doi.org/10.1016/j.tranpol.2012.11.005>
- Reimers, V., Magnuson, B., & Chao, F. (2017). Happiness, altruism and the Prius effect: How do they influence consumer attitudes towards environmentally responsible clothing. *Journal of Fashion Marketing and Management: An International Journal*, *21*(1), 115-132. <https://doi.org/10.1108/JFMM-07-2016-0053>
- Renaud, K., & van Biljon, J. (2008). *Predicting technology acceptance and adoption by the elderly: A qualitative analysis*. Paper presented at annual research conference of the South African Institute of Computer Scientists and Information Technologists. Retrieved from [http://uir.unisa.ac.za/bitstream/handle/10500/5399/PredictingTA\\_Elderly\\_2008\\_SAICSIT.pdf?sequence=1](http://uir.unisa.ac.za/bitstream/handle/10500/5399/PredictingTA_Elderly_2008_SAICSIT.pdf?sequence=1)
- Rico, J., & Oruezabala, G. (2012). Green supply management in the healthcare public sector: Stakes, practices and perspectives. *International Journal of Healthcare Management*, *5*(3), 154-163. <https://doi.org/10.1179/2047971912Y.0000000013>
- Ritchie, J. R. B., McDougall, G. H. G., & Claxton, J. D. (1981). Complexities of household energy consumption and conservation. *Journal of Consumer Research*, *8*(3), 233-242. Retrieved from <http://eds.b.ebscohost.com/newdc.oum.edu.my/eds/Citations/FullTextLinkClick?sid=3afe3346-39f5-43a2-8622-9cb1b3d5f11b@sessionmgr113&vid=0&id=pdfFullText>

- Roberts, J. A. (1996). Green consumers in the 1990s: Profile and implications for advertising. *Journal of Business Research*, 36, 217-231. [https://doi.org/10.1016/0148-2963\(95\)00150-6](https://doi.org/10.1016/0148-2963(95)00150-6)
- Robinot, E., & Giannelloni, J. L. (2010). Do hotels' "green" attributes contribute to customer satisfaction? *Journal of Services Marketing*, 24(2), 157-169. <https://doi.org/10.1108/08876041011031127>
- Robinson, J. P., Shaver, P. R., & Wrightsman, L. S. (1991). Criteria for scale selection and evaluation. In J. P. Robinson, P. R. Shaver, & L. S. Wrightsman (Eds.). *Measures of Personality and Social Psychological Attitudes* (pp. 1-16). San Diego, California: Academic Press.
- Roth, P. L., Switzer, F. S., & Switzer, D. M. (1999). Missing data in multiple item scales: Monte Carlo analysis of missing data techniques. *Organizational Research Methods*, 2(3), 211-232. <https://doi.org/10.1177/109442819923001>
- Rotter, J. B. (1966). Generalized expectancies for internal versus external control of reinforcement. *Psychological Monographs: General and Applied*, 80(1), 1-28. <https://doi.org/10.1037/h0092976>
- Ruepert, A., & Steg, L. (2018). Environmental considerations as a basis for employee pro-environmental behaviour. In V. K. Wells, D. Gregory-Smith & D. Manika (Eds.), *Research handbook on employee pro-environmental behaviour* (pp. 106-127). Cheltenham: Edward Elgar Publishing.
- Russell-Bennett, R., Mulcahy, R., & Swinton, T. (2018). Money or mind? What matters most in influencing low-income earners to be energy efficient? *Journal of Social Marketing*, 8(1), 2-23. <https://doi.org/10.1108/JSOCM-08-2016-0039>

- Sahajwani, M. (2012, January 10). *A look at the airline industry*. Retrieved from <http://www.investopedia.com/financial-edge/0112/a-look-at-the-airline-industry.aspx>
- Sanchez, J., Callarisa, L., Rodriguez, R. M., & Moliner, M. A. (2006). Perceived value of the purchase of a tourism product. *Tourism Management*, 27(4), 394-409. <https://doi.org/10.1016/j.tourman.2004.11.007>
- San Francisco International Airport: Green buildings*. (n.d.). Retrieved from [http://www.flysfo.com/community-environment/green\\_buildings](http://www.flysfo.com/community-environment/green_buildings)
- Saparudin, K. (2009). *Singapore Infopedia: Wearne Brothers Limited*. Retrieved from [http://eresources.nlb.gov.sg/infopedia/articles/SIP\\_1297\\_2009-06-23.html](http://eresources.nlb.gov.sg/infopedia/articles/SIP_1297_2009-06-23.html)
- Savalei, V. (2008). Is the ML chi-square ever robust to nonnormality? A cautionary note with missing data. *Structural Equation Modeling: A Multidisciplinary Journal*, 15(1), 1-22. <https://doi.org/10.1080/10705510701758091>
- Schiffman, L. G., & Kanuk, L. L. (2010). *Consumer behaviour* (Global 10<sup>th</sup> ed.). USA: Pearson Education.
- Schlanger, D. (2012). *How Southwest keeps making money in a brutal airline industry?* Retrieved from <http://www.businessinsider.com/case-study-how-southwest-stays-profitable-2012-6/?IR=T>
- Schmuck, D., Matthes, J., & Naderer, B. (2018). Misleading consumers with green advertising? An affect-reason-involvement account of greenwashing effects in environmental advertising. *Journal of Advertising*, 47(2), 127-145. <https://doi.org/10.1080/00913367.2018.1452652>

- Segev, S., Fernandes, J., & Hong, C. (2016). Is your product really green? A content analysis to reassess green advertising. *Journal of Advertising*, 45(1), 85-93. <https://doi.org/10.1080/00913367.2015.1083918>
- Sekaran, U., & Bougie, R. (2013). *Research methods for business* (6th ed.). Chichester, West Sussex: John Wiley & Sons.
- Senai International Airport: Airport Operations: Commercial Airlines & Passenger*. (2018). Retrieved from <http://www.senaiairport.com/Corporate/Airport-Operations/Commercial-Airlines-Passenger>
- Shang, R. A., Chen, Y. C., & Shen, L. (2005). Extrinsic versus intrinsic motivations for consumers to shop online. *Information & Management*, 42(3), 401-413. <https://doi.org/10.1016/j.im.2004.01.009>
- Sheppard, B. H., Hartwick, J., & Warshaw, P. R. (1988). The theory of reasoned action: A meta-analysis of past research with recommendations for modifications and future research. *Journal of Consumer Research*, 15(3), 325-343. <https://doi.org/10.1086/209170>
- Shukla, P. (2010). Effects of perceived sacrifice, quality, value, and satisfaction on behavioural intentions in the service environment. *Services Marketing Quarterly*, 31(4), 466-484. <https://doi.org/10.1080/15332969.2010.510730>
- Sidhu, B. K., Sivanandam, H., Zainal, H., & Cheah, C. (2015, January 27). Airlines take off surcharge. *The Star Online*. Retrieved from <http://www.thestar.com.my/News/Nation/2015/01/27/Airlines-take-off-surcharge-Msian-carriers-set-to-offer-cheaper-tickets-with-falling-oil-prices/>

- Singapore Airlines. (2010). *Environmentally-friendly operations*. Retrieved from <https://www.singaporeair.com/pdf/media-centre/bg-env.pdf>
- Singh, R. (2015, January 27). MAS removed fuel surcharges in 2013, but told no one about it. *The Rakyat Post*. Retrieved from <http://www.therakyatpost.com/news/2015/01/27/mas-removed-fuel-surcharges-2013-told-no-one/>
- Sirota, D., & Klein, D. (2014). *Dealing with job security: What it really tells you about a company*. Retrieved from <https://www.tlnt.com/dealing-with-job-security-what-it-tells-you-about-a-company/>
- Smarter Travel: Editors' Choice Awards 2010: Most eco-friendly airline*. (2010). Retrieved from <http://www.smartertravel.com/travel-advice/editors-choice-awards-2010-most-eco-friendly-airline.html?id=4880609>
- Smith, E. E., & Perks, S. (2010). A perceptual study of the impact of green practices implementation on the business functions. *Southern African Business Review*, 14(3), 1-29. Retrieved from <https://www.ajol.info/index.php/sabr/article/download/76385/66842>
- Solomon, M. R. (2008). *Consumer behaviour: Buying, having & being* (8<sup>th</sup> ed.). Upper Saddle River, NJ: Prentice Hall.
- Springer, S. (2017). *Watch your waste: The problem with airline food and packaging*. Retrieved from <https://edition.cnn.com/travel/article/airlines-cabin-waste/index.html>

- Stern, P. C. (2000). New environmental theories: Toward a coherent theory of environmentally significant behaviour. *Journal of Social Issues*, 56(3), 407-424. <https://doi.org/10.1111/0022-4537.00175>
- Stewart, J. (1994). The psychology of decision making. In D. Jennings & S. Wattam (Eds.), *Decision making: An integrated approach* (2<sup>nd</sup> ed.). (pp. 56-82). London: Financial Times Pitman Publishing.
- Stone, E. F. (1981). *Research methods in organizational behaviour*. Glenview, IL: Scott Foresman.
- Straub, D. W. (1989). Validating instruments in MIS research. *MIS Quarterly*, 13(2), 147-169. <https://doi.org/10.2307/248922>
- Straughan, R. D., & Roberts, J. A. (1999). Environmental segmentation alternatives: A look at green consumer behaviour in the new millennium. *Journal of Consumer Marketing*, 16(6), 558-575. <https://doi.org/10.1108/07363769910297506>
- Stroh, M. (2000). Qualitative interviewing. In Burton, D. (Ed.), *Research training for social scientists: A handbook for postgraduate researchers* (pp. 196-214). London: SAGE Publications.
- Suki, N. M. (2016a). Consumer environmental concern and green product purchase in Malaysia: Structural effects of consumption values. *Journal of Cleaner Production*, 132, 204-214. <https://doi.org/10.1016/j.jclepro.2015.09.087>
- Suki, N. M. (2016b). Green product purchase intention: Impact of green brands, attitude, and knowledge. *British Food Journal*, 118(12), 2893-2910. <https://doi.org/10.1108/BFJ-06-2016-0295>

- Tabachnick, B. G., & Fidell, L. S. (2013). *Using multivariate statistics* (6<sup>th</sup> ed.). Upper Saddle River, NJ: Pearson Education.
- Tan, B. C. (2011). The roles of knowledge, threat, and PCE on green purchase behaviour. *International Journal of Business and Management*, 6(12), 14-27. <https://doi.org/10.5539/ijbm.v6n12p14>
- Tang, Y., Wang, X., & Lu, P. (2014). Chinese consumer attitude and purchase intent towards green products. *Asia-Pacific Journal of Business Administration*, 6(2), 84-96. <https://doi.org/10.1108/APJBA-05-2013-0037>
- Taufique, K. M. R., & Vaithianathan, S. (2018). A fresh look at understanding green consumer behaviour among young urban Indian consumers through the lens of theory of planned behaviour. *Journal of Cleaner Production*, 183, 46-55. <https://doi.org/10.1016/j.jclepro.2018.02.097>
- Teo, T., & Noyes, J. (2010). Exploring attitudes towards computer use among pre-service teachers from Singapore and the UK: A multi-group invariance test of the technology acceptance model (TAM). *Multicultural Education & Technology Journal*, 4(2), 126-135. <https://doi.org/10.1108/17504971011052331>
- Terry, D. J., & O' Leary, J. E. (1995). The theory of planned behaviour: The effects of perceived behavioural control and self-efficacy. *British Journal of Social Psychology*, 34(2), 199-220. <https://doi.org/10.1111/j.2044-8309.1995.tb01058.x>
- Thiagarajan, T. (2018). *AirAsia is reportedly suspending flights to Boracay and Surat Thani in March 2018*. Retrieved from <http://www.worldofbuzz.com/airasia-reportedly-suspending-flights-boracay-surat-thani-march-2018/>

- Tidy, M., Wang, X. J., & Hall, M. (2016). The role of supplier relationship management in reducing greenhouse gas emissions from food supply chains: Supplier engagement in the UK supermarket sector. *Journal of Cleaner Production*, 112(4), 3294-3305. <https://doi.org/10.1016/j.jclepro.2015.10.065>
- Toker-Yildiz, K., Trivedi, M., Choi, J. H., & Chang, S. R. (2017). Social interactions and monetary incentives in driving consumer repeat behaviour. *Journal of Marketing Research*, 54(3), 364-380. <https://doi.org/10.1509/jmr.13.0482>
- Tourism Malaysia: Malaysia tourism statistics in brief*. (2017). Retrieved from <http://www.tourism.gov.my/statistics>
- Trivedi, R. H., Patel, J. D., & Acharya, N. (2018). Causality analysis of media influence on environmental attitude, intention and behaviours leading to green purchasing. *Journal of Cleaner Production*, 196, 11-22. <https://doi.org/10.1016/j.jclepro.2018.06.024>
- Trotta, G. (2018). Factors affecting energy-saving behaviours and energy efficiency investments in British households. *Energy Policy*, 114, 529-539. <https://doi.org/10.1016/j.enpol.2017.12.042>
- Tseng, M. L., Tan, K. H., Geng, Y., & Govindan, K. (2016). Sustainable consumption and production in emerging markets. *International Journal of Production Economics*, 181(B), 257-261. <https://doi.org/10.1016/j.ijpe.2016.09.016>
- Tucker, E. M., Rifon, N. J., Lee, E. M., & Reece, B. B. (2015). Consumer receptivity to green ads: A test of green claim types and the role of individual consumer characteristics for green ad response. In K. Sheehan & L. Atkinson (Eds.). *Green advertising and the reluctant consumer* (pp. 4-18). New York: Routledge.

- Tuttle, B. (2015). *10 super easy practices that are good for the earth and your budget*. Retrieved from <http://time.com/money/3828566/earth-day-tips-environment-save-money/>
- Ullman, J. B., & Bentler, P. M. (2004). Structural equation modelling. In M. A. Hardy & A. Bryman (Eds.), *Handbook of data analysis* (pp. 431-458). London: SAGE Publications.
- United Nations World Tourism Organization. (2011). *Tourism towards 2030*. Retrieved from <http://www.hospitalitynet.org/file/152004720.pdf>
- US Airways: Company info: Press room: Going green. (n.d.) Retrieved from <http://www.usairways.com/en-US/aboutus/pressroom/gogreen/green.html>
- Utterback, J. M., & Abernathy, W. J. (1975). A dynamic model of process and product innovation. *Omega*, 3(6), 639-656. [https://doi.org/10.1016/0305-0483\(75\)90068-7](https://doi.org/10.1016/0305-0483(75)90068-7)
- Vassanadumrongdee, S., & Kittipongvises, S. (2018). Factors influencing source separation intention and willingness to pay for improving waste management in Bangkok, Thailand. *Sustainable Environment Research*, 28(2), 90-99. <https://doi.org/10.1016/j.serj.2017.11.003>
- Vazquez Sampere, J. (2017). *The reason air travel is terrible and so few airlines are profitable*. Retrieved from <https://hbr.org/2016/05/the-reason-air-travel-is-terrible-and-so-few-airlines-are-profitable>

- Vehmas, K., Raudaskoski, A., Heikkilä, P., Harlin, A., & Mensonen, A. (2018). Consumer attitudes and communication in circular fashion. *Journal of Fashion Marketing and Management: An International Journal*, 22(3), 286-300. <https://doi.org/10.1108/JFMM-08-2017-0079>
- Vicente-Molina, M. A., Fernández-Sainz, A., & Izagirre-Olaizola, J. (2018). Does gender make a difference in pro-environmental behaviour? The case of the Basque Country University students. *Journal of Cleaner Production*, 176, 89-98. <https://doi.org/10.1016/j.jclepro.2017.12.079>
- Wang, P., Liu, Q., & Qi, Y. (2014). Factors influencing sustainable consumption behaviours: A survey of the rural residents in China. *Journal of Cleaner Production*, 63, 152-165. <https://doi.org/10.1016/j.jclepro.2013.05.007>
- Wang, S. Y., Lin, S. F., & Li, J. (2018). Exploring the effects of non-cognitive and emotional factors on household electricity saving behaviour. *Energy Policy*, 115, 171-180. <https://doi.org/10.1016/j.enpol.2018.01.012>
- Ward, S., & Robertson, T. (1973). Consumer behaviour research: Promise and prospects. In S. Ward & T. Robertson (Eds.), *Consumer behaviour: Theoretical sources* (pp. 3-42). Englewood Cliffs: Prentice-Hall.
- Webb, D., Soutar, G. N., Mazzarol, T., & Saldaris, P. (2013). Self-determination theory and consumer behavioural change: Evidence from a household energy-saving behaviour study. *Journal of Environmental Psychology*, 35, 59-66. <https://doi.org/10.1016/j.jenvp.2013.04.003>

- Weber, T., Baier, K., & Willers, C. (2015). Sustainable (green) food and purchase intention – An analysis of influence factors. *International Journal on Advanced Science, Engineering and Information Technology*, 5(4), 311-313. <https://doi.org/10.18517/ijaseit.5.4.536>
- Weeden, C. (2013). *Responsible tourist behaviour*. London: Routledge.
- Welfens, M. J., Nordmann, J., & Seibt, A. (2016). Drivers and barriers to return and recycling of mobile phones: Case studies of communication and collection campaigns. *Journal of Cleaner Production*, 132, 108-121. <https://doi.org/10.1016/j.jclepro.2015.11.082>
- Wesley, S. C., Lee, M., & Kim, E. Y. (2012). The role of perceived consumer effectiveness and motivational attitude on socially responsible purchasing behaviour in South Korea. *Journal of Global Marketing*, 25(1), 29-44. <https://doi.org/10.1080/08911762.2012.697383>
- West, S. G., Finch, J. F., & Curran, P. J. (1995). Structural equation models with nonnormal variables: Problems and remedies. In R. H. Hoyle (Ed.), *Structural equation Modelling: Concepts, issues, and applications* (pp. 56-75). Thousand Oaks, CA: SAGE Publications.
- White, F., Stallones, L., & Last, J. M. (2013). *Global public health: Ecological foundations*. New York: Oxford University Press.
- White, K. M., Terry, D. J., & Hogg, M. A. (1994). Safer sex behaviour: The role of attitudes, norms, and control factors. *Journal of Applied Social Psychology*, 24(24), 2164-2192. <https://doi.org/10.1111/j.1559-1816.1994.tb02378.x>

- Wolf, E. J., Harrington, K. M., Clark, S. L., & Miller, M. W. (2013). Sample size requirements for structural equation models an evaluation of power, bias, and solution propriety. *Educational and Psychological Measurement*, 73(6), 913-934. <https://doi.org/10.1177/0013164413495237>
- Wong, C. A., Afandi, S. H. M., Ramachandran, S., Kunasekaran, P., & Chan, J. K. L. (2018). Conceptualizing environmental literacy and factors affecting pro-environmental behaviour. *International Journal of Business and Society*, 19(S1), 128-139. Retrieved from <http://www.ijbs.unimas.my/images/repository/pdf/Vol19-S1-paper12.pdf>
- Woodruff, R. B. (1997). Customer value: The next source for competitive advantage. *Journal of the Academy of Marketing Science*, 25(2), 139-153. Retrieved from <http://eds.b.ebscohost.com.newdc.oum.edu.my/eds/Citations/FullTextLinkClick?sid=baf04813-8d94-4a6a-b792-92d026e0ae96@sessionmgr112&vid=0&id=pdfFullText>
- Working paper: Assembly – 38<sup>th</sup> session: Candidature of Malaysia.* (2013). Retrieved from [http://www.icao.int/Meetings/a38/Documents/WP/wp167\\_en.pdf](http://www.icao.int/Meetings/a38/Documents/WP/wp167_en.pdf)
- World Travel & Tourism Council. (2017). *Travel & tourism: Economic impact 2017: Malaysia*. Retrieved from <https://www.wttc.org/-/media/files/reports/economic-impact-research/countries-2017/malaysia2017.pdf>
- Wu, S. I., & Chen, J. Y. (2014). A model of green consumption behaviour constructed by the theory of planned behaviour. *International Journal of Marketing Studies*, 6(5), 119-132. <https://doi.org/10.5539/ijms.v6n5p119>

- Wu, W. Y., & Ke, C. C. (2015). An online shopping behaviour model integrating personality, traits, perceived risk, and technology acceptance. *Social Behaviour and Personality: An International Journal*, 43(1), 85-97. <https://doi.org/10.2224/sbp.2015.43.1.85>
- WWF, BirdLife International, Friends of the Earth Europe, and European Environmental Bureau. (2015). *Nature legislation: Fit for purpose and in need of action*. Retrieved from [http://d2ouvy59p0dg6k.cloudfront.net/downloads/wwf\\_5020\\_ngo\\_policypaper\\_final\\_print.pdf](http://d2ouvy59p0dg6k.cloudfront.net/downloads/wwf_5020_ngo_policypaper_final_print.pdf)
- Yang, Z., & Peterson, R. T. (2004). Customer perceived value, satisfaction and loyalty: The role of switching costs. *Psychology & Marketing*, 21(10), 799-822. <https://doi.org/10.1002/mar.20030>
- Yazdanpanah, M., Hayati, D., Hochrainer-Stigler, S., & Zamani, G. H. (2014). Understanding farmers' intention and behaviour regarding water conservation in the Middle-East and North Africa: A case study in Iran. *Journal of Environmental Management*, 135, 63-72. <https://doi.org/10.1016/j.jenvman.2014.01.016>
- Yoon, C. (2010). Theory of planned behaviour and ethics theory in digital piracy: An integrated model. *Journal of Business Ethics*, 100(3), 405-417. <https://doi.org/10.1007/s10551-010-0687-7>
- Young, W., Hwang, K., McDonald, S., & Oates, C. J. (2010). Sustainable consumption: Green consumer behaviour when purchasing products. *Sustainable Development*, 18(1), 20-31. <https://doi.org/10.1002/sd.394>

- Younis, H., Sundarakani, B., & Vel, P. (2016). The impact of implementing green supply chain management practices on corporate performance. *Competitive Review*, 26(3), 216-245. <https://doi.org/10.1108/CR-04-2015-0024>
- Zauner, M., Koller, M., & Hatak, I. (2015). Customer perceived value – Conceptualization and avenues for future research. *Cogent Psychology*, 2(1), 5-21. <https://doi.org/10.1080/23311908.2015.1061782>
- Zeithaml, V. A. (1988). Consumer perceptions of price, quality and value: A means-end model and synthesis of evidence. *Journal of Marketing*, 52(3), 2-22. <https://doi.org/10.2307/1251446>
- Zerbe, W. J., & Paulhus, D. L. (1987). Socially desirable responding in organizational behaviour: A reconception. *The Academy of Management Review*, 12(2), 250-264. <https://doi.org/10.5465/AMR.1987.4307820>
- Zhang, H. M., Chen, W., Zhang, Y. C., Buhalis, D., & Lu, L. (2018). National park visitors' car-use intention: A norm neutralization model. *Tourism Management*, 69, 97-108. <https://doi.org/10.1016/j.tourman.2018.06.001>
- Zhao, H. H., Gao, Q., Wu, Y. P., Wang, Y., & Zhu, X. D. (2014). What affects green consumer behaviour in China? A case study from Qingdao. *Journal of Cleaner Production*, 63, 143-151. <https://doi.org/10.1016/j.jclepro.2013.05.021>
- Zhao, R., Geng, Y., Liu, Y. Y., Tao, X. Q., & Xue, B. (2018). Consumers' perception, purchase intention, and willingness to pay for carbon-labeled products: A case study of Chengdu in China. *Journal of Cleaner Production*, 171, 1664-1671. <https://doi.org/10.1016/j.jclepro.2017.10.143>

- Zhou, B. (2016). Lean principles, practices, and impacts: A study on small and medium-sized enterprises (SMEs). *Annals of Operations Research*, 241(1/2), 457-474. <https://doi.org/10.1007/s10479-012-1177-3>
- Zhou, N. (2018). *Qantas used mustard seeds in first ever biofuel flight between Australia and US*. Retrieved from <https://www.theguardian.com/environment/2018/jan/30/qantas-uses-mustard-seeds-in-first-ever-biofuel-flight-between-australia-and-us>
- Zhu, Q. H., Li, Y., Geng, Y., & Qi, Y. (2013). Green food consumption intention, behaviours and influencing factors among Chinese consumers. *Food Quality and Preference*, 28(1), 279-286. <https://doi.org/10.1016/j.foodqual.2012.10.005>
- Zhu, Q. Y., & Sarkis, J. (2016). Green marketing and consumerism as social change in China: Analyzing the literature. *International Journal of Production Economics*, 181(B), 289-302. <https://doi.org/10.1016/j.ijpe.2016.06.006>
- Zokaei, K., Lovins, H., Wood, A., & Hines, P. (2013). *Creating a lean and green business system: Techniques for improving profits and sustainability*. Boca Raton, FL: Productivity Press.

## **APPENDICES**

*Appendix A: Pilot Test Questionnaire*

**Determinants of Green Practices Adoption Behaviours amongst Airline Passengers in Malaysia**

Dear Sir/Madam,

I am currently pursuing Doctor of Philosophy (PhD) at Open University Malaysia (OUM). The objective of my study is to investigate factors influencing green practices adoption behaviour among airline passengers in Malaysia. Green practices are practices that reduce negative impacts on the environment. Examples of green practices implemented by airlines include electronic ticketing and web check-in. It is hoped that contributions of the study is likely to assist airline companies to reduce costs. Moreover, findings of this study could help facilitate and assist policy makers in the industry. Subsequently, successful adoption of green practices helps to reduce waste and minimize negative impact to the environment.

This questionnaire is divided into three sections. Your kind attention in completing this questionnaire is highly appreciated. Your participation is voluntary and you may choose not to participate in the study or to withdraw at any time. There are no right or wrong answers. All answers are aggregated for research purposes only and will be treated as confidential. If you have further queries, please do not feel hesitate to email me at [wlimjin@yahoo.com](mailto:wlimjin@yahoo.com).

Thank you for your cooperation.

Yours faithfully,

---

(WONG LIM JIN)

PhD Candidate

Tel: 012-8892239

Assoc. Prof. Dr. Zorah Abu Kassim

Supervisor

OUM Business School,

Open University Malaysia,

Kuala Lumpur.

Tel: 03-27732798

Email address: [zorah\\_abukassim@oum.edu.my](mailto:zorah_abukassim@oum.edu.my)

**Section A: Preliminary Section**

**This section contains qualifying questions. Please tick (✓) the information below where relevant.**

1. Have you travelled by air in the past 12 months?  
 Yes (kindly proceed to next question)  
 No (kindly return the questionnaire)
  
2. Have you arrived, departed or transited at KLIA or KLIA2 in the past 12 months?  
 Yes (kindly proceed to next question)  
 No (kindly return the questionnaire)
  
3. Airline used in your last trip: .....
  
4. Final destination of your last trip: .....
  
5. Does the airline provide web check-in service?  
 Yes (kindly proceed to next question)  
 No (kindly return the questionnaire)
  
6. Do you check-in your flight online?  
 Yes (kindly proceed to Section B of the questionnaire)  
 No (kindly return the questionnaire)

**Section B: Perceptions towards Green Practices Adoption**

**This section measures your overall perceptions towards adoption of green practices implemented by airlines based on your last trip.**

*Instruction: Please indicate as per following scale, the degree to which you agree or disagree with each statement by circling the appropriate number in the space provided.*

<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Moderate</b>	<b>Agree</b>	<b>Strongly Agree</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>

1. Adopting green practices when traveling by air would enable me to help save the environment.	1	2	3	4	5
2. Adopting green practices when traveling by air would enable me to be more socially responsible.	1	2	3	4	5
3. Adopting green practices when traveling by air would enable me to travel in a clean environment.	1	2	3	4	5
4. Adopting green practices when traveling by air would enable me to perform environmentally friendly practices.	1	2	3	4	5
5. Adopting green practices when traveling by air would enable me to enjoy environmentally friendly products or services.	1	2	3	4	5
6. Adopting green practices when traveling by air would enable me to learn to implement green ideas in my own life.	1	2	3	4	5
7. Other airline passengers think that I should check-in my flights online.	1	2	3	4	5
8. My family thinks that I should check-in my flights online.	1	2	3	4	5
9. My friends think that I should check-in my flights online	1	2	3	4	5
10. My colleagues think that I should check-in my flights online.	1	2	3	4	5
11. Performing web check-in requires time.	1	2	3	4	5
12. Performing web check-in requires knowledge on internet.	1	2	3	4	5
13. Performing web check-in requires access to internet.	1	2	3	4	5
14. Performing web check-in requires a computer.	1	2	3	4	5
15. For me, adopting green practices to protect the environment would be good.	1	2	3	4	5
16. For me, adopting green practices to protect the environment would be undesirable.	1	2	3	4	5
17. For me, adopting green practices to protect the environment would be foolish.	1	2	3	4	5
18. For me, adopting green practices to protect the environment would be useful.	1	2	3	4	5
19. For me, adopting green practices to protect the environment would be positive.	1	2	3	4	5
20. For me, adopting green practices to protect the environment would be wrong.	1	2	3	4	5
21. For me, adopting green practices to protect the environment would be suitable.	1	2	3	4	5

22. Most people who are important to me think I should be willing to adopt green practices when traveling by air.	1	2	3	4	5
23. People whose opinions I value would prefer that I adopt green practices when traveling by air.	1	2	3	4	5
24. People who are important to me would approve of me being an environmentally friendly airline passenger actively adopting green practices to protect the environment.	1	2	3	4	5
25. Most of the airline passengers with whom I am familiar with adopt green practices on a regular basis when traveling by air.	1	2	3	4	5
26. I am confident that if I want to, I can adopt green practices when traveling by air.	1	2	3	4	5
27. For me to adopt green practices when traveling by air is difficult.	1	2	3	4	5
28. It is up to me whether or not I become an environmentally friendly passenger.	1	2	3	4	5
29. I have enough time to check-in my flights online.	1	2	3	4	5
30. Since one person cannot have any effect upon pollution and natural resource problems, it does not make any difference what I do.	1	2	3	4	5
31. What I do as a consumer does have an effect on the environmental problems.	1	2	3	4	5
32. I feel personally helpless to have much an impact on a problem as large as the environment.	1	2	3	4	5
33. When I buy products, I seldom consider how my use of them will contribute to reducing environmental problems.	1	2	3	4	5
34. I can help saving the environment if I adopt green practices when traveling by air.	1	2	3	4	5
35. I believe that adopting green practices does not require much effort.	1	2	3	4	5
36. I believe that adopting green practices does not interrupt my existing lifestyle.	1	2	3	4	5
37. I am not ready to adopt green practices.	1	2	3	4	5
38. I am too lazy to check-in online on my own.	1	2	3	4	5
39. I find it is convenient to check-in online.	1	2	3	4	5
40. I plan to check-in online in the near future.	1	2	3	4	5
41. I am willing to adopt green practices in future flights.	1	2	3	4	5
42. I will make an effort to adopt green practices in future flights.	1	2	3	4	5
43. I will recommend other airline passengers to adopt green practices.	1	2	3	4	5
44. I check-in my flights online.	1	2	3	4	5
45. I have tried very hard to adopt green practices when traveling by air.	1	2	3	4	5
46. I often recommend other airline passengers to adopt green practices.	1	2	3	4	5
47. When there is a choice, I always adopt green practices that pose little harm to the environment when traveling by air.	1	2	3	4	5

**Section C: Demographic Profiles**

**This section obtains your demographic profiles. All information will be treated as strictly confidential.**

*Instruction: Please tick (✓) the information below where relevant.*

1. Your gender:  
 Male                       Female
2. Your age:  
 Less than 20               21-30               31-40  
 41-50                       More than 50
3. Your nationality:  
 Malaysian  
 Non-Malaysian, please state your nationality .....
4. Your highest level of education:  
 Primary school  
 Secondary school/high school  
 Diploma/bachelor degree  
 Postgraduate degree  
 Others, please state .....
5. Your occupation:  
 Professionals/managers  
 Technicians/clerical workers/services & sales workers/executives  
 Students/teachers/academics  
 Others, please state .....
6. How often did you fly in the past 12 months?  
 Once                       2-3 times               4-6 times  
 More than 6 times
7. How often did you arrive or depart at KLIA or KLIA2 in the past 12 months?  
 Once                       2-3 times               4-6 times  
 More than 6 times



## *Appendix B: Final Questionnaire*

### **Determinants of Green Practices Adoption Behaviours amongst Airline Passengers in Malaysia**

Dear Sir/Madam,

I am currently pursuing Doctor of Philosophy (PhD) at Open University Malaysia (OUM). The objective of my study is to investigate factors influencing green practices adoption behaviour among airline passengers in Malaysia. Green practices are practices that reduce negative impacts on the environment. Examples of green practices implemented by airlines include electronic ticketing and web check-in. It is hoped that contributions of the study is likely to assist airline companies to reduce costs. Moreover, findings of this study could help facilitate and assist policy makers in the industry. Subsequently, successful adoption of green practices helps to reduce waste and minimize negative impact to the environment.

This questionnaire is divided into three sections. Your kind attention in completing this questionnaire is highly appreciated. Your participation is voluntary and you may choose not to participate in the study or to withdraw at any time. There are no right or wrong answers. All answers are aggregated for research purposes only and will be treated as confidential. If you have further queries, please do not feel hesitate to email me at [wlimjin@yahoo.com](mailto:wlimjin@yahoo.com).

Thank you for your cooperation.

Yours faithfully,

---

(WONG LIM JIN)

PhD Candidate

Tel: 012-8892239

Assoc. Prof. Dr. Zorah Abu Kassim

Supervisor

OUM Business School,

Open University Malaysia,

Kuala Lumpur.

Tel: 03-27732798

Email address: [zorah\\_abukassim@oum.edu.my](mailto:zorah_abukassim@oum.edu.my)

**Section A: Preliminary Section**

**This section contains qualifying questions. Please tick (✓) the information below where relevant.**

1. Have you travelled by air in the past 12 months?  
 Yes (kindly proceed to next question)  
 No (kindly return the questionnaire)
  
2. Have you arrived, departed or transited at KLIA or KLIA2 in the past 12 months?  
 Yes (kindly proceed to next question)  
 No (kindly return the questionnaire)
  
3. Airline used in your last trip: .....
  
4. Final destination of your last trip: .....
  
5. Does the airline provide web check-in service?  
 Yes (kindly proceed to next question)  
 No (kindly return the questionnaire)
  
6. Do you check-in your flight online?  
 Yes (kindly proceed to Section B of the questionnaire)  
 No (kindly return the questionnaire)

**Section B: Perceptions towards Green Practices Adoption**

**This section measures your overall perceptions towards adoption of green practices implemented by airlines based on your last trip.**

*Instruction: Please indicate as per following scale, the degree to which you agree or disagree with each statement by circling the appropriate number in the space provided.*

<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Moderate</b>	<b>Agree</b>	<b>Strongly Agree</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>

1. Adopting green practices when traveling by air would enable me to help save the environment.	1	2	3	4	5
2. Adopting green practices when traveling by air would enable me to be more socially responsible.	1	2	3	4	5
3. Adopting green practices when traveling by air would enable me to perform environmentally friendly practices.	1	2	3	4	5
4. Adopting green practices when traveling by air would enable me to enjoy environmentally friendly products or services.	1	2	3	4	5
5. Adopting green practices when traveling by air would enable me to learn to implement green ideas in my own life.	1	2	3	4	5
6. Other airline passengers think that I should check-in my flights online.	1	2	3	4	5
7. My family thinks that I should check-in my flights online.	1	2	3	4	5
8. My friends think that I should check-in my flights online	1	2	3	4	5
9. My colleagues think that I should check-in my flights online.	1	2	3	4	5
10. Check-in flights online requires time.	1	2	3	4	5
11. Check-in flights online requires knowledge on internet.	1	2	3	4	5
12. I need to have internet to check-in flights online.	1	2	3	4	5
13. For me, adopting green practices to protect the environment would be good.	1	2	3	4	5
14. For me, adopting green practices to protect the environment would be foolish.	1	2	3	4	5
15. For me, adopting green practices to protect the environment would be useful.	1	2	3	4	5
16. For me, adopting green practices to protect the environment would be positive.	1	2	3	4	5
17. For me, adopting green practices to protect the environment would be wrong.	1	2	3	4	5
18. For me, adopting green practices to protect the environment would be suitable.	1	2	3	4	5
19. Most people who are important to me think I should be willing to adopt green practices when traveling by air.	1	2	3	4	5
20. People whose opinions I value would prefer that I adopt green practices when traveling by air.	1	2	3	4	5

21. People who are important to me would approve of me being an environmentally friendly airline passenger actively adopting green practices to protect the environment.	1	2	3	4	5
22. Most of the airline passengers with whom I am familiar with adopt green practices on a regular basis when traveling by air.	1	2	3	4	5
23. I am confident that if I want to, I can adopt green practices when traveling by air.	1	2	3	4	5
24. It is up to me whether or not I become an environmentally friendly passenger.	1	2	3	4	5
25. I have enough time to check-in my flights online.	1	2	3	4	5
26. Since one person cannot have any effect upon pollution and natural resource problems, it does not make any difference what I do.	1	2	3	4	5
27. What I do as a consumer does have an effect on the environmental problems.	1	2	3	4	5
28. To solve environmental problems, every individual in our society will have to participate in the efforts.	1	2	3	4	5
29. I can help saving the environment if I adopt green practices when traveling by air.	1	2	3	4	5
30. I believe that adopting green practices does not interrupt my existing lifestyle.	1	2	3	4	5
31. I believe that check-in online does not require much effort.	1	2	3	4	5
32. I find it is inconvenient to check-in online.	1	2	3	4	5
33. I plan to check-in online in the near future.	1	2	3	4	5
34. I am willing to adopt green practices in future flights.	1	2	3	4	5
35. I will make an effort to adopt green practices in future flights.	1	2	3	4	5
36. I will recommend other airline passengers to adopt green practices.	1	2	3	4	5
37. I often check-in my flights online.	1	2	3	4	5
38. I often recommend other airline passengers to check-in their flights online.	1	2	3	4	5
39. When there is a choice, I always adopt green practices that pose little harm to the environment when traveling by air.	1	2	3	4	5

**Section C: Demographic Profiles**

**This section obtains your demographic profiles. All information will be treated as strictly confidential.**

*Instruction: Please tick (✓) the information below where relevant.*

1. Your gender:  
 Male                       Female
2. Your age:  
 Less than 20               21-30               31-40  
 41-50                       More than 50
3. Your nationality:  
 Malaysian  
 Non-Malaysian, please state your nationality .....
4. Your highest level of education:  
 Primary school  
 Secondary school/high school  
 Diploma/bachelor degree  
 Postgraduate degree  
 Others, please state .....
5. Your occupation:  
 Professionals/managers  
 Technicians/clerical workers/services & sales workers/executives  
 Students/teachers/academics  
 Others, please state .....
6. How often did you fly in the past 12 months?  
 Once                       2-3 times               4-6 times  
 More than 6 times
7. How often did you arrive or depart at KLIA or KLIA2 in the past 12 months?  
 Once                       2-3 times               4-6 times  
 More than 6 times

