Factors Influencing Consumer Purchase Behavior towards Locally Manufactured Vehicles (Proton and Perodua)

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Abstract

This study focuses on investigating the factors influencing Malaysian car buyers’ purchase behaviour through the adoption of Theory of Reasoned Action (TRA) and Theory of Planned Behavior (TPB) to analyse the antecedents that influence Malaysian car buyers’ purchase behaviour. The antecedents highlighted in this study are country-of-origin effects, price-quality association, value consciousness, perceived risk, social influence, and two mediators – attitude towards products and brand reputation. A quantitative survey consisting of 410 respondents from different states in Malaysia was carried out. The findings from the survey showed mixed findings on the effects of the antecedents under study towards Malaysian car buyers’ behavioral intention and actual behavior. Descriptive statistics and Partial Least Squares-Structural Equation Modelling (PLS-SEM) were employed in this study to analyse the data collected. Based on the findings of this study, it was presented that country-of-origin is a critical factor that can significantly affect Malaysian car buyers’ purchase behavior. Furthermore, brand reputation was found to be an effective mediator for the relationships between country-of-origin, perceived risk and social influence towards Malaysian car buyers’ purchase intention, while other antecedents presented mixed findings. Therefore, it is critical for both Proton and Perodua to understand the impact of these factors towards Malaysian car buyers behavioral intention and actual purchase behavior. The outcomes of this study provide the necessary information to Proton and Perodua to better understand the factors that affect Malaysian car buyers’ purchase behavior.
STATEMENT OF DECLARATION

The author hereby declares that this thesis:

- Is the candidate’s own work.
- Contains no material which has been accepted for the award to the candidate of any other degree or diploma at any university, and to the best of the candidate’s knowledge contains no material previously published or written by another person except where due reference is made in the text of the examinable outcome.
- Properly met all conditions to the ethics clearance. This research has been approved by Swinburne University Human Research Ethics Committee (approval number SHR Project 2019/076) in line with the National Statement on Ethical Conduct in Human Research in Australia.

Michelle Kuek Shu Wun
19th March 2020
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CHAPTER 1

INTRODUCTION

1.1 Background

The automotive industry is one of the most essential drivers for economic growth in developing countries. This industry has been continuously expanding with the record of 2.6 new vehicles being sold every second (Koay & Derek 2016; LeBeau 2014). The vehicles sales figure from 1990 to 2016 has almost doubled and is expected to exceed 100 million units by 2020. The automotive sector is an important industry for every country and it has been growing continuously, registering approximately 30 percent of growth over the past decade (1995-2005) (Muneer & García 2017). This sector plays an important role in encouraging technology advancement of other related industries and society. Production and usage of automobiles are major contributors of government revenues around the world (Klink et al. 2014; Muneer & García 2017). Additionally, the automotive sector is one of the biggest job providers in the world, supplying the industry with skilled employees that are capable of augmenting the industrial expansion of the countries (Sultana & Ibrahim 2014). The production of over 66 million vehicles requires the direct involvement of about 9 million people and this accounts for more than 5 percent of the world total manufacturing workforce (Muneer & Garcia 2017).

Located strategically in the heart of Southeast Asia, Malaysia offers vast opportunities for global automotive and component manufacturers to set up manufacturing, distribution and operation centres. Hence, Malaysian car buyers’ purchase behavior towards locally manufactured vehicles refer specifically to Proton and Perodua cars and is the main study focus in this context as per the requirements outlined by the sponsor of this research – Malaysia Automotive, Robotics and IoT Institute (MARii). Such justification is made as there are other foreign automotive brands that manufacture their cars in Malaysia. International automotive firms such as Toyota, Honda, Nissan, BMW and others,
together with component manufacturers such as Delphi, Continental, Denso, etc. have already established manufacturing plants or distribution centres in Malaysia as part of their global operations (MIDA 2017). Malaysian automotive industry only plays the role of car assemblers before the government establish Proton and Perodua. As an infant industry, Malaysian government implemented protective measures such as higher tariffs for foreign brands, licencing and local content policy. Such measures are introduced to protect the local manufacturers and retailers from competition in the domestic automotive market (Islam et al. 2016). The national automotive industry represents a matter of national pride to the Malaysians. The sector is among the top 20 globally and is the largest passenger cars market in ASEAN (Brandt & Lim 2013).

In Malaysia, the automotive sector is one of the most important sectors in the country as it has the highest density of vehicles (361 vehicles per 1,000 people) among all ASEAN nations (Wad 2009). The Heavy Industry Policy in the early 1980s marked an indicative transformation of industrialization strategy in Malaysia towards building a national automotive industry which eventually led to the establishment of Perusahaan Automobil Nasional Berhad (PROTON), Malaysia’s first automotive project in 1983. Proton is the first government initiative to increase local content as well as to rationalize the industry to achieve economies of scale (Wad & Govindaraju 2011) which caused significant changes in the industry where the industry shifted from assembling activities to manufacturing of vehicle and automotive parts (Brandt & Lim 2013). Since then, a number of other automotive related projects such as Perusahaan Automobil Kedua (PERODUA), HICOM MTB and INOKOM were launched to further develop the national automotive industry (Mashahadi & Mohayidin 2015). Due to the implementation of the protective measures, the local cars led the national automotive market for several consecutive years. However, despite the support given by the government, sales of imported cars have shown an increasing trend since early 2000s (Mashahadi & Mohayidin 2015).
It is the ultimate goal of Malaysian government that Proton and Perodua would possess the capability to stand on their own feet and compete with other brands in the automotive market. Over the years, Proton and Perodua have been striving to shape their own niche which can be evolved into global brands as it is essential for car buyers to accept their products before they can penetrate into international automotive markets (Cheng, Isa & Hoe 2014). In ASEAN, Malaysia is the third largest automobile market which consists of three vehicle manufacturers, eight vehicle assemblers, nine motor assemblers as well as more than eight hundred component manufacturers. Proton and Perodua are dominating the automotive sector by commanding 26 percent and 30 percent respectively of the local market (Wong & Mo 2013). However, their dominance in the local market is expected to decline further in the near future due to industry liberalization (Brandt & Lim 2013). Competitive pressures and increasing complexities have led automotive companies to look for an edge wherever they can find it. Improved car buyers insight and understanding the purchase behavior of car buyers in Malaysia can provide that valuable advantage (Lee & Govindan 2014).
1.2 Problem Statement

The automotive industry of Malaysia is one of the most important contributors to the nation’s economy (Terpstra Tong, H. Terpstra & Lim 2013; Wad 2009). There is significant growth in vehicle sales in Malaysia’s automotive industry from 2011 – 2015 (Malaysian Automotive Association 2015). A total of 591,275 units of vehicles were sold nationwide in 2015, setting an all-time high sales record in the local automotive industry; yet the total industry sales figure began its decline in 2016 and 2017, achieving sales of only 514,594 units and 514,675 units respectively (Malaysian Automotive Association 2016, 2017). This phenomenon caused the vehicles sales of the local automobile manufacturers – Proton and Perodua to decline continuously over the last couple of years, which have resulted in a gradual decrease of their market share in the industry (Lim 2018; Tan 2015). Given this decline, it is important to examine the factors that influence Malaysian car buyers’ purchase behaviours.

Theory of Reasoned Action (TRA) and Theory of Planned Behaviour (TPB) are often adopted in studies related to consumer behaviour (Ajzen & Fishbein 1980; Fishbein & Ajzen 2011; Madden, Ellen & Ajzen 1992; Sheppard, Hartwick & Warshaw 1988; Wittenbraker, Gibbs & Kahle 1983). Hence, these two theories will be adopted in this study to examine and study Malaysian car buyers’ purchase behaviour. TRA is a theory model proposed by Fishbien and Ajzen (1975) which is often applied to predict human behaviours while theory of planned behaviour (TPB) is an extension added to TRA where perceived behavioural control is included to better facilitate the studies of human behaviour (Ajzen 1991). Therefore, the main purpose of this study is to investigate the purchase behaviour of car buyers in Malaysia, with a specific focus on locally manufactured vehicles – Proton and Perodua through the adoption of TRA and TPB.
In the TRA model, perceived behavioural beliefs and perceived normative beliefs are studied to investigate their effects on human attitude towards behaviour and subjective norms. Therefore, for this research, three perceived behavioural beliefs antecedents [country-of-origin effects (COO), price-quality association (PQA) and value consciousness (VC)] and two perceived normative beliefs [perceived risk (PR) and social influence (SI)] will be analysed. These antecedents will be further mediated by two mediators (attitudes towards products and brand reputation). These antecedents have always been car buyers’ main concern when they intend to make any purchase (Bilkey & Nes 1982; Burnkrant & Cousineau 1975; Erickson & Johansson 1985; Monroe & Petroshius 1981; Taylor 1974). Hence, this research will focus on studying how these antecedents affect Malaysian car buyers’ purchase intention and behavior.

Although TRA and TPB are commonly applied in consumer behaviour studies, most of them focus on making comparisons between the two models, or comparing them to other behavioural models, as well as investigating seat belt attitudes, students’ milk drinking behaviours, condom usage, and health promotion program (Albarracin et al. 2001; Eldredge et al. 2016; Leone, Perugini & Ercolani 1999; Madden, Ellen & Ajzen 1992; Montano & Kasprzyk 2015). Additionally, previous studies on value consciousness focus on how it affects store brand preferences, store image, coupon proneness, and coupon value (Delgado-Ballester, Hernandez-Espallardo & Rodriguez-Orejuela 2014; Kara et al. 2009; Lichtenstein, Netemeyer & Burton 1990; Pillai & Kumar 2012). Furthermore, studies on social influence in automotive context is scarce and rather limited even though it has been adopted as an antecedent in many studies (Dholakia, Bagozzi & Páro 2004; Schultz, Khazian & Zaleski 2008; Trivedi & Raval 2016). Moreover, brand reputation is often studied as one of the main antecedents in previous research (Delgado-Ballester & Luis Munuera-Alemán 2001; Selnes 1993; Veloutsou & Moutinho 2009) while it is being adopted as a mediator in this study. These research gaps will be examined in this study to determine their influence on Malaysian car buyers’ purchase behaviour.
1.3 Research Aim and Objectives

1.3.1 Research Aim

The aim of conducting this research is to study the factors influencing Malaysian car buyers’ purchase behavior towards locally manufactured vehicles, specifically Proton and Perodua vehicles and the development of Malaysian automotive industry.

1.3.2 Research Objectives

Therefore, this study is specifically carried out with the following objectives:

i. To investigate the impact of country-of-origin effects towards consumers’ purchase behavior.

ii. To study the relationship between price-quality association and consumers’ purchase behavior.

iii. To find out the influence of value consciousness towards consumers’ purchase behavior.

iv. To determine the effects of perceived risk towards consumers’ purchase behavior.

v. To examine the effects of social influence towards consumers’ purchase behavior.

1.4 Research Questions

Hence, based on the research objectives presented above, the research question that has been identified for this study is how can the proposed antecedents and mediators influence Malaysian car buyers’ purchase behavior towards Proton and Perodua?
1.5 **Significance of Research**

Studies on consumer purchase behaviour have been widely conducted by researchers from various backgrounds and fields (Ajzen 1991; 1983; Leone, Perugini & Ercolani 1999; Madden, Ellen & Ajzen 1992; Peter, Olson & Grunert 1999; Wittenbraker, Gibbs & Kahle 1983). However, only a limited number of these consumer behaviour studies focused on the automotive industry. Most of these studies concentrated on food and alcohol consumption, social behaviour, marijuana usage, etc. which only address consumer purchase behaviour under certain influence or condition (Armitage & Conner 1999; Bearden & Woodside 1978; Rutter & Bunce 1989; Schlegel, Crawford & Sanborn 1977; Sheppard, Hartwick & Warshaw 1988). The contribution of this research is that it provides new insights to the Malaysian automotive industry through its findings as well as to theory which will be further highlighted below.

The purpose of conducting this research is to investigate the factors which influence Malaysian car buyers’ purchase behaviour towards locally manufactured vehicles, specifically Proton and Perodua through the adoption of TRA and TPB. These two models have been widely used in many studies involving consumer behaviour but are rather limited in automotive-related studies. In this research context, TRA and TPB are used to analyse the effects of the proposed antecedents towards Malaysian car buyers’ actual purchase behaviour. Based on the TRA model, consumers’ beliefs, intentions and attitudes are connected to form a causal chain which would direct consumers towards their behaviour (Rutter & Bunce 1989). TPB serves as an extension to TRA which predicts consumers’ behaviour through perceived behavioural control and is especially relevant when used to determine consumers’ behavioural intention when they have past experience or knowledge on the behaviour in question (Madden, Ellen & Ajzen 1992; Parker et al. 1992).
In this research context, the application of TRA and TPB in relation to consumer purchase behaviour towards automobiles will be one of the few studies that utilises both TRA and TPB in an automotive research background. Moreover, the antecedents of this research such as value consciousness and social influence have never been applied in studies that investigates the relationship between car buyers’ purchase behaviour and car purchase, especially in the context of Proton and Perodua. Additionally, to the researcher’s best understanding, brand reputation has never been utilised as a mediator in any automotive-related studies, this should produce interesting findings through the mediation of antecedents in this research. Hence, these identified research gaps will not only be examined for their influence on Malaysian car buyers’ purchase behaviour, but will also provide new theoretical contributions to consumer behaviour studies in automotive-related context.

In terms of contribution to industry, car buyers today are provided with more varieties between local and foreign brands amidst rapid globalisation, thus causing local brands like Proton and Perodua to face tougher and stiffer competition in the local market. This in turn complicates the study of consumer consumption behaviour (Batra et al. 2000; Ho et al. 2012). Car buyers in Malaysia tend to prefer global brands over local brands as they are able to associate wealth, status and prestige with foreign brands which would further enhance their social standings in the society (Batra et al. 2000). Additionally, quality perception of foreign brands are also perceived more positively as compared to local brands thus influencing car buyers’ biasness towards foreign products (Ho et al. 2012). Hence, through the findings of this research, Proton and Perodua would be able to better understand Malaysian car buyers’ needs and wants. Such insights would allow both companies to devise more effective marketing campaigns that appeal to car buyers in Malaysia.
CHAPTER 2
LITERATURE REVIEW

2.1 Chapter Introduction

Chapter 2 of this thesis explains theory of reasoned action (TRA) and theory of planned behavior (TPB), and presents a detailed review of the existing literature on consumer purchase behaviour in the automotive industry.

2.2 Theory of Reasoned Action

Theory of reasoned action (TRA) is often adopted to study human behaviour, analyze the attitudes and subjective norms of consumers which would form their behavioural intention that lead to actual action/behaviour (Madden, Ellen & Ajzen 1992). In this study, TRA is used to predict Malaysian car buyers’ attitude towards products (cars) and their intention to use the products indicated in order to determine their purchase or non-purchase action. Fishbien and Ajzen (1975) proposed and developed TRA to predict and understand behavioural intentions and/or behaviour (Fishbien & Ajzen 1975; Lee et al. 2018). In this model, beliefs, attitudes, intentions and behaviour are connected to initiate a causal chain (Rutter & Bunce 1989). Researchers have noted that this model is capable of predicting behavioural intentions and behaviour effectively and is thus an effective tool to identify the methods in formulating strategies for changing behaviour (Sheppard, Hartwick & Warshaw 1988). Intention to perform a certain behaviour would decide the performance or non-performance of the specified behaviour (Fredricks & Dossett 1983).
TRA has been widely studied and had considerable success in predicting behaviour based on beliefs and attitudes in various research areas (Ajzen & Fishbein 1980), which include studies on consumer behaviour (Rutter & Bunce 1989; Sampson & Harris 1970; Tuck & Herriot 1976), political voting (Fishbein, Ajzen & Hinkle 1980; Fishbein, Thomas & Jaccard 1976), drug and alcohol use (Budd & Spencer 1986; Fishbein, Ajzen & McArdle 1980; Grube, Morgan & McGree 1986), road safety (Budd & Spencer 1986; Wittenbraker, Gibbs & Kahle 1983) and health behaviours (Hill, Gardner & Rassaby 1985; Kristiansen & Eiser 1986). Furthermore, according to Wittenbraker, Gibbs and Kahle (1983), TRA presumes that most actions are under volitional control and an individual’s intention to perform the behaviour in question is the direct determinant of an individual’s action. Behavioural intentions are therefore determined by a combination of two factors: the individual’s attitude towards the behaviour in question as well as the individual’s subjective norm with regards to the behaviour (Ouellette & Wood 1998; Wittenbraker, Gibbs & Kahle 1983).

TRA’s main purpose is to provide a comprehensive theoretical account of relationship between attitudes, intentions, beliefs and behaviours, as well as to offer an empirical and conceptual framework to measure these antecedents (Rutter & Bunce 1989). Volitional behaviour is supported by two sets of attitudes: (1) consumers’ ‘private’ attitudes which directs them towards the performance of the behaviour in question, and (2) consumers’ subjective norm, which entails their perceptions on how people that are close or important to them believe or perceive they ought to behave (Conner & Armitage 1998; Rutter & Bunce 1989). Additionally, in order to form the TRA model informational base, each set of attitudes is supported by a corresponding set of beliefs. Beliefs form attitudes and attitudes initiate intentions and behaviour (Conner & Sparks 2005; Rutter & Bunce 1989).
The conception of intention is essential to the TRA model. Intention acts as the principal predictor of behaviour: the more an individual intends to engage in a behaviour, the more likely the performance is to happen (Armitage & Conner 1999). TRA suggests that behavioural intentions which are the direct antecedents to behaviour, are components of a set of significant beliefs or data that will prompt a particular result through the performance of specific behaviour (Madden, Ellen & Ajzen 1992). The degree to which an individual can exercise a large degree of control over his or her behaviour determines the success of TRA in predicting and explaining behaviour (Glanz, Rimer & Viswanath 2015). According to Fishbien and Ajzen (1975), the beliefs antecedents to behavioural intentions are divided into two theoretically distinct groups: behavioural and normative. Behavioural antecedents are proposed to be the fundamental impact that affects an individual towards performing a certain behaviour while the normative antecedents affect an individual’s subjective norms on the performance of behaviour (Madden, Ellen & Ajzen 1992).

While behavioural beliefs are regulated by the individual’s evaluation of the consequences which would in turn determine an individual’s attitude towards his or her behaviour, social expectations would determine the individual’s subjective norms, which are facilitated by the individual’s motivation to conform to those perceived expectations (Parker et al. 1992). Only when attitude influences the intention to perform the behaviour will the prediction of behaviour from knowledge of attitude towards the specific behaviour is accurate (Fredricks & Dossett 1983). The focus of behavioural intention is not on the object of the behaviour, but on the behaviour itself and is a function of beliefs (Fredricks & Dossett 1983). Furthermore, according to Wittenbraker, Gibbs and Kahle (1983), it is found that attitudes and subjective norms of an individual predict intentions, which lead to the prediction of behaviour.
2.3 Theory of Planned Behavior

Theory of Planned Behaviour (TPB) is one of the most influential conceptual models in human behavior-related studies (Ajzen 1988, 1991). It extended the TRA model by adding perceived behavioural control as a new antecedent to behavioural intentions and studies beyond the volitional control boundary condition specified in the theory of reasoned action (TRA) (Ajzen 2002; Ajzen & Fishbein 2005). Behavioural beliefs, normative beliefs and control beliefs are three considerations that guide human behaviour (Ajzen 2002). Behavioural beliefs create favourable or unfavourable attitude towards a specified behaviour, normative beliefs lead to subjective norms or perceived social pressure while perceived behavioural control is stimulated by control beliefs, which shows the perceived ease or difficulty of the performance of a specified behaviour (Ajzen & Fishbein 2005; Coombs 2014).
TPB model shows that an individual’s attitude towards the behaviour, subjective norms as well as his or her perception of behavioural control will eventually result in the generation of a behavioural intention (Ajzen 2002; Montano & Kasprzyk 2015; O'keefe 2002). Following this, the individual is likely to carry out the intention at the right timing supplemented by an adequate level of control over the behaviour. However, since behaviours might cause complications in execution which could lead to limited volitional control, it is essential to take into consideration perceived behavioural control in the studies of consumer behaviour. Moreover, perceived behavioural control can be viewed as a representation of actual control in an individual’s judgement of the level of complications of the behaviour, subsequently also contributing to the prediction of the specified behaviour (Ajzen 2002; Armitage & Conner 1999).

Perceived behavioural control (control beliefs) is used to represent the level to which a person perceives that the performance or non-performance of behaviour is under his or her volitional control (Madden, Ellen & Ajzen 1992; Parker et al. 1992). Control beliefs prompt perceived behavioural control, which indicates the perceived ease or difficulty of performing the behaviour in question (Ajzen 2002; Coombs 2014; Fishbein & Ajzen 2011). Moreover, control beliefs determine perceived control concerning the presence or absence of barriers and facilitators to behavioural performance under the mediation of the perceived effect of each control factor in facilitating the behaviour in question (Montano & Kasprzyk 2015). All else being equal, high level of perceived behavioural control will increase and strengthen an individual’s intention to perform the behaviour (Ajzen 2002; Montano & Kasprzyk 2015; O'keefe 2002).
Perceived behavioural control has both direct and indirect effect on human behaviour through intentions (Madden, Ellen & Ajzen 1992). The direct effect of perceived behavioural control is significant when the behaviour has certain non-volitional elements and when the individual’s perceptions of control over behaviour is accurate (Armitage & Conner 2001; Madden, Ellen & Ajzen 1992). On the other hand, the indirect effect of perceived behavioural control is based on the assumption of it having motivational implications towards behavioural intentions. For instance, when consumers believe that they have little control over the performance of behaviour due to lack of required resources, then their intentions to perform the behaviour in question might be low even if they have favourable attitudes or subjective norms towards the behaviour (Fishbein & Ajzen 2011; Madden, Ellen & Ajzen 1992). The structural link from perceived behavioural control to intentions reflects the motivational influence of control on behaviour through intentions (Taylor & Todd 1995).

Perceived behavioural control would be very significant in determining an individual’s behavioural intention when he or she possess previous experience or knowledge on the behaviour (Ajzen 1988). This new extension is developed to accommodate specific behaviour more accurately (Parker et al. 1992). Furthermore, application of TPB in the studies of behaviour with non-volitional elements significantly increases the prediction power of the TRA model (Parker et al. 1992). Based on the TPB theory, intention and behaviour are directly influenced by perceived behavioural control whereby greater perceived behavioural control would result in more positive behavioural intention which then leads to higher possibility of performance of behaviour (Armitage & Conner 1999; Leone, Perugini & Ercolani 1999).

Beliefs can significantly influence buyers’ attitude and behavior in a purchase situation people’s beliefs are very difficult to change and would normally remain the same under most circumstances (Anderson, Lepper & Ross 1980; Rosenstock 1990). Therefore, understanding on how beliefs are formed and how they affect buyers’ attitude towards a product and their subsequent behavior is essential in determining their purchase actions. As such, behavioral beliefs serve as a very critical
component in linking buyers’ behavior to their expected actions and outcomes (Ajzen 2006a). As per the TPB, behavioral beliefs refer to the subjective probability in which the behavior in question would generate a specific result among the buyers. It is further assumed that these beliefs, when integrated with the subjective values of the predicted outcomes would result in the formation of a particular buyers’ attitude towards the products in question (Ajzen 2005, 2006a). Hence, in this study, behavioral beliefs (country-of-origin effects, price-quality association and value consciousness) are critical component in forming Malaysian car buyers’ attitude towards Proton and Perodua cars which ultimately leads to their final purchase behavior.

On the other hand, normative beliefs refer to the beliefs of a particular individual that are commonly and widely accepted by people from specific groups (Ajzen 2006b; Fang et al. 2017). Such value-belief relationship presented that norms and beliefs are closed linked through a continuous causality process where it was clearly indicated that normative beliefs possess the capability to significantly influence buyers’ attitudes, subjective norms as well as their behavioral intentions (Ajzen & Fishbein 1980; Fang et al. 2017). Thus, in this study, the normative beliefs (perceived risk and social influence) proposed are assumed to possess significant contribution towards the generation of buyers’ attitude towards the product in study – Proton and Perodua cars, which in turn leads to their purchase (or non-purchase) behavior. Under normal circumstances, positive buyers’ attitude, favourable subjective norm and strong perceived behavioral control would ultimately boost the buyers’ intention to purchase. When all these conditions are fulfilled, the buyers are expected to perform their buying action when opportunity arises (Ajzen 2006b). Both behavioral beliefs (country-of-origin effects, price-quality association and value consciousness) and normative beliefs (perceived risk and social influence) will be discussed in details in the sections below.
2.4 Country-of-Origin Effects

Country-of-origin has always been an essential factor that consumers take into consideration while making purchases, especially in their purchase of automobiles, electrical appliances, smartphones, etc. (Ahmed, d’Astous & Eljabri 2002; Ahmed et al. 2004; Darling & Kraft 1977; Ulgado, Wen & Lee 2013). Country-of-origin serves as a basic product information indicator to consumers in situations where they have limited or no knowledge of the specific product. In this research context, Malaysia is the country-of-origin for both Proton and Perodua, thus uncertainty in regards to quality and price of Malaysian-made vehicles and whether Malaysia (home country) is perceived positively among car buyers are important determinant that has to be studied and discussed in detail in this research as this would directly influence buyers’ attitude towards the product(s) under study – Proton and Perodua cars (Md. Noor & Lingam 2014; Terpstra Tong, H. Terpstra & Lim 2013; Wad 2009).

Country-of-origin effects have been widely covered in many studies. According to Johansson, Douglas and Nonaka (1985); Ozsomer and Cavusgil (1991), country-of-origin is defined as the place where the company headquarters of the brand or the product is situated. Typically, country-of-origin refers to the home country for a company, brand or product. It is also considered an extrinsic cue since it can be controlled even without altering the physical product (Bilkey & Nes 1982). A product’s ‘made in’ label, often a significant information cue on the product’s origin is seen as a tool that conveys its intrinsic (design, fit, taste) and extrinsic (brand name, warranty, price) information to consumers or potential buyers, which provides them with the basic information needed to evaluate the product (Olson 1972). The effects of different cues on purchasing behaviour, perceived risk, perceived quality as well as the consumers’ interpretation of these cues have prompted diverse marketing research to be conducted in this area (Bilkey & Nes 1982).
According to Ulgado, Wen and Lee (2013), a country’s representative products, political and economic background, national characteristics, traditions as well as history will produce a country-of-origin image to consumers. Moreover, it was shown in previous and current studies that country-of-origin associated with consumer products and services remains a very critical factor in modelling consumers’ perception and purchase behaviour (Al-Sulaiti & Baker 1998; De Wet, Pothas & De Wet 2001; Peterson & Jolibert 1995; Sharma 2011; Ulgado, Wen & Lee 2013; Verlegh & Steenkamp 1999). When a product’s country-of-origin or brand is revealed to consumers, their attitudes towards the specified product or brand can be significantly changed, both favourably and unfavourably (Gaedeke 1973). For instance, a country’s reputation in technological advancements, reliability, value and design will eventually become signals or information cues for consumers to access different product attributes (quality, security, reliability) and these generalised beliefs might reach across wide ranges of products from a particular country (Bannister & Saunders 1978).

Askegaard and Ger (1996); Papadopoulos and Heslop (2014) claimed that country-of-origin of a product possess huge effects towards the acceptance as well as the success of the specified product in the market. Generally, every country project its own image in the mind of consumers which serves as the preliminary information indicator to consumers (Balabanis & Diamantopoulos 2008; Bilkey & Nes 1982). Therefore, in situations where a product or brand is affiliated with the wrong country of origin image, it is then highly possible that consumers might have the wrong brand associations which in turn affect their perception towards the reputation of the brand in question (Balabanis & Diamantopoulos 2008). Based on previous country of origin related studies, a country and its products are often associated based on a halo effect, which illustrates that in general, consumers take into account country image when they evaluate a product. It can be said then that if consumers’ perceived beliefs of the country are positive, then they would also form positive perception towards the brands and products that are associated with the country in question (Han 1989; White 2012).
Additionally, a product’s manufacturing location and consumers’ perceived country of manufacture are very essential cues for consumers in determining the product quality (Bilkey & Nes 1982; Dawar & Parker 1994; Lee & Schaninger 1996; Steenkamp 1990; Ulgado, Wen & Lee 2013). Consumers’ perception of products’ quality is often associated with the assigned generalised image of their country-of-origin and such information would lead to substantial positive or negative changes to consumers’ assessments of product quality especially under situations where they have no past experience or are unfamiliar with the country of production (Gaedeke 1973). Over the years, various studies have presented that consumers’ evaluations of the product and their purchase intentions are closely affiliated to the product’s origin when they make their purchase decision (Balabanis & Diamantopoulos 2008).

In addition to the cognitive aspects of a product’s country of origin, other studies also focused on the affective effects of country of origin on consumer perception, in particular its symbolic or emotional influence on consumers’ product evaluation (Hong & Wyer 1989, 1990). For instance, country of origin may associate a product with its national identity, authenticity, pride, patriotism, status as well as other aspects of self-expression or image (Botschen & Hemetsberger 1998; Ulgado, Wen & Lee 2013; Verlegh & Steenkamp 1999). As such, consumers may develop strong emotional sense towards particular brands or products, which would eventually give the ‘made in’ country an ‘expressive’ and ‘positive’ image (Fournier 1998). These positive attributes would in turn become essential elements in determining consumer preferences as well as building strong brand equity (Lefkoff-Hagius & Mason 1993; Verlegh & Steenkamp 1999).
Lastly, consumers’ perceptions related to products of a country is very essential to the formation of international marketing strategies formulation. As consumers often relate the ‘made in’ image of a product to the reputation, stereotype and picture of its country-of-origin, such created image has significant influence on consumer behaviour as it serves as the country’s representative in terms of history and traditions, national characteristics, economic and political background as well as its products’ quality (Han 1989; Hugstad & Durr 2015; Nagashima 1970; Roth & Romeo 1992). For instance, Nagashima (1970) showed how a country’s national image can vary across different cultures and backgrounds. He found that products with the ‘made in England’ image are found to be more prominent among the Japanese consumers as compared to products that are made in the United States. Hence, it is clear that country of origin is commonly used in determining consumers’ perceptions and purchase intentions towards a product (White 2012).

2.5 Price-Quality Association

Price and quality play critical role in affecting car buyers’ behaviour and purchase action. Thus, price-quality relationship is identified as a main study area in this research. Consumers tend to expect product quality that is proportionate to the price paid. In Malaysia, cars are considered highly-priced product as cars are subjected to different types of taxes and duties, therefore, Malaysian car buyers tend to be very careful in weighing their options when making their purchase decisions. In this respect, Proton and Perodua’s vehicles are categorised as lower-priced products with reasonable quality, and can be afforded by most car buyers in Malaysia. However, both brands’ market share and sales have been declining for the last few years (Terpstra Tong, H. Terpstra & Lim 2013). This study therefore addresses how Malaysian car buyers perceive Proton and Perodua in terms of their products’ quality, performance and value in relation to price.
Price refers to the amount of money that must be sacrificed in order to acquire a product or service (Lichtenstein, Ridgway & Netemeyer 1993). Pricing possesses significant influence on the psychological reactions of consumers which will affect their purchase intentions, thus it is often adopted as a signal to stimulate consumers’ attitude towards products prior to their purchase action (Kowang et al. 2018). On the other hand, quality refers to a product or services’ superiority or fineness (Zeithaml 1988). According to Lichtenstein, Ridgway and Netemeyer (1993), the quality level of a product is related to the price-quality construct (price cues). Such price cues have an impact on consumers’ attitude (Zgolli 1999), and in this research context – attitude of Malaysian car buyers’ behavior in terms of their behaviour and purchase decisions. Moreover, individuals normally form their attitudes through the observation of their past behaviours as well as by inferring attitudes or dispositions that are consistent with their actions (Bern 1972).

Price-quality relationships can perhaps be understood within attribution theory, which explains how individuals make causal explanations, in terms of how they answer questions beginning with ‘why’ (Kelley 1973; Mizerski, Golden & Kernan 1979). This theory aims to highlight the information individuals use in forming causal inferences and how this information is used. Attribution theory is divided into three main focus: person-perception, self-perception and object-perception. Attribution theory postulates how consumers explain the basis of events (Sawyer & Dickson 1984; Zgolli 1999). These explanations are introduced as attributions and would result in direct attitude change rather than behavioural change (Zgolli 1999). According to Garretson, Fisher and Burton (2002); Sawyer and Dickson (1984), such attributions are usually tested in product buying processes, where they were used in manipulating consumers’ beliefs and perceptions. Hence, consumers’ perceptions towards the price-quality relationship will influence their attitude towards consumer behaviour (Garretson, Fisher & Burton 2002; Sawyer & Dickson 1984; Zgolli 1999).
In previous studies, researchers pointed out that the simplest way is to view price as a constraint, where price determines the availability of spending on goods and services. This classic model suggests how consumers can maximise their available budget for different goods and services (Erickson & Johansson 1985; Kotler 1972). However, in recent years, studies have focused on and supported consumers’ perception of price as a product quality indicator (Erickson & Johansson 1985; Lichtenstein, Bloch & Black 1988; Lichtenstein, Ridgway & Netemeyer 1993; Monroe 1973; Tellis & Gaeth 1990; Zeithaml 1988). Additionally, studies have proven that price conveys product quality information to consumers (Olson 1976; Wheatley & Chiu 1977). In the price-quality relationship, price beliefs would affect consumers’ perceptions towards quality attribute, and consumers’ views towards products of different attributes would lead to biasness in perceived prices (Erickson & Johansson 1985; Teas & Agarwal 2000).

Figure 2.1 below shows that price and quality influence each other positively. Based on their research, Erickson and Johansson (1985) showed that price has a positive influence on quality perceptions, and price beliefs are also significantly affected by quality perceptions, which causes the price perception to move upwards. They concluded that price-quality relationship operates in a reciprocal manner. For instance, it is shown that higher-priced vehicles are believed to have higher quality, vice versa. Direct control of price as well as comprehensive information on price data is normally involved in the studies of price-quality relationships (Erickson & Johansson 1985). As a result of this, the relationship between price and quality moves in a single direction, which is from price to quality. It is therefore concluded that price is a good antecedent for perceived quality in price-quality relationship (Erickson & Johansson 1985; Lichtenstein, Ridgway & Netemeyer 1993).
Generally, product quality has always been regarded as the tangible indicator of a product’s design, durability and labour, in other words, it is the mirror image of price (Curry & Riesz 1988). It was shown that the psychological impact of quality would affect consumers initial purchase intentions as well as brand loyalty towards the specified brand or product (Jacoby 1985). Furthermore, other similar studies have also proven that there is a positive price-quality relationship effect which is especially dominant when price is the only factor used when conducting the experiments. However, researchers also noted that price is still the dominant cue even when other cues are present (Wheatley & Chiu 1977). McConnell (1968) proved in his research the positive relationship between price and quality. The findings of these studies gave further supporting evidence to previous research, where it is concluded that price, without the presence of other cues, is indeed a very effective variable commonly used by consumers in determining a product’s quality. It is clear that in the case where product price is
the only data provided, a product’s perceived quality would vary directly with its price (Stafford & Enis 1969).

Price is one of the most essential cue in the marketplace as price data is one of the most significant presence in all purchase situations (Lichtenstein, Ridgway & Netemeyer 1993). In fact, higher priced products would influence purchase possibilities, in the context where price is perceived in this positive role (Lichtenstein, Bloch & Black 1988; Lichtenstein, Ridgway & Netemeyer 1993; Tellis & Gaeth 1990; Zeithaml 1988). Additionally, unusually low or high product prices may convey different information in regards to a price deal and may also communicate certain level of quality information to consumers. It is argued that these conflicting perceptions normally occur under instances of price-perceived quality inferencing (Leavitt 1954; Urbany et al. 1997). Thus, a reasonable condition for using price as a quality determining cue is that quality is ambiguous and difficult to evaluate (Beales et al. 1981; Hoch & Deighton 1989; Urbany et al. 1997). Under such conditions, consumers tend to use price as a cue in evaluating product quality (Olson 1976; Rao & Monroe 1989).

2.6 Value Consciousness

Consumers’ consciousness towards product and price value would affect their behavioural intention and behaviour which leads to the purchase (or non-purchase) of product. Malaysian consumers tend to be very value conscious when it comes to purchases such as buying cars and properties. They tend to make multiple comparisons on the value, quality, price paid and benefits obtained from the product before making their final decision (Ailawadi, Neslin & Gedenk 2001; Allen, Ng & Wilson 2002). In this case, Proton and Perodua have an upper hand in terms of price value, where their vehicles are priced much lower as compared to other brands but comes with reasonable quality. However, for customers that seek higher quality value, Proton and Perodua would have to face strong competition from brands such as Toyota, Honda, Volkswagen, etc. which offer better quality products at a higher prices. Thus, Malaysian car buyers’ value consciousness level is critical in this research as their intention-to-use or purchase as well as their final behaviour depend on their value perceptions.
Value is explained as the total gain that consumer receives in exchange for the price paid for a product offering (Anderson, Jain & Chintagunta 1992; Smith & Nagle 1995). Consumers’ perceptions of value received is influenced by how “price” and “benefits” are presented to them (Smith & Nagle 1995). Therefore, pricing strategy should not only focuses on managing price level, but should also take into consideration how price and benefits are communicated to the consumers (Hinterhuber 2004). Moreover, through better understanding on consumers’ psychological processes in price and value evaluation, then it is possible to better predict consumers’ responses which in turn would lead to more favourable influence on their price and value perceptions (Smith & Nagle 1995). Consumers’ perceptions of a product’s value, price and quality are considered crucial determinants that would affect their shopping behaviour and product selection (Bishop Jr 1984; Doyle 1984; Garretson, Fisher & Burton 2002; Jacoby & Olson 1985; Sawyer & Dickson 1984).

Thaler (1983) proposed the acquisition-transaction utility theory which suggests that consumers’ purchase possibilities depend on the received value in comparison to purchase cost. It is shown that the total utility of a purchase is the sum of transaction utility and acquisition utility (Bei & Simpson 1995; Thaler 1983). Economic gain or loss is reflected in acquisition utility and it depends on the value of the products received rather than the cost incurred in acquiring the products (Thaler 1983). Therefore, acquisition utility is an element of the utility of purchased products which is controlled by the necessary need-fulfilling properties of an item (Bei & Simpson 1995; Lichtenstein, Netemeyer & Burton 1990). One of the pivotal contribution of the acquisition-transaction utility theory is the transaction utility effect, which shows that a noticeable lower or higher price (relative to consumers’ expectations) would influence their purchase intentions and behaviour in a way that goes beyond the usual allocated price role (Thaler 1983).
Value is often defined in relation to two very essential factors: quality and price. For instance, Monroe and Petroshius (1981) stated that value is the ratio of price to quality. Perceived value is referred to as the consumers’ total examination of the quality of a product based on what they receive and give in a transaction (Cronin Jr, Brady & Hult 2000; Zeithaml 1988). Perceived value is an extensive evaluation of consumers towards products or services (Choy, Ng & Ch'ng 2010). Moreover, previous studies also presented that consumers in emerging economies are usually more price sensitive and value conscious due to their lower purchasing power. Value conscious consumers are more prone towards checking and comparing prices of different brands and products to maximise the spending of their money. This group of consumers have equal concerns on product quality and low prices (Zeithaml 1988). Therefore, in this context, price would have a greater influence on consumers’ purchase decision as compared to brand or product quality (Batra 1999; Brouthers & Xu 2002; Cui & Liu 2001; Sharma 2011).

Price and quality are the most important ‘give and get’ components for most consumers. Value consciousness refers to consumers’ concern in paying lower prices while subjecting to a certain extent of quality constraints (Ailawadi, Neslin & Gedenk 2001; Garretson, Fisher & Burton 2002; Lichtenstein, Ridgway & Netemeyer 1993). Meanwhile, product value is distinguished as the ratio of a product’s perceived quality divided by the price paid for the product in question (Garretson, Fisher & Burton 2002; Zeithaml 1988). Consumers’ positive perception of product value can be increased when price is lowered or when quality is raised (Monroe 1990; Richardson, Dick & Jain 1994; Urbany et al. 1997; Zeithaml 1988). However, this perception might change in instances where consumers are uncertain about product quality, thereby leading them to judge and determine quality based on the product price (Dodds, Monroe & Grewal 1991; Tellis & Gaeth 1990). Based on this concept, it can be concluded that when product quality is determined solely based on its price, lower priced products may attract consumers because of consumer surplus effect, or lose consumers due to consumers’ perceptions of lower product quality (Gardner 1970; Urbany et al. 1997; Zeithaml 1988).
2.7 Perceived Risk

Consumers tend to be highly cautious in evaluating the risk involved in every purchase decision as risk brings about unforeseen outcomes. Under circumstances where consumers foresee uncertainties in their purchase decision(s), they will form risk perceptions that affect their purchase intention towards that particular product or brand (Sunitha et al. 2014). Consumers are subjected to different types or levels of risk when they purchase car(s), for example, affordability, maintenance frequency or cost, product functionality, etc. (Cox & Rich 1964; Kim, Ferrin & Rao 2008; Lumpkin, Crawford & Kim 1985). These risks influence consumers’ behavioural intention towards different automobile brands and products. In this research context, intention to purchase Proton and Perodua cars are affected by car buyers’ perceived risk. For instance, if car buyers believe that buying Proton and Perodua cars involves high risks, then it is likely that this belief would affect their behaviour in their purchase decision.

The “risk” concept became a popular field of study in economics in the 1920s (Knight 1921). Since then, it became a widely adopted theory in the studies of decision making in finance, decision sciences and economics (Dowling & Staelin 1994). Risk is defined as consumers’ awareness of the uncertainties and unpleasant outcomes of purchasing a product or services. (Dowling & Staelin 1994). Through this definition, it is assumed that the probability and consequence(s) of each purchase action is uncertain. The risk concept is considered one of the most prevalent theories of human choice. Decision theorist refer to risk as a condition where the decision maker possesses a certain extent of prior knowledge on both the probabilities of occurrence as well as the consequences of alternatives (Dowling 1986).
In 1960, Bauer introduced the “perceived risk” concept to the marketing literature. He stated that consumers’ actions will lead to unforeseen consequences, and these circumstances may not bring pleasant outcomes to the consumers (Bauer 1960). Concept of perceived risk in Marketing was first introduced in a book on information and risk handling in regards to consumer behaviour (Cox 1967), this followed by several other conceptual framework of consumers’ risk perception and handling (Markin 1974; Stern, Lamb & MacLachlan 1977; Taylor 1974). Perceived risk concept is also used as an explanatory variable in various consumer behaviour studies (Rao & Farley 1987; Srinivasan & Ratchford 1991). More recently, perceived risk is commonly referred to as the ambiguities that consumers have to face when they predict the circumstances of their purchase decision(s) (Sunitha et al. 2014). In the fields of psychology, economics, statistical decision theory, notion of risk relates to choice situations where potentially positive and potentially negative outcomes are involved. However, when perceived risk is studied in the context of consumer behaviour, the primary focus is on possibly negative circumstances (Stone & Grønhaug 1993). A consumer’s evaluation of perceived risk depends on his or her situational and psychological characteristics as perceived risk is the consumer’s personal biased evaluation of a risk situation (Cho & Lee 2006; Hsin & Su 2008).

Originally, perceived risk is introduced based on a two-dimensional structure – uncertainty and adverse consequences (Bauer 1960). The uncertainty dimension has been widely adopted in many studies following the introduction of the perceived risk concept (Arndt 1968; Gronhaug 1975; Herman & Locander 1977; Schiffman 1972; Toh & Heeren 1982). According to Cox and Rich (1964), adverse outcomes is interpreted as the sum or amount that is at stake in a purchase action, and is determined by the total involvement of costs that attempt to achieve or reach a buying goal. Consumers’ perceived measure of risk and their risk-taking tolerance are critical factors that must be considered in their purchase actions (Sunitha et al. 2014).
Researchers have also suggested that the perceived risk concept is related to other types of losses, such as physical, performance, social, financial, time and psychological losses in addition to the two main dimensions of perceived risk. Most studies adopted one or more of these types of loss (Dowling 1986). Generally, consumers consider perceived risk in terms of the scale of consequences and the possibilities that these consequences might happen if they acquire the product, as product evaluations usually encompass both favourable and unfavourable outcomes (Bettman 1970; Cox 1967; Peter & Tarpey Sr 1975). Therefore, it is likely that consumers’ perceived risk will be influenced by both positive and negative circumstances (Dowling & Staelin 1994). Consumers tend to assess product attributes based on factors that are related to their usage situation and purchase goals (Dowling 1986). These factors are then mapped into a set of uncertain circumstances (perceived risk) that would eventually cause discomfort to the consumer (Dowling & Staelin 1994).

There are reasonable evidences in indicating that once perceived risk is acknowledged in a purchase situation, consumers tend to behave in such a way where their subsequent decisions would be determined based on the indicated risk. Risk perception is a very crucial element in consumer behaviour as consumers normally perceive risk to be painful (Mitchell 1999; Taylor 1974). Perceived risk is an effective tool to analyse consumers’ behaviour as consumers tend to evaluate and calculate the risk involved in a purchase situation to avoid mistakes. Average consumers have semi-reliable memory, incomplete information and limited understanding of brand(s) or product(s). Moreover, in most cases, consumers would be facing new purchases which involve brands or products that they have no experience with and are unable to evaluate and calculate risk accurately (Cunningham 1967; Mitchell 1999). However, it is the consumers’ subjective impressions that affect their behaviour. Thus, risk perception measurement should take these limitations into consideration (Mitchell 1999).
Choice is the dominant issue in consumer behaviour. Uncertainty about the consequences and uncertainty about the outcomes are two aspects of risk in a choice situation. Additionally, risk is expressed as possible loss in a choice situation and this loss can be quantified in functional/economic form or social/psychological form, or even a combination of both (Taylor 1974). In the automotive market today, the existence of multiple brands and models allow car buyers to have better options and choices in a purchase situation. However, this situation also increases the perceived risk of consumers in the buying process of car(s) as well as complicating their decision-making process. Products’ attributes and characteristics can significantly affect consumers’ perceived risk and this is especially obvious for high involvement products such as houses and cars (Sunitha et al. 2014). Therefore, proper acquisition and handling of information will eventually reduce the uncertainty of the outcome, and reducing the amount involved in a purchase transaction will minimise the consequences (Cox 1967; Taylor 1974). In short, the degree of perceived risk determined by consumers would motivate them to behave in a certain way in their purchase decision (Cho & Lee 2006).

2.8 Social Influence

Social influence is found to significantly affect an individual’s psychological processes (Deutsch & Gerard 1955). It possesses the ability to influence human’s feelings and thoughts directly or indirectly, and in turn this causes changes to consumers’ intention and behaviour. People tend to seek opinions and ideas of family and friends before any purchases as it can be considered as a form of reassurance that they are making the right decision on their purchases (Cialdini & Trost 1998; Turner 1991). In Malaysia, both Proton and Perodua are very popular brands among car buyers, not just among the general public but also among the younger generation who have just freshly entered the job market, considering the affordable prices of these brands (Kowang et al. 2018). Therefore, social influence (opinions and perceptions) of people around the car buyers is a significant factor in influencing their purchase intention and behaviour.
According to Clark and Goldsmith (2006), understanding consumers’ general personality traits will better justify their purchase action and behaviour. Opinion of others or interpersonal influence is a prevalent type of social influence (Clark & Goldsmith 2006; Rogers 2010). The impacts of interpersonal influence on consumers’ decision making process have been widely cited in many studies (Bearden, Netemeyer & Teel 1989). Furthermore, early research also argued that interpersonal influence demonstrates itself through either informational or normative influences (Deutsch & Gerard 1955). In the fields of marketing, sociology and psychology, it is important to understand the effects of social influence, such as how others affect an individual’s opinions, emotions as well as behaviours. Social influence is an incredibly broad topic, which covers almost everything from simple presence effects to direct form of social influence often seen in retail sales (Dahl 2013).

McGuire (1968) proposed the concept of consumer susceptibility to interpersonal influence as an aspect of her influence ability construct. In the 1950s, early development of this concept was present in the psychology literature (Clark & Goldsmith 2006). The concept of influence ability was first explained in the literature by McGuire (1968) which also explored the relationship between susceptibility concept and other individual traits. Subsequently, this interpersonal influence concept has been widely adopted in various consumer research studies with specific focus on conformation of individuals to group norms or judgement modifications based on the evaluation or opinions of others (Clark & Goldsmith 2006; Ford & Ellis 1980; Moschis 1976; Stafford 1966). Consumer susceptibility to interpersonal influence is defined as ‘a need to enhance or identify a person’s image with others through acquiring and using certain brands and/or products. It is further referred to as the readiness to conform to others’ expectations on purchase actions or decisions and/or the likelihood to seek information from other individuals and/or to learn about a particular product and service through observing and studying others (Bearden, Netemeyer & Teel 1989; Clark & Goldsmith 2006).
Generally, there are two types of social influence: normative social influence and informational social influence. Normative influence is a tendency that causes individuals to conform to other’s expectations or beliefs (Burnkrant & Cousineau 1975). Further studies conducted in consumer behaviour subdivided normative influence into utilitarian influences and value expressive (Bearden & Etzel 1982; Park & Lessig 1977). Value expressive generally means the adoption of opinions, beliefs or behaviour of others due to a self-satisfying relationship with an individual or group (Bearden, Netemeyer & Teel 1989; Clark & Goldsmith 2006; Park & Lessig 1977). On the other hand, utilitarian influence refers to an individual’s tendency to comply to the beliefs or expectations of others in order to prevent and avoid punishment or to receive rewards and benefits (Burnkrant & Cousineau 1975; Clark & Goldsmith 2006). As for informational influence, it is referred to as an individual’s likelihood to receive information from others as reality or facts (Clark & Goldsmith 2006; Deutsch & Gerard 1955). It normally happens as a result from either observation of others’ behaviour or from search of information from individuals that are considered knowledgeable in that area (Park & Lessig 1977).

Furthermore, Calder and Burnkrant (1977) introduced a new construct that studies interpersonal influence on consumer behaviour based on the attribution theory approach. ‘Attribution’ is referred to as a cognitive process where an individual infers to the source of an actor’s behaviour (Jones & Davis 1965; Kelley 1967). In this context, Jones and Davis (1965) stressed on the conditions or circumstances that determine whether a behaviour is attributed to personal causes, external or internal forces. Generally, individuals are more prone towards internal attributions where they tend to observe the dispositions such as preferences and traits of a consumer as the factor that causes the individual to behave in such a way (Calder & Burnkrant 1977). However, internal attributions do not happen automatically thus individuals normally analyses the covariation between observed behaviour and a possible dispositional cause (Kelley 1967). It is therefore important to understand the impact of social influence, especially in relation to how others can influence an individual’s opinions, emotions as well as thoughts, which in turn alter his or her attitudes and intention to purchase (Dahl 2013).
Consequently, social influence is found to be able to significantly affect consumers’ thoughts, emotions and feelings, which then models their decision-making process and affect their actual purchase behavior (Li & Pavlou 2014). The influence of the people surrounding an individual have significant determining power over his or her behaviour. This type of social influence is viewed as the act of agreeing to or going along with the opinions and beliefs of the majority, which is also known as conformity (Burnkrant & Cousineau 1975). Under some instances, social influence might cause consumers to disregard their own information and choose to follow the actions of those close to them (Banerjee 1992; Bikhchandani, Hirshleifer & Welch 1992; Li & Pavlou 2014). Members of the same social group tend to go along and conform to the brand or product chosen by their leader. These consumers tend to believe that others made their decisions based on better or more accurate information and hence they feel encouraged to follow this same course of action (Bonabeau 2004). As such, it can be said consumers do seek assurance from their family, friends and peers in their purchase decision.

2.9 Attitude towards Products

The concept of attitude has always been a crucial component to understand human behaviour in social scientific-related studies (Kraus 1995). Hence, attitude is one of the most critical components in this research as it determines the purchase intention and behaviour of Malaysian car buyers. Consumers’ beliefs and perceptions will form their attitude towards a product which influences their actions (Fishbein 1980; Thurstone 1931; Vogel & Wanke 2016). In this research, the perceived behavioural beliefs (country-of-origin effects, price-quality association, value consciousness) and perceived normative beliefs (perceived risk, social influence) will determine the formation of consumers’ attitude towards products which will subsequently affect the purchase intention and final behaviour of Malaysian car buyers towards cars. For instance, a car buyer who perceives that the risk involved in his or her purchase is too high will likely have a negative attitude towards the purchase, which may then lead to non-performance of purchase behaviour.
According to Fishbein (1980), attitude is found to be ‘the most distinctive and indispensable concept in contemporary American social psychology’. It can be defined as the total effect an individual has for or against an object (Thurstone 1931). Attitude refers to individual’s evaluation of a concept as a whole and is indicated as affective evaluations initiated by an individual’s cognitive system (Peter, Olson & Grunert 1999; Vogel & Wanke 2016). The consumer decision making cognitive processing model expresses that consumers normally form their evaluations through combining and integrating knowledge, beliefs or meanings of the attitude concept, where consumers analyses the personal relevance of this concept to their needs and wants which would then determine whether the concept formed is favourable or unfavourable (Ajzen & Fishbein 1980; Peter, Olson & Grunert 1999). This integrated attitude concept will be stored in the consumers’ memory once it is formed and this concept activated when the consumers need it for new information interpretation. Most notably, this attitude concept can be further integrated with other information or knowledge to facilitate consumers’ decision making process (Peter, Olson & Grunert 1999).

Consumers gain many knowledge, information and beliefs about products through their experiences where these beliefs and perceptions will form an associative network of linked meanings and are stored in their memory. Due to the fact that individuals have limited cognitive capacity, only a specific number of these stored beliefs can be activated and be taken into consideration at the same time. These activated beliefs are known as salient beliefs and they are the only beliefs that will instigate an individual’s attitude towards the object or product (Fishbein 1980; Peter, Olson & Grunert 1999). Consumers’ salient beliefs can influence their perceptions and attitudes towards product’s attributes, values as well as its functional consequences. However, these salient attributes are not constant and might change or vary under different situations. For example, perceptions and beliefs on product attributes might change over time when consumers learn more about the product in its higher-order consequence (Ajzen & Fishbein 2005; Maio, Haddock & Verplanken 2018; Peter, Olson & Grunert 1999).
2.10 Brand Reputation

Brand reputation represents the identity of a product which would determine consumer’s perceptions towards the products of a brand. Generally, brands with positive reputation tend to have higher chances of obtaining positive attitude from consumers and vice versa (Herbig & Milewicz 1995; Veloutsou & Moutinho 2009). Proton and Perodua’s reputation serves as a mediator in this research where perceived behavioural beliefs (country-of-origin, price-quality association, value consciousness) and perceived normative beliefs (perceived risk, social influence) will influence both brand’s reputation which would then affect Malaysian car buyers’ purchase intention and their final behaviour (purchase/non-purchase of products). Therefore, identifying the importance of brand reputation to Malaysian car buyers is key to deciphering their purchase behavior in this research.

Brand is defined as a distinguishing name or symbol that is used to represent or identify products and services. A brand is referred to as a symbol, mark, design or name that enables the enhancement of the value of a product that goes beyond its functional value (Farquhar 1989). Meanwhile, brand reputation is referred to as a quality perception that is affiliated to the brand name. A critical function of a brand is that it facilitates choice when intrinsic attributes or cue are complicated or impossible to be taken into account. Reputation of a brand name will influence consumers’ perceptions quality of a product or service. (Shapiro 1983; Zeithaml 1988). A strong brand names ensures it consumers’ loyalty, thus brand reputation can be managed to alter the perceptions and expectations of consumers towards a specified brand (Selnes 1993). Furthermore, as brand reputation is developed through the signals that the companies send to the market (Herbig & Milewicz 1995), it is also a representation of the promises made by the company on the extent to which consumers will have a positive experience of the offerings made by the company (Veloutsou & Moutinho 2009).
In the context of this study, brand reputation serves as a mediator to country-of-origin effects, hence, it is critical to investigate the relationship between country-of-origin and brand reputation. Shimp, Samiee and Madden (1993) used the term ‘country equity’ to refer to the emotional value arising from consumers’ association of a brand with its home country. Thus, brands often associate itself to country names to help consumers evaluate products and determine their final purchase decisions (Keller 1993; Kotler & Gertner 2002). Multiple previous studies have also revealed that country-of-origin information has significant effects on brand reputation (Ahmed & d’Astous 1996; Al-Sulaiti & Baker 1998; Andersen & Chao 2003; Koubaa 2008). Moreover, studies have also shown that consumers are more likely to purchase products from developed or industrialised nations. For instance, products bearing ‘made in Japan’, ‘made in Germany’ or ‘made in Switzerland’ labels are often regarded as high quality due to the positive images of these countries (Kotler & Gertner 2002; Rosenbaum-Elliott, Percy & Pervan 2015).

Additionally, brand reputation also possesses a closely linked relationship with price and quality. Brand reputation is referred to as quality perception that is associated with a specific brand name, which further affirms that brand reputation is closely linked to consumers’ perceived quality of a product or service (Aaker & Keller 1990; Shapiro 1983; Zeithaml 1988). Consumers will only form positive perception of brands that they perceive as credible (Veloutsou & Moutinho 2009). Dodds and Monroe (1985) mentioned in their study that a positive brand name significantly increase consumers’ perceived quality towards a product and boost their willingness to buy the product. Consumers’ brand choice selection are strongly influenced by discrepancies between expected product price and actual product price at the time of purchase (Winer 1986). More notably, consumers’ perceived high-quality brands are less vulnerable to losses when prices of products are increased (Kwun & Oh 2004). In addition, consumers tend to give more values and credits to high-quality brands while making reference attributes (Sivakumar & Raj 1997).
Furthermore, brands are capable of enhancing the perceived desirability and utility of a product which will increase or decrease the perceived value of products. In recent years, the concept of consumer value has evolved into a critical key to building sustainable competitive advantage for businesses (Kwun & Oh 2004). Ultimately, brand has been established as one of the main variables that contribute to consumers’ value process (Kwun & Oh 2004; Webster 2000; Zeithaml 1988). Consumers tend to evaluate product quality based on extrinsic cues, especially under circumstances where they possess low or limited product knowledge and familiarity. Brand reputation has been proved to be a strong extrinsic cue in various researches (Dodds & Monroe 1985; Dodds, Monroe & Grewal 1991; Kwun & Oh 2004). Webster (2000) indicated in his study that it is important to incorporate consumer perceived value with the positive effects of a well-established brand name, as brand reputation is an important variable that influences consumer value process and is proved to be a direct antecedent that influences consumers’ behavioural intentions (Dodds & Monroe 1985; Kwun & Oh 2004; Teas & Agarwal 2000).

In the automotive market today, the existence of multiple brands and models allow consumers to have better options and choices in a purchase situation. However, this situation also increases the perceived risk of consumers in the buying process of car as well as complicating their decision-making process. Products’ attributes and characteristics can significantly affect consumers’ perceived risk and this is especially obvious for high involvement products such as houses and cars (Sunitha et al. 2014). Under most purchase situations, consumers tend to rely on brand and product information provided in reducing their perceived purchase risk (Jung & Seock 2016). In a study conducted by Ha (2002), performance risk is one of the main types of purchase risk that influences how consumers’ perceive a brand’s reputation based on pre-purchase information that was provided. Performance risk is referred to as the loss incurred when a brand or product does not function based on the expectations of consumers and thus fail to deliver the benefits as promised (Horton 1976). Such risk would eventually lead to negative brand reputation among the consumers, which would then deter them from purchasing from the same brand again in the future.
Another notable point is that consumers are often inclined to identify themselves with a specific social group, seeking the opinions and perceptions of those from the same group when they intend to make a purchase (Kuenzel & Halliday 2010). Moreover, these consumers have the tendency to accept the information given by their peers from the same group as facts or reality (Clark & Goldsmith 2006; Deutsch & Gerard 1955). Nevertheless, previous studies have also indicated that past experience or reviews of a product or brand from those close to the consumers play a critical role in influencing their perceptions towards the product or brand (Erdem & Swait 1998; Kostyra et al. 2016). This is due to the fact that most consumers only possess limited information of a product thus they have the tendency to seek for information from others in a purchase situation (Cialdini & Trost 1998; Turner 1991). Under such instances, when a brand or product is perceived positively within the group, the consumers will then believe that the brand possesses good reputation for their products offered.

Practitioners and academics believe that brand reputation is becoming a crucial factor in business. Brands need to have a positive reputation in order to be profitable and sustainable (Herbig & Milewicz 1995). Brand reputation is something that a company earns and gains over time, where it depends on how consumers assess the brand based on the brand satisfaction it provides. Consumer preferences, choice, intention to purchase, their willingness to pay a premium price for the brand, brand extensions acceptance as well as recommendations of brand to others are positively influenced by brand associations (Agarwal & Rao 1996; Cobb-Walgren, Ruble & Donthu 1995; Hutton 1997; Yoo, Donthu & Lee 2000). Furthermore, consumers often classify brands in different categories and have a specific set of labels on these categories. Thus, the brand’s reputation will affect consumers’ intention to purchase as they anticipate a brand that provides products that meet their expectations (Herbig & Milewicz 1995; Veloutsou & Moutinho 2009).
2.11 Behavioral Intention

Individuals will only be inspired to perform a behaviour if they believe that the behaviour will produce positively valued outcomes and have enough confidence to perform it successfully (Bandura 1977, 1997; Kraft et al. 2005; Wallston 1992). There are three boundary conditions that affect the magnitude of relationship between purchase intentions and behaviour: first, the extent to which the measure of intention and behavioural norm match their levels of specificity; second, the stability of intention between performance of behaviour and time of measurement; third, the extent to which the performance of intention is under the volitional control of the individual (Fishbien & Ajzen 1975; Madden, Ellen & Ajzen 1992). An individual’s behavioural intention is a function of two basic elements, which are personal factors in nature and reflections of social influence (Fishbien & Ajzen 1975). These elements are represented by two main components of the TRA: attitude and subjective norms (Armitage & Conner 2000; Fishbien & Ajzen 1975). In this context, attitude represents the cognition component of TRA, where such attitude mainly accesses both an individual’s favourable and unfavourable evaluation of a specific behaviour performance (Ajzen 2001; Armitage & Conner 2000).

Human mind will form its own perceptions towards different objects and situations, this is because attitude is a learned propensity and will behave either positively or negatively towards different object and under different circumstances (Ajzen 1991). Thus, it is crucial to measure and study an individual’s attitude towards the performance of a specific behaviour in order to predict his or her final purchase action(s) (Choong 1998). Therefore, based on this explanation from the TRA, it can be concluded that attitude and subjective norms have consequential effects on behavioural intention (Ajzen 1985). Behavioural intentions are expected to capture the motivational elements that affect the performance of a particular behaviour as it shows the extent to which individuals are willing to try and the amount of effort they intend to exert to perform the behaviour. As a general rule, the stronger the will (intention) to perform a behaviour, the higher the chances of its performance (Ajzen & Fishbein 1980; Fishbein 1979).
Based on the underlying assumption of TRA and TPB, intention is the best predictor of behaviour, which is determined by the individuals’ attitude towards social normative and behaviour perceptions in relation to the behaviour in question (Montano & Kasprzyk 2015). Additionally, individuals’ control perception towards a behaviour along with his or her intention is predicted to have a direct effect on the final behaviour. This is especially obvious under circumstances where perceived control is a valid assessment of actual control over behaviour as well as under situations where volitional control is low (Conner et al. 2017; Montano & Kasprzyk 2015). It can also be noted that even under conditions where the effect of perceived control declines, intention is still an adequate behavioural predictor if volitional control over behaviour is high enough (Ajzen 1985; Ajzen & Fishbein 1980; Montano & Kasprzyk 2015).

Behavioural control or normative beliefs interventions can produce corresponding changes in consumers’ attitudes, subjective norms as well as their perceptions of behavioural control, with these changes possibly further affecting consumers’ intentions in the desired direction (Ajzen 1985; Smith, Mackie & Claypool 2014; Vogel & Wanke 2016). However, these interventions will be ineffective if the individual is incapable of performing his or her newly formed intention. Thus, it is essential for the investigator to make sure that a strong link between intentions and behaviour is established (Ajzen 1985; Maio, Haddock & Verplanken 2018; Montano & Kasprzyk 2015). In contrast, the relationships between attitudes, beliefs and subjective norms to intentions are more evidently defined in comparison to the factors that determine the performance of consumers’ behavioural intentions (Ajzen 1991; Smith, Mackie & Claypool 2014). Moreover, within the framework of TRA, intention is the direct antecedent of behaviour. However, prediction of behaviours with intentions can only happen when measure of intention is available to reflect the individuals’ original intentions prior to the performance of behaviour, and the behaviour in question has to be under volitional control (Ajzen 1985, 1988; Maio, Haddock & Verplanken 2018; Vogel & Wanke 2016)
A person’s intentions tend to change as time goes by. Part of these changes happen simply as a function of time shift while others are due to the emergence of new information or experience (Ajzen 1985; Schwarzer 2014). Most of the time, changes in intentions are results of various factors other than the mere passing of time. These changes might be mediated by the individuals’ internal processes or external factors. Many unforeseeable and unanticipated circumstances can well disrupt the intention-behaviour relation (Fishbien & Ajzen 1975; Montano & Kasprzyk 2015). Additionally, an individual’s behavioural and normative beliefs tend to change after the acquisition of new information or when new circumstances unfold, such changes subsequently affecting the individual’s attitude towards the behaviour and thereby creating or forming a revised intention (Ajzen 1985; Bohner & Dickel 2011; Vogel & Wanke 2016).

2.12 Actual Behavior

In this study, it is proposed that consumers’ perceived behavioural beliefs and perceived normative beliefs would influence the actual behaviour of consumers in their purchase decision (Ajzen 1985; Armitage & Conner 2001). Therefore, the variables studied in this research: country-of-origin effects, price-quality association, value consciousness, perceived risk and social influence as well as the mediators (attitude towards products and brand reputation) would in turn affect the actual purchase behaviour of Malaysian car buyers. According to Ajzen and Sheikh (2013), performance of behaviour have both positive and negative outcomes most of the time. Based on TRA and TPB, human behaviour is directed by three kinds of considerations: firstly, behavioural beliefs which represent beliefs on the possible consequences of a specific behaviour and the evaluations of these consequences. Secondly, normative beliefs which characterise beliefs about the normative anticipations of others and the motivation to conform to these anticipations. And thirdly, control beliefs which denote beliefs on the presence of aspects that may ease or hinder the performance of behaviour and the perceived power of these aspects (Ajzen 1985).
TRA proposes that attitudes and subjective norms are considered as the antecedents of behavioural intentions, in which they should precede human behavior. Due to the fact that fulfilment of behavioural goals is not usually under one’s volitional control, Ajzen (1991) extended a third aspect in behaviour prediction – perceived behavioural control. This aspect represents one’s insight on the ease or difficulty in the performance of a behaviour. (Aarts, Verplanken & Van Knippenberg 1998). The basic building blocks of TPB is the items of information in the form of beliefs. It is anticipated that behavioural beliefs are used to determine attitudes towards behaviour and normative beliefs can determine subjective norms while control beliefs are utilised to determine perceived behavioural control. Hence, performance of behaviour is determined through the combination of attitudes, subjective norms and perceptions of control and actual control (Ajzen 2015; Ajzen & Sheikh 2013; Vogel & Wanke 2016).

Perceived behavioural control covers both internal factors, such as knowledge, adequate planning and skills, as well as external factors such as availability of resources and facilitating conditions. Additionally, it is said to influence human behaviour in two manners. Firstly, perceived behavioural control influences behaviour indirectly through its moderating role – behavioural intentions (Ajzen 1991, 2005). In this context, it holds motivational impacts for intentions. Secondly, it appears to possess direct influence on human behaviour. This brings about the assumption that perceived behavioural control replicates actual behavioural control. Furthermore, performance of action depends on both motivation (intentions) and adequate control over the behaviour (Aarts, Verplanken & Van Knippenberg 1998). Behaviours that depend on the perception of certain competence, skills, planning, time, money, cooperation of others or the handling of internal and external interferences will thus cause action to be a product of both efficacy and outcome expectancies (Bandura 1977, 1997; Kraft et al. 2005).
Studies that adopted TPB have given extensive support in the prediction of human behaviour. Recent meta-analyses have shown that attitude, subjective norms and perceived behavioural control account for approximately 40 to 50 percent of the variance in intentions while intentions and perceived behavioural control account for around 30 percent of the behaviour variance (Armitage & Conner 2001; Smith & McSweeney 2007). Even though these extensions of TPB enhance the understanding and prediction of human behaviour, it is believed that behaviour is primarily guided by reasoned contemplations where the proximal cause of behaviour is intention – in which it represents the individual’s motivation under his or her conscious plan in exerting effort for the performance of the behaviour (Aarts, Verplanken & Van Knippenberg 1998; Eagly & Chaiken 1993). Consequently, interventions intended to modify behaviour can be directed at attitudes, subjective norms or perceptions of behavioural control. Changes in these aspects ought to produce modifications in behavioural intentions, and under circumstances where adequate control is given over the behaviour, the newly formed intentions are assumed to be carried out. (Ajzen 1985).

Behavioural considerations are not spontaneous decision; instead, they are the results of a reasoned process where behaviours are influenced by subjective norms, attitudes as well as perceptions of behavioural control over the behaviour. TPB suggests that attitude, subjective norms and perceived behavioural control would affect human behaviour through their effects on behavioural intentions. Therefore, intentions are perceived to be the primary determinant of human behaviour – the stronger the intention to engage in a particular behaviour, the higher the possibility of behaviour performance (Smith & McSweeney 2007). As a general rule, behaviours can be predicted from intentions with substantial accuracy when it is found that the behaviour in question pose no serious issues of control (Ajzen 1991).
2.13 Chapter Summary

This chapter first presented the justifications of utilising theory of reasoned action (TRA) and theory of planned behavior (TPB) in this study. Then, the adoption of variables (country-of-origin effects, price-quality association, value consciousness, perceived risk, social influence) as well as the mediators (attitude towards products and brand reputation) is explained through a systematic review of past studies and literature to study their effects on Malaysian car buyers’ purchase intention and actual behavior. At the end of this chapter, a conceptual framework highlighting all the adopted variables was also developed and presented. In the following chapter, relevant hypotheses are proposed based on the discussion of past literature.
CHAPTER 3
RESEARCH METHODOLOGY

3.1 Chapter Introduction

In the previous chapter, key theories and past literatures were discussed to outline and present the purpose of conducting this study. Based on the discussions, a conceptual framework was developed and will be further discussed in this chapter. Chapter 3 presents the research methodology for this study on factors influencing Malaysian car buyers’ purchase behavior towards locally manufactured vehicles, with a specific focus on Proton and Perodua cars. This chapter covers the research paradigm, conceptual framework, research hypotheses, research design, sample and population, research instruments, data collections procedures as well as the statistical analysis technique employed in this study.

3.2 Research Paradigm

The research paradigm adopted in this research is positivism (quantitative) (Creswell & Creswell 2017; Johnson & Onwuegbuzie 2004). In a positivist paradigm, it is presented that the inquiries of social science should be kept objective and the causes of social scientific outcomes must be evaluated reliably and validly (Johnson & Onwuegbuzie 2004; Nagel 1989). According to Healy and Perry (2000), positivism is one of the most widely adopted paradigms in social sciences related research as it assumes that studies should measure independent facts quantitatively about a single apprehensible reality. Positivism paradigm seeks to evaluate a theory or illustrate an experience through measurements and observations (Mackenzie & Knipe 2006; O'leary 2004). Positivism also seeks to explain, discern and predict the events in a social world by looking for consistencies and causal relationships between its constituent aspects (Kołakowski 1972). Thus, it is adopted as the research paradigm in this study to evaluate the causal relationships between the indicators outlined in the conceptual framework.
3.3 Research Framework

Based on the literature review presented in the previous chapter, country-of-origin effects (Sharma 2011; Ulgado, Wen & Lee 2013), price-quality association (Erickson & Johansson 1985; Garretson, Fisher & Burton 2002; Teas & Agarwal 2000), value consciousness (Garretson, Fisher & Burton 2002; Urbany et al. 1997), perceived risk (Cho and Lee 2006; Laroche et al. 2005) and social influence (Lautiainen 2015) are suggested to possess direct effects on consumers’ attitude towards products. Consequently, it was found in past studies that country-of-origin effects (Ahmed et al. 2002; Mohd Yasin, Nasser Noor & Mohamad 2007; Phau & Prendergast 2000), price-quality association (Aaker and Keller 1990; Milewicz and Herbig 1994; Veloutsou and Moutinho 2009), value consciousness (Kara et al. 2009; Kotler & Gertner 2002), perceived risk (Ha 2002; Tong 2011) and social influence (Kuenzel & Halliday 2010) also affect brand reputation.

Additionally, country-of-origin effects (Al-Sulaiti and Baker 1998; Papadopoulos and Heslop 2002; Ulgado, Wen and Lee 2013; Verlegh and Steenkamp 1999), price-quality association (Lichtenstein, Ridgway & Netemeyer 1993), value consciousness (Allen, Ng & Wilson 2002; Garretson, Fisher & Burton 2002; Sawyer & Dickson 1984), perceived risk (Cho & Lee 2006; Cox 1967; Mitchell 1999) and social influence (Clark & Goldsmith 2006; Dahl 2013; Rogers 2010) are assumed to possess direct effects on behavioral intention. Consequently, consumers’ actual behavior is found to be influenced by country-of-origin effects (Khachaturian & Morganosky 1990; Laroche et al. 2005; White 2012), price-quality association (Jacob & Olson 1985; Lichtenstein, Bloch & Black 1988; Tellis & Gaeth 1990; Zeithaml 1988), value consciousness (Bishop Jr 1984; Jacob & Olson 1985; Thaler 1983), perceived risk (Cho & Lee 2006; Mitchell 1999; Taylor 1974) and social influence (Lautiainen 2015; Lee et al. 2006).
It is further proposed that attitude towards products (Maio, Haddock & Verplanken 2018; Vogel & Wanke 2016) and brand reputation (Kotler & Gertner 2002; Veloutsou & Moutinho 2009) can significantly affect consumers behavioral intention while behavioral intention would in turn influences consumers’ actual behavior (Bohner & Dickel 2011; Kraft et al. 2005; Montano & Kasprzyk 2015; Smith, Mackie & Claypool 2014; Wallston 1992). Moreover, it was further shown by various scholars that consumers’ actual behavior is influenced by their attitude towards products (Ajzen 2005; Ajzen & Cote 2008; Ajzen & Fishbein 1977, 1980, 2005; Fredricks & Dossett 1983; Kraus 1995) and brand reputation (Jung & Seock 2016; Veloutsou & Moutinho 2009).

3.3.1 Conceptual Framework

Based on the discussions above, a conceptual framework (Figure 3.1) has been developed for this study. In Figure 3.1, three perceived behavioral beliefs (country-of-origin effects, price-quality association, value consciousness) and two perceived normative beliefs (perceived risk, social influence) were first identified as the main antecedents in this study. These five variables are perceived to possess direct influence on car buyers’ attitude towards product (Proton and Perodua cars) as well as the brand reputation of these two brands. Such influence would in turn leads to changes in car buyers’ behavioral intention and their final purchase actions. More notably, attitude towards products and brand reputation also serve as the mediators for the relationships between the main antecedents (country-of-origin effects, price-quality association, value consciousness, perceived risk, social influence) and behavioral intentions. Hence, a total of 17 relationships were identified and proposed as the conceptual framework for this study as shown in Figure 3.1 below:
Figure 3.1 – Proposed Conceptual Framework

Adopted from: Andéhn, Nordin and Nilsson (2016); Armitage and Conner (2000); Choy, Ng and Ch'ng (2010); Garretson, Fisher and Burton (2002); Kraft et al. (2005); Sharma (2011); Trivedi and Raval (2016)
3.4 Research Hypotheses

A total of 17 main hypotheses were developed for this study which were further branched into 25 sub-hypotheses. These hypotheses were formulated based on past studies and are presented in the sections below.

3.4.1 Perceived Behavioral Beliefs

Three perceived behavioral beliefs (country-of-origin effects, price-quality association, value consciousness) were adopted in this study as it is assumed that these factors possess direct influence on attitude towards products, brand reputation, behavioral intention and actual behavior. Hence, the following hypotheses are proposed:

H₁: Perceived behavioral beliefs (country-of-origin effects, price-quality association, value consciousness) will influence attitude towards products.

H₂: Perceived behavioral beliefs (country-of-origin effects, price-quality association, value consciousness) will influence brand reputation.

H₅: Perceived behavioral beliefs (country-of-origin effects, price-quality association, value consciousness) will influence behavioral intention.

H₇: Perceived behavioral beliefs (country-of-origin effects, price-quality association, value consciousness) will influence actual behavior.

H₁₄: Perceived behavioral beliefs (country-of-origin effects, price-quality association, value consciousness) will influence behavioral intention under the mediation of attitude towards products.

H₁₆: Perceived behavioral beliefs (country-of-origin effects, price-quality association, value consciousness) will influence behavioral intention under the mediation of brand reputation.
3.4.2 Perceived Normative Beliefs

In this study, two perceived normative beliefs (perceived risk and social influence) are predicted to be able to significantly affect attitude towards products, brand reputation, behavioral intention and actual behavior. Hence, the following hypotheses are proposed:

H$_3$: Perceived normative beliefs (perceived risk and social influence) will influence attitude towards products.

H$_4$: Perceived normative beliefs (perceived risk and social influence) will influence brand reputation.

H$_6$: Perceived normative beliefs (perceived risk and social influence) will influence behavioral intention.

H$_8$: Perceived normative beliefs (perceived risk and social influence) will influence actual behavior.

H$_{15}$: Perceived normative beliefs (perceived risk and social influence) will influence behavioral intention under the mediation of attitude towards products.

H$_{17}$: Perceived normative beliefs (perceived risk and social influence) will influence behavioral intention under the mediation of brand reputation.
3.4.3 Mediators and Behavioral Intention

Attitude towards products and brand reputation are mediators of this study. Therefore, it is assumed that they can significantly influence behavioral intention and actual behavior. Finally, behavioral intention is predicted to possess positive relationship with actual behavior. Hence, the following hypotheses are proposed:

H₉: Attitude towards products will influence behavioral intention.
H₁₀: Brand reputation will influence behavioral intention.
H₁₁: Attitude towards products will influence actual behavior.
H₁₂: Brand reputation will influence actual behavior.
H₁₃: Behavioral intention will influence actual behavior.
3.5 Research Design

The research design employed in this study is quantitative research, which refers to an empirical research that extends towards the explanation of social phenomenon or human problem based on numerical data and statistical analysis to evaluate theories comprising of variables or constructs. This is required to determine whether the theory under study produces valid conclusions and outcomes to explain the area of interest (Black 1999; Haase 1995). More importantly, quantitative research seeks to establish universal laws in social behavior through measuring and analyzing causal relationships between variables in a conceptual framework (Yilmaz 2013). This study adopted the correlational quantitative research method which attempts to establish relationships between independent and dependent variables, and if such relationships are found, a regression equation can be utilized to construct predictions to a selected population. A correlational study presents the relationships between the variables through cross-tabulation and correlation coefficient (Salkind 2010; Simon & Goes 2013).

This study therefore tests the relationship between perceived behavioral beliefs (country-of-origin effects, price-quality association, value consciousness), perceived normative beliefs (perceived risk, social influence) and mediators (attitude towards products, brand reputation) through theoretically justified hypotheses to determine the factors that influence Malaysian car buyers’ purchase behavior. Furthermore, a sample population from Malaysia was selected to represent the whole population and probability sampling technique was adopted to randomly select the respondents for data collection. The sample size for this research was calculated and the minimum sample size required is 384. A survey questionnaire, distributed in both physical and digital versions, is used to measure the perceptions of Malaysian car buyers towards locally manufactured vehicles (Proton and Perodua) as it is one of the most widely adopted research instruments for such positivist paradigm (Saunders & Thornhill 2011; Tuli 2010). Partial-Least Square approach to Structural Equation Modelling (PLS-SEM) is utilized to test the reliability, validity and path relationships of the variables proposed in this study.
3.6 Population and Sample

According to Hungler and Polit (1999), population is referred to as the totality or aggregate of all members, subjects and objects that is conformed to a specific set of characteristics or requirements in a study. Therefore, the population that was selected for this study is the car buyers in Malaysia. Based on the figures provided by Malaysian Automotive Association (MAA) in their annual summary report, the total number of registered car owners in Malaysia stands at 598,714 for the year 2018 (Malaysian Automotive Association 2018). Respondents that are in range of age 18 and 65 were selected as it is more likely for them to own a vehicle (Almselati, Rahmat & Jaafar 2011; Khoo & Ong 2015). Furthermore, the respondents were randomly sourced from different states and cities to allow better representation of the population. Since it is impractical to study and investigate the entire population due to time and financial constraints, a sample of target respondents were selected to represent the entire research population (Blumberg, Cooper & Schindler 2008; Zou, Sunindijo & Dainty 2014).

3.6.1 Sampling Method

The sampling method employed in this study is judgmental sampling technique where the respondents were selected based on a set of requirements set up by the researcher (Panacek & Thompson 2007). With this sampling technique, the respondents represent a small sample population and are selected based on specific criteria to answer and provide the necessary or essential information needed by the researcher (Panacek & Thompson 2007; Taherdoost 2016). As such, only Malaysian car buyers age between 18 to 65 years old are selected as the respondents as they possess the knowledge and information required by the researcher to conduct this study. The adoption of this sampling technique allows the research to conduct the survey in a low-cost and low time-consuming pace while at the same time obtaining all necessary data from the sample population. Hence, judgmental sampling is an ideal technique to be used while conducting such exploratory research (Etikan & Bala 2017; Taherdoost 2016).
3.6.2 Sampling Size

Sample size calculation is essential in research methodology planning as the minimum sample size required (that is, the actual number of vehicle owners/users in Malaysia who complete the survey instrument) needs to fulfill the criteria for multiple regression analysis. Five factors need to be fulfilled when determining sample size: the type of sample required, variety of elements in the target population, financial budget, time availability and required estimation precision (Hair, Ringle & Sarstedt 2012; Wagner et al. 2012). This study used Krejcie and Morgan (1970)’s formula in the calculation of minimum required sample size from the population of 598,714 registered vehicle owners/users in Malaysia. The calculation is shown below:

\[
s = \frac{X^2 NP(1 - P)}{d^2 (N - 1) + X^2 P(1 - P)}
\]

Where,

- \( s \) = required sample size
- \( X^2 \) = the table value of chi-square for 1 degree of freedom at the desired confidence level (0.05 = 3.841)
- \( N \) = the population size
- \( P \) = the population proportion (assumed to be 0.50 since this would provide the maximum sample size
- \( d \) = the degree of accuracy expressed as proportion (0.05)

Hence,

\[
s = \frac{(3.841)(598,714)(1 - 0.5)}{0.05^2 (598,713) + 3.841(0.5)(1 - 0.5)} = 384
\]

Based on the calculation shown above, the minimum sample size required for this study is 384. A sample of this size is required as it would provide more reliable information which acquires more confidence from the model, hence producing a more meaningful analysis (Hoyle 1995; Ramayah, Lee & Lim 2012).
3.7 Research Instrument

Data was collected through a self-administered survey questionnaire. This survey questionnaire was used to investigate the relationships between the constructs as presented in the conceptual framework. Indicators adopted from previous studies were used to measure these underlying constructs. The questionnaire consisted of 45 questions which are divided into four sections: Section A outlined the respondents’ demographic profile (age, gender, location, race, income and occupation). Section B consisted of questions related to ownership and use of vehicles while Section C highlighted the items measuring the variables identified in this study (country-of-origin effects, price-quality association, value consciousness, perceived risk and social influence). Lastly, Section D comprised of measurements of the mediators (attitude towards products and brand reputation) as well as other indicators from the conceptual framework (behavioral intention and actual behavior). Respondents were required to respond to the questions in Section C and D based on a 7-point Likert scale where (1 = Strongly Disagree and 7 = Strongly Agree). Table 3.1 illustrates the number of items measuring each construct.

<table>
<thead>
<tr>
<th>Measure</th>
<th>Author</th>
<th>No. of Items</th>
<th>No. of Variables</th>
<th>Scale Range</th>
<th>Reliability</th>
<th>Validity</th>
<th>Scale Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Country-of-Origin Effects</td>
<td>Mikael Andehn, Fredrick Nordin and Mats E. Nilsson (2016)</td>
<td>3</td>
<td>3</td>
<td>7</td>
<td>0.910</td>
<td>Yes</td>
<td>7-point Likert scale</td>
</tr>
<tr>
<td>Price-Quality Association</td>
<td>Garretson, Fisher and Burton (2002)</td>
<td>4</td>
<td>3</td>
<td>7</td>
<td>0.845</td>
<td>Yes</td>
<td>7-point Likert scale</td>
</tr>
<tr>
<td>Value Consciousness</td>
<td>Lichtenstien, Netemeyer and Burton (1990)</td>
<td>4</td>
<td>2</td>
<td>7</td>
<td>0.910</td>
<td>Yes</td>
<td>7-point Likert scale</td>
</tr>
<tr>
<td>Perceived Risk</td>
<td>Mbaye Fall Diallo (2012)</td>
<td>3</td>
<td>3</td>
<td>7</td>
<td>0.905</td>
<td>Yes</td>
<td>7-point Likert scale</td>
</tr>
<tr>
<td>Social Influence</td>
<td>William O. Bearden, Richard G. Netemeyer and Jesses E. Teel (1989)</td>
<td>7</td>
<td>5</td>
<td>7</td>
<td>0.906</td>
<td>Yes</td>
<td>7-point Likert scale</td>
</tr>
<tr>
<td>Attitude towards Products</td>
<td>Kraft, Rise, Sutton and Roysamb (2005)</td>
<td>5</td>
<td>3</td>
<td>7</td>
<td>0.886</td>
<td>Yes</td>
<td>7-point Likert scale</td>
</tr>
<tr>
<td>Brand Reputation</td>
<td>Mikael Andehn, Fredrick Nordin and Mats E. Nilsson (2016)</td>
<td>3</td>
<td>3</td>
<td>7</td>
<td>0.940</td>
<td>Yes</td>
<td>7-point Likert scale</td>
</tr>
<tr>
<td>Behavioral Intention</td>
<td>Christopher J. Armitage and Mark Conner (2000)</td>
<td>2</td>
<td>2</td>
<td>7</td>
<td>0.970</td>
<td>Yes</td>
<td>7-point Likert scale</td>
</tr>
</tbody>
</table>
3.8 Data Collection Procedures

Based on Krejcie and Morgan (1970) formula for calculating the minimum sample size required for this study, the number of respondents needed to form the sample was 384. Through the data collection process, a total of 410 responses have been collected. This sample size meets the requirement of conducting multiple regression analysis as stated in Roscoe (1975). The data collection was conducted through the distribution of both physical and digital questionnaires. The survey questionnaire used consisted of a cover letter which explained the purpose of research along with the disclosure on confidentiality and anonymity of the data collected from the study. Basic information of this study and brief instructions on how to answer the questionnaire are also included on the cover letter.

The official data collection for this study began at the Malaysia Autoshow 2019 that was held in Serdang, Selangor from 11th – 14th April 2019. The researcher was assisted by two interns from Malaysia Automotive, Robotics and IoT Institute (MARii) to personally administer the survey among the attendees of the autoshow. The personal approach allowed the researcher to interact with the respondents by explaining the study to them. At the same time, digital copies of the questionnaires were also disseminated online by sharing it on social media as well as by family members and friends to reach respondents from different locations in Malaysia in order to maximize the overall response rate. This is an appropriate distribution method for probability sampling as online dissemination allowed random respondents to participate in this survey (Vehovar & Manfreda 2008). The data collection was conducted from April 2019 to May 2019. Upon the completion and return of the completed questionnaire, the respondents’ informed consent to participate in the study is implied.
3.9 **Statistical Analysis Techniques**

This section outlines the data analysis stage of this study. The collected datasets were first screened for completeness. Descriptive analysis was first carried out to analyze the demographic characteristics of the respondents, which was then followed by predictive measures.

3.9.1 **Data Screening**

Data screening process is an essential stage in multivariate analysis as it serves as the basis for meaningful analysis in a quantitative research (Abdulwahab, Dahalin & Galadima 2011). Data checking was first conducted to ensure that the data collected from the survey were accurate and free from errors. Questionnaires collected from the respondents were examined to ensure that the information obtained were complete and relevant to the research (Kelley et al. 2003). At this stage, incomplete questionnaires were discarded. The datasets were screened for univariate and multivariate outliers. According to Hair et al. (2010), outliers are cases with unusually high or low values, causing the cases to vary from other cases. Univariate outliers are identified by calculating the standardized values for all cases at one go, then evaluating each variable in order to identify individual case(s) with extreme values (Hair 2006).

Multivariate outliers are cases with unusual combinations of values of more than two variables (Filzmoser, Hron & Reimann 2012; Tabachnick & Fidell 2001). The outliers were identified through calculating the Mahalanobis distance with $p < 0.01$ for all cases. Then, the number of independent variables as degrees of freedom were used to obtain the critical Chi-square value at the alpha level 0.001 (Tabachnick & Fidell 2001). Cases where the Mahalanobis distance were greater than the critical Chi-square value were identified as outliers and were removed. A total of 2 cases out of 392 cases were discarded in this process.
3.9.2 Descriptive Analysis

This study explains and analyses data by using frequency and mean. Frequency is described as the sum of total occurrence, while mean is the figure acquired through dividing the sum of all the components in a set by the number of components in the categories (Ho 2013; Miller 2017). Frequency was used to express respondents’ demographic information while mean was used to show the mean score for each variable. These statistics were used to simplify and describe the significant characteristics of a set of data.

3.9.3 Reliability Evaluation

According to Wong (2013), it is essential to formulate the reliability of the latent variables tested to complete the evaluation of the structural model in a marketing research. Such reliability test is crucial to the study, as the results will show the similarities among the indicators of the variables that were tested (Anderson & Gerbing 1988; Churchill Jr 1979). This allows the researcher to identify the reliability error, which is crucial to reduce the prediction error of the scale. In doing so, it also minimizes the effects of measurement errors in the results at a later stage (Hair et al. 2010). Cronbach’s Alpha reliability measurement is one of the most widely utilized reliability measurement (Tenenhaus, Mauger & Guinot 2010), yet the usage of this reliability test within Partial Least Square-Structural Equation Modelling (PLS-SEM) tend to be conservative when it is used to pinpoint the internal consistency of the scale adopted (Fornell & Larcker 1981; Hair et al. 2014). On the other hand, composite reliability (CR) is suggested as a more suitable method to determine the construct reliability in PLS-SEM analysis as CR possesses the capability to postulate item loading information into the calculation (Hair, Ringle & Sarstedt 2011; Kock 2011). More importantly, CR is also recognized as a more credible reliability measurement tool as compared to Cronbach’s Alpha (Wong 2013). It is therefore more justified to use Composite Reliability (CR) to replace Cronbach’s Alpha (Hair Jr et al. 2016; Lowry & Gaskin 2014; Wong 2013). Table 3.1 presents the reliability summary results for all the variables tested.
3.9.4 Validity Evaluation

After establishing indicator and composite reliability, the next step was to determine each latent variable’s validity (Hair et al. 2014; Wong 2013). In this context, validity refers to the degree to which a scale used for each indicator of the variable scale is capable of accurately representing the concept it is meant to measure (Cohen 2013; Nunnally & Bernstein 1994; Rosenthal & Rosnow 1991). Construct, discernment, content and criterion validity are some of the widely adopted techniques used to test scale validity (Hair et al. 2014). In Partial Least Square-Structural Equation Modelling (PLS-SEM), discriminant validity and convergent validity are two of the most commonly used tools to discern the validity of the constructs in the proposed model as both measurements were frequently utilized as the validity indicator of a construct through PLS-SEM method (Fornell & Larcker 1981; Wong 2013).

Convergent validity is described as the measures of constructs that link similar constructs within a model together (Anderson & Gerbing 1988; Bagozzi & Yi 1988). In the context of this study, it is the degree to which reasonings can be justifiably made via the operationalization of the evaluated constructs which will result in the generalization of the variables tested within the model (Hair et al. 2014). Through the identification of construct validity of each construct, the variables’ Average Variance Extracted (AVE) were tested to access the latent variables presented in the proposed model. According to Hair et al. (2014), an AVE value that is larger than 0.50 is considered acceptable for convergent validity.
Discriminant validity refers to the predicted correlation between factors (Kassarjian 1977; Kolbe & Burnett 1991; Krippendorff 2018). In this study, discriminant validity was determined through the adoption of Fornell and Larcker (1981) criterion and Heterotrait-Monotrait (HTMT) criterion. According to Fornell and Larcker (1981), the square root of AVE should be larger than the correlation values between the constructs under study. On the other hand, HTMT criterion was also used to test the discriminant validity as it is an approach that predicts the correlations of constructs under study thereby causing its interpretation is direct and straightforward (Henseler, Ringle & Sarstedt 2015). Past research suggested that the recommended threshold value for HTMT is 0.85 and 0.90. Therefore, it can be said that there is a lack of discriminant validity if the HTMT value is greater than this threshold.

Both convergent and discriminant validity tests are critical in the development of the Partial Least Square-Structural Equation Modelling (PLS-SEM) model as neither of them are enough to formulate construct validity on their own (Hair et al. 2014). Therefore, this study used the PLS-SEM procedure to evaluate both convergent and discriminant validity of all the variables that were proposed in the conceptual framework.
3.9.5 Partial Least Square Approach to Structural Equation Modelling

The causal relationships between different latent variables were outlined in the conceptual framework (Figure 3.1) to establish the respondents’ purchase behavior towards locally manufactured vehicles (Proton and Perodua) in Malaysia. The purchase behavior of respondents was predicted based on the significance of the factors that were tested in this study. Partial Least Square Path Modelling (PLS-PM) was adopted to test the causal relationships among the latent variables, where the structural model blocks algorithms that were solved by this technique separately. This is then followed by the estimation of the structural model’s path coefficients through the use of regression estimates and use of coefficient (Hair et al. 2014). PLS path modelling is particularly practical in such exploratory study where substantive and theoretical knowledge pertaining to Malaysian car buyers’ purchase behavior is comparatively limited, especially within Malaysian context.

The main purpose of conducting this study was to establish an integrated framework in predicting the factors that influences Malaysian car buyers purchase behavior towards locally manufactured vehicles, specifically Proton and Perodua. This required the illustration of relationships between the independent, dependent and mediating variables (Figure 3.1) under study. Hence, Structural Equation Modelling (SEM) was adopted to predict the causal relationship network, relating to two or more latent variables in the study (Hagelin 1999). A number of observable indicators were utilized to measure the causality among the variables and this shows that structural equation modelling acts as a joint-point for path analysis and confirmatory analysis (Hsieh & Shannon 2005). However, according to Hair et al. (2014), this process can only be carried out if all the items of the latent constructs are reflective, so as to ensure a more accurate and robust outcome. Hence, SEM as a more rigorous and dynamic technique is chosen to evaluate the hypotheses and the overall model fit (Ting & de Run 2015).
In this study, the structural equation modelling software SmartPLS (Partial Least Square) was adopted to carry out two main analyses: (i) using Convergent Validity and Discriminant Validity to evaluate the relationship among the variables in validating the latent constructs; (ii) using the Bootstrapping method to analyze the direct, extended and mediating effects of the relationships between the endogenous and exogenous variables outlined in the conceptual framework (Figure 3.1). Bootstrapping was utilized to test the path coefficients of the relationships between the latent constructs to find out their significance in this study. The T-statistics was generated to test the significance of each latent construct through the bootstrapping process (Hair et al. 2014; Hair, Ringle & Sarstedt 2011). According to Chin (1998); Fornell and Larcker (1981), bootstrapping is a non-parametric method that is commonly adopted in the estimation of PLS estimates precision. Therefore, in order to allow the process to better assess the model of each subsample, 5,000 cases of subsamples were drawn while running bootstrapping test (Hair et al. 2014; Hair, Ringle & Sarstedt 2011).

3.9.6 Predictive Relevancy

In recent years, literature on Structural Equation Modelling (SEM) showed extended growth in terms of estimations of model fit with at least 24 fit indexes recommended (Yu & Meyer 2006). However, according to Henseler and Sarstedt (2013), for PLS-SEM model, this model fit estimation is inappropriate to assess the overall model fit regardless of its plethora of fit indexes. Therefore, blindfolding method in PLS-SEM is adopted to test the predictive relevancies ($Q^2$) of the model. This method is considered a more reliable source to predict the structural model’s relevancy (Hair et al. 2014).
Predictive relevancy is attained through the blindfolding procedure in Partial Least Square-Structural Equation Modelling (PLS-SEM) and it is a more reliable source to predict the quality of the structural model (Hair et al. 2014). A blindfolding procedure is conducted to evaluate the predictive capability of the structural model through the assessment of Stone-Geisser’s ($Q^2$) assessment. Any $Q^2$ values that are greater than zero for any reflective endogenous latent variable would signify the predictive relevancy of the concept in the PLS-SEM structural model (Geisser 1974; Stone et al. 2004).

It should also be noted that the levels of predictive accuracy were indicated by the values of R-Squared ($R^2$) which ranges from 0 to 1. According to Cohen (1988), the $R^2$ value of 0.02, 0.13 and 0.26 were highlighted as weak, moderate and substantial to show the predictive relevancy of the model. However, in order for the variance explained of a particular endogenous construct to pass, it is important to note that the path coefficients range obtained must be larger than 1 (Falk & Miller 1992).

3.9.7 Rationale for Employing Partial Least Square Approach to Structural Equation Modelling

According to Hair et al. (2014), Partial Least Square approach to Structural Equation Modelling (PLS-SEM) is adopted to conduct path modelling as this technique is one of the most commonly utilized method for marketing and behavioral science related studies (Chin 1998; Podsakoff et al. 2003). In PLS path modelling, the structural model’s blocks were evaluated separately by the technique’s algorithm, this is then followed by the structural model’s path coefficients estimations (Hair et al. 2014). Through this process, the researcher is able to predict the latent variables’ residual variance in any regression analysis (Fornell & Larcker 1981).
PLS-SEM is referred to as a softer technique especially when causality between latent variables are non-existence in the first place (Chin 1998; Hair et al. 2014). Consequently, in PLS-SEM, it is not required to generate sample covariance matrix, which is commonly done in classical covariance based approach (Hair et al. 2014). Furthermore, when sample size, distribution assumptions and measurement scale are absent, the usefulness of PLS-SEM becomes apparent, especially in exploratory based studies (Hair, Ringle & Sarstedt 2011). Moreover, PLS-SEM focuses more on prediction optimization, which is commonly found in exploratory related studies while covariance based structural equation modelling (CB-SEM) is more inclined towards estimation of statistical accuracy (Hair et al. 2014; Wong 2013). Hence, PLS-SEM was adopted in this study for path modelling analysis.

3.9.8 Steps in Testing Partial Least Square Approach to Structural Equation Modelling

In Partial Least Square approach to Structural Equation Modelling, it forms substitutions in the form of linear combinations for the latent variables by sequencing the least squares algorithms alternatively to extricate the variables’ predictive powers that were analyzed on the sample every time the algorithms are interpreted to resolve a linear problem.

Structural Equation Modelling (SEM) represents a comprehensive approach in evaluating and altering theoretical models (Fornell & Larcker 1994). According to Cohen (1988), SEM represents a second generation multivariate data analysis technique that is frequently adopted to evaluate linear and additive causal relationships in proposed SEM models, especially in relation to marketing based studies. Moreover, the combination of both confirmatory factor analysis (CFA) and path analysis (PA) determined SEM’s underlying usage in evaluating and altering the theoretical models as SEM is capable of allowing the concurrent evaluation of interdependent relationships among the latent variables (Fornell & Larcker 1994). Therefore, every latent variable must be tested by multiple observed indicators in order for effective performance of SEM.
SEM consists of two sub-models – inner and outer models (Fornell & Larcker 1994). The inner model, which is more commonly referred to as the structural model illustrates the independent and dependent variables’ relationships (Hair et al. 2014) whereas outer model, which is identified as the measurement model outlines the relationships between latent variables and their observed indicators. All these variables represent either endogenous or exogenous role in the model under study. In a SEM model, endogenous variables present the outward pointing arrows while exogenous variables are receiving parties with at least one arrow pointing towards it, which can also indicate the effects of other variable(s) in the model (Falk & Miller 1992).

However, theoretically the variables can also act as independent or dependent variables at the same time depending on the model’s SEM design as well as the parts that are evaluated in the SEM model (Fornell & Larcker 1994). This situation occurs when there are arrows pointing from one variable to another. Thus, it is essential to establish the validity and reliability of a latent variable by testing each latent variable independently in the PLS-SEM model (Falk & Miller 1992; Hair et al. 2014). Through the utilization of SmartPLS 3.0 software, it is then possible to evaluate the Indicator Reliability, Composite Reliability (CR), Convergent Validity as well as Discriminant Validity of each latent variable in the research model.
3.9.9 Partial Least Square and Structural Equation Modelling Assumptions

In order to attain reliable and accurate results in this study, several assumptions are required in the PLS path modelling procedure. According to Hair et al. (2014), PLS path modelling assumptions were established upon soft distribution assumptions, which is commonly referred to as *soft modelling*. In this study, the model construct was conducted based on the acquisition of prediction-oriented measures for all the variables hence such indications were particularly accurate in this situation. The $R^2$ for dependent latent variables were determined, predictive relevance was assessed through Stone-Geisser’s test, average variance extracted (AVE) was measured through Fornell and Larcker (1981) criterion test and the predictive capability of the variables were evaluated through bootcross validation (Hair et al. 2014). Finally, bootstrapping technique was used to evaluate the constancy of all these predictions (Hair et al. 2014; Wong 2013).

Furthermore, PLS path modelling is adopted as it is effective in preventing situations where the observations assumptions are required to follow a particular set of distribution pattern while upholding its distribution independency at the same time (Hair et al. 2014). This enables the PLS modelling to be conducted without any restrictions in relation to the residual covariance that was assessed on the latent variables of the structural model under study. These underlying assumptions allow the researcher to utilize PLS-SEM modelling in the analysis stage of this study. Nevertheless, according to Wong (2013), PLS-SEM modelling approach facilitates a higher level of accuracy in the proposed model’s estimation as well as providing strong support to the results under circumstances where the right model specification cannot be confirmed. Hence, these justifications showed that PLS-SEM is the appropriate approach to be adopted in this study.
3.10 Ethical Considerations

Before the commencement of the official data collection period, the researcher applied and obtained ethical clearance from Swinburne University Human Research Ethics Committee (SUHREC) in order to collect the required research data among the sample population. It is crucial to ensure the confidentiality and security of the information provided by the respondents in the survey questionnaire. Therefore, to protect the confidentiality of the information obtained from the survey, the respondents were randomly selected among the sample population to ensure their anonymity. Additionally, they were only asked to disclose general information like their age, gender, race, etc. in the questionnaire. Identifiable information such as names, email addresses and phone numbers were not included in the questionnaire. This eliminates the possibility of respondents being identified after they submit their responses. Only aggregate data were used and reported in this study. Furthermore, a cover letter and consent information statement were attached to each set of questionnaire to provide detailed information on the research as assurance of this study’s confidentiality and security of information. Most importantly, all the data collected was stored in a password secured cloud storage – Microsoft One Drive and were only accessible by the researcher, which further guarantees the security of the information obtained.

3.11 Summary

At the beginning of this chapter, 13 main hypotheses were proposed based on the discussion of past literature in Chapter 2. Research design, population and sample, research instrument, data collection procedures and statistical analysis techniques were also presented and discussed in detail. The adoption of Partial Least Squares-Structural Equation Modelling (PLS-SEM) was also justified in this chapter through the explanations on the rationales, steps involved and assumptions of employing PLS-SEM as the statistical analysis tool for this study. Finally, ethical considerations were highlighted and outlined at the end of this chapter. The findings of this study are presented in the following chapter.
CHAPTER 4

RESEARCH FINDINGS

4.1 Chapter Introduction

The previous chapter described the methods and techniques used to guide data collection and analysis, in relation to the proposed hypotheses. This chapter presents the findings of the research in detail. Smart-PLS 3.0 software was used to test the structural model through Partial-Least Square-based Structural Equation Modelling (PLS-SEM). First, preliminary data was analyzed and this is then followed by application of the common method biases test and analysis of respondents’ demographics. Assessment of the measurement model and structural model are also presented and explained. In the measurement model, the reflective measurement model was assessed to evaluate the validity and reliability of the constructs whereas the discriminant validity was evaluated to test and establish the distinctness of the reflective constructs. The assessments of t-values and coefficient score ($R^2$) are then presented. At the end of this chapter, a structural model depicting the outcomes of all the hypotheses proposed is also presented. The decisions for all research hypotheses are outlined in Table 4.12 and Table 4.13 then explained.
4.2 Preliminary Data Analysis

This section presents the data screening procedures of this research, the evaluation of normality of data distribution and the respondents’ response rate during different phases of data collection.

4.2.1 Data Screening

The data screening stage includes data checking, data entering and data cleaning. Data checking was conducted to ensure the usability of the questionnaires as well as to make sure that the data collected from the survey were complete and free from errors. The data clean-up and screening process was conducted to provide a foundation for ensuing analysis in order to carry out structural equation modelling. At this stage, incomplete questionnaires were discarded. According to Alreck and Settle (1995), this screening process allows the confirmation that the data were properly examined and free from possible errors due to missing or inappropriate responses.

A list-wise deletion method was adopted to identify the missing values in the data collected, this is a process also known as complete-case analysis as it aimed to eliminate all allied data from a single questionnaire that consisted of one or more missing values from the same questionnaire. Hence, list-wise deletion method was used to manage the missing values as items in different sections of the questionnaire were shown to be inappropriate or missing in the questionnaire. In this study, 18 out of 410 completed responses were deemed unusable due to incomplete responses and missing values, which makes up approximately 4% of the total responses. These unusable responses were then discarded. This is considered acceptable as the number of discarded responses was less than 5% for data analysis (Kelley et al. 2003). Furthermore, this process was also conducted to ensure the appropriateness of data collected and to minimize the limitations in the upcoming data analysis.
4.2.2 Normality Assessment of Data Distribution

Skewness and Kurtosis index were adopted to evaluate the normality of data distribution in this study. The extent of symmetry of the indicators of constructs under study were calculated using skewness while the narrowness of the distribution was measured using Kurtosis to illustrate the level of distribution. In terms of skewness, when the outcomes of the distribution of responses bounce into the right or left tail, then the distribution is contemplated as skewed (Hair et al. 2017).

Different indexes of Skewness and Kurtosis are recommended in measuring the normality of data distribution. For example, if the values of the Skewness and Kurtosis are between -2 to +2, the distribution of data is perceived to be normal (Fidel 2000). According to Cunningham (2008), in order to ensure data distribution normality, the Skewness and Kurtosis values should be smaller than 2 and 7 respectively while values that are outside the range of ± 3.29 standard deviation should be removed (Tabachnick, Fidell & Ullman 2007). Scores removal is suggested to not exceed 0.10% of the data distribution. Based on these suggestions, the data shown in Table 4.1 sufficiently fulfilled the criteria for data distribution normality and thus there was no need to eliminate any items in this study.
<table>
<thead>
<tr>
<th>Construct (Label)</th>
<th>Item</th>
<th>Item Label</th>
<th>Mean</th>
<th>S.D.</th>
<th>Skew</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Country-of-Origin Effects</td>
<td>COO1</td>
<td>Positive car manufacturing country</td>
<td>5.06</td>
<td>1.30</td>
<td>-.480</td>
<td>.163</td>
</tr>
<tr>
<td></td>
<td>COO2</td>
<td>Quality passenger cars</td>
<td>4.53</td>
<td>1.30</td>
<td>-.276</td>
<td>-.093</td>
</tr>
<tr>
<td></td>
<td>COO3</td>
<td>Positive reputation globally</td>
<td>4.23</td>
<td>1.43</td>
<td>-.068</td>
<td>-.184</td>
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<td>Price-Quality Association</td>
<td>PQA2</td>
<td>High price equal to better quality</td>
<td>5.64</td>
<td>1.33</td>
<td>-.823</td>
<td>.049</td>
</tr>
<tr>
<td></td>
<td>PQA3</td>
<td>You get what you pay</td>
<td>5.69</td>
<td>1.27</td>
<td>-.870</td>
<td>.153</td>
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<td></td>
<td>PQA4</td>
<td>Price is a good indicator of quality</td>
<td>4.82</td>
<td>1.48</td>
<td>-.479</td>
<td>-.164</td>
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<tr>
<td>Value Consciousness</td>
<td>VC3</td>
<td>Getting the best value of my money</td>
<td>6.02</td>
<td>1.14</td>
<td>-1.247</td>
<td>1.806</td>
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<tr>
<td></td>
<td>VC4</td>
<td>Maximise quality for money spent</td>
<td>6.22</td>
<td>1.00</td>
<td>-1.272</td>
<td>1.145</td>
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<tr>
<td>Perceived Risk</td>
<td>PR1</td>
<td>Not worth the money spent</td>
<td>3.37</td>
<td>1.66</td>
<td>.448</td>
<td>-.407</td>
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<tr>
<td></td>
<td>PR2</td>
<td>Uncertain of quality</td>
<td>3.76</td>
<td>1.64</td>
<td>.106</td>
<td>-.667</td>
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<tr>
<td></td>
<td>PR3</td>
<td>Waste of money</td>
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<td>1.57</td>
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</tr>
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<td>Social Influence</td>
<td>SI1</td>
<td>Others’ agreements</td>
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<td>-.919</td>
</tr>
<tr>
<td></td>
<td>SI2</td>
<td>Others’ approvals</td>
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<td>1.86</td>
<td>-.065</td>
<td>-1.106</td>
</tr>
<tr>
<td></td>
<td>SI3</td>
<td>Others’ expectations</td>
<td>3.38</td>
<td>1.73</td>
<td>.179</td>
<td>-.970</td>
</tr>
<tr>
<td></td>
<td>SI4</td>
<td>Good impressions</td>
<td>3.96</td>
<td>1.82</td>
<td>-.165</td>
<td>-.978</td>
</tr>
<tr>
<td></td>
<td>SI5</td>
<td>Right product / brand</td>
<td>4.46</td>
<td>1.68</td>
<td>-.384</td>
<td>-.564</td>
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<td>Attitude towards Product</td>
<td>ATP2</td>
<td>Useful</td>
<td>5.49</td>
<td>1.06</td>
<td>-.320</td>
<td>-.409</td>
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<tr>
<td></td>
<td>ATP3</td>
<td>Right</td>
<td>5.73</td>
<td>1.01</td>
<td>-.657</td>
<td>.785</td>
</tr>
<tr>
<td></td>
<td>ATP4</td>
<td>Wise</td>
<td>5.56</td>
<td>1.06</td>
<td>-.415</td>
<td>-.239</td>
</tr>
<tr>
<td>Brand Reputation</td>
<td>BR1</td>
<td>Good quality</td>
<td>4.67</td>
<td>1.26</td>
<td>-.242</td>
<td>-.079</td>
</tr>
<tr>
<td></td>
<td>BR2</td>
<td>Positive characteristics</td>
<td>4.65</td>
<td>1.28</td>
<td>-.270</td>
<td>-.139</td>
</tr>
<tr>
<td></td>
<td>BR3</td>
<td>Superior</td>
<td>3.95</td>
<td>1.57</td>
<td>.086</td>
<td>-.545</td>
</tr>
<tr>
<td>Behavioural Intention</td>
<td>BI1</td>
<td>Intention to purchase</td>
<td>4.72</td>
<td>1.61</td>
<td>-.509</td>
<td>-.404</td>
</tr>
<tr>
<td></td>
<td>BI2</td>
<td>Plan to purchase</td>
<td>4.58</td>
<td>1.66</td>
<td>-.392</td>
<td>-.556</td>
</tr>
<tr>
<td>Actual Behaviour</td>
<td>Ownership</td>
<td>1.436</td>
<td>.061</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Note:** Indicators under the study constructs of this research were measured using a seven-point Likert scale.
4.2.3 Determination of Response Rate

As shown in Table 4.2, the total number of completed responses obtained from the survey was 410, and usable responses were 392. As a result, the response rate for completed responses received was approximately 91%, while response rate for usable responses was 87.1%. Eighteen of the completed return questionnaires were discarded due to their missing values. A response rate of more than 87% is perceived as highly satisfactory for a survey like this and hence the sample size of 392 is considered appropriate for PLS-SEM analysis.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distributed Questionnaire</td>
<td>450</td>
<td>100%</td>
</tr>
<tr>
<td>Questionnaires Received</td>
<td>410</td>
<td>~91%</td>
</tr>
<tr>
<td>Usable Questionnaires</td>
<td>392</td>
<td>87.1%</td>
</tr>
<tr>
<td>Unusable Questionnaires</td>
<td>18</td>
<td>4%</td>
</tr>
</tbody>
</table>
4.3 Test of Common Method Biases

Common Method Variance (CMV) was tested in this study through Harman’s single factor test to evaluate the common method bias (Podsakoff & Organ 1986). All the constructs under study were first entered into a single principal component factor analysis followed by the elimination process of the principal component of an individual fixed factor.

According to Podsakoff, Shen and Podsakoff (2006), the variance amount used to evaluate common method bias varies for different areas of research. For example, common method bias exists if more than 40.7% of covariance is generated in a single factor of behavioral research. As shown in Table 4.3, this study identified 7 factors and 21.596% is the most covariance that is explained by one factor. Furthermore, based on an unrotated factor analysis, all the items under study yielded these 7 factors and illustrated 66.086% of the variance. Hence, common method variance is not considered a major issue in this study (Podsakoff & Organ 1986).
### Table 4.3 – Common Method Bias Test Results

<table>
<thead>
<tr>
<th>Component</th>
<th>Total Variance Explained</th>
<th>Extraction Sums of Squared Loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Initial Eigenvalues</td>
<td>Extraction Sums of Squared Loadings</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>% of Variance</td>
</tr>
<tr>
<td>3</td>
<td>3.791</td>
<td>12.228</td>
</tr>
<tr>
<td>4</td>
<td>1.698</td>
<td>5.476</td>
</tr>
<tr>
<td>5</td>
<td>1.367</td>
<td>4.410</td>
</tr>
<tr>
<td>6</td>
<td>1.298</td>
<td>4.188</td>
</tr>
<tr>
<td>8</td>
<td>.957</td>
<td>3.086</td>
</tr>
<tr>
<td>9</td>
<td>.802</td>
<td>2.587</td>
</tr>
<tr>
<td>10</td>
<td>.788</td>
<td>2.541</td>
</tr>
<tr>
<td>11</td>
<td>.737</td>
<td>2.378</td>
</tr>
<tr>
<td>12</td>
<td>.660</td>
<td>2.128</td>
</tr>
<tr>
<td>13</td>
<td>.634</td>
<td>2.046</td>
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<tr>
<td>14</td>
<td>.598</td>
<td>1.930</td>
</tr>
<tr>
<td>15</td>
<td>.529</td>
<td>1.706</td>
</tr>
<tr>
<td>16</td>
<td>.484</td>
<td>1.561</td>
</tr>
<tr>
<td>17</td>
<td>.459</td>
<td>1.482</td>
</tr>
<tr>
<td>18</td>
<td>.439</td>
<td>1.415</td>
</tr>
<tr>
<td>19</td>
<td>.403</td>
<td>1.300</td>
</tr>
<tr>
<td>20</td>
<td>.381</td>
<td>1.229</td>
</tr>
<tr>
<td>21</td>
<td>.365</td>
<td>1.178</td>
</tr>
<tr>
<td>22</td>
<td>.330</td>
<td>1.063</td>
</tr>
<tr>
<td>23</td>
<td>.309</td>
<td>.998</td>
</tr>
<tr>
<td>24</td>
<td>.282</td>
<td>.909</td>
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<td>25</td>
<td>.261</td>
<td>.843</td>
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<td>26</td>
<td>.254</td>
<td>.821</td>
</tr>
<tr>
<td>27</td>
<td>.227</td>
<td>.731</td>
</tr>
<tr>
<td>28</td>
<td>.200</td>
<td>.645</td>
</tr>
<tr>
<td>29</td>
<td>.192</td>
<td>.620</td>
</tr>
<tr>
<td>30</td>
<td>.121</td>
<td>.390</td>
</tr>
<tr>
<td>31</td>
<td>.102</td>
<td>.329</td>
</tr>
</tbody>
</table>

Extraction Method: Principal Component Analysis.
4.4 Respondents’ Demographic Profile

Details of respondents’ demographic profile are shown in Table 4.1. As shown in the table, the percentage of female respondents in the sample is slightly higher than male respondents, recorded at 51.2 percent and 48.8 percent respectively. Respondents ages 25 to 34 make up the largest category at 32.9 percent, followed by respondents in the age groups of 18 to 24 (27 percent) and 35 to 44 (21.1 percent). In terms of race, the majority of the respondents are Chinese and Malay, which stand at 46.2 percent and 40.3 percent respectively, and which collectively make up more than 85 percent of the sample. For gross monthly income, 20.9 percent of the respondents reported having an income of RM999 and below, 19.2 percent with incomes of RM7,000 and above and 16.9 percent with monthly income in the range of RM2,000 to RM2,999. These three income groups make up more than 50 percent of the sample. A majority of the respondents are Perodua owners (36.1 percent), followed by Proton owners (31.7 percent) while 11.5 percent own both Proton and Perodua cars.
<table>
<thead>
<tr>
<th>Variables</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>200</td>
<td>48.8</td>
</tr>
<tr>
<td>Female</td>
<td>210</td>
<td>51.2</td>
</tr>
<tr>
<td>18 to 24 years old</td>
<td>110</td>
<td>27.0</td>
</tr>
<tr>
<td>25 to 34 years old</td>
<td>134</td>
<td>32.9</td>
</tr>
<tr>
<td>35 to 44 years old</td>
<td>86</td>
<td>21.1</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18 to 24 years old</td>
<td>110</td>
<td>27.0</td>
</tr>
<tr>
<td>25 to 34 years old</td>
<td>134</td>
<td>32.9</td>
</tr>
<tr>
<td>35 to 44 years old</td>
<td>86</td>
<td>21.1</td>
</tr>
<tr>
<td>45 to 54 years old</td>
<td>62</td>
<td>15.2</td>
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<tr>
<td>55 to 64 years old</td>
<td>14</td>
<td>3.4</td>
</tr>
<tr>
<td>65 years old and above</td>
<td>3</td>
<td>0.4</td>
</tr>
<tr>
<td>Malay</td>
<td>165</td>
<td>40.3</td>
</tr>
<tr>
<td>Indian</td>
<td>11</td>
<td>2.7</td>
</tr>
<tr>
<td><strong>Race</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chinese</td>
<td>189</td>
<td>46.2</td>
</tr>
<tr>
<td>Others</td>
<td>45</td>
<td>10.8</td>
</tr>
<tr>
<td>RM 999 and below</td>
<td>85</td>
<td>20.9</td>
</tr>
<tr>
<td>RM 1,000 to RM 1,999</td>
<td>36</td>
<td>8.9</td>
</tr>
<tr>
<td>RM 2,000 to RM 2,999</td>
<td>67</td>
<td>16.5</td>
</tr>
<tr>
<td>RM 3,000 to RM 3,999</td>
<td>41</td>
<td>10.1</td>
</tr>
<tr>
<td><strong>Income</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RM 4,000 to RM 4,999</td>
<td>47</td>
<td>11.6</td>
</tr>
<tr>
<td>RM 5,000 to RM 5,999</td>
<td>24</td>
<td>5.9</td>
</tr>
<tr>
<td>RM 6,000 to RM 6,999</td>
<td>28</td>
<td>6.9</td>
</tr>
<tr>
<td>RM 7,000 and above</td>
<td>78</td>
<td>19.2</td>
</tr>
<tr>
<td>PROTON</td>
<td>130</td>
<td>31.7</td>
</tr>
<tr>
<td><strong>Model Owned</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PERODUA</td>
<td>148</td>
<td>36.1</td>
</tr>
<tr>
<td>Both</td>
<td>47</td>
<td>11.5</td>
</tr>
</tbody>
</table>
4.5 Research Model

SmartPLS 3.0 was used in this study to conduct the latent variable analysis to construct the research model. The research model is shown in Figure 4.1 below. All statements in the survey questionnaire are labelled as indicators or items in the model. Items with a factor loading that is lower than 0.40 – 0.70 and contribute to low Average Variance Extracted (AVE) are deleted from the model since all items are reflective (Hair et al. 2014). Hence, two items related to value consciousness (VC), one item related to price-quality association (PQA), two items related to social influence (SI) and two items related to attitude towards products (ATP) were removed.
4.6 Analysis of Models Using PLS-SEM

A two-step process which involves the assessment of the measurement model and structural model (Figure 4.2) was performed in Structural Equation Modelling (SEM). In SEM, the relationship of an unobserved variable is evaluated through the measurement model to describe the construct or latent variable with a set of observed variables. In this study, the measurement model is evaluated through the evaluation of reflective measurement model that points from latent constructs to indicators measured (Hair et al. 2014; Kline 2015). On the other hand, the magnitude and degree of the relationships between the exogenous and endogenous constructs of the proposed framework were tested through the assessment of the structural model (Hair et al. 2014; Sarstedt et al. 2014).

![Figure 4.2 – Steps in Evaluating Structural Equation Model](image-url)
4.6.1 Assessment of Measurement Model

Constructs reliability, convergent validity and discriminant validity of the reflective constructs were used to evaluate the measurement model. In order to test the extent to which an individual indicator indicates a construct converging in comparison to the indicators used in other constructs, convergent validity was evaluated through Average Variance Extracted (AVE). Additionally, the assessment of discriminant validity was also conducted to affirm the degree to which every reflective construct is distinct from one another under the study through the prediction of construct correlation and average communalities.

4.6.1.1 Assessment of Reflective Measurement Model

The reliability of the constructs in this study was validated through the assessment of the reflective measurement model. According to Dijkstra and Henseler (2015); Hair, Ringle and Sarstedt (2012), this process is carried out to make sure that all study constructs were appropriately included in the path model. The crucial parts required in evaluating the reflective measurement model are through the tests of internal consistency reliability, convergent validity and discriminant validity. Hence, the two main coefficients used to assess internal consistency reliability and convergent validity were Composite Reliability (CR) and Average Variance Extracted (AVE) (Hair, Ringle & Sarstedt 2011).

Cronbach’s alpha and Composite Reliability (CR) coefficient are two ways that can be used to evaluate construct reliability. However, the weakness of utilizing Cronbach’s alpha as reliability measurement tool is widely acknowledged even though it is frequently used in many studies (Tenenhaus 2008; Tenenhaus & Hanafi 2010). In a Cronbach’s alpha test, it forecasts that the indicators used in an individual construct are equivalent to each other and hence generate equal factor scores for all indicators of the same construct (Werts, Linn & Jöreskog 1974). Thus, in Partial Least Square-Structural Equation Modelling (PLS-SEM), Cronbach’s alpha reliability test is perceived as a conservative method to assess the internal consistency of adopted scales (Hair et al. 2014).
On the other hand, Composite Reliability (CR) is reflected as a more suitable method to determine the construct reliability in PLS-SEM analysis due to the fact that CR possesses the capability to postulate item loading information into the calculation (Hair, Ringle & Sarstedt 2011; Kock 2011). Furthermore, researchers also recognize CR as a more credible reliability measurement tool compared to Cronbach’s alpha (Wong 2013). Hence, based on reasonable considerations of the strengths of composite reliability and weaknesses of Cronbach’s alpha, this study adopted composite reliability as its reliability measurement tool to determine the construct reliability. Composite reliability was evaluated with a predetermined threshold value that is equal to/larger than 0.708 for each factor loading (Hair et al. 2017).

Table 4.5 depicts the convergent validity and reliability of all constructs. It can be seen that the factor loadings for all the items exceeded the threshold value. Hence, all items of the constructs under study were taken into consideration for the analysis. Additionally, the CR values for all nine constructs under study in the measurement model exceeded the threshold value of 0.708 with 0.910 for country-of-origin effects, 0.845 for price-quality association, 0.910 for value consciousness, 0.905 for perceived risk, 0.906 for social influence, 0.886 for attitude towards products, 0.940 for brand reputation, 0.970 for behavioral intention and 1.000 for actual behavior. Thus, it is concluded that the results of the analysis affirmed that the reliability of the measurement model under study is acceptable.

Average Variance Extracted (AVE) was used in this study to test convergent validity in order to validate the reflective measurement model. Convergent validity was evaluated with a predetermined threshold value of 0.500 for AVE (Bagozzi & Yi 1988; Kock 2011; Wong 2013). As shown in Table 4.5, the AVE values for all the nine constructs under study exceeded the predetermined threshold with 0.770 for country-of-origin effects, 0.646 for price-quality association, 0.836 for value consciousness, 0.760 for perceived risk, 0.660 for social influence, 0.721 for attitude towards products, 0.840 for brand reputation, 0.942 for behavioral intention and 1.000 for actual behavior.
Finally, discriminant validity was evaluated to test the reflective measurement model of this study. This analysis was conducted to ensure that each of the reflective construct was distinct from each other through the prediction of average communalities and construct correlation (Kock 2011). In this study, discriminant validity was determined through applying the Fornell and Larcker (1981) criterion and the Heterotrait-Monotrait (HTMT) criterion. According to Fornell and Larcker (1981), the square root of AVE should be greater than the correlation values between the study constructs. Table 4.6 shows that the square roots of AVEs exceeded the correlation values for each research construct pairing. Therefore, the outcomes of the analysis indicated that the criterion for discriminant validity was fulfilled.

Heterotrait-Monotrait (HTMT) criterion was also used to assess the discriminant validity of constructs as it is an approach that predicts the correlations of constructs under study and hence its interpretation is direct (Henseler, Ringle & Sarstedt 2015; Nunnally 1994). HTMT is perceived to be superior in comparison to the traditional evaluation methods such as the Fornell-Larcker criterion (Henseler, Ringle & Sarstedt 2015). Past studies recommended that the accepted threshold value for HTMT are 0.85 and 0.90 in order to determine the discriminant validity (Gold, Malhotra & Segars 2001; Henseler, Ringle & Sarstedt 2015; Kline 2015). Thus, if the HTMT value is greater than this threshold, it could imply a lack of discriminant validity (Henseler, Ringle & Sarstedt 2015). HTMT.90 is used in this study to establish discriminant validity. As shown in Table 4.7, the outcomes of HTMT criterion were all smaller than the threshold value of 0.90. Thus, the discriminant validity outcomes were satisfactorily fulfilled.
Table 4.5 – Assessment of Reflective Measurement Model

<table>
<thead>
<tr>
<th>Construct</th>
<th>Items</th>
<th>Factor Loading</th>
<th>AVE</th>
<th>Composite Reliability</th>
<th>Convergent Validity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Country-of-Origin Effects</td>
<td>COO1</td>
<td>0.846</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>COO2</td>
<td>0.916</td>
<td>0.770</td>
<td>0.910</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>COO3</td>
<td>0.875</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PQA2</td>
<td>0.755</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Price-Quality Association</td>
<td>PQA3</td>
<td>0.830</td>
<td>0.646</td>
<td>0.845</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>PQA4</td>
<td>0.823</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Consciousness</td>
<td>VC3</td>
<td>0.905</td>
<td>0.836</td>
<td>0.910</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>VC4</td>
<td>0.923</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PR1</td>
<td>0.875</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceived Risk</td>
<td>PR2</td>
<td>0.861</td>
<td>0.760</td>
<td>0.905</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>PR3</td>
<td>0.880</td>
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</tr>
<tr>
<td></td>
<td>SI1</td>
<td>0.795</td>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SI2</td>
<td>0.852</td>
<td></td>
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<tr>
<td>Social Influence</td>
<td>SI3</td>
<td>0.892</td>
<td>0.660</td>
<td>0.906</td>
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<tr>
<td></td>
<td>SI4</td>
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<td></td>
<td>SI5</td>
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<td></td>
<td>ATP2</td>
<td>0.807</td>
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<tr>
<td>Attitude towards Products</td>
<td>ATP3</td>
<td>0.874</td>
<td>0.721</td>
<td>0.886</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>ATP4</td>
<td>0.866</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>BR1</td>
<td>0.932</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brand Reputation</td>
<td>BR2</td>
<td>0.941</td>
<td>0.840</td>
<td>0.940</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>BR3</td>
<td>0.875</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Behavioural Intention</td>
<td>BI1</td>
<td>0.971</td>
<td>0.942</td>
<td>0.970</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>BI2</td>
<td>0.970</td>
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<td></td>
<td></td>
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<tr>
<td>Actual Behaviour</td>
<td>AB</td>
<td>1.000</td>
<td>1.000</td>
<td>1.000</td>
<td>Yes</td>
</tr>
</tbody>
</table>

*a Average Variance Extracted (AVE) = (summation of the square of the factor loadings) / [{(summation of the square of the factor loadings) + (summation of the square of the error variances)}]

*b Composite Reliability (CR) = (square of the summation of the factor loadings) / [{(square of the summation of the factor loadings) + (square of the summation of the error variances)}]
Table 4.6 – Fornell-Larcker Criterion Results

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Actual Behavior</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attitude towards Products</td>
<td>-0.078</td>
<td>0.849</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Behavioral Intention</td>
<td>-0.037</td>
<td>0.202</td>
<td>0.970</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brand Reputation</td>
<td>-0.078</td>
<td>0.222</td>
<td>0.639</td>
<td>0.916</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Country-of-Origin Effects</td>
<td>-0.155</td>
<td>0.235</td>
<td>0.554</td>
<td>0.756</td>
<td>0.878</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Price-Quality Association</td>
<td>0.015</td>
<td>0.286</td>
<td>0.086</td>
<td>0.175</td>
<td>0.170</td>
<td>0.804</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceived Risk</td>
<td>0.102</td>
<td>-0.036</td>
<td>-0.308</td>
<td>-0.266</td>
<td>-0.279</td>
<td>0.097</td>
<td>0.872</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Influence</td>
<td>0.090</td>
<td>0.150</td>
<td>0.092</td>
<td>0.232</td>
<td>0.133</td>
<td>0.234</td>
<td>0.333</td>
<td>0.812</td>
<td></td>
</tr>
<tr>
<td>Value Consciousness</td>
<td>-0.098</td>
<td>0.444</td>
<td>0.087</td>
<td>0.035</td>
<td>0.102</td>
<td>0.176</td>
<td>-0.110</td>
<td>-0.06</td>
<td>0.914</td>
</tr>
</tbody>
</table>

*Note: bold diagonal represents the square root of the AVE.*
### Table 4.7 – Heterotrait-Monotrait (HTMT) Criterion Results

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Actual Behavior</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attitude towards Products</td>
<td>0.087</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Behavioral Intention</td>
<td>0.039</td>
<td>0.233</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brand Reputation</td>
<td>0.082</td>
<td>0.255</td>
<td>0.693</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Country-of-Origin Effects</td>
<td>0.169</td>
<td>0.289</td>
<td>0.619</td>
<td>0.858</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Price-Quality Association</td>
<td>0.053</td>
<td>0.374</td>
<td>0.127</td>
<td>0.193</td>
<td>0.202</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceived Risk</td>
<td>0.112</td>
<td>0.084</td>
<td>0.346</td>
<td>0.302</td>
<td>0.327</td>
<td>0.135</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Influence</td>
<td>0.094</td>
<td>0.183</td>
<td>0.100</td>
<td>0.254</td>
<td>0.154</td>
<td>0.254</td>
<td>0.403</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Consciousness</td>
<td>0.109</td>
<td>0.550</td>
<td>0.098</td>
<td>0.092</td>
<td>0.125</td>
<td>0.247</td>
<td>0.139</td>
<td>0.145</td>
<td></td>
</tr>
</tbody>
</table>
4.6.2 Assessment of Structural Model

An evaluation of the structural model was conducted after the reflective measurement model was evaluated. The relationship between constructs is depicted in the structural model after the validation of reflective and formative measurement model (Hair et al. 2014). This section will discuss the empirical findings of all hypotheses highlighted in Chapter 3.

4.6.2.1 Bootstrapping

Bootstrapping was used to test the path coefficients for the relationships among latent constructs in this study. In order to allow the process to better assess the model of each subsample, 5,000 cases of subsamples were drawn while running bootstrapping test (Hair et al. 2014). This was to ensure the generation of appropriate t-values for significant evaluation of the structural path (Hair, Ringle & Sarstedt 2011). According to Hair et al. (2017), a one-tailed test’s critical value of significance level varies from a two-tailed test and the recommended significance level for the path coefficients should at least be set at 0.05 level of significance. This study used a two-tailed test with critical values for level of significance at 0.01 and 0.05 are 2.33 and 1.645 respectively. Beta (β) values, standard error values and t-values for each path relationship in the model are outlined in Table 4.8 below. A confidence interval of 95 percent (significance at 0.05) or 99 percent (significance at 0.01) was applied to each t-value to determine the existence of significant relationship on each path estimate.
Table 4.8 – Path Coefficients (Bootstrapping) Findings for Overall Model Estimation

<table>
<thead>
<tr>
<th>Path Relationship</th>
<th>Beta ($\beta$) Value</th>
<th>Std. Error</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>COO $\rightarrow$ ATP</td>
<td>0.149</td>
<td>0.048</td>
<td>3.085</td>
</tr>
<tr>
<td>PQA $\rightarrow$ ATP</td>
<td>0.162</td>
<td>0.054</td>
<td>2.992</td>
</tr>
<tr>
<td>VC $\rightarrow$ ATP</td>
<td>0.406</td>
<td>0.044</td>
<td>9.219</td>
</tr>
<tr>
<td>COO $\rightarrow$ BR</td>
<td>0.692</td>
<td>0.030</td>
<td>22.861</td>
</tr>
<tr>
<td>PQA $\rightarrow$ BR</td>
<td>0.038</td>
<td>0.041</td>
<td>0.914**</td>
</tr>
<tr>
<td>VC $\rightarrow$ BR</td>
<td>-0.047</td>
<td>0.033</td>
<td>1.405**</td>
</tr>
<tr>
<td>PR $\rightarrow$ ATP</td>
<td>-0.005</td>
<td>0.052</td>
<td>0.091**</td>
</tr>
<tr>
<td>SI $\rightarrow$ ATP</td>
<td>0.118</td>
<td>0.053</td>
<td>2.232</td>
</tr>
<tr>
<td>PR $\rightarrow$ BR</td>
<td>-0.140</td>
<td>0.039</td>
<td>3.588</td>
</tr>
<tr>
<td>SI $\rightarrow$ BR</td>
<td>0.175</td>
<td>0.038</td>
<td>4.578</td>
</tr>
<tr>
<td>COO $\rightarrow$ BI</td>
<td>0.133</td>
<td>0.058</td>
<td>2.314</td>
</tr>
<tr>
<td>PQA $\rightarrow$ BI</td>
<td>-0.03</td>
<td>0.047</td>
<td>0.650**</td>
</tr>
<tr>
<td>VC $\rightarrow$ BI</td>
<td>0.023</td>
<td>0.043</td>
<td>0.524**</td>
</tr>
<tr>
<td>PR $\rightarrow$ BI</td>
<td>-0.134</td>
<td>0.049</td>
<td>2.733</td>
</tr>
<tr>
<td>SI $\rightarrow$ BI</td>
<td>0.004</td>
<td>0.049</td>
<td>0.083**</td>
</tr>
<tr>
<td>COO $\rightarrow$ AB</td>
<td>-0.209</td>
<td>0.085</td>
<td>2.441</td>
</tr>
<tr>
<td>PQA $\rightarrow$ AB</td>
<td>0.040</td>
<td>0.053</td>
<td>0.756**</td>
</tr>
<tr>
<td>VC $\rightarrow$ AB</td>
<td>-0.063</td>
<td>0.061</td>
<td>1.024**</td>
</tr>
<tr>
<td>PR $\rightarrow$ AB</td>
<td>0.032</td>
<td>0.061</td>
<td>0.528**</td>
</tr>
<tr>
<td>SI $\rightarrow$ AB</td>
<td>0.088</td>
<td>0.050</td>
<td>1.765**</td>
</tr>
<tr>
<td>ATP $\rightarrow$ BI</td>
<td>0.054</td>
<td>0.050</td>
<td>1.088**</td>
</tr>
<tr>
<td>BR $\rightarrow$ BI</td>
<td>0.494</td>
<td>0.070</td>
<td>7.105</td>
</tr>
<tr>
<td>ATP $\rightarrow$ AB</td>
<td>-0.045</td>
<td>0.055</td>
<td>0.821**</td>
</tr>
<tr>
<td>BR $\rightarrow$ AB</td>
<td>0.026</td>
<td>0.084</td>
<td>0.304**</td>
</tr>
<tr>
<td>BI $\rightarrow$ AB</td>
<td>0.075</td>
<td>0.060</td>
<td>1.253**</td>
</tr>
</tbody>
</table>

*p<0.01, **p<0.05, Note: COO = Country-of-Origin Effects, PQA = Price-Quality Association, VC = Value Consciousness, PR = Perceived Risk, SI = Social Influence, ATP = Attitude towards Products, BR = Brand Reputation, BI = Behavioral Intention, AB = Actual Behavior
<table>
<thead>
<tr>
<th>Path Relationship</th>
<th>Beta (β) Value</th>
<th>Std. Error</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>COO -&gt; ATP -&gt; BI</td>
<td>0.008</td>
<td>0.008</td>
<td>0.992**</td>
</tr>
<tr>
<td>PQA -&gt; ATP -&gt; BI</td>
<td>0.009</td>
<td>0.009</td>
<td>0.950**</td>
</tr>
<tr>
<td>VC -&gt; ATP -&gt; BI</td>
<td>0.022</td>
<td>0.020</td>
<td>1.082**</td>
</tr>
<tr>
<td>PR -&gt; ATP -&gt; BI</td>
<td>0.000</td>
<td>0.004</td>
<td>0.066**</td>
</tr>
<tr>
<td>SI -&gt; ATP -&gt; BI</td>
<td>0.006</td>
<td>0.007</td>
<td>0.947**</td>
</tr>
<tr>
<td>COO -&gt; BR -&gt; BI</td>
<td>0.342</td>
<td>0.052</td>
<td>6.638</td>
</tr>
<tr>
<td>PQA -&gt; BR -&gt; BI</td>
<td>0.019</td>
<td>0.021</td>
<td>0.897**</td>
</tr>
<tr>
<td>VC -&gt; BR -&gt; BI</td>
<td>-0.023</td>
<td>0.017</td>
<td>1.383**</td>
</tr>
<tr>
<td>PR -&gt; BR -&gt; BI</td>
<td>-0.069</td>
<td>0.022</td>
<td>3.096</td>
</tr>
<tr>
<td>SI -&gt; BR -&gt; BI</td>
<td>0.086</td>
<td>0.023</td>
<td>3.840</td>
</tr>
</tbody>
</table>

*p<0.01, **p<0.05, Note: COO = Country-of-Origin Effects, PQA = Price-Quality Association, VC = Value Consciousness, PR = Perceived Risk, SI = Social Influence, ATP = Attitude towards Products, BR = Brand Reputation, BI = Behavioral Intention, AB = Actual Behavior
4.6.6.2 Blindfolding

The model’s predictive relevancy was tested in this study in order to evaluate the Structural Equation Modelling (SEM). R-squared ($R^2$) values ranging from 0 to 1 were evaluated to specify the levels of predictive relevancy in the model in which the combined outcomes of the endogenous and exogenous construct(s) under study were also shown. The $R^2$ value of 0.02, 0.13 and 0.26 were indicated as weak, moderate and substantial respectively in order to show the predictive relevancy of the model (Cohen 1988). Table 4.9 shows the $R^2$ values of 0.049, 0.280, 0.441 and 0.606 for actual behavior, attitude towards products, behavioral intention and brand reputation respectively. Hence, it is shown that the predictive accuracy of the constructs—attitude towards products, behavioral intention and brand reputation were substantial while the construct—actual behavior was weak in the model under study.

In addition to $R^2$, predictive relevance ($Q^2$) of the path model is another path coefficient measurement tool that is utilized in this study as $Q^2$ is one of the main criteria that is to be evaluated in a structural model. In the blindfolding process, Stone-Geisser’s ($Q^2$) is a tool that is frequently used to assess the predictive relevancy of a structural model. This procedure examines whether the model under study is capable of predicting all the indicators of the endogenous latent construct (Geisser 1974; Stone 1974). According to Hair et al. (2017), Stone-Geisser’s ($Q^2$) results that are greater than 0 show that predictive relevance exists in the models. As shown in Table 4.9, the value of $Q^2$ is 0.017 for actual behavior, 0.184 for attitude towards products, 0.388 for behavioral intention and 0.478 for brand reputation. Hence, the predictive relevancy of the path model for this study is confirmed as the $Q^2$ values satisfactorily fulfilled the recommended threshold (larger than zero).
Furthermore, the effect size ($f^2$) between the constructs under study was also evaluated in this study. According to Chin (2010), $f^2$ outlines the extent to which the effect of the independent variable(s) on the dependent variable(s). This indicates that the relative effect(s) of the predicting construct towards the endogenous construct would be defined by the $f^2$ values, and would in turn illustrate the strength of the relationships. The threshold values of 0.02, 0.15 and 0.35 are recommended to interpret the effect size as low, moderate and high respectively (Cohen 1988). As shown in table 4.10, the impacts of country-of-origin towards attitude, price-quality association towards attitude, price-quality association towards brand reputation, value consciousness towards brand reputation, perceived risk towards brand reputation and social influence towards brand reputation are considered low according to the recommended threshold values. Similarly, the effects of perceived risk towards behavioral intention and value consciousness towards actual behavior were also low as their $f^2$ values are below the recommended threshold.

Value consciousness towards attitude and brand reputation towards behavioral intention present moderate effect. Interestingly, while country-of-origin effects towards brand reputation shows high effect based on the suggested threshold values. On the other hand, both perceived risk and social influence did not have any effects towards attitude with values of both being at 0.00 and 0.016 respectively, which were lower than the recommended threshold value of 0.02. Additionally, there seemed to be no effects of country-of-origin effects on behavioral intention, price-quality association on behavioral intention, value consciousness on behavioral intention and social influence on behavioral intention as their values were smaller than the recommended threshold value of 0.02. Additionally, it is observed that there were no effects of the following constructs on actual behavior: country-of-origin, price-quality association, value consciousness, perceived risk and social influence. Finally, the effects of attitude on behavioral intention, attitude on actual behavior, brand reputation on actual behavior and behavioral intention on actual behavior as their values were lower than the recommended threshold.
4.6.2.3 Test of Collinearity

Lateral collinearity is a crucial issue that needs to be addressed in order to test the structural model under study as it assesses the causal effect in the structural model (Kock & Lynn 2012). This leads to the evaluation of collinearity among the latent constructs through Variance Inflated Factor (VIF). According to Diamantopoulos and Siguaw (2006), VIF value that is $\geq 3.3$ is the threshold that illustrates potential collinearity issue(s). Table 4.10 depicts the VIF values for all constructs are smaller than the threshold value suggested, indicating that each construct under study is appropriate to evaluate the structural model.

<table>
<thead>
<tr>
<th>Constructs</th>
<th>$R^2$</th>
<th>$Q^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>AB</td>
<td>0.049</td>
<td>0.017</td>
</tr>
<tr>
<td>ATP</td>
<td>0.280</td>
<td>0.184</td>
</tr>
<tr>
<td>BI</td>
<td>0.441</td>
<td>0.388</td>
</tr>
<tr>
<td>BR</td>
<td>0.606</td>
<td>0.478</td>
</tr>
</tbody>
</table>
Table 4.10 Assessment of Structural Model (Path Coefficient Model)

<table>
<thead>
<tr>
<th>Direct Effects</th>
<th>Beta</th>
<th>S.E.</th>
<th>t-value</th>
<th>p-value</th>
<th>Decision</th>
<th>$f^2$</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>COO -&gt; ATP</td>
<td>0.149</td>
<td>0.048</td>
<td>3.085</td>
<td>0.020</td>
<td>Supported</td>
<td>0.026</td>
<td>1.199</td>
</tr>
<tr>
<td>PQA -&gt; ATP</td>
<td>0.162</td>
<td>0.054</td>
<td>2.992</td>
<td>0.003</td>
<td>Supported</td>
<td>0.032</td>
<td>1.189</td>
</tr>
<tr>
<td>VC -&gt; ATP</td>
<td>0.406</td>
<td>0.044</td>
<td>9.219</td>
<td>0.000</td>
<td>Supported</td>
<td>0.217</td>
<td>1.179</td>
</tr>
<tr>
<td>COO -&gt; BR</td>
<td>0.692</td>
<td>0.030</td>
<td>22.861</td>
<td>0.000</td>
<td>Supported</td>
<td>1.023</td>
<td>1.199</td>
</tr>
<tr>
<td>PQA -&gt; BR</td>
<td>0.038</td>
<td>0.041</td>
<td>0.914</td>
<td>0.361**</td>
<td>Not Supported</td>
<td>0.003</td>
<td>1.189</td>
</tr>
<tr>
<td>VC -&gt; BR</td>
<td>-0.047</td>
<td>0.033</td>
<td>1.405</td>
<td>0.160**</td>
<td>Not Supported</td>
<td>0.005</td>
<td>1.179</td>
</tr>
<tr>
<td>PR -&gt; ATP</td>
<td>-0.005</td>
<td>0.052</td>
<td>0.091</td>
<td>0.927**</td>
<td>Not Supported</td>
<td>0.000</td>
<td>1.336</td>
</tr>
<tr>
<td>SI -&gt; ATP</td>
<td>0.118</td>
<td>0.053</td>
<td>2.232</td>
<td>0.026</td>
<td>Supported</td>
<td>0.016</td>
<td>1.226</td>
</tr>
<tr>
<td>PR -&gt; BR</td>
<td>-0.140</td>
<td>0.039</td>
<td>3.588</td>
<td>0.000</td>
<td>Supported</td>
<td>0.038</td>
<td>1.336</td>
</tr>
<tr>
<td>SI -&gt; BR</td>
<td>0.175</td>
<td>0.038</td>
<td>4.578</td>
<td>0.000</td>
<td>Supported</td>
<td>0.063</td>
<td>1.226</td>
</tr>
<tr>
<td>COO -&gt; BI</td>
<td>0.133</td>
<td>0.058</td>
<td>2.314</td>
<td>0.021</td>
<td>Supported</td>
<td>0.013</td>
<td>1.199</td>
</tr>
<tr>
<td>PQA -&gt; BI</td>
<td>-0.030</td>
<td>0.047</td>
<td>0.650</td>
<td>0.516**</td>
<td>Not Supported</td>
<td>0.001</td>
<td>1.189</td>
</tr>
<tr>
<td>VC -&gt; BI</td>
<td>0.023</td>
<td>0.043</td>
<td>0.524</td>
<td>0.601**</td>
<td>Not Supported</td>
<td>0.001</td>
<td>1.179</td>
</tr>
<tr>
<td>PR -&gt; BI</td>
<td>-0.134</td>
<td>0.049</td>
<td>2.733</td>
<td>0.006</td>
<td>Supported</td>
<td>0.024</td>
<td>1.336</td>
</tr>
<tr>
<td>SI -&gt; BI</td>
<td>0.004</td>
<td>0.049</td>
<td>0.083</td>
<td>0.934</td>
<td>Not Supported</td>
<td>0.000</td>
<td>1.226</td>
</tr>
<tr>
<td>COO -&gt; AB</td>
<td>-0.209</td>
<td>0.085</td>
<td>2.441</td>
<td>0.015</td>
<td>Supported</td>
<td>0.019</td>
<td>1.199</td>
</tr>
<tr>
<td>PQA -&gt; AB</td>
<td>0.040</td>
<td>0.053</td>
<td>0.756</td>
<td>0.450**</td>
<td>Not Supported</td>
<td>0.001</td>
<td>1.189</td>
</tr>
<tr>
<td>VC -&gt; AB</td>
<td>-0.063</td>
<td>0.061</td>
<td>1.024</td>
<td>0.306**</td>
<td>Not Supported</td>
<td>0.003</td>
<td>1.179</td>
</tr>
<tr>
<td>PR -&gt; AB</td>
<td>0.032</td>
<td>0.061</td>
<td>0.528</td>
<td>0.598**</td>
<td>Not Supported</td>
<td>0.001</td>
<td>1.336</td>
</tr>
<tr>
<td>SI -&gt; AB</td>
<td>0.088</td>
<td>0.050</td>
<td>1.765</td>
<td>0.078**</td>
<td>Not Supported</td>
<td>0.006</td>
<td>1.226</td>
</tr>
<tr>
<td>ATP -&gt; BI</td>
<td>0.054</td>
<td>0.050</td>
<td>1.088</td>
<td>0.276**</td>
<td>Not Supported</td>
<td>0.004</td>
<td>1.065</td>
</tr>
<tr>
<td>BR -&gt; BI</td>
<td>0.494</td>
<td>0.070</td>
<td>7.105</td>
<td>0.000</td>
<td>Supported</td>
<td>0.171</td>
<td>1.065</td>
</tr>
<tr>
<td>ATP -&gt; AB</td>
<td>-0.045</td>
<td>0.055</td>
<td>0.821</td>
<td>0.412**</td>
<td>Not Supported</td>
<td>0.002</td>
<td>1.065</td>
</tr>
<tr>
<td>BR -&gt; AB</td>
<td>0.026</td>
<td>0.084</td>
<td>0.304</td>
<td>0.761**</td>
<td>Not Supported</td>
<td>0.000</td>
<td>1.719</td>
</tr>
<tr>
<td>BI -&gt; AB</td>
<td>0.075</td>
<td>0.060</td>
<td>1.253</td>
<td>0.210**</td>
<td>Not Supported</td>
<td>0.003</td>
<td>1.661</td>
</tr>
</tbody>
</table>

*p<0.01, **p<0.05, Note: COO = Country-of-Origin Effects, PQA = Price-Quality Association, VC = Value Consciousness, PR = Perceived Risk, SI = Social Influence, ATP = Attitude towards Products, BR = Brand Reputation, BI = Behavioral Intention, AB = Actual Behavior
4.7 Decisions of the Findings

In this study, 25 hypothesized relationships from the research model have been assessed. Table 4.11 and Table 4.12 outline all the decisions of the findings in relation to the hypotheses that were proposed. As shown in Table 4.11, the findings illustrate that the direct effects of country-of-origin effects towards attitude (H1a), price-quality association towards attitude (H1b) and value consciousness towards attitude (H1c) represent significant relationships. Similarly, the path relationships of country-of-origin effects towards brand reputation (H2a), social influence towards attitude (H3b), perceived risk towards brand reputation (H4a) and social influence towards brand reputation (H4b) also presented positive outcomes. Moreover, positive relationships were also found on country-of-origin effects towards behavioral intention (H5a), perceived risk towards behavioral intention (H6a), country-of-origin effects towards actual behavior (H7a) and brand reputation towards behavioral intention (H10).

On the other hand, the direct effects of price-quality association towards brand reputation (H2b), value consciousness towards brand reputation (H2c) and perceived risk towards attitude (H3a), presented unsupported relationships. Path relationships of price-quality association towards behavioral intention (H5b), value consciousness towards behavioral intention (H5c) and social influence towards behavioral intention (H6b) also showed negative outcomes based on the findings in Table 4.11. Furthermore, there were also negative effects of price-quality association (H7b), value consciousness (H7c), perceived risk (H8a) and social influence on actual behavior (H8b). Finally, the path relationships of attitude towards behavioral intention (H9), attitude towards actual behavior (H11), brand reputation towards actual behavior (H12) and behavioral intention towards actual behavior (H13) were found to be negative as well.
Table 4.11 Summary of Decisions for All Research Hypotheses (Direct Effects)

<table>
<thead>
<tr>
<th>H</th>
<th>Path Relationship</th>
<th>P Values</th>
<th>t-value</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1a</td>
<td>COO -&gt; ATP</td>
<td>0.020</td>
<td>3.085</td>
<td>Supported</td>
</tr>
<tr>
<td>H1b</td>
<td>PQA -&gt; ATP</td>
<td>0.003</td>
<td>2.992</td>
<td>Supported</td>
</tr>
<tr>
<td>H1c</td>
<td>VC -&gt; ATP</td>
<td>0.000</td>
<td>9.219</td>
<td>Supported</td>
</tr>
<tr>
<td>H2a</td>
<td>COO -&gt; BR</td>
<td>0.000</td>
<td>22.861</td>
<td>Supported</td>
</tr>
<tr>
<td>H2b</td>
<td>PQA -&gt; BR</td>
<td>0.361**</td>
<td>0.914</td>
<td>Not Supported</td>
</tr>
<tr>
<td>H2c</td>
<td>VC -&gt; BR</td>
<td>0.160**</td>
<td>1.405</td>
<td>Not Supported</td>
</tr>
<tr>
<td>H3a</td>
<td>PR -&gt; ATP</td>
<td>0.927**</td>
<td>0.091</td>
<td>Not Supported</td>
</tr>
<tr>
<td>H3b</td>
<td>SI -&gt; ATP</td>
<td>0.026</td>
<td>2.232</td>
<td>Supported</td>
</tr>
<tr>
<td>H4a</td>
<td>PR -&gt; BR</td>
<td>0.000</td>
<td>3.588</td>
<td>Supported</td>
</tr>
<tr>
<td>H4b</td>
<td>SI -&gt; BR</td>
<td>0.000</td>
<td>4.578</td>
<td>Supported</td>
</tr>
<tr>
<td>H5a</td>
<td>COO -&gt; BI</td>
<td>0.021</td>
<td>2.314</td>
<td>Supported</td>
</tr>
<tr>
<td>H5b</td>
<td>PQA -&gt; BI</td>
<td>0.516**</td>
<td>0.650</td>
<td>Not Supported</td>
</tr>
<tr>
<td>H5c</td>
<td>VC -&gt; BI</td>
<td>0.601**</td>
<td>0.524</td>
<td>Not Supported</td>
</tr>
<tr>
<td>H6a</td>
<td>PR -&gt; BI</td>
<td>0.006</td>
<td>2.733</td>
<td>Supported</td>
</tr>
<tr>
<td>H6b</td>
<td>SI -&gt; BI</td>
<td>0.934**</td>
<td>0.083</td>
<td>Not Supported</td>
</tr>
<tr>
<td>H7a</td>
<td>COO -&gt; AB</td>
<td>0.015</td>
<td>2.441</td>
<td>Supported</td>
</tr>
<tr>
<td>H7b</td>
<td>PQA -&gt; AB</td>
<td>0.450**</td>
<td>0.756</td>
<td>Not Supported</td>
</tr>
<tr>
<td>H7c</td>
<td>VC -&gt; AB</td>
<td>0.306**</td>
<td>1.024</td>
<td>Not Supported</td>
</tr>
<tr>
<td>H8a</td>
<td>PR -&gt; AB</td>
<td>0.598**</td>
<td>0.528</td>
<td>Not Supported</td>
</tr>
<tr>
<td>H8b</td>
<td>SI -&gt; AB</td>
<td>0.078**</td>
<td>1.765</td>
<td>Not Supported</td>
</tr>
<tr>
<td>H9</td>
<td>ATP -&gt; BI</td>
<td>0.276**</td>
<td>1.088</td>
<td>Not Supported</td>
</tr>
<tr>
<td>H10</td>
<td>BR -&gt; BI</td>
<td>0.000</td>
<td>7.105</td>
<td>Supported</td>
</tr>
<tr>
<td>H11</td>
<td>ATP -&gt; AB</td>
<td>0.412**</td>
<td>0.821</td>
<td>Not Supported</td>
</tr>
<tr>
<td>H12</td>
<td>BR -&gt; AB</td>
<td>0.761**</td>
<td>0.304</td>
<td>Not Supported</td>
</tr>
<tr>
<td>H13</td>
<td>BI -&gt; AB</td>
<td>0.210**</td>
<td>1.253</td>
<td>Not Supported</td>
</tr>
</tbody>
</table>

*p < 0.01, **p < 0.05; Note: COO = Country-of-Origin Effects, PQA = Price-Quality Association, VC = Value Consciousness, PR = Perceived Risk, SI = Social Influence, ATP = Attitude towards Products, BR = Brand Reputation, BI = Behavioral Intention, AB = Actual Behavior
Table 4.12 Summary of Decisions for All Research Hypotheses (Indirect Effects)

<table>
<thead>
<tr>
<th>H</th>
<th>Path Relationship</th>
<th>P Value</th>
<th>t-value</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>H_{14a}</td>
<td>COO -&gt; ATP -&gt; BI</td>
<td>0.321**</td>
<td>0.992</td>
<td>Not Supported</td>
</tr>
<tr>
<td>H_{14b}</td>
<td>PQA -&gt; ATP -&gt; BI</td>
<td>0.342**</td>
<td>0.950</td>
<td>Not Supported</td>
</tr>
<tr>
<td>H_{14c}</td>
<td>VC -&gt; ATP -&gt; BI</td>
<td>0.279**</td>
<td>1.082</td>
<td>Not Supported</td>
</tr>
<tr>
<td>H_{15a}</td>
<td>PR -&gt; ATP -&gt; BI</td>
<td>0.947**</td>
<td>0.066</td>
<td>Not Supported</td>
</tr>
<tr>
<td>H_{15b}</td>
<td>SI -&gt; ATP -&gt; BI</td>
<td>0.344**</td>
<td>0.947</td>
<td>Not Supported</td>
</tr>
<tr>
<td>H_{16a}</td>
<td>COO -&gt; BR -&gt; BI</td>
<td>0.000</td>
<td>6.638</td>
<td>Supported</td>
</tr>
<tr>
<td>H_{16b}</td>
<td>PQA -&gt; BR -&gt; BI</td>
<td>0.370**</td>
<td>0.897</td>
<td>Not Supported</td>
</tr>
<tr>
<td>H_{16c}</td>
<td>VC -&gt; BR -&gt; BI</td>
<td>0.167**</td>
<td>1.383</td>
<td>Not Supported</td>
</tr>
<tr>
<td>H_{17a}</td>
<td>PR -&gt; BR -&gt; BI</td>
<td>0.002</td>
<td>3.096</td>
<td>Supported</td>
</tr>
<tr>
<td>H_{17b}</td>
<td>SI -&gt; BR -&gt; BI</td>
<td>0.000</td>
<td>3.840</td>
<td>Supported</td>
</tr>
</tbody>
</table>

*p < 0.01, **p < 0.05; Note: COO = Country-of-Origin Effects, PQA = Price-Quality Association, VC = Value Consciousness, PR = Perceived Risk, SI = Social Influence, ATP = Attitude towards Products, BR = Brand Reputation, BI = Behavioral Intention, AB = Actual Behavior
4.8 Chapter Summary

This chapter illustrates all the findings from the data analysis process of this study which was conducted to study the factors influencing Malaysian car buyers’ purchase behavior. In this study, Partial Least Square-Structural Equation Modelling (PLS-SEM) was used to analyze the collected data set as well as to explain the findings of the structural model that was developed. The evaluation of the measurement and structural model was conducted in data analysis process and the results were outlined in two different sections. Convergent validity and discriminant validity of the constructs under study were tested to evaluate the measurement model. The convergent validity of the reflective indicators was measured using item loading where weights of the items were assessed to ensure that multicollinearity level of the formative indicators is accepted. Moreover, composite reliability (CR) and Average Variance Extracted (AVE) were used to test the convergent validity of this study. Threshold value of 0.708, 0.7 and 0.5 were adopted for item loading, composite reliability and AVE respectively.

In addition, Variance Inflated Factor (VIF) was used to assess the collinearity among latent variables of the structural model with the threshold value that is larger than 3.3. In order to test the predictive accuracy of the model, coefficient of determination score ($R^2$) was evaluated while the effect of a particular independent construct towards a dependent construct was assessed through effect size ($f^2$). Lastly, the predictive relevance ($Q^2$) of the model was evaluated to outline the relevancy of the structural model under study. Decisions of findings in relation to the hypotheses proposed in the earlier chapters are also presented. Further discussions and implications of the results findings are outlined in the next chapter.
CHAPTER 5

DISCUSSION OF FINDINGS

5.1 Introduction

This chapter presents a discussion of the findings presented in Chapter Four. In Chapter Four, the results of the direct and indirect effects of the relationships between the constructs were presented. The PLS-SEM analysis showed that country-of-origin effects can positively influence consumers’ attitude towards products, brand reputation, consumers’ purchase intention as well as their final purchase behavior. Perceived risk is capable of establishing significant relationship with brand reputation and behavioral intention while social influence possesses considerable effects on consumers’ attitude towards products and brand reputation. The analysis also showed that brand reputation can be effectively used in mediating the relationships between country-of-origin effects, perceived risk and social influence towards consumers’ purchase intention. This chapter provides a discussion of these findings in relation to the proposed hypotheses.

5.2 Direct Effects of the Constructs Tested in the Model

As this study examines the factors that influence Malaysian car buyers’ purchase behavior, this section will discuss the path relationships of the direct effects among the constructs that were analyzed in the structural model (see Figure 4.1). The path relationships for H1 to H13 are assessed in the following subsections.
5.2.1 Perceived Behavioral Beliefs (Country-of-Origin Effects, Price-Quality Association and Value Consciousness) and Perceived Normative Beliefs (Perceived Risk and Social Influence) will Influence Attitude towards Products, Brand Reputation, Behavioral Intention and Actual Behavior

Two of the research questions for this study are: “what is the relationship between country-of-origin effects and consumers’ purchase behavior?” and “how does social influence affects consumers’ purchase behavior?” Based on the analysis presented in Chapter Four (see Table 4.1), country-of-origin effects were shown to have significant impacts on consumers’ attitude towards products, brand reputation, behavioral intention, and purchase behavior. Findings on country of origin are consistent with past studies on attitude towards products (De Wet, Pothas & De Wet 2001; Sharma 2011; Ulgado, Wen & Lee 2013), brand reputation (Ahmed et al. 2002; Mohd Yasin, Nasser Noor & Mohamad 2007; Phau & Prendergast 2000), behavioral intention (Al-Sulaiti & Baker 1998; Papadopoulos & Heslop 2002; Ulgado, Wen & Lee 2013; Verlegh & Steenkamp 1999) and actual behavior (Khachaturian & Morganosky 1990; Laroche et al. 2005; White 2012). However, findings of social influence only showed positive effects of attitude towards products and brand reputation. These findings also vary from past studies on behavioral intention (Clark & Goldsmith 2006; Dahl 2013; Johansson 1989; Rogers 2010) as well as actual behavior (Lautiainen 2015; Lee et al. 2006) where social influence was found to have positive effects towards behavioral intention and actual behavior.

Country-of-origin of a product or brand possess significant emotional or symbolic meanings that would associate the product or brand with its national identity, patriotism, authenticity and status (Botschen & Hemetsberger 1998; Ulgado, Wen & Lee 2013; Verlegh & Steenkamp 1999). In Malaysia, the national automotive industry symbolizes a matter of national pride to its people (Brandt & Lim 2013). As such, Malaysian car buyers are more likely to participate in relational market behavior with brands and products that are closely related to their identity (Kara et al. 2009). Such behavior
encourages positive purchase intention among Malaysian car buyers towards Proton and Perodua cars as they are national automotive brands that are closely affiliated to the car buyers’ national identities sentiments. These feelings would create positive attitude among Malaysian car buyers towards Proton and Perodua cars and brand name, which in turn formulate favorable purchase intention and behavior. This shows that Malaysia as the country-of-origin of Proton and Perodua has considerable effects in framing positive car buyers’ purchase behavior, therefore justifies the findings of this study which presented the significance of country-of-origin in affecting car buyers’ attitude towards products, brand reputation perception, purchase intention and their final purchase behavior.

In a collectivist society, the identities of the people are more likely to be connected to their social network which causes their behavior to be more significantly affected by the opinions and preferences of those close to them (Arnold & Bianchi 2001). Since Malaysians tend to be collectivists (Lee & Kacen 2008), there is interdependency among social groups (Frost, Goode & Hart 2010). In Malaysia, many car users own or have owned Proton and Perodua cars (Joewono, Mohammad & Susilo 2008). The findings in this study suggest that their opinions and beliefs are very critical in influencing the perceptions and attitude of potential car buyers in the country. First-time buyers of these two brands can only rely on the information provided by their family, friends, and peers to evaluate the product and its brand. However, the outcome of this study suggested that social influence would not affect Malaysian car buyers’ final purchase intention and behavior. Generally, purchase of car(s) is considered major commitment(s) for most car buyers as it involves a large amount of spending. Factors such as affordability, maintenance cost, quality, etc. are more critical considerations that car buyers have to take into account in their buying process. Hence, social influence can affect car buyers’ attitude and perceptions towards Proton and Perodua cars but is not significant enough to influence their final purchase decision(s).
Additionally, “How can price-quality association influence consumers’ purchase behavior?” and “What are the effects of value consciousness towards consumers’ purchase behavior?” are other research questions proposed in this research. Based on the results shown in Chapter Four (see Table 4.11), it was found that both price-quality association and value consciousness indicated positive relationships with attitude towards products and negative relationships with brand reputation, behavioral intention, and actual behavior. The findings on attitude towards products are consistent with past research on price-quality association (Erickson & Johansson 1985; Garretson, Fisher & Burton 2002; Teas & Agarwal 2000) and value consciousness (Garretson, Fisher & Burton 2002; Urbany et al. 1997). However, the findings of price-quality association varies with past studies on brand reputation (Aaker & Keller 1990; Milewicz & Herbig 1994; Veloutsou & Moutinho 2009), behavioral intention (Lichtenstein, Ridgway & Netemeyer 1993) and actual behavior (Jacob y & Olson 1985; Lichtenstein, Bloch & Black 1988; Tellis & Gaeth 1990). The results of value consciousness are also inconsistent with past research on brand reputation (Kara et al. 2009); Kotler and Gertner (2002), behavioral intention (Allen, Ng & Wilson 2002; Garretson, Fisher & Burton 2002) and actual behavior (Bishop Jr 1984; Jacoby & Olson 1985; Thaler 1983).

A purchasing process is an essential component for consumers in making their purchase decision as it can be significantly altered due to the constant changes of environmental factors (Kazakeviciute & Banyte 2012). Therefore, how consumers perceive product value in relation to its price, quality, performance, etc. are important determinants with considerable influence over their attitude towards products, purchase intention and behavior. In this context, utilitarian and hedonistic purchasing behaviors can perhaps be used to explain how price-quality relationships and value consciousness influence Malaysian car buyers in their purchase decision(s). Utilitarian purchasing involves searching for convenience, variety, reasonable product price, quality products, whereas hedonistic purchasing emphasizes on the fulfilment of consumers’ emotional needs for interesting and enjoyable purchase experience (Bhatnagar & Ghose 2004; Sarkar 2011). Generally, consumers’ initial
purchase motives possess significant impacts on their perceived product value which can be either functional or non-functional (Chen & Hu 2010; Kazakeviciute & Banyte 2012).

The findings of this study seem to suggest that Malaysian car buyers tend to focus more on utilitarian buying motives as their main concern is to purchase car(s) that comes with justified quality, good value and reasonable pricing. In Malaysia, Proton and Perodua cars are priced much lower compared to other foreign brands due to the domestic protection policies initiated by the government. Therefore, Proton and Perodua cars are categorized as lower-priced products that comes with reasonable quality which can be afforded by most car buyers in the country (Toh 2006). Since cars are a necessity in Malaysia, most car buyers are probably more utilitarian when it comes to making their car purchase decisions. Their main concerns would be to select and purchase cars that provides them with the greatest value and convenience at a lower or more affordable price. Under such circumstances, elements such as brand name and reputation of products, price-quality relationships as well as buyers’ perceived product value are likely to be less important in determining their purchase decisions. Hence, price-quality association and value consciousness do not possess contributing effects towards car buyers’ brand reputation perception, purchase intention and their final behavior as both brands sell cars that are lower in prices yet with reasonable quality.

Finally, the last research question proposed in this study focuses on: “Can perceived risk influence consumers’ purchase behavior?”. Based on the findings presented in Chapter Four (see Table 4.11), perceived risk presented positive relationships with brand reputation and behavioral intention. Hence, the findings of perceived risk contrasts from past research on attitude towards products (Cho & Lee 2006; Laroche et al. 2005) and actual behavior (Cho & Lee 2006; Mitchell 1999; Taylor 1974) where perceived risk were found to affect consumers’ attitude towards products and actual behavior. In this study, perceived risk is found to possess negative effects on attitude towards products and actual behavior. Purchasing of car(s) are major purchase decision(s) for most car buyers. Therefore, car buyers
tend to look for strategies to reduce their perceived risk in their purchase actions to make themselves more comfortable with the purchase. Through this process, car buyers will have a clearer perspective of their purchase and would learn how to resolve the uncertainties involved (Sunitha et al. 2014; Thilina & Gunawardane 2019). In seeking convenience and value in their purchase decision, Malaysian car buyers are likely to practice habitual buying behavior where they repurchase products that they are familiar with. Such purchase behavior would significantly reduce their purchase risk in their car buying decisions. As a result, it is likely that car buyers perceived risk would not cause any effects to their attitude towards product and final purchase behavior.

5.2.3 Brand Reputation (Mediator) Will Influence Behavioral Intention and Actual Behavior

In this research, brand reputation is adopted in the conceptual framework as a mediator that mediates the relationships between perceived behavioral beliefs (country-of-origin effects, price-quality association, and value consciousness), perceived normative beliefs (perceived risk and social influence) and behavioral intention. It is therefore important to address the effects and effectiveness of brand reputation as a mediator in this research. Based on the findings of direct effects in Chapter Four (see Table 4.1), it was found that brand reputation has significant influence towards car buyers’ purchase intention (H10). However, a negative relationship was presented between brand reputation and actual behavior (H12). The findings of brand reputation towards behavioral intention are in line with previous research which have clearly pointed out the positive relationship between these two variables (Jung & Seock 2016; Kotler & Gertner 2002; Saxton 1998; Veloutsou & Moutinho 2009). However, the effects of brand reputation on actual behavior varies from related past studies conducted by Jung and Seock (2016); Veloutsou and Moutinho (2009) which highlighted the significant effects of brand reputation towards consumers’ actual behavior.
In the findings of mediating effects (see Table 4.1), brand reputation positively mediated the relationships between country-of-origin effects, perceived risk, and social influence towards behavioral intention. On the other hand, the findings presented that price-quality association and value consciousness possess no significant effects on behavioral intention under the mediation of brand reputation. This outcome shows that brand reputation serves as a positive mediator between country of origin, Malaysian car buyers’ perceived risk perception and social influence towards their final purchase intention. Proton and Perodua are national automotive brands that are relatively popular among Malaysians (Joewono, Mohammad & Susilo 2008). As such, brand reputation of Proton and Perodua as perceived by the owners of these brands of cars play an important role in shaping consumers’ perceptions towards these brands which in turn encourages their purchase intentions.

Research in the automotive industry has shown that consumers relate very strongly to brand names in a car purchase situation where brands can significantly affect their purchase intention, both favorably and unfavorably as their affiliation of brand name with its reputation is the main factor that determines their trust on that particular brand (Letchumanan 2016). Hence, in a collectivist country like Malaysia, positive brand reputation is very critical among consumers as their perception towards a brand’s reputation can be significantly affected by the opinions and beliefs of those close to them, such as their family members, friends, and social groups. Nevertheless, Malaysians are also more prone towards utilitarian buying behavior. They focus more on seeking for products that fulfil their functional value, quality expectations and comes with reasonable price rate (Sarkar 2011). Hence, positive brand reputation of Proton and Perodua can significantly enhance the country-of-origin image for both brands as well as minimizing the perceived purchase risk among car buyers. This in turn encourages favorable purchase intention among the car buyers in Malaysia.
On the other hand, the findings show that brand reputation is not an effective mediator between price-quality association and value consciousness towards behavioral intention. Generally, brand reputation is closely related to price-quality relationship and consumers’ perceived product value. A product’s brand reputation is a very significant element in influencing consumers’ perception towards the product, which would directly lead to the formation of their purchase intention. Habitual buying behavior can perhaps be used to explain this outcome. In habitual buying behavior, consumers generally do not search or depend on brand information, instead it is perceived more towards a repetitive purchase where buyers already have past experiences with the brand in question and decided to repurchase again (Letchumanan 2016). Proton and Perodua are very popular automotive brands in Malaysia and most Malaysians have owned or used at least one Proton or Perodua cars. Given that most buyers already have past experiences with Proton and Perodua, brand reputation might not be a significant factor that influences car buyers’ purchase intention as they do not depend on brand reputation in making their purchase decision.

5.3 Implication

This section highlights the implications of this study based on the findings and discussions from previous chapters and the current chapter. Theoretical implications are first presented followed by managerial implications.
5.3.1 Theoretical Implications

The Theory of Reasoned Action (TRA) and Theory of Planned Behavior (TPB) have been extended and improved on over the years in order to better understand, predict and improve consumers’ attitude and behavior in relations to their actions (Prendergast, Tsang & Yu Lo 2008). The first theoretical contribution in this study is the extension of TRA and TPB through the incorporation of three new variables into perceived behavioral beliefs (country-of-origin effects, price-quality association, and value consciousness) and two new variables into perceived normative beliefs (perceived risk and social influence) towards consumer automotive purchase behavior context. The direct and mediated effects between the antecedents-to-consequences constructs provide a more holistic model that explains the relationship between the variables under study (country-of-origin effects, price-quality association, value consciousness, perceived risk) and mediators (attitude towards products and brand reputation) towards consumers’ purchase intention and behavior.

The second theoretical contribution is that the predictive capabilities of theories used in this study are acknowledged to discuss the attitude and intention of consumers towards their purchasing behavior in different cultures and background. Since most of the previous studies were conducted in Western countries (Adina, Gabriela & Roxana-Denisa 2015; Curry & Riesz 1988; Dahl 2013; Dowling & Staelin 1994; Lichtenstein, Netemeyer & Burton 1990), the results obtained are not generalized enough to cater to the prediction needs of Asian countries like Malaysia. Through the integration of these theories (Theory of Reasoned Action, Theory of Planned Behavior, Attribution Theory and Acquisition-Transaction Theory) into a single and comprehensive model, this study aims to enhance the predictability of these theories in a Malaysian context which allows more accurate prediction and improved understanding of the factors that influence consumers’ purchase intention and behavior in Malaysia. To the researcher’s best understanding, thus far there have been limited studies on this context, especially from the point of view of Malaysian consumers.
The third theoretical contribution is that the constructs adopted in this study (country-of-origin effects, price-quality association, value consciousness, perceived risk and social influence) are variables that are commonly used in consumer behavior related studies, both in Asian (Malaysia) context (Adnan et al. 2017; Ahmad et al. 2017; Alden, Steenkamp & Batra 1999; Almselati, Rahmat & Jaafar 2011) as well as Western context (Ajzen 2005; Ajzen & Cote 2008; Bannister & Saunders 1978; Bearden & Mason 1978; Bohner & Dickel 2011). To achieve this, these constructs were adopted from different studies and integrated into a holistic conceptual model in this thesis to further evaluate their effects on Malaysian car buyers’ purchase intention and behavior towards Proton and Perodua cars. Most of the earlier research conducted in similar contexts did not present such a comprehensive analyses on the antecedents-to-consequences responses towards consumers’ final behavior (Eagly & Chaiken 1993; Fishbein & Ajzen 1977; Fishbien & Ajzen 1975; Gaedeke 1973; Handriana 2017) as they only focuses on certain variables or factors that influences consumers’ attitudes, intention and behavior in their purchase decisions.

While brand reputation is generally adopted as one of the research antecedents in previous studies (Letchumanan 2016; Trivedi & Raval 2016; Veloutsou & Moutinho 2009), it serves to mediate the relationships between perceived behavioral beliefs and perceived normative beliefs towards behavioral intention and actual behavior study in this present study, making this its fourth theoretical contribution. It was found that brand reputation is able to positively mediate the relationships between country-of-origin effects, perceived risk and social influence towards consumers’ purchase intention. Letchumanan (2016) found that car buyers relate very strongly to brand names in car purchase situations where brands can significantly affect their purchase intention as their affiliation of brand name with its reputation is the main factor that determines their trust on that particular brand. Hence, the addition of brand reputation as mediator into the proposed framework represents a contribution to the literature which provide new insights in explaining Malaysian car buyers’ behavior towards Proton and Perodua.
In summary, this study proposes a comprehensive framework to study the factors that influence car buyers’ purchase behavior towards Proton and Perodua in Malaysia. A theory-based conceptual model that integrates six constructs (country-of-origin effects, price-quality association, value consciousness, perceived risk, social influence, and brand reputation) was developed to evaluate their direct and mediating effects towards consumers’ purchase intention and behavior from a Malaysian context. Most of the earlier research conducted in similar contexts did not present such a comprehensive perception in regard to the antecedents-to-consequences responses towards consumers’ final behavior (Ajzen & Fishbein 1977; Eagly & Chaiken 1993; Fishbein & Ajzen 1977; Fishbien & Ajzen 1975; Gaedeke 1973; Handriana 2017) as they only focuses on certain variables or factors that influences consumers’ attitude, intention and behavior in their purchase decision. Such study is considered rare and rather limited, especially one that is conducted on the automotive context.

5.3.2 Managerial Implications

Consumer behavior studies suggest that consumers’ purchase intention and behavior is capable of influencing the effectiveness and efficiency of companies’ marketing strategies and plans (Pappas 2016; Peter, Olson & Grunert 1999). One important managerial implication is that the constructs adopted in this study (country-of-origin effects, price-quality association, value consciousness, perceived risk, social influence, attitude towards products and brand reputation) possess both positive and negative effects towards Malaysian car buyers’ purchase behavior. It is therefore crucial for Proton and Perodua to understand how these constructs govern consumers’ responses in order to encourage positive consumers’ purchase intention through their marketing efforts. Marketing strategies and activities are very important to companies as they determine consumers’ likelihood of purchasing a product (Leenders & Wierenga 2008; Pappas 2016). Thus, Proton and Perodua should align their marketing plans and activities in accordance with the effects of these constructs as they might contribute positively towards consumers’ behavioral responses in a purchase situation.
The findings of this study found that country of origin is a very significant factor in influencing Malaysian car buyers’ purchase decisions. Therefore, one crucial managerial implication that can be utilized to better market Proton and Perodua cars to Malaysian car buyers is to use Malaysia as the country of origin of Proton and Perodua to their advantage. Proton and Perodua are the only two national automotive brands of Malaysia. Thus, it is recommended that both companies associate their brands and products closely with Malaysia to instigate the sense of national pride and patriotism among car buyers in the country. Moreover, it is also imperative for Proton and Perodua to understand the significance of social influence among collectivistic Malaysian consumers. Even though social influence alone is not significant enough to influence car buyers’ purchase decision, it still plays an important role in influencing other car buyers’ perceptions towards Proton and Perodua. In short, close affiliation of Proton and Perodua as Malaysia’s national pride and positive perceptions among Malaysians can contribute positively towards the formation of favorable purchase behavior among car buyers.

Furthermore, it is essential to acknowledge that Malaysians are more value conscious on their purchase decisions. Such circumstances show that Malaysian car buyers are more prone towards utilitarian buying behavior which stresses on rational decision making for every purchase (Sarkar 2011). Moreover, cars are considered as shopping goods in Malaysia. It is a purchase that is made less frequently but buyers tend to make detail comparisons on its price, quality, specifications, value, etc. in their buying process. Consequently, brand reputation management should also be taken seriously as it garners important managerial implications. Brand reputation as one of the mediators in this study positively mediated the relationships between country-of-origin effects, perceived risk and social influence towards behavioral intention. Both Proton and Perodua need to understand and take into consideration the importance of building a favorable brand reputation to increase car buyers’ confidence towards their brands and cars. Hence, in this study context, it is critical for retailers to understand and incorporate these considerations into their marketing strategies formulation. Marketers should also
monitor closely the effects of various antecedents that might contribute to favorable or unfavorable behavioral responses among the car buyers. This would allow both Proton and Perodua to formulate better marketing plans that can cater to the needs and wants of Malaysian car buyers.

Generally, marketers and retailers tend to only focus on commonly used marketing techniques such as sales promotions, advertisements, etc. when they market their product(s). They fail to realize that such practices did not take into account other relevant factors that are more significant in formulating consumers’ purchase intention and behavior which can then cause consumers’ repulsive behavior towards their marketing campaigns. Malaysians, who are more collectivist in nature, tend to be more interdependent especially among their family members and social groups. Malaysian consumers have the tendency to consult their family members and peers for information before they make any purchases, especially before major purchases such as buying a house or car. Thus, in addition to the antecedents evaluated in this study, factors such as consumers’ cultural background, buying behavior, product classifications, pricing strategy, product functionality and quality as important determinants that can alter and affect consumers’ final purchase decision.

5.4 Chapter Summary

This chapter first discussed the direct effects of the path relationships that were analyzed in Chapter 4. Then, the mediating effects of brand reputation for each path relationship were highlighted and explained in detail. Additionally, the contribution of this study towards theory and practice were also outlined in this chapter. In the following chapter, limitations of this research and future research recommendations will be presented.
CHAPTER 6

CONCLUSION

6.1 Chapter Introduction

Chapter 5 presented a detailed discussion on the study’s findings along with its theoretical and managerial contributions. This chapter therefore discusses the limitations of this study and provides recommendations for future research that can be conducted to further improve and bring new insights into car buyers’ purchase behavior-related studies. Finally, a conclusion on this research will be included at the end of this chapter.

6.2 Limitations of Research

Every research has its own limitations that should be taken into consideration. First of all, while the researcher tried to source respondents from as many different parts in Malaysia as possible, a biased representative was present in the sample in that the respondents were picked from several states and cities in Malaysia. This places limits on generalizing the results to fit the whole population. Secondly, there is still huge disparity between urban and rural areas development in Malaysia. Since most of the samples were collected among car buyers residing in urban areas, the responses obtained are unable to properly represent the opinions and perceptions of those from rural areas. This in turn may lead to random errors in this study. Furthermore, even though probability sampling technique was used in this study, it does not represent the coverage of the whole population of Malaysia as only a small sized sample was utilized to study and investigate the factors that influence Malaysian car buyers’ purchase
behavior towards Proton and Perodua cars. Hence, the findings might not properly represent the opinions of every Malaysian car buyer.

In this study, factors such as country-of-origin effects, price-quality association, value consciousness, perceived risk, and social influence were adopted as the main study antecedents. However, these factors are not the only aspects that affect Malaysian car buyers’ purchase behavior. Other relevant factors such as product specifications, vehicles maintenance cost, customer service, fuel efficiency, etc. are important elements that should be taken into consideration as well. Moreover, this study only adopts theory of reasoned action (TRA) and theory of planned behavior (TPB) in investigating Malaysian car buyers’ purchase behavior. Although these theories have been widely utilized in consumer behavior related studies, it might not be sufficient to cover all aspects of car buyers’ purchase behavior in this context. Hence, other consumer behavior models/theories such as Maslow’s motivation-need theory and Engel, Kollat, Blackwell (EKB) model should be adopted as well to better understand and predict Malaysian car buyers’ purchase behavior.

Variance-based SEM (PLS-SEM) was utilized to evaluate the structural model in this study. The adoption of this method has its limitation in the prediction of model fit, which is present in covariance-based SEM (Wong 2013). Theory testing and model validation are not as emphasized on variance-based SEM compared to covariance-based SEM (Hair et al. 2014). However, PLS-SEM was adopted to carry out path modelling analysis which is one of the most commonly utilized techniques in marketing and behavioral science related studies (Chin 1998; Podsakoff et al. 2003). Moreover, PLS-SEM is more prone towards prediction optimization which is more widely utilized in exploratory related research like this while covariance-based SEM are more focused on statistical accuracy estimation (Hair et al. 2014; Wong 2013). Nevertheless, PLS-SEM does not take data normality in its assumptions as these assumptions are crucial components in covariance-based SEM. Instead, it generates predictive relevance to fit the overall objective of this study. Hence, PLS-SEM is a more appropriate tool for this study.
6.3 Future Research

Future research in relation to consumer purchase behavior towards cars still needs to be conducted at different levels across the country to provide better information and understanding to car manufacturers and retailers in Malaysia – especially Proton and Perodua in devising their future marketing plans and strategies that appeal to car buyers. Additionally, future research can also incorporate other relevant factors that are not included in this study such as: product features and specifications, after-sales services, vehicles maintenance expenses and frequency, etc. that are able to generate more useful information to Proton and Perodua. Furthermore, it is also possible to restructure the current conceptual framework proposed in this research by replacing one or few of the constructs with other variables. Researchers can develop and propose new and more comprehensive framework through adding, reducing, or altering the constructs which in turn would generate different results that can be further compared to assist Proton and Perodua in finding out the determining factor(s) in Malaysian car buyers’ decision-making process.

In the future, researcher can also collaborate with different automotive retailers in Malaysia to reach out to more respondents from different parts of the country to present a more generalized research. This can be done as the retailers have multiple branches and service centers that are located all over Malaysia which enables the researcher to reach respondents in those areas easily under the assistance of the retailers. Nevertheless, research of similar context can also be replicated in other countries that share similar cultural backgrounds, especially those countries with heavy usage or ownership of cars among its people. This will allow future researchers to conduct a more holistic and comprehensive study to compare and contrast the effects of different factors that influences car buyers’ purchase behavior in different countries. Furthermore, this would also help marketers in identifying the factors that predict the car buyers’ purchase behavior based on different results obtained from different countries. This in turn allows the automotive retailers to devise and plan marketing strategies that suit the market needs and are capable of attracting more buyers in purchasing their cars.
Consequently, aside from Theory of Reasoned Action (TRA) and Theory of Planned Behavior (TPB) that were utilized in this research, future researchers can also consider adopting other consumer behavior theories and/or models such as Maslow’s motivation-need theory and Engel, Kollet, Blackwell (EKB) model in their studies. Maslow’s motivation-need theory studies how human fulfill their needs based on a five-part priority system which can contribute significantly in their decision-making process (McLeod 2007). On the other hand, the EKB model further expands Theory of Reasoned Action (TRA) by laying out a five-step process used by consumers when they intend to purchase a product (Darley, Blankson & Luethge 2010). Through the adoption of new theories and/or models, researchers would be able to better identify the factors that influence consumers’ purchase behavior towards cars. This would allow marketers and retailers to identify relevant factors in the formulation of marketing plans based on the research results presented.

Furthermore, future research should also take into consideration Values and Lifestyles (VALS) or Cultural Values into the existing framework to better illustrate the effects of the different factors towards consumers purchase behavior. In a multiracial society like Malaysia, it is important to categorize the consumers into different groups based on their personal and group values to better understand their purchase behavior. Such studies are especially essential in collectivist societies like Malaysia where consumers’ personal and group values play significant roles in influencing their purchase actions. Hence, further explorations are required in this area of study. Future replications of similar studies can also look at applying other related constructs such as race, religion, household income, etc. to the current research framework to find out how these demographic factors influence car buyers’ purchase behavior.
6.4 Conclusion

The findings of this study presented mixed findings. For direct effects, the results showed that country-of-origin effects possess significant effects on consumers’ attitude towards products, brand reputation, behavioral intention, and actual behavior. This outcome shows that country of origin is a very significant factor in affecting Malaysian car buyers’ purchase behavior. On the other hand, price-quality association and value consciousness only show positive effects on car buyers’ attitude towards products. Perceived risk presented positive relationship with brand reputation and behavioral intention while social influence was found to possess negative effects on behavioral intention and actual behavior of car buyers in Malaysia. Brand reputation as the one of the mediators in this study positively mediated the relationship between country-of-origin effects, perceived risk, and social influence towards behavioral intention. This result illustrates that brand reputation can significantly influence car buyers’ country of origin perception, perceived purchase risk and their perception towards Proton and Perodua cars which in turn affect their purchase intention.

Therefore, the conclusion that can be derived from the findings is that aside from the commonly used marketing techniques and strategies such as sales promotions (free gifts, discounts, vouchers, etc.), advertisements and competitive pricing; factors such as car buyers’ perception towards country of origin of product, perceived price and quality value of product, risk involved, social influence, attitude towards Proton and Perodua cars and brand reputation can positively or negatively affect their intention to purchase as well as their final purchase behavior. Based on these findings, Proton and Perodua would be able to devise more effective marketing plans that are able to attract car buyers into buying their products, while at the same time delivering the necessary confidence to them through the justifications of their purchase decision by providing safe and quality products that brings positive value to the car buyers in Malaysia.
Furthermore, several theory implications were also presented in this study. The proposed framework under study showed new extensions to the Theory of Reasoned Action (TRA) and Theory of Planned Behavior (TPB) through the addition of variables (country-of-origin effects, price-quality association, value consciousness, perceived risk, and social influence) and mediator (brand reputation) which brings new insights into consumer behavior related studies. This newly proposed framework was evaluated and provides new perceptions towards car buyers’ purchase behavior in the Malaysian automotive market. Similar studies in this context is rather scarce hence the findings of this study should provide further understanding in relation to Malaysian car buyers’ purchase behavior. Additionally, in terms of managerial implications, companies (Proton and Perodua) are recommended to take these highlighted factors into consideration while devising their marketing plans as well as incorporating the effects of these factors into their strategies which would further enhance Malaysian car buyers’ intention to purchase their cars.
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APPENDIX II – Swinburne University Human Research Ethics Approval

To: A/Prof Palanee Ekambaram, FSET/CSI

SHR Project 2019/076 - Factors influencing consumer behaviour towards locally manufactured cars in Malaysia
A/Prof Palanee Ekambaram – FSET/CSI/Dr Jee Teck Weng, Dr Rodney Lim Thiam Hock, Michelle Kuek Shu Wu (Student) – Sarawak
Approved duration: 05-04-2019 to 21-01-2021 [Adjusted]

I refer to the ethical review of the above project by a Subcommittee (SHESC-Sarawak) of Swinburne’s Human Research Ethics Committee (SUHREC). Your response to the review as e-mailed on 5 April 2019 was put to the Subcommittee delegates for consideration.

I am pleased to advise that, as submitted to date, ethics clearance has been given for the above project to proceed in line with standard on-going ethics clearance conditions outlined below.

- The approved duration is 5 April 2019 to 21 January 2021 unless an extension is subsequently approved.

- All human research activity undertaken under Swinburne auspices must conform to Swinburne and external regulatory standards, including the National Statement on Ethical Conduct in Human Research (2018) and with respect to secure data use, retention and disposal.

- The named Swinburne Chief Investigator/Supervisor remains responsible for any personnel appointed to or associated with the project being made aware of ethics clearance conditions, including research and consent procedures or instruments approved. Any change in chief investigator/supervisor, and addition or removal of other personnel/students from the project, requires timely notification and SUHREC endorsement.

- The above project has been approved as submitted for ethical review by or on behalf of SUHREC. Amendments to approved procedures or instruments ordinarily require prior ethical appraisal/clearance. SUHREC must be notified immediately or as soon as possible thereafter of (a) any serious or unexpected adverse effects on participants and any redress measures; (b) proposed changes in protocols; and (c) unforeseen events which might affect continued ethical acceptability of the project.

- At a minimum, an annual report on the progress of the project is required as well as at the conclusion (or abandonment) of the project. Information on project monitoring and variations/additions, self-audits and progress reports can be found on the Research Internet pages.

- A duly authorised external or internal audit of the project may be undertaken at any time.

Please contact the Research Ethics Office if you have any queries about on-going ethics clearance, citing the Swinburne project number. A copy of this e-mail should be retained as part of project record-keeping.

Best wishes for the project.

Yours sincerely,

Sally Fried,
Secretary, SHESC-Sarawak