

LET'S GO GREEN! STUDYING CUSTOMER  
PURCHASE INTENTION TOWARDS GREEN CARS  
IN MALAYSIA

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## DECLARATION

We hereby declare that:

- (1) This undergraduate research project is the end result of our own work and that due acknowledgement has been given in the references to ALL sources of information be they printed, electronic, or personal.
- (2) No portion of this research project has been submitted in support of any application for any other degree or qualification of this or any other university, or other institutes of learning.
- (3) Equal contribution has been made by each group member in completing the research project.
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DEDICATION

This dissertation is dedicated to:

Our supervisor,

Dr. Lee Voon Hsien

Who guided us throughout this research.

UTAR,

For giving us the opportunity to conduct this research project.

AND

Families and friends,

For their loves and supports.

## TABLE OF CONTENTS

	Page
Copyright Page .....	ii
Declaration Page .....	iii
Acknowledgement .....	iv
Dedication .....	v
Table of Contents .....	vi
List of Tables .....	ix
List of Figures .....	xi
List of Appendices .....	xii
List of Abbreviations .....	xiii
Preface .....	xiv
Abstract .....	xv
CHAPTER 1 INTRODUCTION .....	1
1.0 Introduction .....	1
1.1 Background of Study .....	1
1.2 Problem Statement .....	2
1.3 Research Objectives & Research Questions .....	5
1.4 Significance of Study .....	6
1.5 Outline of Study .....	8
1.6 Conclusion .....	8
CHAPTER 2 LITERATURE REVIEW .....	9
2.0 Introduction .....	9
2.1 Theoretical Foundation .....	9
2.2 Review of Prior Empirical Studies .....	12
2.2.1 Functional Value (FV) .....	13
2.2.1.1 Functional Value Price [FV(P)] .....	14
2.2.1.2 Functional Value Quality [FV(Q)] .....	15
2.2.2 Social Value (SV) .....	16

	Page
2.2.3 Emotional Value (EMV) .....	17
2.2.4 Epistemic Value (EPV) .....	19
2.2.5 Conditional Value (CV) .....	20
2.3 Proposed Conceptual Framework/ Model .....	22
2.4 Hypotheses Development .....	23
2.5 Conclusion .....	23
CHAPTER 3 RESEARCH METHODOLOGY .....	24
3.0 Introduction .....	24
3.1 Research Design .....	24
3.2 Population and Sampling Procedures .....	25
3.3 Data Collection Method .....	26
3.4 Variables and Measurements .....	27
3.5 Data Analysis Techniques .....	30
3.5.1 Descriptive Analysis .....	30
3.5.2 Scale Measurement .....	30
3.5.3 Inferential Analysis .....	31
3.6 Conclusion .....	32
CHAPTER 4 DATA ANALYSIS .....	33
4.0 Introduction .....	33
4.1 Descriptive Analysis .....	33
4.1.1 Demographic Profile of the Respondents .....	33
4.1.2 Central Tendencies Measurement of Constructs .....	34
4.2 Scale Measurement .....	36
4.2.1 Reliability .....	36
4.2.2 Normality .....	37
4.3 Inferential Analysis .....	41
4.3.1 Pearson Correlation Analysis .....	41
4.3.2 Multiple Linear Regression Analysis .....	42
4.4 Conclusion .....	45
CHAPTER 5 DISCUSSION, CONCLUSION AND LIMITATION ....	46
5.0 Introduction .....	46

	Page
5.1 Summary of Statistical Analysis .....	46
5.2 Discussion of Major Findings .....	47
5.2.1 Functional Value Price .....	47
5.2.2 Functional Value Quality .....	48
5.2.3 Social Value .....	49
5.2.4 Emotional Value .....	50
5.2.5 Epistemic Value .....	51
5.2.6 Conditional Value .....	52
5.3 Implication .....	53
5.3.1 Practical Implication .....	53
5.3.2 Theoretical Implication .....	55
5.4 Limitations of the Study .....	55
5.5 Recommendations of Study .....	56
5.6 Conclusion .....	57
References .....	58
Appendices .....	77



LIST OF TABLES

	Page
Table 1.1: First past studies deficiency	4
Table 1.2: Second past studies deficiency	4
Table 1.3: General research objectives and questions	5
Table 1.4: Specific research objectives and questions	5
Table 2.1: Dimensions of TCV	10
Table 2.2: Definitions of PI	12
Table 2.3: Definitions of FV	13
Table 2.4: Definitions of FV(P)	14
Table 2.5: Definitions of FV(Q)	15
Table 2.6: Definitions of SV	16
Table 2.7: Definitions of EMV	17
Table 2.8: Definitions of EPV	19
Table 2.9: Definitions of CV	20
Table 2.10: Hypotheses Development	23
Table 3.1: Dependent variables	27
Table 3.2: Independent variables	28
Table 3.3: Pearson Correlation and Strengths of Correlation Relationship between variables	31
Table 3.4: Equation of Multiple Linear Regression Analysis	32
Table 4.1: Characteristics of Respondents	33
Table 4.2: Mean & Standard Deviation	34
Table 4.3: Reliability Test (Pilot Test)	36
Table 4.4: Reliability Test (Final Test)	37
Table 4.5: Normality Test for Independent Variables (Pilot Test)	37
Table 4.6: Normality Test for Dependent Variables (Pilot Test)	38
Table 4.7: Normality Test for Independent Variables (Final Test)	39

	Page
Table 4.8: Normality Test for Dependent Variables (Final Test)	40
Table 4.9: Pearson Correlation Test	41
Table 4.10: Multicollinearity Test	42
Table 4.11: Model Summary	42
Table 4.12: ANOVA	43
Table 4.13: Coefficients	43
Table 5.1: Functional Value (Price)	47
Table 5.2: Functional Value (Quality)	48
Table 5.3: Social Value	49
Table 5.4: Emotional Value	50
Table 5.5: Epistemic Value	51
Table 5.6: Conditional Value	52

LIST OF FIGURES

	Page
Figure 2.1: Model of the relationship between TCV and PI	22

LIST OF APPENDICES

	Page
Appendix 1.1: Number of passenger and commercial vehicles from year 2011 to 2015	94
Appendix 1.2: News about Perodua in Malaysia	94
Appendix 1.3: Declining sales of hybrid cars in Malaysia from year 2014 to 2015	95
Appendix 1.4: Number of hybrid cars sold in Malaysia in year 2014 and 2015	95
Appendix 3.1: Five states with the highest number of cars in Malaysia in year 2011	96

#### LIST OF ABBREVIATIONS

ANOVA	Analysis of Variance
CEO	Chief Executive Officer
CO	Carbon Monoxide
CV	Conditional Value
DV	Dependent Variable
EEV	Energy Efficient Vehicles
EMV	Emotional Value
EPV	Epistemic Value
FV	Functional Value
FV (P)	Functional Value Price
FV (Q)	Functional Value Quality
IV	Independent Variable
JB	Johor Bharu
JPJ	Road Transport Department of Malaysia
KL	Kuala Lumpur
MAA	Malaysian Automotive Association
MAI	Malaysian Automotive Institute
MDOE	Malaysian Department of Environment
MLR	Multiple Linear Regression Analysis
NAP	National Automotive Police
Perodua	Perusahaan Otomobil Kedua Sendirian Berhad
PI	Purchase Intention
PMCC	Pearson's Product Moment Correlation Coefficient
SD	Standard Deviation
SV	Social Value
TCV	Theory of Consumption Values
VIF	Variation Inflation Factors
WPKL	Wilayah Persekutuan Kuala Lumpur

## PREFACE

This final year research project is conducted to fulfil the requirement to complete Bachelor of Commerce (Hons) Accounting. This project is completed and furnished by the authors based on other conducted researches which were quoted as references.

The title of this research project is “Let's Go Green! Studying Customer Purchase Intention towards Green Cars in Malaysia”. There are a number of similar past studies conducted in Malaysia. However, they only carried out in one particular state and thus the result is not representative of all Malaysians. Thus, we were driven to carry out this research.

This study will give a better insight to students towards customer purchase intention towards green cars in Malaysia.

## **ABSTRACT**

Malaysians are currently facing critical environmental issues and challenges. The research objective is to investigate the correlation between functional value (price), functional value (quality), symbolic value, emotional value, epistemic value as well as conditional value and customer purchase intention (PI) towards green cars in Malaysia. We explore Theory of Consumption Values (TCV) in vehicular context to seek ways to increase green cars consumptions. We have chosen qualitative research design and used quota sampling to select target respondents. Questionnaire is used to collect data from Generation Y in auto shows in Kuala Lumpur (KL), Johor Bharu (JB), Klang, George Town and Ipoh. We carried out a cross-sectional study whereby 275 sets of self-administered questionnaires were distributed and only 253 sets are qualified. All items in the questionnaire used five-point Likert scale as measurement. This study findings show that all values except functional value (price) and social value have significant relationship with customer PI towards green car in Malaysia. This study contributes a vital insight and thus encourages local manufacturers to produce green cars consistently to reduce air pollution in Malaysia.

*Keywords: Consumption values, Green cars, Purchase intention, Malaysia*

## **CHAPTER 1: INTRODUCTION**

### **1.0 Introduction**

For chapter one, we will study about the research background, problems, objectives, importance of study and study outline in summarizing every chapter.

### **1.1 Background of Study**

Environment is a global issue and its related problems such as global warming are broadcasted daily (Beyzavi & Lotfizadeh, 2014). To save the earth, green technology approach is adopted (Soni, 2015). In order to encourage the firms to advance into green initiatives, Malaysian Government introduced green technology policy in 2009 (Bakar, Sam, Tahir, Rajiani, & Muslan, 2011; Fernando, Xin, & Shaharudin, 2016). Supports from government are given to automotive firms. On 12 January 2014, Seri Mustapa Mohamed from International Trade and Industry Minister Datuk announced the revised National Automotive Policy (NAP) which offers a series of incentives to boost green car production (Lim, 2014).

Green car is an environmentally friendly vehicle for it has low harmful emission and it is fuel efficient. Four types of green cars are available in the market including hybrid cars, solar cars, electric cars and hydrogen cars (Joshi & Rao, 2013). Conventional car, on the other hand, releases harmful gases which are detrimental to human health (Razak, Ahmad, Bujang, Talib, & Ibrahim, 2013). In Malaysia, green car is also named as Energy Efficient Vehicles, EEV. The Malaysian Automotive Institute (MAI) defines EEV as “vehicles that meet a defined specifications in terms of carbon emission level (g/km) and fuel consumption (l/100 km) – EEV includes fuel efficient vehicles, hybrids, EVs and



alternatively-fuelled vehicles, e.g. CNG, LPG, Biodiesel, Ethanol, Hydrogen and Fuel Cell". (Hafriz, 2014).

To boost sales which in turns to encourage the production of green cars, we need to have a better insight in the customer purchase intention (PI) towards green cars. PI is a decision-making that investigates the reasons behind of customers to purchase a particular brand (Shah, Aziz, Jaffari, Waris, Ejaz, Fatima, & Sherazi, 2012; Mirabi, Akbariyeh, & Tahmasebifard, 2015). Understanding factors which influence green car selection will help manufacturers to manufacture customer's desired green cars. Hence, customer willingness to purchase green cars will increase (Beyzavi & Lotfizadeh, 2014).

## **1.2 Problem Statement**

According to Malaysian Automotive Association (MAA) (2008), number of vehicles soared by 11.09% from 2011 to 2015 in which passenger cars and commercial vehicles increased by 10.50% and 15.95% respectively (Refer to Appendix 1.1). Besides, the Road Transport Department of Malaysia (JPJ) shows that automotive vehicles registered up to 2011 are 21,401,269 vehicles (Shuhaili, Ihsan, & Faris, 2013).

Motor vehicles are the most significant source of air pollution in many urban areas in Malaysia (Shuhaili et al., 2013). The special report 2009 from Malaysian Department of Environment (MDOE) (2010) also agree with this statement (Salahudin, Abdullah, & Newaz, 2013). These motor vehicles contributed 97.1% of carbon monoxide (CO) emission out of the total emission (MDOE, 2010; Salahudin et al., 2013) that brings chronic effects to human health (McCubbin & Delucchi, 1999).

Besides, automotive industry in Malaysia like Proton Holdings and Perusahaan Otomobil Kedua Sendirian Berhad (Perodua) face intensifying business

environment (Mansor, Yahay, Nizam, & Hoshino, 2014). For instance, Perodua does not plan to involve in green car manufacturing due to the high cost and new technology involved. According to Chief Executive Officer of Perodua, Datuk Aminar Rashid Salleh, there is difficulty for Perodua to incorporate the same technology in producing green car for this involves a relative high cost. Moreover, the CEO commented that producing green cars may pull Perodua away from the track since it used to produce compact cars in the past (Michael, 2013) (Refer to Appendix 1.2).

Unlike in Malaysia, Toyota Motor Corporation in Japan has launched the first green passenger car, "Prius" in December 1997 and today, it announced that the cumulative sales of its hybrid cars reached 7.053 million units globally as of September 30, 2014 (Toyota Motor Corporation, 2014). Subsequently, this indicates that automotive manufacturers in Japan took initiatives in innovating green technology to hold their market share. Moreover, there is increasing demands for the environmental friendly cars among the Japan consumers (Mansor et al., 2014).

Nevertheless, Malaysian consumers have low acceptance towards the environmentally friendly products (Mansor et al., 2014). For example, the awareness of Malaysian consumers towards solar panels is low for majority are reluctant in accepting the introduction of new green electricity (Solangi, Saidur, Luhur, Aman, Badarudin, Kazi, Lwin, Rahim, & Islam, 2015). Whereas for the acceptance of Malaysian consumers towards green cars, it can be shown in the MAA market review in 2015 where there was declining sales of hybrid cars in Malaysia by 44.5% as compared to 2014 (Sze, 2015) (Refer to Appendix 1.3 & 1.4).

Furthermore, Malaysia Automotive Institute (2014) showed that there were only 18,967 hybrid cars users in Malaysia (Teoh & Noor, 2015) due to the reluctance of Malaysian consumers in accepting green technology (Edison & Geissler, 2003). In addition, most of the consumers are not willing to change their current

conventional cars (Razak, Yusof, Mashahadi, Alias, & Othman, 2014). For them, green cars are just a mode of transportation.

Previous studies show some aspects that require the public's attention and this has led us to make a contribution to the society by studying the customer PI towards green cars.

Table 1.1: First past studies deficiency

<b>Deficiency</b>	<b>Sources</b>
Limited geographical areas	Suki (2016)

Suki (2016) examined green product purchase in Malaysia and the research only targeted on customers in Federal Territory of Labuan; whereas Teoh and Noor (2015) only focused on customers in Klang Valley to determine PI for hybrid car. Researchers have been recommending future research to be done by expanding the research population which includes other regions (Suki, 2016). Thus, we will be expanding our study to five cities in Malaysia.

Table 1.2: Second past studies deficiency

<b>Deficiency</b>	<b>Sources</b>
Limitation of Theory of Reasoned Action (TRA) or Theory of Planned Behaviour (TPB)	Teoh and Noor (2015)

Those theories mentioned above have their weaknesses. One of them is that intention should not be determined by only using attitudes, perceived behavioural control and subjective norms. Such statement is made because other factors which may have an impact on customer's intention in performing a behaviour have not been taken into account. Examples are value and environmental factors. In addition, we found out that in order for customers to perform purchase behaviour, value has become the concern of it (Teoh & Noor, 2015). Consequently, we decided to apply Theory of Consumption Value (TCV) in our research.

### 1.3 Research Objectives & Questions

Table 1.3: General research objectives and questions

<b>General Research Objectives</b>	<b>General Research Questions</b>
To determine the relationship between dimensions of TCV and customer purchase intention (PI) towards green cars in Malaysia.	What are the relationships between dimensions of TCV and customer purchase intention (PI) towards green cars in Malaysia?

Source: Developed for the research

Table 1.4: Specific research objectives and questions

<b>Specific Research Objectives</b>	<b>Specific Research Questions</b>
To examine the relationship between functional value (price) (FVP) and customer purchase intention (PI) towards green cars in Malaysia.	What is the relationship between functional value (price) (FVP) and customer purchase intention (PI) towards green cars in Malaysia?
To examine the relationship between functional value (quality) (FVQ) and customer purchase intention (PI) towards green cars in Malaysia.	What is the relationship between functional value (quality) (FVQ) and customer purchase intention (PI) towards green cars in Malaysia?
To examine the relationship between social value (SV) and customer purchase intention (PI) towards green cars in Malaysia.	What is the relationship between social value (SV) and customer purchase intention (PI) towards green cars in Malaysia?
To examine the relationship between emotional value (EMV) and customer	What is the relationship between emotional value (EMV) and customer

purchase intention (PI) towards green cars in Malaysia.	purchase intention (PI) towards green cars in Malaysia?
To examine the relationship between epistemic value (EPV) and customer purchase intention (PI) towards green cars in Malaysia.	What is the relationship between epistemic value (EPV) and customer purchase intention (PI) towards green cars in Malaysia?
To examine the relationship between conditional value (CV) and customer purchase intention (PI) towards green cars in Malaysia.	What is the relationship between conditional value (CV) and customer purchase intention (PI) towards green cars in Malaysia?
To investigate which dimensions of TCV is the most significant in influencing customer purchase intention (PI) towards green cars in Malaysia.	Which dimensions of TCV is the most significant in influencing customer purchase intention (PI) towards green cars in Malaysia among the six dimensions?

Source: Developed for the research

## 1.4 Significance of Study

In this study, we adopted a modified TCV to assess customer PI towards green cars in Malaysia. In terms of theoretical contribution, according to Sheth, Newman, and Gross (1991a), they view functional value (FV) as one factor, however, other researcher argued that in FV, the price and quality should be assessed separately (Sweeney & Soutar, 2001). Therefore, through this study, we are able to validate the modified model for it has only been adopted in few researches in green product area, specifically, in green car. Secondly, as price and quality were jointly tested in the original model, we have doubt that FVP and FVQ may result in different relationships with PI. Thus, in our study, we will investigate the factor of price and quality with PI respectively and determine their

effects in consumer purchase behaviour. Hence, by separating price and quality, more evidences can be collected to ensure this model is workable. Thus, it will be useful for future researchers to reduce time and cost when they carry out similar researches.

From practical perspective, the internal combustion engines of conventional vehicles are powered by using diesel or petrol. However, natural gas and oil are limited resources. Therefore, a technology shift in reducing the usage of these resources is compulsory (Flamos & Begg, 2010). Thus, our local automotive manufacturers should start planning to produce green car. Practically, the identified significant consumption values of this study are useful for local automotive manufacturers to produce green cars that fit the customer's preference. The manufacturers can plan their marketing strategies which result in better delivering of green cars to their customers. According to Teoh and Noor (2015), the production of green product can give an opportunity for Malaysia to turn into the market leader in automotive sector in ASEAN Market. This study also raises customer's consciousness towards green cars which in turn encourages them to purchase green cars.

Besides, this study may contribute by increasing the awareness of Malaysian on the benefits of using green cars. For example, a Toyota Prius C can achieve a significant fuel saving at 25.6km per litre (Tan, 2012). Lastly, we contribute to the society by reducing carbon pollution from motor vehicles and to improve air quality. It is proven by Natural Resources Defence Council that fuelling transportation with electricity rather than petroleum can significantly reduce the emissions of harmful air pollutants which are detrimental to our health and environment. For example, by using electric cars, carbon pollution can be reduced by 70% in 2050 (Tonachel, 2015). Thus, by initiating local manufacturers to consistently produce green car and encouraging customers to purchase green cars can definitely reduce air pollution in Malaysia.

## **1.5 Outline of Study**

The first chapter is the background of study, problem statement and any past deficiency, research objectives and significance of study. The second chapter is the literature review, prior empirical studies about the relationship between consumption values and PI, the model adopted and development of hypothesis. Next, chapter three describes the research methodology including research design, population, sample and sampling procedures, method of data collection, variables and measurements as well as data analysis technique. Chapter four is about the results of the study and the interpretation of the results. Lastly, chapter five concludes the study by presenting the summary and discussion of results, theoretical and practical contributions, limitations and recommendations and conclusion.

## **1.6 Conclusion**

In short, this chapter reveals the overall of the research that will be carried out which is to examine the relationship between six different independent variables with the customer purchase intention towards green cars in Malaysia. This chapter comprises of the study background, issues, research questions and objectives, importance of the study and study outline.

## **CHAPTER 2: LITERATURE REVIEW**

### **2.0 Introduction**

In chapter two, an outline of concept about TCV is provided. Next, past literature studies are analyzed based on the identified variables. Moreover, we will adopt the proposed theoretical framework to apply the research basis.

### **2.1 Theoretical Foundation**

#### **2.1.1 Theory of Consumption Value (TCV)**

Throughout this research, the theory used is Theory of Consumption Value (TCV). Value is a main source of competitive advantage for a company as consumers nowadays put their concerns more in value to perform their purchasing behaviour (Woodruff, 1997; Teoh & Noor, 2015). Furthermore, to be more specific, perceived value becomes one of the significant variables in affecting the consumer purchasing choices (Zeithaml, 1988; Yeo, Mohamed, & Muda, 2016). Same goes to green perceived value, green PI is positively affected by it (Chen & Chang, 2012; Teoh & Noor, 2015).

Sheth, Newman, and Gross (1991a) are significant contributors of perceived value studies among the various perceived value approaches (Sanchez-Fernandez & Iniesta-Bonillo, 2007; Teoh & Noor, 2015). In the later year, they expanded the idea of perceived value to be recognized as consumption value which is now known as TCV (Yeo et al., 2016).



Based on Sheth et al. (1991a), this theory is mainly used to investigate the key determinants of consumers in purchasing the green cars (Teoh & Noor, 2015). This is because in the study of Wang, Liao, and Yang, it indicated that consumption value is essential in a decision-making process (Kim, Chan, & Gupta, 2007; Turel, Serenko, & Bontis, 2007) for it can strongly and stably forecast the consumers' PI (Eggert & Ulaga, 2002; Sweeney & Soutar, 2001). Besides, according to Sweeney and Soutar (2001), this theory has been validated as the best platform to extend the value construct in various fields (Suki, 2016).

Furthermore, this theory can be applied to a wide range of tangible and intangible products including individual and household products, industrial products and services (Lee, Lee, Kim, & Kim, 2002; Park & Rabolt, 2009; Williams & Soutar, 2009; Goncalves, Lourenço, & Silva, 2016). Besides, TCV has three basic axiomatic propositions which are (i) the consumption values influence the consumer choice decision making, (ii) the consumption values make differential contributions in any given purchase situation, and (iii) the consumption values are independent (Sheth et al., 1991; Yeo et al., 2016; Goncalves et al., 2016, p. 1485).

Basically, there are five consumption values in this theory. They are independent from each other and directly affect the customer PI towards green cars.

Table 2.1: Dimensions of TCV

<b>Values</b>	<b>Definition</b>
Functional value (FV)	“Perceived utility of a product or service to achieve utilitarian or physical performances generated from attributes such as price, reliability and durability.”
Social value (SV)	“Perceived utility resulting from an alternative's association with one or more social groups, be it socio-economic,

	demographic, and cultural.”
Emotional value (EMV)	“Perceived utility that derived from a product or service that arouses feelings or affective states.”
Epistemic value (EPV)	“Perceived utility derived from an alternative’s capacity to arouse curiosity, provide novelty, or satisfy a desire for knowledge.”
Conditional value (CV)	“Perceived utility attained by a product or service as the result of a specific situation or circumstance.”

Source: Sheth et al. (1991); Gonçalves et al. (2016, p. 1485)

By referring to the table above, FV in terms of product attributes influence customer PI (Williams & Soutar, 2009; Teoh & Noor, 2015). Next, SV is important in determining PI on green car for customers are always influenced by the consumption patterns of co-workers and other peers (Oliver & Lee, 2010). Furthermore, EMV can stimulate emotions and influence a customer’s purchase decision (Bodker, Gimpel, & Hedman, 2009; Teoh & Noor, 2015). Moreover, EPV of green car can arouse user’s curiosity which influences a customer PI (Burcu & Seda, 2013). Besides, CV in terms of exterior environment affects a customer’s behaviour and thus the PI (Burcu & Seda, 2013).

However, there are researchers suggested FV to be separated into price and quality. Sheth et al. (1991a, 1991b) defined FV as durability, reliability and price in which the first two characteristics refer to quality. For instance, there was a study about the influence of price and quality of hybrid car on customer satisfaction carried out in the United States which showed a positive relationship between them (Hur, Yoo, & Hur, 2015). The researchers also mentioned that FV consists of two sub-factors (Sweeney & Soutar, 2001; Hur et al., 2015) which are price and quality where they should be measured separately (Sweeney & Soutar, 2001).

TCV can reach a deeper explanations because it studies the underlying factors affecting customers decision-making process (Yeonsoo, Jinwoo, Inseong, & Hoyong, 2012; Yeo et al., 2016). This allows them especially automotive manufacturers to address the actual market conditions which in turn encourage the productions and usage of green cars (Gimpel, 2011; Yeo et al., 2016). Besides, TCV can explain 58.6% of behavioural intention which is better than TPB (Teoh & Noor, 2015).

Next, TCV shows its good predictive validity consistently through more than 200 consumer choice situations (Sheth et al., 1991; Lin & Huang, 2012). Moreover, consumption values can explain 73.4% of customer attitudes and 63% of customer PI in purchasing the green products (Teoh & Noor, 2015). Lastly, new research on green products needs to be carried out to investigate any possible changes in customer attitudes, intentions and behaviours (Lin, Huang, & Wang, 2010).

## 2.2 Review of Prior Empirical Studies

### Dependent Variable: Customer purchase intention (PI)

Table 2.2: Definitions of PI

Definition	Sources
Pivotal determinant of actual purchasing behavior of customers where the higher the intention will lead to higher probability of the customer will make the purchase actually.	Rehman and Dost (2013)
Tendency of the customers to buy a product repetitively in the future time or switching to another product.	Yoo, Donthu, and Lee (2000); Kumar, Lee, and Kim (2009); Wu, Wu, Lee, and Lee (2015)

Integration of the interest of customers in purchasing a product as well as the possibility of purchasing.	Wu et al. (2015)
As an attitudinal variable in order to measure the contribution of customers towards a product in future where there are many previous studies reported that attitude and preference have a strong relation to the product.	Kumar et al. (2009); Poddar, Donthu, and Wei (2009); Cases, Dubois, Fournire, and Tanner (2010); de Canniere, Geuens, and de Pelsmacker (2009); Ko and Kim (2012)

Source: Developed for the research

Rehman and Dost (2013) stated that intentions are totally controllable by customer deliberately. According to Mei, Ling, and Piew (2012), by using information in an organized manner, men act rationally for they will look at the effects of their actions before they engage in some actual behaviours. Besides, Dodds, Monroe and Grewal (1991) and Schiffman and Kanuk (2000) said that PI will lead to customer's willingness to purchase a product.

In our research, we focus on PI as intention has extensive implications and it influences actions of individual positively (Driver & Ajzen, 1992; Schlosser et al., 2006; Pierre et al., 2005).

### 2.2.1 Functional Value (FV)

Table 2.3: Definitions of FV

<b>Definition</b>	<b>Sources</b>
"Values obtained in terms of price and quality."	Zeithaml (1988); Dodds et al. (1991); Bolton and Drew (1991); Holbrook (1994); Woodruff (1997);

	Teoh and Noor (2015, p. 54)
--	-----------------------------

Source: Developed for the research

### 2.2.1.1 Functional Value Price [FV(P)]

Table 2.4: Definitions of FVP

<b>Definition</b>	<b>Sources</b>
Internal and external reference price which are evaluated by customers in the process of making a purchase decision.	Yeo et al. (2016)
“Utility gained from green product when its perceived long term and short term cost reduce.”	Sweeney and Soutar (2001, p. 211)

Source: Developed for the research

Price has been classified as the most significant and vital FV (Wang, Liao & Yang, 2013; Teoh & Noor, 2015). It holds the ability in influencing customers PI (Finch, 2005; Gonçalves et al., 2015) and their perceived value of a product (Catoiu, Vranceanu, & Filip, 2010; Suki, 2016). In D'Souza, Taghian, Lamb, and Pretiatko's (2007) research, they found out that if a green product's price is high and not practical, this will lead to the unwillingness in customer intention to pay premium price for the product (Suki, 2016). However, there are studies which revealed that consumers show willingness in paying premium price for green products (Xu et al., 2012; Liu et al., 2013; Tully & Winer, 2014; Awuni & Du, 2015) and other studies has shown that consumers are willing to do so given that the quality of the products are maintained. This indicates that different individuals have different perceptions towards price which exert positive and negative impacts on PI (Nguyen & Gizaw, 2014).

Study of Sweeney and Soutar (2001) showed that product is measured based on value for money whereas study of Hur et al. (2015) revealed that customer assess product according to the price they pay which indirectly affect the customer PI at the same time. Conversely, result from Suki (2016) discovered that price factor has been outweighed by quality factor despite the higher price of green product in comparison with non-green items. Research of Lin and Huang (2012) further emphasized that there is an increase in willingness of customer to pay more for green product as the effect of conserving the environment has surpassed the price factor.

### 2.2.1.2 Functional Value Quality [FV(Q)]

Table 2.5 Definitions of FV (Q)

<b>Definition</b>	<b>Sources</b>
Measures of product attributes including consistent quality of product or texture of product.	Yeo et al. (2016)
“Utility obtained from perceived quality and expected performance of green product.”	Sweeney and Soutar (2001, p. 211)
Evaluation and examination of excellence and superiority of the product.	Zeithaml (1988)

Source: Developed for the research

Quality is considered a valuable element in creating competitive advantage (Zeeshan, 2013; Mirabi et al., 2015). This is because customers are more likely to purchase a product when it portrays a better quality (Chi, Yeh, & Huang, 2008; Mirabi et al., 2015). Improvement of quality should be done from time to time (Tariq, Nawaz, Nawaz, & Butt, 2013) as continuous changes enhance product performance (Mirabi et al., 2015) and at the same time, it changes customer perception of quality due to added information (Nguyen & Gizaw, 2014).

Research of Suki (2016) discovered that strong belief of consumers towards the importance of environment has stirred more concern towards the product quality in green consumption context while result of Sweeney and Soutar (2001) revealed that consumers evaluate products in functional terms of expected performance. In contrast, Awuni and Du (2016) showed that FV has no significant relationship with consumer PI as consumers demand for better material comfort (Zhao et al., 2014; Awuni & Du, 2016). Such findings show consistency with the research results of Lin and Huang (2012) due to the willingness of consumer in taking care of the environment that ended up in a trade-off effect with quality.

### 2.2.2 Social Value (SV)

Table 2.6: Definitions of SV

<b>Definition</b>	<b>Sources</b>
“Perceived utility obtained from association with one or more social groups.”	Sheth et al. (1991a, p. 161)
Meaning associated with the product as well as the product image.	Sheth et al. (1991); Teoh and Noor (2015)
Self-image improvement, enhancement and approval.	Sweeney and Soutar (2001)
Perceived net utility gained from the consumption and utilization of green product according to the social pressure perception or the reputation and esteem obtained from the engagement and involvement in environmental preserving.	Biswas and Roy (2015a)

Source: Developed for the research

Teoh and Noor (2015) have incorporated extra dimensions such as self-identity and social influence in their studies to analyse symbolic value.

SV is potential in influencing green consumer's attitude and behaviour (Finch, 2005; Gonçaves et al., 2015). Suki (2016) claimed that social norm is a dominant influence in consumer purchasing behaviour as consumers might depend heavily upon the expert opinion to minimize their perceptions of risk (Aqueveque, 2006). Besides, finding of Awuni and Du (2016) has specified that green PI can be affected by social needs and self-image. Hur et al. (2015) determined that elderly customers have concern over their images by driving hybrid car and they believe it possesses positive self-image. On the contrary, there are studies done that showed insignificant correlation between SV and PI towards green car as consumers do not feel that the act of going green will improve the social impression, status or approval (Lin & Huang, 2012). Study of Biswas and Roy (2015a) has even disclosed that consumer consumption pattern does not change based on word of mouth and at the same time study of Teoh and Noor (2015) indicated that Malaysia is moving towards being an individualism country where the society makes decision according to their personal beliefs.

### 2.2.3 Emotional Value (EMV)

Table 2.7: Definitions of EMV

Definition	Sources
“Perceived utility gained resulting from an alternative capacity to invoke feelings or affective states.”	Sheth et al. (1991); Lin and Huang (2012, p. 12)
Consumption value which plays its part in making an impact towards the consumer's purchasing behaviour where a product or service is able to stimulate and arouse emotions.	Bodker et al. (2009); Teoh and Noor (2015)
Psychological and emotional outcome or consequence of selecting a product or service.	Beyzavi and Lotfizadeh (2014)



Social-psychological dimension that depends on the ability of product to trigger feeling or affective states.	Wang et al. (2013)
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Source: Developed for the research

Emotional responses are normally associated with goods and services (Lin & Huang, 2012). Under different circumstances, different EMVs acts upon the purchasing intentions (Sheth et al., 1991; Suki, 2016) based on personal experiences (Sheth et al., 1991; MacKay, 1999).

Previous studies (Lin & Huang, 2012; Teoh & Noor, 2015; Awuni & Du, 2016) have discovered a positive correlation exerted between EMV and green PI. Consumers can be emotionally bonded to environmental issues and consider their responsibilities in purchasing green car to improve the environment (Awuni & Du, 2016). These people are likely to experience or encounter positive feeling of doing well for themselves and for the society (Lin & Huang, 2012). In Bei's and Simpson's (1995) research, they found that 89.1% respondents had the feeling of playing their parts in environmental preserving when they purchased the product. This EMV is said to be affecting the green consumer's purchasing intention (Finch, 2005; Lin & Huang, 2012; Goncalves et al., 2015). Teoh and Noor (2015) have further supported such statement by indicating that customers are able to satisfy their emotional needs when they purchase green products. On the other hand, Suki (2016) has found out that there is no significant effect of EMV towards green PI due the ignorance of consumer towards the global environmental issues.

### 2.2.4 Epistemic value (EPV)

Table 2.8: Definitions of EPV

Definition	Sources
“Perceived utility obtained from an alternative’s source to arouse curiosity, provide novelty, or satisfy a desire for novelty.”	Sheth et al. (1991a, p. 162)
Perceived utility derived to satisfy the desire of knowledge and seeking novelty.	Laroche et al. (2001)
Inventive and creative element of a product or the fulfilment of consumers’ knowledge-seeking needs.	Sheth et al. (1991a)

Source: Developed for the research

EPV is defined as the perceived utility that resulting from a situation that causes curiosity provides knowledge and/or satisfies the wish (Sheth et al., 1991a). Thus, marketers agree that the consumers’ buying intention can be influenced by the uses of ‘innovation and variety searching’ (Burcu & Seda, 2013).

In consumer research, knowledge is known as a factor that affects all levels of decision process. However, when it comes to purchasing situation, knowledge of a good or service posses by consumer plays a significant role in deciding a new product adoption (Laroche et al., 2011). Similar discussion also has shown by the research done by Tse and Crotts (2005) and Assaker, Vinzi, and Connor (2011). According to the studies, knowledge seeking is essential in stimulating consumers' decision to test new products (Awuni & Du, 2015). It is also explained in study of Lin and Huang (2012) that the adoption of green products will give novelty and curiosity, thus fulfilling consumer’s novelty-seeking aspiration. On the other hands, Ginsberg and Bloom (2004) explained that lack of green products

information brings on attitude behaviour contrast between actual buying behaviour and consumer environmental concern (Biswas & Roy, 2015a).

In addition, previous studies found out that EPV affected consumer purchase behaviour and intention of behaviour significantly (Lin et al., 2010; Suki, 2016). Biswas and Roy (2015a) also pointed that EPV is considered the key predictor of green buying behaviour. Furthermore, in the study done by Gonçalves et al. (2015), the results showed that EPV can predict green consumption in the condition that it is jointed with other values. However, Awuni and Du (2015) found out that EPV was insignificant in predicting green buying intention although the result showed a positive relation. It is in agreement with the results done by Teoh and Noor (2015).

### 2.2.5 Conditional Value (CV)

Table 2.9: Definitions of CV

Definition	Sources
“Perceived utility acquired by an alternative as the result of a specific set of circumstances facing the choice maker.”	Sheth et al. (1991a, p. 162)
Net utility received by using green goods over conventional goods based on individuals perceived willingness to get personal advantages in the form of rebates about situational factors prompting to such consumption.	Biswas and Roy (2015a)
A determinant of buyer decision conduct, with a significant association to product attributes which applying a positive effect on buyer choice.	Lin and Huang (2012)

Source: Developed for the research

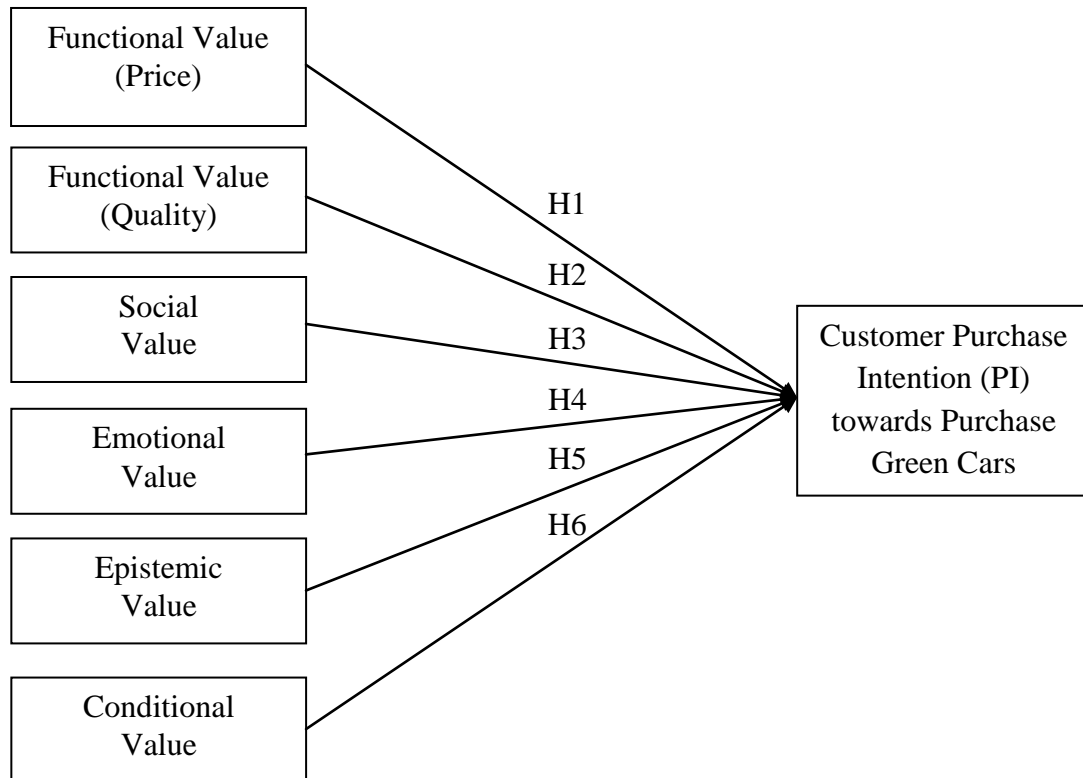
According to Hur, Yoo, and Chung (2012), CV may be affected by antecedent social or physical conditions that improve a product's FV and SV (Awuni & Du, 2015).

CV may support or restrict a decision or choice (Hung & Hsieh, 2010). Researcher has pointed that the majority of the products are bought related to particular conditions or circumstances (Bayer & Ke, 2013; Samson & Voyer, 2014). Situational variables are the circumstances that surrounded individual when he reacts to stimuli that relevant to his needs and wants (Nicholls, Roslow, Dublish, & Comer, 1996). For instances, according to Lin and Huang (2012), information about hazard to the environment can influence on consumers' will to purchase green products. Moreover, previous studies (Lai, 1991) found that snack foods, soft drinks, breath fresheners and beer have shown that consumption can affect behaviour, thus the goods are sold regularly in reply to that particular situations.

Past studies discovered a positive relationship exerted between CV and consumer choice behaviour in related to green products (Lin & Huang, 2012). Besides, it is also the major predictor of consumers' buying behaviour (Lin & Huang, 2012; Lin et al., 2010; Teoh & Noor, 2015). However, a study that was carried at Jiangsu, China had shown that CV is insignificant when it comes to green purchase intentions among young adults (Awuni & Du, 2015). It is also in line with the studies done by Biswas and Roy (2015a) and Suki (2016).

## 2.3 Proposed Conceptual Framework/ Model

Figure 2.1: Model of the relationship between TCV and PI



Adopted from: Suki (2016)

Figure 2.1 shows the factors affecting the customer PI towards green cars in Malaysia. The independent variables (IVs) consist of FV(P), FV(Q), SV, EMV, EPV and CV. The dependent variable (DV) is customer PI towards green cars in Malaysia.

## 2.4 Hypotheses Development

According to the past empirical studies in 2.2, the hypotheses for the relationship between dimensions of TCV and customer PI towards green cars are developed.

Table 2.10: Hypotheses Development

H1a	There is a positive correlation between FV(P) and customer PI towards green cars.
H1b	There is a positive correlation between FV(Q) and customer PI towards green cars.
H2	There is a positive correlation between SV and customer PI towards green cars.
H3	There is a positive correlation between EMV and customer PI towards green cars.
H4	There is a positive correlation between EPV and customer PI towards green cars.
H5	There is a positive correlation between CV and customer PI towards green cars.

Source: Developed for the research

## 2.5 Conclusion

In conclusion, we have applied TCV in this study and discuss about the past literature studies in chapter three. Besides, we have proposed the six hypotheses for the correlation among the six IVs and DV as well as the theoretical framework.

## **CHAPTER 3: METHODOLOGY**

### **3.0 Introduction**

In chapter three, a detailed explanation on the manner research conducted is explained including the target respondent and sample procedure. Besides, this chapter will explain the way data will be gathered, the manner the variables will be evaluated and techniques used to investigate the data on hand.

### **3.1 Research Design**

Generally, we will use quantitative approach in evaluating how values may influence the customer PI towards green cars in Malaysia throughout this research. Quantitative approach tends to be a highly trusted method in using numbers to represent the opinions or ideas (Amaratunga, Baldry, Sarshar, & Newton, 2002). According to Nau (1995), this approach is suitable to investigate the behavioural component like the customer PI (Amaratunga et al., 2002).

Chalmers (1976) stated that quantitative approach involves asking and answering questions through conducting survey among respondents such as using questionnaire (Amaratunga et al., 2002). Thus, we used survey methodology to gather the data needed. It is a cost-effective and reliable method as it is useful in gathering feedback and can provide accurate and relevant data (McClelland, 1994). Moreover, cross-sectional study is applied in this research for the data was gathered only once and it studies multiple outcomes at the same time (Mann, 2003). Since there is no follow up needed, lower cost and shorter time are required to gather and interpret the data (Mann, 2003).

Furthermore, the target population is Generation Y in Malaysia in which we are focusing on the individual respondents in this research. The data collection method to be used is self-administered questionnaires where the questionnaires will be distributed to five cities in Malaysia with the top cars populations. This method is simple and less time is required (McClelland, 1994). Research also showed that its simplicity affects overall response accuracy positively (McClelland, 1994).

### **3.2 Population and Sampling Procedures**

The population of this study is Generation Y. Our target respondents are Generation Y in KL, JB, Klang, George Town and Ipoh. .

According to JPJ (2011) as cited in Shuhaili et al. (2011), these five states have the highest number of cars registered in Malaysia. By referring to Appendix 3.1, the highest number of car registered is in WPKL (3,093,778 cars), followed by Johor (1,234,331 cars), Selangor (1,020,981 cars), Penang (945,444 cars) and Perak (649,025 cars). We further scoped down to the five cities which have the highest population in the respective five states, which are KL (1,453,975 residents), JB (802,489 residents), Klang (879,867 residents), George Town (300,000 residents) and Ipoh (673,318 residents) (World Atlas, 2015).

Next, Generation Y is selected as they are future consumers and they possess ability to influence long term consumption patterns (Atkinson & Rosenthal, 2014; Muposhi & Dhurup, 2016). Besides, Belleau, Summers, Xu, and Pinel (2007) claimed that generation Y will become a major force in the consumer market soon and we can expect a significant behavioural shift in buying behaviour (Kooi, Hamid, Tooi, & Zhang, 2015). Generation Y are people born between year 1978 and year 1994 (Christine, 2000; Kotler & Armstrong, 2010; Solomon, Dann, Dann,



& Russell-Bennett, 2007; Lim, Omar, & Thurasamy, 2015) and they aged from 22 to 38.

Sampling is “selecting a large number of units from a population, or from specific subgroups (strata) of a population.” It is important that the samples can represent the whole population accurately (Tashakkori & Teddlie, 1998; Teddlie & Yu, 2007). It is said that a suitable sample size has an item to response ratios ranging from 1:4 to 1:10 for every set of scales to be factor analysed (Hinkin, 1995). We have decided on the sample size ranged from 180 to 450 since we have 45 survey items.

In this study, we used quota sampling technique. Five cities are selected based on the highest number of cars registered in Malaysia. After that, we have targeted Generation Y in the five cities to be our respondents.

### **3.3 Data collection method**

Data collected through primary data by using quantitative method for this study. Self-administered questionnaires were developed. Target respondents were required to fill in and give back the questionnaires on the spot. Data collection period was conducted from October 2016 to January 2017. Besides, a pilot test was carried out among 30 Generation Y in Ipoh auto shows for the purpose of evaluating the validity and reliability of the questionnaire (Teoh & Noor, 2015).

Furthermore, questionnaires were distributed in KL, JB, Klang, George Town and Ipoh. Auto show was chosen because the consumers engage in cognitive process during the visit. These processes attempt to evaluate the intentions of the consumers about the auto shows through the measurements. Therefore, the respondents who visit to the auto shows have strong intention towards purchasing of green cars (Hosein, 2012).

During the period, 275 questionnaires were distributed and only 264 questionnaires were collected back which is resulting in response rate of 96%. However, there are 11 questionnaires considered as unusable. Therefore, only total of 253 questionnaires are qualified in our final test.

### 3.4 Variables and Measurements

Table 3.1: Dependent variables

<b>Dependent variable</b>	<b>Definition</b>	<b>Measurement</b>	<b>Number of question items</b>
Purchase intention	Pivotal determinant of actual buying behaviour of consumer (Rehman & Dost, 2013).	Interval Five-Point Likert Scale (Ranging between 1- strongly disagree and 5- strongly agree)	6

Source: Developed for the research

There are six IVs including FV(P), FV(Q), SV, EMV, EPV and CV under dimensions of TCV.

Table 3.2: Independent variables

<b>Independent variables</b>	<b>Definition</b>	<b>Measurement</b>	<b>Number of question items</b>
Functional Value (Price)	“Utility gained from green car due to the reduction of its perceived long term and short term cost (Sweeney & Soutar, 2011, p. 211).”	Interval Five-Point Likert Scale (Ranging between 1- strongly disagree and 5- strongly agree)	4
Functional Value (Quality)	“Utility gained from perceived quality and expected performance of green car (Sweeney & Soutar, 2011, p. 211).”	Interval Five-Point Likert Scale (Ranging between 1- strongly disagree and 5- strongly agree)	6
Social Value	“Meaning associated with the product as well as the product image and at the same time self-identity and social influence are incorporated (Teoh & Noor, 2015, p. 54).”	Interval Five-Point Likert Scale (Ranging between 1- strongly disagree and 5- strongly agree)	12
Emotional Value	“Consumption value that play its part in affecting the consumer's purchasing behaviour where a product or service is able to produce and stimulate emotions (Bødker et al., 2009; Teoh & Noor, 2015, p. 54).”	Interval Five-Point Likert Scale (Ranging between 1- strongly disagree and 5- strongly agree)	7

Epistemic value	“A novelty value is created when the product or service arouses curiosity, provide originality or novelty and/or knowledge gaining (Teoh & Noor, 2015, p. 55).”	Interval Five-Point Likert Scale (Ranging between 1- strongly disagree and 5- strongly agree)	6
Conditional Value	“The perceived utility derived from an alternative as the result of a specific situation or set of circumstances facing the decision maker (Sheth et al., 1991; Lin & Huang, 2012, p. 13).”	Interval Five-Point Likert Scale (Ranging between 1- strongly disagree and 5- strongly agree)	4

Source: Developed for the research

For Section A, ordinal and nominal scale will be applied to acquire the demographic and basic details together with information of our target respondents.

In summary, we have a total of 45 questions for all variables (Refer to Appendix B). Interval measurement such as the five-point Likert scales ranging from 1- strongly disagree to 5- strongly agree will be adopted. The reason being long scale ranging from seven to nine points could stir confusion among the consumers (Dias, Schuster, Talamini, & Révillion, 2016).

## **3.5 Data Analysis Techniques**

### **3.5.1 Descriptive Analysis**

Descriptive data consists of gender, age, monthly income, residence and occupation are analyzed by using frequency and percentage. Besides, mean and standard deviation (SD) are used to analyze the result of survey items of the IVs and DV.

### **3.5.2 Scale Measurement**

Cronbach's alpha will be used in conducting reliability test because it is the most extensive used measure of reliability (Tavakol & Dennick, 2011). The survey items are considered reliable and consistent when the values of Cronbach's alpha are exceeded 0.70 (Cronbach & Shavelson, 2004). Alpha value will be low if there are limited number of questions, weak relationship between items as well as heterogeneous constructs (Tavakol & Dennick, 2011).

Normality test is conducted by using skewness and kurtosis in order to ensure the data sets will be normally distributed (Saunders et al., 2012). Normality test needs to be fulfilled to carry out parametric test such as Multiple Linear Regression Analysis (MLR) or Pearson Correlation analysis (Saunders et. al., 2012). It is suggested that the outcomes of skewness test should within +/- 3 while the outcomes of kurtosis should within +/- 10 (Hair et al., 2010; Kline, 2005).

### 3.5.3 Inferential Analysis

Pearson Correlation analysis is used to assess the correlation between two variables which contain numerical data (Saunders et al., 2012). In next chapter, Pearson Correlation will be used to determine the connection among six IVs. Table 3.3 demonstrates the ranges of Pearson Correlation and relative strengths of relationship between the set of variables.

Table 3.3: Pearson Correlation and Strengths of Correlation Relationship between variables

<b>Pearson Correlation</b>	<b>Strength of Correlation Relationship</b>
$r = 0.10$ to $0.29$ or $r = -0.10$ to $-0.29$	Weak
$r = 0.30$ to $0.49$ or $r = -0.30$ to $-0.49$	Moderate
$r = 0.50$ to $1.00$ or $r = -0.50$ to $-1.00$	Strong

Adopted from: Sekaran and Bougie (2013)

Multicollinearity is used to test multicollinearity problem. If Pearson Correlation coefficient is more than 0.90, multicollinearity problem exists (Hair et al., 2005). Besides, there will be a high multicollinearity problem when the tolerance values are under 0.10 or variance inflation factor (VIF) values are exceeded 10 (Hair et al., 2005). One of the related or relevant independent variables must be take off if results show multicollinearity problem.

MLR analysis analyses the association between a DV and several IVs (Hair et al., 2005). The underlying assumptions such as normality, linearity, homoscedasticity and multicollinearity are required to be met in order to apply MLR analysis (Saunders et al., 2012). MLR assumes that DV will change for every item change in IVs (Brant, 2007). If the results of MLR have a p-value which is under 0.05, it explains that the correlation between the selected IVs and DV are significant, vice versa.

Table 3.4: Equation of Multiple Linear Regression Analysis

$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \epsilon$	
Y	Customer Purchase Intention towards Green Cars
X1	Functional value (Price)
X2	Functional value (Quality)
X3	Social value
X4	Emotional value
X5	Epistemic value
X6	Conditional value
A	Regression constant (Intercept)
B	Regression beta coefficient association with each $X_i$
E	Error term

Source: Developed for the research

The equation of MLR analysis is showed in the Table 3.4. It determines degree of customer PI towards green cars be affected by FV(P), FV(Q), SV, EMV, EPV and CV.

### 3.6 Conclusion

In conclusion, chapter three is about design of the research, population and sample as well as the sampling procedure. We also discussed about the way we collected data, variables, measurements and data analysis methods.

## **CHAPTER 4: DATA ANALYSIS**

### **4.0 Introduction**

In chapter four, we will justify both pilot test and actual test. Besides, we further explain the descriptive analysis, scale measurement and inferential analysis for the analysis of actual data.

### **4.1 Descriptive Analysis**

#### **4.1.1 Demographic Profile of the Respondents**

Table 4.1: Characteristics of Respondents

		<b>Frequency</b>	<b>Percentage (%)</b>
<b>Gender</b>	<b>Female</b>	115	45.45
	<b>Male</b>	138	54.55
<b>Age</b>	<b>22 to 24 years</b>	145	57.31
	<b>25 to 29 years</b>	59	23.32
	<b>30 to 38 years</b>	49	19.37
<b>Occupation</b>	<b>Government sector</b>	20	7.91
	<b>Private sector</b>	95	37.55
	<b>Self-employment</b>	44	17.39
	<b>Student</b>	94	37.15
<b>Monthly income</b>	<b>Less than RM2000</b>	126	49.80
	<b>RM2001 – RM4000</b>	71	28.06
	<b>RM4001 – RM6000</b>	38	15.02
	<b>RM6001 and above</b>	18	7.11
<b>State</b>	<b>Wilayah Persekutuan Kuala Lumpur</b>	111	43.87
	<b>Johor</b>	45	17.79



	<b>Selangor</b>	37	14.62
	<b>Penang</b>	34	13.44
	<b>Perak</b>	26	10.28

Source: Developed for the research

Table 4.1 categories the characteristic of respondents by gender, age, occupation, monthly income, and state. 253 respondents took part in this survey, 115 were females (45.45%) and 138 were males (54.55). Out of 253 respondents, 145 respondents aged between 22 and 24 years (57.31%), 59 aged between 25 and 29 years (23.32) and 49 aged between 30 to 38 years (19.37). For occupation, majority of the respondents are working in Private Sector (37.55%) or Studying (37.15%). 44 respondents are Self-employed (17.39%) and only 20 of them work in Government sector (7.91%). For monthly income, 126 respondents earn less than RM2000 (49.80%). Besides, 71 (28.06%) have monthly income between RM2001 and RM4000 and 38 (15.02) have monthly income between RM4001 and RM6000. Only 18 (7.11%) respondents earn more than RM6000. Other than that, the data used in this study are from the respondents of five state of Peninsular Malaysia, which are Kuala Lumpur (43.87%), Johor (17.79%), Selangor (14.62%), Penang (13.44%) and Perak (10.28%).

Generally, the data shows that most of the respondents are male and aged between 22 and 24. Besides, most of them are working in Private Sector or Studying. Almost half of the respondents have a monthly income less than RM2000. Lastly, the survey questionnaires are distributed to five states of Malaysia.

#### 4.1.2 Central Tendencies Measurement of Constructs

Table 4.2: Mean & Standard Deviation

<b>Items</b>	<b>Mean</b>	<b>S.D.</b>	<b>Items</b>	<b>Mean</b>	<b>S.D.</b>	<b>Items</b>	<b>Mean</b>	<b>S.D.</b>
<b>FVP1</b>	3.4466	0.8920	<b>SV6</b>	3.2253	0.9431	<b>EPV2</b>	3.9486	0.7462
<b>FVP2</b>	3.5968	0.8040	<b>SV7</b>	3.3004	0.9453	<b>EPV3</b>	3.7668	0.8098

<b>FVP3</b>	3.6957	0.8203	<b>SV8</b>	3.1858	1.0005	<b>EPV4</b>	3.8458	0.8931
<b>FVP4</b>	3.8617	0.8455	<b>SV9</b>	3.7273	1.1095	<b>EPV5</b>	4.1146	0.8010
<b>FVQ1</b>	3.6285	0.7482	<b>SV10</b>	3.6087	0.8735	<b>EPV6</b>	4.1621	0.7621
<b>FVQ2</b>	3.6640	0.7304	<b>SV11</b>	3.6285	0.8430	<b>CV1</b>	3.6996	0.8479
<b>FVQ3</b>	3.7826	0.7691	<b>SV12</b>	3.8261	0.9093	<b>CV2</b>	3.7826	0.8093
<b>FVQ4</b>	3.3636	0.8965	<b>EMV1</b>	3.6285	0.8430	<b>CV3</b>	3.8103	0.8519
<b>FVQ5</b>	3.3281	0.9210	<b>EMV2</b>	3.4545	0.8183	<b>CV4</b>	3.6680	0.8822
<b>FVQ6</b>	3.5652	0.8022	<b>EMV3</b>	3.5810	0.8252	<b>PI1</b>	3.7984	0.8835
<b>SV1</b>	3.3320	0.9721	<b>EMV4</b>	3.7866	0.7779	<b>PI2</b>	3.6601	0.8470
<b>SV2</b>	3.5652	0.7822	<b>EMV5</b>	3.8024	0.7871	<b>PI3</b>	3.7945	0.8293
<b>SV3</b>	3.4466	0.7729	<b>EMV6</b>	3.6759	0.8716	<b>PI4</b>	3.7391	0.8184
<b>SV4</b>	3.4901	0.9579	<b>EMV7</b>	3.9289	0.8515	<b>PI5</b>	3.8379	0.8318
<b>SV5</b>	3.1976	0.9514	<b>EPV1</b>	3.8735	0.8682	<b>PI6</b>	3.3162	1.0666

Source: Developed for the research

Table 4.2 is the overall Mean and Standard Deviation (SD) of all 45 survey items derived from six IVs and a DV. In summary, all the items have a mean higher than 3. Most of the means of IVs and DV are favourable to agree ranged from 3.1858 to 4.1621. In our study, the choice of answer in the survey questionnaire ranges from '1' (Strongly Disagree) to '5' (Strongly Agree). The data collected are mostly ranged between '3' (Neutral) and '4' (Agree). This mean that most of our respondents were agreed to our survey questions.

Next, 42 out of 45 items have a standard deviation (SD) ranges between 0.7 and 1. The other 3 items have a SD more than 1. Out of 45 items, the lowest SD is 0.7304 and the highest SD is 1.1095. The figures implied that all the data in our study are clustered closely around the mean.

## 4.2 Scale Measurement

### 4.2.1 Reliability

Table 4.3: Reliability Test (Pilot Test)

Independent Variables	Cronbach's Alpha	Dependent Variables	Cronbach's Alpha
FVP	0.8807	PI	0.8090
FVQ	0.7706		
SV	0.7293		
EMV	0.8728		
EPV	0.8785		
CV	0.8214		

Source: Developed for the research

A pilot test will be conducted among 30 Generation Y in Ipoh auto shows to assess the validity and reliability of questionnaire (Teoh & Noor, 2015). Table 4.3 illustrates the result of Cronbach's alpha for every variable.

Table 4.3 presented that the Cronbach's alpha are from 0.7293 to 0.8807. As the Cronbach's alpha for all variables in the questionnaire exceed 0.70, so it means that all the survey items are reliable and consistent (Cronbach & Shavelson, 2004). Thus, the questionnaire used in this study is a reliable instrument.

Table 4.4: Reliability Test (Final Test)

Independent Variables	Cronbach's Alpha	Dependent Variables	Cronbach's Alpha
FVP	0.7236	PI	0.8416
FVQ	0.7044		
SV	0.7612		
EMV	0.8959		
EPV	0.8490		
CV	0.7842		

Source: Developed for the research

It appears from Table 4.4 that the Cronbach's alpha ranges from 0.7044 to 0.8959. It means that all survey items are considered reliable and consistent as the Cronbach's alpha for every variable exceeds 0.70 (Cronbach & Shavelson, 2004). Hence, the questionnaire used in this study is a reliable instrument.

#### 4.2.2 Normality

Table 4.5: Normality Test for Independent Variables (Pilot Test)

Independent Variables	Skewness	Kurtosis	Independent Variables	Skewness	Kurtosis
FVP1	-0.4705	0.4005	SV11	-0.3548	-0.8687
FVP2	-0.4651	-0.0257	SV12	-0.3870	-0.1399
FVP3	-0.5465	-0.2204	EMV1	-0.8682	1.361
FVP4	-0.6511	0.1063	EMV2	-0.2103	-0.2343
FVQ1	-0.2359	-0.0433	EMV3	-0.1981	-0.6684
FVQ2	-0.7474	1.466	EMV4	0.1071	-0.5568
FVQ3	-0.3348	0.0411	EMV5	-0.5055	0.2792

<b>FVQ4</b>	-0.0639	-0.5051	<b>EMV6</b>	0.1981	-0.6684
<b>FVQ5</b>	0.2055	-0.9774	<b>EMV7</b>	-0.7390	0.2006
<b>FVQ6</b>	-0.5072	0.6348	<b>EPV1</b>	-0.3580	0.116
<b>SV1</b>	0.8877	-0.1340	<b>EPV2</b>	-0.7907	0.6175
<b>SV2</b>	-0.2359	-0.0433	<b>EPV3</b>	-0.6211	0.8371
<b>SV3</b>	-0.8541	2.163	<b>EPV4</b>	-0.3194	-0.4745
<b>SV4</b>	-0.7467	-0.2340	<b>EPV5</b>	-0.9282	-0.1894
<b>SV5</b>	-0.7940	0.7846	<b>EPV6</b>	-0.6183	-0.4431
<b>SV6</b>	-0.7929	-0.0440	<b>CV1</b>	-0.8682	1.361
<b>SV7</b>	-0.8299	0.8937	<b>CV2</b>	-0.7174	0.6276
<b>SV8</b>	-0.9111	0.9288	<b>CV3</b>	-0.4221	-0.3601
<b>SV9</b>	-0.4818	-0.1844	<b>CV4</b>	0.4460	-0.1840
<b>SV10</b>	-0.5875	-0.1703			

Source: Developed for the research

Table 4.6: Normality Test for Dependent Variables (Pilot Test)

<b>Dependent Variables</b>	<b>Skewness</b>	<b>Kurtosis</b>
<b>PI1</b>	-0.6557	0.8418
<b>PI2</b>	-0.0340	-0.6064
<b>PI3</b>	-0.0368	-0.5889
<b>PI4</b>	0.4835	-0.6197
<b>PI5</b>	-0.2326	-0.2318
<b>PI6</b>	0.1736	-0.4914

Source: Developed for the research

Normality test is conducted by using skewness and kurtosis to execute whether the data sets are normally distributed (Saunders et al., 2012). Normality test needs to be fulfilled to carry out Pearson Correlation analysis

and Multiple Linear Regression (MLR) analysis (Saunders et. al., 2012). Hair et al. (2010) and Kline (2005) recommended that the result of skewness test and kurtosis should within  $\pm 3$  and within  $\pm 10$  respectively.

Table 4.5 and Table 4.6 presented the result of normality test that carried out during the pilot test. The skewness of every variable in the questionnaires is from -0.9111 to 0.8877, whereas the kurtosis ranges from -0.8687 to 2.163. Thus, the data is normally distributed because the test of normality is met as skewness is within  $\pm 3$  and kurtosis is within  $\pm 10$  (Hair et al., 2010; Kline, 2005).

Table 4.7: Normality Test for Independent Variables (Final Test)

<b>Independent Variables</b>	<b>Skewness</b>	<b>Kurtosis</b>	<b>Independent Variables</b>	<b>Skewness</b>	<b>Kurtosis</b>
<b>FVP1</b>	-0.3481	-0.3601	<b>SV11</b>	-0.5303	0.4633
<b>FVP2</b>	-0.4343	0.1886	<b>SV12</b>	-0.6064	0.2616
<b>FVP3</b>	-0.4714	0.4591	<b>EMV1</b>	-0.5704	0.4881
<b>FVP4</b>	-0.8044	1.0744	<b>EMV2</b>	0.0377	-0.2834
<b>FVQ1</b>	-0.2462	0.1282	<b>EMV3</b>	-0.2829	-0.0128
<b>FVQ2</b>	-0.2453	0.2280	<b>EMV4</b>	-0.3222	-0.1784
<b>FVQ3</b>	-0.5030	0.6866	<b>EMV5</b>	-0.5208	0.3400
<b>FVQ4</b>	-0.2838	-0.0842	<b>EMV6</b>	-0.4064	-0.1107
<b>FVQ5</b>	-0.1757	-0.1160	<b>EMV7</b>	-0.6796	0.6170
<b>FVQ6</b>	-0.2609	0.3243	<b>EPV1</b>	-0.9988	1.5774
<b>SV1</b>	-0.1586	-0.6426	<b>EPV2</b>	-0.3786	-0.0653
<b>SV2</b>	-0.5191	0.5477	<b>EPV3</b>	-0.5438	0.2247
<b>SV3</b>	-0.3920	0.3304	<b>EPV4</b>	-0.8037	0.6817
<b>SV4</b>	-0.3539	-0.2528	<b>EPV5</b>	-0.7237	0.1909
<b>SV5</b>	-0.4607	-0.0675	<b>EPV6</b>	-0.6076	-0.0801

<b>SV6</b>	-0.2927	-0.2861	<b>CV1</b>	-0.2091	-0.3506
<b>SV7</b>	-0.3494	0.0011	<b>CV2</b>	-0.0812	-0.6459
<b>SV8</b>	-0.3084	-0.3521	<b>CV3</b>	-0.4022	-0.0041
<b>SV9</b>	-0.7442	-0.1177	<b>CV4</b>	-0.2063	-0.4848
<b>SV10</b>	-0.7331	0.8266			

Source: Developed for the research

Table 4.8: Normality Test for Dependent Variables (Final Test)

<b>Dependent Variables</b>	<b>Skewness</b>	<b>Kurtosis</b>
<b>PI1</b>	-0.8117	1.0303
<b>PI2</b>	-0.2352	0.0656
<b>PI3</b>	-0.5676	0.3755
<b>PI4</b>	-0.4482	0.0424
<b>PI5</b>	-0.4807	0.0245
<b>PI6</b>	-0.2636	-0.4785

Source: Developed for the research

Table 4.7 and Table 4.8 revealed the result of normality test that carried out during the final test. The skewness of all items in the questionnaires ranges from -0.9988 to 0.0377, whereas the kurtosis ranges from -0.6426 to 1.5774. Thus, the data is normally distributed because the test of normality is met (Hair et al., 2010; Kline, 2005).

## 4.3 Inferential Analysis

### 4.3.1 Pearson Correlation Analysis

Table 4.9 Pearson Correlation Test

Variables	PI
FVP	0.3117
	<.0001
FVQ	0.4950
	<.0001
SV	0.5511
	<.0001
EMV	0.6708
	<.0001
EPV	0.5925
	<.0001
CV	0.6164
	<.0001

Source: Developed for the research

Table 4.9 above shows the strength of relationship between six IVs and one DV through the Pearson Correlation Analysis. Basically, the IVs examined are significantly related to the DV since their p-values less than 0.0001. The result indicates that EMV shows the strongest relationship (0.6708) with the DV. For FV in terms of price and quality, they have moderate relationship (0.3117 and 0.4950) with the purchase intention of green cars whereas for SV, EPV and Ce, they have strong relationships.



Table 4.10: Multicollinearity Test

Variables	FVP	FVQ	SV	EMV	EPV	CV
<b>FVP</b>	1.0000					
<b>FVQ</b>	0.4368	1.0000				
	<.0001					
<b>SV</b>	0.4031	0.5175	1.0000			
	<.0001	<.0001				
<b>EMV</b>	0.4257	0.5414	0.6862	1.0000		
	<.0001	<.0001	<.0001			
<b>EPV</b>	0.2616	0.3413	0.4542	0.5680	1.0000	
	<.0001	<.0001	<.0001	<.0001		
<b>CV</b>	0.3963	0.4573	0.4982	0.6316	0.5677	1.0000
	<.0001	<.0001	<.0001	<.0001	<.0001	

Source: Developed for the research

Multicollinearity test was conducted through this analysis to test the correlation between each IV. Table 4.10 proves that there is no multicollinearity problem exists for all correlations of the IVs examined are less than 0.90 (Hair et al., 2005).

### 4.3.2 Multiple Linear Regression Analysis

Table 4.11: Model Summary

Root MSE	Dependent Mean	Coefficient Variation	R-square	Adjusted R-square
0.4377	3.6910	11.8572	0.5655	0.5549

Source: Developed for the research

By referring to Table 4.11 above, R-square is valued at 0.5655. It means DV can be explained by the six IVs by 56.55% which is over 50%. On the other hand, the remaining 43.45% of the DV can be explained by other factors either internally or externally.

Table 4.12: ANOVA

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F value	Pr > F
Model	6	61.3139	10.2190	53.35	<.0001
Error	246	47.1191	0.1915		
Corrected Total	252	108.4330			

Source: Developed for the research

Based on Table 4.12, the result indicates that among the six IVs examined, at least one out of the six IVs can be used in modelling the DV which is the purchase intention of green cars. This can be proved through the result as calculated in which F value is 53.35 and P value is less than 0.0001.

Table 4.13: Coefficients

Variable	Parameter Estimate	Pr > t	Standard Estimate	Tolerance	Variance Inflation	Hypotheses testing
Intercept	-0.0229	0.9279	0	.	0	Supported
FVP	-0.0572	0.2710	-0.0541	0.7345	1.3615	Not Supported
FVQ	0.1763	0.0107	0.1374	0.6186	1.6167	Supported
SV	0.1245	0.1342	0.0904	0.4876	2.0508	Not Supported
EMV	0.2937	<.0001	0.2897	0.3733	2.6786	Supported
EPV	0.2479	<.0001	0.2319	0.5998	1.6671	Supported
CV	0.2139	0.0003	0.2153	0.5097	1.9621	Supported

Source: Developed for the research

Table 4.13 displays different information about IVs and DV. Firstly, since all the IVs have tolerance values more than 0.10 and variance inflation

factors lower than 10, there is no multicollinearity problem (Hair et al., 2005).

Next, by referring to the p-value above, the hypotheses for four IVs which are FVQ, EPV and CV are accepted for their p-value are lesser than 0.05. On the contrary, the hypotheses for two IVs which are FVP and SV are rejected as the p-value are greater than 0.05 that are 0.2710 and 0.1342 respectively. Consequently, it can be concluded that four IVs are significantly related to purchase intention of green cars while the remaining two IVs are insignificantly related to purchase intention of green cars.

Therefore, the multiple linear equation is as below:

$$PI = -0.0229 - 0.0572FVP + 0.1763FVQ + 0.1245SV + 0.2937EMV + 0.2479EPV + 0.2139CV$$

This equation implies that the IVs have positive relationship with the DV except for one IV which is FVP. FVP has negative relationship with PI which indicates that PI of the green cars will decrease by 0.0572 if FVP increases with no changes in other IVs. In contrast, when FVQ, SV, EMV, EPV and CV enhances, the PI of green cars will enhance by 0.1763, 0.1245, 0.2937, 0.2479 and 0.2139 respectively provided that the other five IVs remain constant. For the intercept of -0.0229, it is the mean value of PI when all IVs equal to 0.

Nevertheless, for FVP and SV, they have insignificant relationship with PI since their p-values are greater than 0.05 which are 0.2710 and 0.1342 respectively. Their hypotheses are rejected; hence, their changes (increase or decrease) do not affect the PI since they are not related to the PI in this research.

In addition, the values of standard estimate indicate the influential level of each IV in improving the DV. Basically, EMV has the highest influential level towards improving DV, followed by EPV, CV, and lastly FVQ. In the

nutshell, EMV is the dominant IV since its standard estimate is the highest which is 0.2897 among the other IVs.

## **4.4 Conclusion**

Chapter four included the explanation about using the descriptive analysis, inferential analysis and scale measurement to evaluate the data collected. Analysis of the result has been carried out.

## **CHAPTER 5: DISCUSSION, CONCLUSION AND IMPLICATIONS**

### **5.0 Introduction**

In chapter five, we will compare the past studies hypotheses to the actual data outcome. Besides, this chapter presented a deep explanation and discussion of major findings, not forgetting the practical and theoretical implication, as well as the limitations and recommendations.

### **5.1 Summary of Statistical Analysis**

The data was collected from 115 (45.45%) females and 138 (54.55%) males. Most of the respondents are aged from 22 to 24 (57.31%). In occupation wise, most of the respondents (37.55%) are working under private sector. Besides, almost half of the respondents (49.80%) have monthly income less than RM2000.

The data is valid and reliable as it passed both normality and reliability test. Besides, there is also no multicollinearity problem since the highest coefficient value shown is only 0.68622 which is lower than 0.90. For all IVs, the variation inflation factors (VIF) are lesser than 10 and the tolerance values are higher than 0.1.

The outcome of reliability test revealed that Cronbach's Alpha ranges from 0.7044 to 0.8959. This shows that the six variables are reliable as they are greater than the recommended acceptable figure, which is 0.70 (Christmann & Van Aelst, 2006).

Next, the data is normally distributed as both pilot test and final test show that the skewness ranges between -1 and 1 and kurtosis ranges between -2 and 2. Thus, parametric test can be conducted.

In addition, for multiple regression analysis, the model R-square is 0.5655. It means that 56.55% of the variation in customers' intention to purchase green car can be explained by the six independent variables (FVP, FVQ, SV, EMV, EPV, CV). There are two insignificant variables in this research as the p-value is greater than 0.05, which are FVP (0.2710) and SV (0.1342).

## 5.2 Discussion of Major Findings

### 5.2.1 Functional Value Price

Table 5.1: Functional Value (Price)

Hypothesis	Result
H1a: There is positive relationship between FV(P) and customer PI towards green car.	Not Supported

Source: Developed for the research

Result shown in Table 5.1 implies that Gen Y's intention in purchasing green car in Malaysia will not be affected by FVP.

Our results is in correspondence with previous studies of Suki (2016) and Lin and Huang (2012), in which they recognised the insignificance of FVP. According to our results, price is surprisingly less influential for Gen Y. It might because they value features and comfort of their material possessions whereby they are willing to pay premium price for the products. Another

reason might be due to the individuals' personalities who are being environmentally concerned. Such environmental friendly character is able to outweigh the price factors (Suki, 2016).

However, such result is in contradict with past studies of Sweeney and Soutar (2001) and Hur et al. (2015). This might be due to the consumers' nature whereby they choose to enjoy maximum benefits at the lowest possible cost (Hur et al., 2012; Marian et al., 2014; Awuni & Du, 2015).

### 5.2.2 Functional Value Quality

Table 5.2: Functional Value (Quality)

Hypothesis	Result
H1b: There is positive relationship between FV(Q) and customer PI towards green car.	Supported

Source: Developed for the research

Result shown in Table 5.2 indicates that Gen Y intent to purchase green car when quality of green car is outstanding.

Our result is consistent with past studies of Suki (2016) and Sweeney and Soutar (2001) whereby they recognised the significance of FVQ. This signifies that Gen Y lay stress on green car's aspects and attributes rather than monetary value. They demand for a better performance from the product and are willing to pay higher price. Furthermore, Gen Y are considered to have considerable spending power and the behaviours of this group have an significant effect on the future world economy (Morton, 2002; Engebretson, 2004; Benckendorff et al. 2010; Tang & Lam, 2017). Hence, car manufacturers in Malaysia should emphasize on producing high quality green car to motivate and maximise customer PI towards green car.

However, such result is in contradicted with past studies of Laroche, Bergeron, and Barbaro-Forleo (2001) and Lin and Huang (2012). The reason being that the consumers were unsure of the product quality as they were yet to try or buy the product. Thus, they gave opinions on quality construct based on their own feelings but not actual experience.

### 5.2.3 Social Value

Table 5.3: Social Value

<b>Hypothesis</b>	<b>Result</b>
H2: There is positive relationship between SV and customer PI towards green car.	Not Supported

Source: Developed for the research

Result shown in Table 5.3 implies that Gen Y intent to purchase green car regardless of SV.

Our result is in conformity with previous research results of Teoh and Noor (2015) and Biswas and Roy (2015) whereby they recognised the insignificance of SV. Such result indicates Gen Y disagree that purchasing green car represent their status. Not only that, they are less likely to seek other opinions. As a result, they can be hardly motivated by peers or family in purchasing green car.

However, such result is in contradict with past studies of Suki (2016), Awuni and Du (2016) and Hur et al. (2015).The reason might be due to consumers' attitude who crave for the social acceptance. Hence, if their reference groups are taking part in green car purchasing, they will more likely follow. In Suki (2016) research, it is believed that people who strived for social approval would make a good impression among their friends and



family. As a result, these group of people will get easily affected by the peer behaviours and social norms. In addition, Awuni and Du (2016) identified that young adult consumers' green purchasing intentions can be influenced by self-image and social needs.

#### 5.2.4 Emotional Value

Table 5.4: Emotional Value

<b>Hypothesis</b>	<b>Result</b>
H3: There is positive relationship between EMV and customer PI towards green car.	Supported

Source: Developed for the research

Result shown in Table 5.4 reflects that Gen Y in Malaysia would have a greater intention in purchasing green car when they reacts positively towards it which implies a greater EMV.

Our result is conforming to past studies of Lin et al. (2010) and Awuni and Du (2016), whereby they recognised the significance of EMV. This indicates that Gen Y in Malaysia have shown their concerns towards the environment and are well-informed about the environmental threats. They view green purchasing as their responsibilities. In fact, Lin and Huang (2012) supported such justification by explaining that people who are emotionally bonded to the environmental issues tend to encounter positive feelings out of the achievement for performing something good for themselves and the society. For instance, in Bei's and Simpson's (1995) study, they found out that 89.1% respondents experienced the feeling of being involved in environmental preserving when they purchased recycled product. Hence, government should persuade more Gen Y to be environmentally conscious through properly targeted educating campaigns to make a bigger difference by taking part in adopting green practices.

However, such result is in contradict with past studies of Suki (2016). The reason might be that the consumers failed to identify the relevancy of using green car for environmental preserving. Suki (2016) also argued that the ignorance towards the global environment issues along with the unawareness of the presence and availability of green products in the markets among numerous customers lead them to have no intention in purchasing green car.

### 5.2.5 Epistemic Value

Table 5.5: Epistemic Value

<b>Hypothesis</b>	<b>Result</b>
H4: There is positive relationship between EPV and customer PI towards green car.	Supported

Source: Developed for the research

Result shown in Table 5.5 signifies that when EPV is higher, Gen Y will have a better insight of green car, hence PI towards green car will be greater.

Our result is corresponding to past studies of Biswas and Roy (2015a), Suki (2016) and Lin et al. (2010), in which they recognised the significance of EPV. When Gen Y are equip with product knowledge, there will be a greater exposure towards green car which eventually prepares them in accepting such uncommon product in Malaysia. Not only that, they are able to distinguish the benefits in using such product. Thus, they would have better insights in the product leading them to feel more confident in green purchasing. As a result, there will be greater PI towards green car. Furthermore, Suki (2016) stated that customers who imbibe product knowledge are more willing to try out something new as a result to reduce

their routine purchases. This statement is being supported by Laroche et al. (2001) where consumer having product knowledge will own a stronger propensity in adopting new products (Suki, 2016). Hence, government should organise green car campaigns from time to time to expose Gen Y towards adopting green practices. Not only that, educating Gen Y online by using social media as one of the platforms can also be an effective way. This is because Gen Y is famously known as tech savvy (Tang & Lam, 2017). On the other hand, according to Suki (2016), customer who is enriched with product information will show their interests towards the product style and design. Hence, car manufacturers could make changes to the car design other than focusing on the product functions in order to induce curiosity among consumers to try out new car model.

However, such result is in contradict with past studies of Awuni and Du (2016). The reason might be that other values has transcend the advantage of having product knowledge in influencing consumer PI towards green car.

### 5.2.6 Conditional Value

Table 5.6: Conditional Value

<b>Hypothesis</b>	<b>Result</b>
H5: There is positive relationship between CV and customer PI towards green car.	Supported

Source: Developed for the research

Result shown in Table 5.6 specifies that CV can lead to an upsurge in Gen Y's PI towards green car in Malaysia.

Our result is consonant with previous studies results of Lin and Huang (2012), Teoh and Noor (2015) and Lin et al. (2010), in which they

recognised the significance of CV. Our findings show that Gen Y have greater intention to purchase green car under certain conditions such as availability of green car in the market, subsidy and discount or promotion other than under worsening environmental conditions. Lin and Huang (2012) claimed that in buying green products, customer with high environmental concern will be greatly motivated by offers. Not only that, government and the car manufacturers should work together in providing discount or promotional activity to attract new customers other than encouraging existing customer to make repetitive purchase. Furthermore, the government should make an effort in emphasizing to the public that air pollution is damaging the environment causing climate change and worsening public health. As a result, consumers might take this condition into consideration and choose product which minimise threat and harm to the environment.

On the other hand, such result is in contradict with past studies of Biswas and Roy (2015). The reason being that consumers are totally uninterested in purchasing green car whereby those conditions failed to generate effects on them in changing their purchase intentions. Additionally, in agreement with Biswas and Roy (2015), Suki (2016) suggested that customers are not involved in circumstances or situations which would allure them in purchasing green products.

## **5.3 Implication**

### **5.3.1 Practical Implication**

Based on the results, EMV has the most influence level in affecting the customer PI towards green car. Hence, government should persuade more Gen Y to be environmentally conscious through properly targeted educating

campaigns to make a bigger difference by taking part in adopting green practices.

EPV is the second most significant factor. Marketer should organize green car campaigns together with government to expose Gen Y for the knowledge about green car as well as the benefits and importance of adopting green practices. Besides, marketer should share more information about green car in social media as Gen Y is famously known as tech savvy (Tang & Lam, 2017).

Considering FVQ as another significant factor, car manufacturers in Malaysia should emphasize on producing high quality green car to motivate and maximise customer PI towards green car. Besides, local car manufacturers should also focus on the after-sales service as value-added strategy.

CV is the last significant factors affecting customer PI towards green car. Therefore, government and car manufacturer should work together such as provide subsidy, incentive, discount or carry out more promotional activity to attract customer and encouraging existing customer to make repetitive purchase. Furthermore, the government should make an effort in emphasizing to the public that air pollution is damaging the environment causing climate change and worsening public health. As a result, consumers might take this condition into consideration and choose product which minimise threat and harm to the environment.

Lastly, as FVP and SV do not show significant relationship, we suggest local manufacturer and government to further investigate these two factors to ensure there is no any underlying reason that these two factors may influence the customer purchase intention.

### **5.3.2 Theoretical Implication**

Theoretically, this study evaluates how essential is the dimension of Theory of Consumption Value (TCV) explaining customer PI towards green car among Generation Y in Malaysia. Since there are limited past studies that focusing on green car, this study contributed by enhancing to the knowledge and information of how TCV affect the customer purchase intention towards green car. Besides, based on the study, we had tested 4 out of 6 variables of TCV are important in explaining customer PI towards green car among Generation Y in Malaysia.

Besides, this study has adopted the TCV model that developed by the researchers Sweeney and Soutar (2001) where the price and quality should be assessed separately. This study has proven EMV, EPV, CV and FVQ are significant to the customer PI towards green cars. According to the result of this study, the R-square is valued at 0.5655 and the p-value of the model is less than 0.05. Thus, through this study, we have proven this model is workable. Thus, this TCV theory of Sweeney and Soutar (2001) in explaining the customer purchase intention towards green cars among Gen Y in Malaysia has been validated.

### **5.4 Limitations of Study**

Basically, some limitations have been encountered in our study. The first limitation is cross-sectional approach for the data was collected only once and it studies multiple outcomes at the same time (Mann, 2003). The data collected may only reflect current situation which possibly will be irrelevant in the future.

Furthermore, our targeted respondents for this research only focus on Generation Y. Generation Y had been chosen as they are future consumers and possess ability to influence long term consumption patterns (Atkinson & Rosenthal, 2014;

Muposhi & Dhurup, 2016). However, this generation is not able to represent whole population of Malaysia (Teoh & Noor, 2015).

Lastly, survey questionnaire is used as the method of collecting data in this study due to its' cost effectiveness and reliability (McClelland, 1994). However, it might cause us to collect a bias and inappropriate responses. By using questionnaires, some respondents may find irritating or being forced or none of the alternatives fits their thought and belief; thus, this increases the possibility that inappropriate responses may be collected (Akbayrak, 2000). Apart from this, it is hard for us to get extra questionnaires in auto shows. This may due to some visitors will refuse to fill up the questionnaires for they were annoyed when we approached them as their main concern was to visit the cars.

## **5.5 Recommendations of Study**

Throughout this research, few recommendations are suggested. Firstly, it is recommended to use longitudinal approach in future research since it studies a phenomenon for different points of time. Longitudinal approach is more suitable to use since consumers' intention changes over time and they may take different actions as time passed (Teoh & Noor, 2015). Generally, this approach was adopted by Smith (2012) in her research where the data were collected over three years' period among the Millennials to study their consumption behaviours towards green products. Achchuthan and Velnampy (2016) also suggested in their research that longitudinal approach should be applied to bridge the gap between green PI and the changes of the consumers buying behaviour in the long run.

In addition, the target generations can be widened to other age groups as different group segment has different green purchasing behaviours (Henriqe & Jiwanto, 2016). Consequently, the results obtained can be more comprehensive.

Besides, the future researchers can add in interview as another method in data collection. According to Alshenqeeti and Hamza (2014), interview not only enables the researchers to analyse and interpret the views and responses given by the respondents in a detailed manner, but can also avoid the respondents in answering the questions in an annoying mood by allowing them to “speak in their own voice and express their own thoughts and feelings” (Berg, 2007, p. 96). Furthermore, the open-ended questions that are asked through the interview are more flexible and the respondents are allowed to probe the interviewers if they would like to have in-depth understanding towards the questions asked; thus, this can solve the problem of ambiguity that respondents may face during answering the questionnaires too (Akbayrak, 2000).

## **5.6 Conclusion**

In this chapter, all variables except FVP and SV played their significant and remarkable roles in positively influencing the customer purchasing intention towards green car in Malaysia. In addition, from our research findings, we are able to deduce that EMV acts as the most significant influence upon respondents' intentions in purchasing green car in Malaysia. Few explanations were given to justify why FVP and SV have no significant relationship with customer' intention to purchase green car. In other words, our research objective which is to investigate whether FVP, FVQ, SV, EMV, EPV and CV influences customers' intention to purchase green car in Malaysia have been fulfilled.



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**Appendix A**

***Summary of Past Empirical Studies on Dimensions of Theory of Consumption Values (TCV) and Customer Purchase Intention***

<i>Study</i>	<i>Country</i>	<i>Objective</i>	<i>Data</i>	<i>Major Findings</i>
Sweeney & Soutar, 2001	Australia	To examine what consumption values drive purchase attitude and behaviour in a retail purchase situation.	<p><b>Stage one:</b> Questionnaire survey of 130 third year or postgraduate students at three universities in Australia</p> <p><b>Stage two:</b> Telephone survey of 303 adults aged 18 and above in the Perth Metro-politan area, Western Australia</p> <p><b>Stage three:</b> Questionnaire survey of 323 furniture outlets customer and 313 car stereo customers</p>	Functional value (price) is positively and significantly related to the consumer purchase attitude and behavior.
Hur, Yoo, & Hur, 2015	United States	To investigate the relationship between green consumption value, satisfaction, and loyalty of driving hybrid cars among elderly consumers.	Mail survey of 314 elderly consumers	Functional value (price) is positively and significantly related to elderly customer satisfaction with hybrid cars.
Suki, 2016	Malaysia	To examine the effects of consumption values on Malaysian consumers' environmental concern as expressed in their purchase of green products.	Questionnaire survey of 200 members of the public who claimed to follow green lifestyle in the Federal Territory of Labuan, Malaysia	Functional value (price) is positively but insignificantly related to the consumer environmental concern as expressed through the purchase of green products.
Lin & Huang, 2012	Taiwan	To investigate the influence determinants of consumer choice behavior regarding green product.	Questionnaire survey of 412 of green consumers and those who may not be aware of environmental problems	Functional value (price) is not related to consumer choice behavior regarding green product.

Let's Go Green!  
 Studying Customer Purchase Intention towards Green Cars in Malaysia

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Suki, 2016	Malaysia	To examine the effects of consumption values on Malaysian consumers' environmental concern as expressed in their purchase of green products.	Questionnaire survey of 200 members of the public who claimed to follow green lifestyle in the Federal Territory of Labuan, Malaysia	Functional value (quality) is positively and significantly related to the consumer environmental concern as expressed through the purchase of green products.
Sweeney & Soutar, 2001	Australia	To examine what consumption values drive purchase attitude and behaviour in a retail purchase situation.	<p><i>Stage one:</i> Questionnaire survey of 130 third year or postgraduate students at three universities in Australia</p> <p><i>Stage two:</i> Telephone survey of 303 adults aged 18 and above in the Perth Metro-politan area, Western Australia</p> <p><i>Stage three:</i> Questionnaire survey of 323 furniture outlets customer and 313 car stereo customers</p>	Functional value (quality) is positively and significantly related to the consumer purchase attitude and behavior.
Awuni & Du, 2016	China	To examine the antecedents of green purchasing intention among young adults in Chinese cities.	Questionnaire survey of 209 young adults in shopping centers	Functional value (quality) is not related to young adults' green purchasing intentions.
Lin & Huang, 2012	Taiwan	To investigate the influence determinants of consumer choice behavior regarding green product.	Questionnaire survey of 412 of green consumers and those who may not be aware of environmental problems	Functional value (quality) is not related to consumer choice behavior regarding green product.
Suki, 2016	Malaysia	To examine the effects of consumption values on Malaysian consumers' environmental concern as expressed in their purchase of green products.	Questionnaire survey of 200 members of the public who claimed to follow green lifestyle in the Federal Territory of Labuan, Malaysia	Social value is positively and significantly related to the consumer environmental concern as expressed through the purchase of green products.

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 Studying Customer Purchase Intention towards Green Cars in Malaysia

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Awuni & Du, 2016	China	To examine the antecedents of green purchasing intention among young adults in Chinese cities.	Questionnaire survey of 209 young adults in shopping centers	Social value is positively and significantly related to young adults' green purchasing intentions.
Hur, Yoo, & Hur, 2015	United States	To investigate the relationship between green consumption value, satisfaction, and loyalty of driving hybrid cars among elderly consumers.	Mail survey of 314 elderly consumers	Social value is positively and significantly related to elderly customer satisfaction with hybrid cars.
Lin & Huang, 2012	Taiwan	To investigate the influence determinants of consumer choice behavior regarding green product.	Questionnaire survey of 412 of green consumers and those who may not be aware of environmental problems	Social value is not related to consumer choice behavior regarding green product.
Biswas & Roy, 2015b	India	To examine the factors of the behavioural outcome of sustained green consumption.	Questionnaire survey of 142 students and 59 faculties of two central university	Social value is negatively and insignificantly related to sustained green consumption behavior.
Teoh & Noor, 2015	Malaysia	To determine the factors affect consumers' intention to purchase hybrid car.	Questionnaire survey of 306 of hybrid car owner	Social value is positively but insignificantly related to the intention to purchase hybrid car.
Lin & Huang, 2012	Taiwan	To investigate the influence determinants of consumer choice behavior regarding green product.	Questionnaire survey of 412 of green consumers and those who may not be aware of environmental problems	Emotional value is positively and significantly related to consumers' choice behavior towards green products.
Teoh & Noor, 2015	Malaysia	To determine the factors affect consumers' intention to purchase hybrid car.	Questionnaire survey of 306 of hybrid car owner	Emotional value is positively and significantly related to intention to purchase hybrid car.
Awuni & Du, 2016	China	To examine the antecedents of green purchasing intention among young adults in Chinese cities.	Questionnaire survey of 209 young adults in shopping centers	Emotional value is positively and significantly related to young adults' green purchasing intentions.

Let's Go Green!  
Studying Customer Purchase Intention towards Green Cars in Malaysia

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Suki, 2016	Malaysia	To examine the effects of consumption values on Malaysian consumers' environmental concern as expressed in their purchase of green products.	Questionnaire survey of 200 members of the public who claimed to follow green lifestyle in the Federal Territory of Labuan, Malaysia	Emotional value is positively but insignificantly related to the consumer environmental concern as expressed through the purchase of green products.
Biswas & Roy, 2015a	India	To understand the relationship between environmental concern and consumer choice behavior in purchasing green product in India.	Questionnaire survey of 534 of consumers at different workshops and conferences on research and environmental awareness held at two different central universities	Epistemic value is positively and significantly related to sustained green consumption behavior.
Suki, 2016	Malaysia	To examine the effects of consumption values on Malaysian consumers' environmental concern as expressed in their purchase of green products.	Questionnaire survey of 200 members of the public who claimed to follow green lifestyle in the Federal Territory of Labuan, Malaysia	Epistemic value is negatively and significantly related to the consumer environmental concern as expressed through the purchase of green product
Lin, Huang, & Huang, 2010	Taiwan	To verify consumer choice behavior toward green products.	Questionnaire survey of 133 of green consumers and those who may not yet have much ecological consciousness	Epistemic value is positively related to consumers' choices behavior towards green products.
Awuni & Du, 2016	China	To examine the antecedents of green purchasing intention among young adults in Chinese cities.	Questionnaire survey of 209 young adults in shopping centers	Epistemic value is positively but insignificantly related to young adults' green purchasing intentions.
Teoh & Noor, 2015	Malaysia	To determine the factors affect consumers' intention to purchase hybrid car.	Questionnaire survey of 306 of hybrid car owner	Epistemic value is positively but insignificantly related to the intention to purchase hybrid car.
Gonçalves, Lourenço, & Silva, 2016	Portugese	This study examines whether consumption values can predict green buying behavior.	Online questionnaire survey of 197 of students in executive courses at a Portuguese University and Facebook users of a page of supermarket chain that sells	Epistemic value can be positively and significantly predict the green buying behaviour when it is jointly with other values.

Let's Go Green!  
 Studying Customer Purchase Intention towards Green Cars in Malaysia

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			biological products	
Lin & Huang, 2012	Taiwan	To investigate the influence determinants of consumer choice behavior regarding green product.	Questionnaire survey of 412 of green consumers and those who may not be aware of environmental problems	Conditional value is positively and significantly related to consumer choice behavior regarding green product.
Teoh & Noor, 2015	Malaysia	To determine the factors affect consumers' intention to purchase hybrid car.	Questionnaire survey of 306 of hybrid car owner	Conditional value is positively and significantly related to the intention to purchase hybrid car.
Lin, Huang, & Huang, 2010	Taiwan	To verify consumer choice behavior toward green products.	Questionnaire survey of 133 of green consumers and those who may not yet have much ecological consciousness	Conditional value is positively related to consumers' choices behavior towards green products.
Biswas & Roy, 2015a	India	To examine the factors of the behavioural outcome of sustained green consumption.	Questionnaire survey of 142 students and 59 faculties of two central university	Conditional value is negatively related to sustained green consumption behavior.
Suki, 2016	Malaysia	To examine the effects of consumption values on Malaysian consumers' environmental concern as expressed in their purchase of green products.	Questionnaire survey of 200 members of the public who claimed to follow green lifestyle in the Federal Territory of Labuan, Malaysia	Conditional value is positively and insignificantly related to the consumer environmental concern as expressed through the purchase of green product
Awuni & Du, 2016	China	To examine the antecedents of green purchasing intention among young adults in Chinese cities.	Questionnaire survey of 209 young adults in shopping centers	Conditional value is positively but insignificantly related to young adults' green purchasing intentions.



**Appendix B**  
***Variables and Measurements***

<b>Independent Variables</b>	<b>Question items</b>	<b>Measurement</b>	<b>Sources</b>
Functional Value (Price)	Green car is reasonably priced. Green car offers value for money. Green car is a good product for the price. Green car would be economical.	Interval <b>Five-Point Likert Scale</b> (1-strongly disagree to 5-strongly agree)	(Sweeney & Soutar, 2001)
Functional Value (Quality)	Green car has consistent quality. Green car is well made. Green car has an acceptable standard of quality. Green car has <i>poor</i> workmanship. Green car would <i>not</i> last a long time. Green car would perform consistently.	Interval <b>Five-Point Likert Scale</b> (1-strongly disagree to 5-strongly agree)	(Sweeney & Soutar, 2001)

<b>Independent Variables</b>	<b>Question items</b>	<b>Measurement</b>	<b>Sources</b>
Social Value	If I buy a green car, most people who are important to me will <i>disapprove</i> it.  If I buy a green car, most people who are important to me will appreciate it.	Interval <b>Five-Point Likert Scale</b> (1-strongly disagree to 5-strongly agree)	(Teoh & Noor, 2015)

	<p>If I buy a green car, most people who are important to me will find it desirable.</p> <p>If I buy a green car, most people who are important to me will <i>not</i> support it.</p> <p>I learned so much about the green car from my friends and family.</p> <p>Most members of my family and friends will expect me to buy a green car.</p> <p>I will follow the advice of my family that I should buy a green car.</p> <p>My friends recommend that I should buy a green car.</p> <p>Buying a green car would have a negative effect on my self-image.</p> <p>Buying a green car would say something positive about who I am.</p> <p>Buying a green car would say something positive about what I stand for.</p> <p>I feel proud of being a green person.</p>		
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Independent Variables	Question items	Measurement	Sources
Emotional Value	Buying a green car will give me feelings of well-being.  Buying a green car is exciting. Buying a green car will make me elated.  Buying a green car will make me feel happy.  Buying a green car will give feelings of making a good personal contribution to something better.  Buying a green car will give feelings of doing the morally right thing.  Buying a green car will give me feelings of being a better person.  I emotionally support green car.	Interval  <b>Five-Point Likert Scale</b> (1-strongly disagree to 5-strongly agree)	(Teoh & Noor, 2015)

Independent Variables	Question items	Measurement	Sources
Epistemic Value	Before buying a green car, I will obtain substantial information about the different makes and models of products.  I will acquire a great deal of information about the different make and models before buying green car.	Interval  <b>Five-Point Likert Scale</b> (1-strongly disagree to 5-strongly agree)	(Lin & Huang, 2012)

	<p>I am willing to seek out novel information about the green car.</p> <p>I like to search for new and different knowledge about the green car.</p> <p>I know that green car can reduce the pollution level.</p> <p>I know that green car can reduce environmental harm.</p>		
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<b>Independent Variables</b>	<b>Question items</b>	<b>Measurement</b>	<b>Sources</b>
Conditional Value	<p>I would buy the green car instead of conventional car under worsening environmental conditions.</p> <p>I would buy the green car instead of conventional car when there is a subsidy for green car.</p> <p>I would buy the green car instead of conventional car when there are discount rates for green car or promotional activity.</p> <p>I would buy the green car instead of conventional car when green car are available.</p>	<p>Interval</p> <p><b>Five-Point Likert Scale</b>                      (1-strongly disagree to 5-strongly agree)</p>	(Teoh & Noor, 2015)

Dependent Variables	Question items	Measurement	Sources
Purchase Intention	I intend to buy green car because it is less polluting.  I intend to switch to other brand for ecological reasons.  When I want to buy a green car, I look at the car specifications to see if they are environmentally damaging.  I prefer green car (environmentally friendly) over non-green car when their product qualities are similar.  I choose to buy car that is environmentally friendly.  I buy green car (environmentally friendly vehicle) even if it is expensive than the non-green car.	Interval  <b>Five-Point Likert Scale</b> (1-strongly disagree to 5-strongly agree)	(Rehman & Dost 2013)

**Appendix C**  
**Permission letter to conduct survey**



**UNIVERSITI TUNKU ABDUL RAHMAN**

Wholly Owned by UTAR Education Foundation (Company No. 578227-M)

24th August 2016

To Whom It May Concern,

Dear Sir/Madam

**Permission to Conduct Survey**

This is to confirm that the following students are currently pursuing their *Bachelor of Commerce (Hons) Accounting* program at the Faculty of Business and Finance, Universiti Tunku Abdul Rahman (UTAR) Perak Campus.

I would be most grateful if you could assist them by allowing them to conduct their research at your institution. All information collected will be kept confidential and used only for academic purposes.

The students are as follows:

<u>Name of Student</u>	<u>Student ID</u>
Ang Chyh Kun	13ABB04374
Chong Ting Ting	13ABB04226
Seah Yong Chooi	13ABB06074
Soo Ying Ni	13ABB04984
Tan Phey Yi	14ABB05080

If you need further verification, please do not hesitate to contact me.

Thank you.

Yours sincerely,

Ms Ching Suet Ling  
Head of Department,  
Faculty of Business and Finance  
Email: chingsl@utar.edu.my

Ms Lee Voon Hsien  
Supervisor,  
Faculty of Business and Finance  
Email: leevh@utar.edu.my



## Let's Go Green! Studying Customer Purchase Intention towards Green Car in Malaysia

Note: **Green car** refers to *environmental friendly vehicle* which includes *electric car, hybrid car, hydrogen car* and *solar car*.

### Survey Questionnaire

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Dear Respondent,

*Warmest greeting from Universiti Tunku Abdul Rahman (UTAR)*

We are final year undergraduate students of Bachelor of Commerce (Hons) Accounting, Universiti Tunku Abdul Rahman (UTAR). The purpose of this survey is to conduct a research on relationship between dimension of Theory of Consumption Value (TCV) and customer purchase intention towards green car. Please answer all statements to the best of your knowledge. There are no wrong responses to any of these statements. All responses are collected for academic research purpose and will be kept strictly confidential.

Thank you for your participation.

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#### Instructions:

- 1) There are THREE (3) sections in this questionnaire. Please answer ALL statements in ALL sections.
  - 2) Completion of this form will take you less than 5 minutes.
  - 3) The contents of this questionnaire will be kept strictly confidential.
- 

#### Voluntary Nature of the Study

Participation in this research is entirely voluntary. Even if you decide to participate now, you may change your mind and stop at any time. There is no foreseeable risk of harm or discomfort in answering this questionnaire. This is an anonymous questionnaire; as such, it is not able to trace response back to any individual participant. All information collected is treated as strictly confidential and will be used for the purpose of this study only.

I have been informed about the purpose of the study and I give my consent to participate in this survey.

YES ( )

NO ( )

Note: *If yes, you may proceed to next page or if no, you may return the questionnaire to researchers and thanks for your time and cooperation.*

## Section A: Demographic Profile

*In this section, we would like you to fill in some of your personal details. Please tick your answer and your answers will be kept strictly confidential.*

QA 1: Gender:

- Female
- Male

QA 2: Age:

- 22 to 24 years
- 25 to 29 years
- 30 to 38 years

QA 3: Occupation:

- Government sector
- Private sector
- Self-employment
- Student

QA 4: Monthly income:

- Less than RM2000
- RM2001 – RM4000
- RM4001 – RM6000
- RM6001 and above

QA 5: Which state are you currently living in?

- Wilayah Persekutuan Kuala Lumpur
- Johor
- Selangor
- Penang
- Perak



## Section B: Types of Consumption Values

*This section is seeking your opinion regarding the importance of different types of consumption values. Respondents are asked to indicate the extent to which they agreed or disagreed with each statement using 5-Point Likert scale [(1) = strongly disagree; (2) = disagree; (3) = neutral; (4) = agree and (5) = strongly agree] response framework. Please circle one number per line to indicate the extent to which you agree or disagree with the following statements.*

No	Questions	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
<b>B1(a)</b>	<b>Functional Value (Price)</b>					
FVP1	Green car is reasonably priced.	1	2	3	4	5
FVP2	Green car offers value for money.	1	2	3	4	5
FVP3	Green car is a good product for the price.	1	2	3	4	5
FVP4	Green car would be economical.	1	2	3	4	5

No	Questions	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
<b>B1(b)</b>	<b>Functional Value (Quality)</b>					
FVQ1	Green car has consistent quality.	1	2	3	4	5
FVQ2	Green car is well made.	1	2	3	4	5
FVQ3	Green car has an acceptable standard of quality.	1	2	3	4	5
FVQ4	Green car has <i>poor</i> workmanship. *	1	2	3	4	5
FVQ5	Green car would <i>not</i> last a long time. *	1	2	3	4	5
FVQ6	Green car would perform consistently.	1	2	3	4	5

No	Questions	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
<b>B2</b>	<b>Social Value</b>					
SV1	If I buy green car, most people who are important to me will <i>disapprove</i> it. *	1	2	3	4	5
SV2	If I buy green car, most people who are important to me will appreciate it.	1	2	3	4	5

SV3	If I buy green car, most people who are important to me will find it desirable.	1	2	3	4	5
SV4	If I buy green car, most people who are important to me will <i>not</i> support it. *	1	2	3	4	5
SV5	I learned so much about green car from my friends and family.	1	2	3	4	5
SV6	Most members of my family and friends will expect me to buy green car.	1	2	3	4	5
SV7	I will follow the advice of my family that I should buy green car.	1	2	3	4	5
SV8	My friends recommend that I should buy green car.	1	2	3	4	5
SV9	Buying green car would have a <i>negative</i> effect on my self-image. *	1	2	3	4	5
SV10	Buying green car would say something positive about who I am.	1	2	3	4	5
SV11	Buying green car would say something positive about what I stand for.	1	2	3	4	5
SV12	I feel proud of being a green person.	1	2	3	4	5

No	Questions	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
<b>B3</b>	<b>Emotional Value</b>					
EMV1	Buying green car will give me feelings of well-being.	1	2	3	4	5
EMV2	Buying green car exciting. Buying green car will make me elated.	1	2	3	4	5
EMV3	Buying green car will make me feel happy.	1	2	3	4	5
EMV4	Buying green car will give me feelings of making a good personal contribution to something better.	1	2	3	4	5
EMV5	Buying green car will give me feelings of doing the morally right thing.	1	2	3	4	5
EMV6	Buying green car will give me feelings of being a better person.	1	2	3	4	5
EMV7	I emotionally support green car.	1	2	3	4	5

No	Questions	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
<b>B4 Epistemic Value</b>						
EPV1	Before buying green car, I would obtain substantial information about the different makes and models of green car.	1	2	3	4	5
EPV2	I would acquire a great deal of information about the different makes and models before buying green car.	1	2	3	4	5
EPV3	I am willing to seek out novel information about green car.	1	2	3	4	5
EPV4	I like to search for the new and different knowledge about green car.	1	2	3	4	5
EPV5	I know that green car can reduce the pollution level.	1	2	3	4	5
EPV6	I know that green car can reduce environmental harm.	1	2	3	4	5

No	Questions	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
<b>B5 Conditional Value</b>						
CV1	I would buy green car instead of conventional car under worsening environmental conditions.	1	2	3	4	5
CV2	I would buy green car instead of conventional car when there is a subsidy for green car.	1	2	3	4	5
CV3	I would buy green car instead of conventional car when there are discount rates for green car or promotional activity.	1	2	3	4	5
CV4	I would buy green car instead of conventional car when green car is available.	1	2	3	4	5

**Section C: Customer purchase intention towards green car**

*This section is seeking your opinion regarding the impacts of customer purchase intention towards green car with the types of consumption values given. Respondents are asked to indicate the extent to which they agreed or disagreed with each statement using 5-Point Likert scale [(1) = strongly disagree; (2) = disagree; (3) = neutral; (4) = agree and (5) = strongly agree] response framework. Please circle one number per line to indicate the extent to which you agree or disagree with the following statements.*

No	Questions	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
<b>C1</b>	<b>Purchase intention</b>					
PI1	I intend to buy green car because it is less polluting.	1	2	3	4	5
PI2	I intend to switch to other brand for ecological reasons.	1	2	3	4	5
PI3	When I want to buy green car, I look at the car specifications to see if they are environmentally damaging.	1	2	3	4	5
PI4	I prefer green car (environmentally friendly) over non-green car when their product qualities are similar.	1	2	3	4	5
PI5	I choose to buy car that is environmentally friendly.	1	2	3	4	5
PI6	I buy green car (environmentally friendly vehicle) even if it is more expensive than the non-green car.	1	2	3	4	5

**Thank you for your participation 😊**

**Appendix D**  
*Other relevant materials*

Appendix 1.1 Number of passenger and commercial vehicles from year 2011 to 2015

**MALAYSIA AUTOMOTIVE INFO**  
 » SUMMARY OF SALES & PRODUCTION DATA

Home > Malaysia Automotive Info > Summary of Sales & Production Data

Summary of Sales & Production Data

SUMMARY OF NEW PASSENGER & COMMERCIAL VEHICLES REGISTERED IN MALAYSIA FOR THE YEAR 1980 TO JUNE 2016

Year	Passenger Cars	Commercial Vehicles	4x4 Vehicles	Total Vehicles
1980	80,420	16,842	-	97,262
1985	63,857	26,742	4,400	94,999
1990	106,454	51,420	7,987	165,861
1995	224,991	47,235	13,566	285,792
2000	282,103	33,732	27,338	343,173
2005	416,692	97,820	37,804	552,316
2006	366,738	90,471	33,559	490,768
2007	442,885	44,291	-	487,176
2008	497,459	50,656	-	548,115
2009	486,342	50,563	-	536,905
2010	543,594	61,562	-	605,156
2011	535,113	65,010	-	600,123
2012	552,189	75,564	-	627,753
2013	576,657	79,136	-	655,793
2014	588,341	78,124	-	666,465
2015	591,298	75,376	-	666,674
YTD JUNE 2016	244,357	31,102	-	275,459

Appendix 1.2 News about Perodua in Malaysia

**THE STAR ONLINE**

Home > News > Community

Wednesday, 28 August 2013

# Perodua has no plans to follow the trend to build electric or hybrid cars

BY STUART MICHAEL

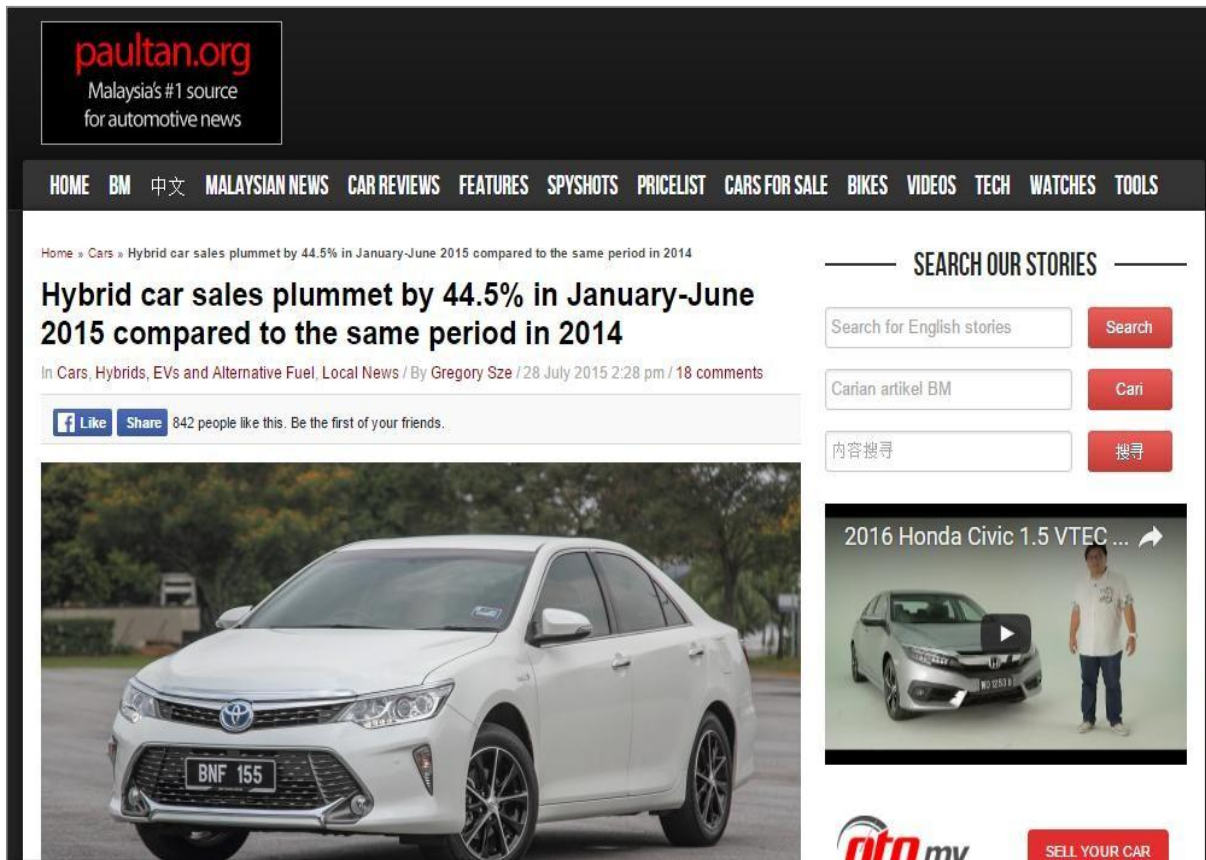
**THE STAR ONLINE**  
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Appendix 1.3 Declining sales of hybrid cars in Malaysia from year 2014 to 2015



Appendix 1.4 Number of hybrid cars sold in Malaysia in year 2014 and 2015

HYBRID CARS SOLD IN MALAYSIA

NO.	MAKE	JAN - JUNE		PAULTAN.ORG		VARIANCE	
		2015	2014	UNIT	%		
1	AUDI	0	90	(90)	-100%		
2	BMW	0	1	(1)	-100%		
3	HONDA	2	4,235	(4,233)	-100%		
4	LEXUS	7	100	(93)	-93%		
5	NISSAN	1,328	1,079	249	23%		
6	TOYOTA	1,996	502	1,494	298%		
	TOTAL	3,333	6,007	(2,674)	-44.5%		

Appendix 3.1 Five states with highest number of cars in Malaysia in year 2011

