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Understanding Generation Y Buying Intention Toward Hybrid Car in Johor Bahru

Kooi Chung Leng*, Abu Bakar Abdul Hamid, Thoo Ai Chin[a], Zhang Dawei

Faculty of Management, UniversitiTeknologi Malaysia, 81310 UTM Johor Bahru, Johor Malaysia

*Corresponding author: jasonkooi@yahoo.com.

Abstract

Malaysia continues to face air pollution problems caused by rapid development and urbanization. The environmental issues have induced automotive industries to produce more environmental friendly vehicles that will reduce the damages to the ecosystem. The main purpose of this study is to propose a framework to understand the Generation Y buying intention toward hybrid cars in Johor Bahru, the second largest city in Malaysia. The study will be carried out to explore which factors including fuel efficiency, physical appearance, safety, after sales service and brand name affect the Generation Y's hybrid car buying decision, as well as their acceptance level of hybrid car if compared to traditional vehicles. In addition, this study will explore whether demographic factors such as gender, income and education moderate the relationship between influencing factors and Generation Y's hybrid car buying decision. It is expected that the finding of this study will provide additional insight to the automotive industries in terms of the consumer intention to purchase a hybrid technology vehicle.

Keywords: Generation Y; consumer buying intention; hybrid car; Johor Bahru; Malaysia

1.0 INTRODUCTION

Malaysia faces air pollution caused by massive industrial development, urbanization and motorization. The air pollution problems of Malaysia originate from several sources including power plants, industrial factories, windblown and vehicle emission (Abdullah, Samah & Tham, 2012). The three major root causes of air pollution in Malaysia include vehicle emission (70%~75%), stationary sources (20%~25%) and open air burning (3%~5%) (AFroz, Hassan & Ibrahim 2003). According to an environmental report produced by Department of Environment Malaysia (2009) it is estimated that the overall air pollutant emission is nearly 1.6 million metric tons of carbon monoxide (CO); 756,359 metric tons of nitrogen dioxide (NO_2) and 27,727 metric tons of particulate matter (PM) (Maizatun, Sharifah & Azlinor, 2012). Traditional internal combustion engine vehicles emit several harmful gases including carbon dioxide (CO_2), carbon monoxide (CO), nitrogen (N_2), volatile organic compound (VOC), water vapor (H_2O) hydrocarbons and nitrogen oxide (NO_2) (Michael et al. 2011; Arthur et al. 2011). Over the years, the air quality has deteriorated due to continuous increase in the numbers of registered vehicles on the road. The rapid development of the automotive industry has contributed to the Malaysia air pollution problem. Transportation field can be ranked as second highest energy consumption after heavy industry sector, which accounting for nearly 40% of the total energy consumption (Nurul, Nusaibah & Siti 2011). In order to solve the air pollution problem, it is necessary to decrease greenhouse gas emissions and increase the fuel efficiency performance of vehicles. There is a growing consumer's awareness toward environmental issues (Straughan & Robert 1999). For instance, many car buyers are considering environment factors in their vehicle purchase intention.

Generation Y consumers are the demographic group following generation X, with birth dates ranging from 1977 to 2003 (Bakewell & Mitchell, 2003; Adelina, Gillian & Susan 2007). Some researchers categorized to those born between 1980 and 1994 (Archana & Heejin Lim' 2008). In the Malaysia scenario, generation Y can be defined to those born from 1980 onwards and who joined the workforce after 2000 (Erickson, 2008). The generation Y group is also known to be early adopters of newest technologies, are high-tech savvy, make extensive use of the internet and take shopping as a favorite activity (Gillian & Susan 2007; Archana & Heejin Lim, 2008) . In addition, generation Y are considered as entrepreneurial thinkers with the characteristics of upbeat and self-reliant, as well as socially conscious and well-educated (Barron, et al. 2007). Generation Y can be

regarded as a future market target group since it represents a significant consumer segment. In Asia, the population of generation Y has grown from 648 million in 1995 to 729 million in 2006 (Kueh & Voon, 2007). Therefore, generation Y will soon form the major force in the consumer market and significant behavioral shift in buying behavior is expected (Belleau et al. 2007).

Recently, the sales of hybrid cars have increased significantly in the Malaysia automobile market since the launch in 2007 (MAA, 2012). Due to the raising price of petrol, Malaysian vehicle buyers are looking for a fuel efficient vehicle in order to decrease their cost of driving. If compared with conventional cars, the acceptance of hybrid cars is still low. Therefore, it is necessary for vehicle producers to explore consumers' selection criteria in hybrid car.

The main purpose of this study is to provide insight into the automotive industry in term of consumer's level of acceptance of hybrid car. This study will be conducted in Johor Bahru, the capital city of Johor State in southern Malaysia and second most densely populated city after Kuala Lumpur. The population of Johor Bahru is approximately 1.33 million.

The main objective of this study is to propose a framework by exploring the major factors that affect generation Y consumers' hybrid car buying intention in Johor Bahru.

1. To identify the most influencing factors that affect generation Y consumers' hybrid car buying intention in Johor Bahru.

2. To determine whether there is a different between influencing factors and generation Y consumer's hybrid car buying intention in terms of demographic characteristics.

2.0 LITERATURE REVIEW

There is an increasing tendency of consumer awareness toward environmental problems (Straughan & Robert 1999; Qureshi et al. 2013). Many consumers will consider environmental factors in their buying intention. In recent years, many companies have been required to embrace the era of green marketing in order to gain environmentally based competitive advantage in the market. The company should become environmentally responsive if they want to maintain competitive in the market (Qureshi, et al. 2014). Green purchase behavior can be defined as "the spending of products that are helpful to the environment; recyclable or conservable and sensitive or responsive to ecological concerns" (Department of Statistics Malaysia, 2010). Green purchase behaviors can be explained as one of the pro-environmental behaviors. The consumer who possesses green purchase behavior will consider environmental or social issues when making buying decision and consuming product (Roberts, 1996).

Hybrid car can be explained as a type of technology that combined at least two different energy sources in one vehicle in order to mobilize the car. Hybrid car can reduce patrol energy usage through electric storage system to save part of the energy produced by gasoline engine and regenerative braking (Tan, et al. 2012). Hybrid car combines internal combustion engine with a rechargeable battery and electric motor to establish a power system (Mostafa, 2007). Also, hybrid car can reduce approximately 30% of carbon dioxide emission and other air pollutants to the air compared with other conventional vehicles (Tan, et al. 2012).

Understanding consumer's car buying behavior is one of the success factors for vehicle producers and dealers. There is plenty information including buying criteria which affect consumer buying intention toward vehicles available for vehicle producers and dealers to study (Michael, et al. 2011). Actually, consumer decision making process can be regarded as a complicated process and varied with the types of product or service (Foley, 2003). Purchasing a car is very important decision for most people. Although vehicles are regularly used products, but consumer is seldom purchase it (Kotler et al. 2005). Hybrid car purchase process is similar to the traditional vehicle purchase process, which is complicated and vehicle buyers need to spend more time to make a purchase decision. Consumer purchasing decision making process does not occur in a vacuum, and it is strongly influenced by several stimuli including cultural, personal, and social and psychological (Chua, Lee, Alvin & Sadeque, 2010). There are four personal characteristics which dominate consumer's buying decisions including age, gender, education and income (Lamb, Hairy & Mc Daniel, 2002). The consumer may rely on various product attributes to make a decision during the buying process (Burke, 2002). The number of attributes used increases when the buying decision involves high involvement products purchasing such as car and property.

The rising price of petrol has raised the awareness of consumers toward fuel efficiency vehicles. Buying a fuel efficient vehicle can reduce the burden of the car buyer especially during tough economic times. The car buyers prefer to select a vehicle which provides more fuel efficiency than their used car (Peter & Olson, 1987). Numerous studies indicated that consumers consider efficient cars when gasoline prices are rising, and take fuel economy into consideration during automobile purchase (Turrentine & Kurani, 2007). Physical appearance plays an important role in the product sales performance improvement (Klier & Joshua Linn, 2010). Vehicle producers require a lot of resources in improving vehicle physical appearance design. Approximately sixty percent of consumer's car selection criteria rely on physical appearance rather than technical performance (Page & Herr, 2002). The safety features of a car have become one of the important selection criteria during new car purchasing process (Kreuzbauer & Malter, 2005). Many studies have been conducted by insurance companies, vehicle producers and university academicians to explore the factors affecting consumers' new car buying decision. The finding of studies indicated that the importance of vehicle safety features have increased significantly over the past decades (Zeidler, et al. 2001). Vehicle safety features include airbag, antilock brake system (ABS), safety belts, traction control and anti-roll-over suspension system control (Kreuzbauer & Malter, 2005). High standards of vehicle safety features can minimize the occurrence of road accidents.

In recent years, marketing environment has become more reliant on enhancing after sales service to maintain competitive advantage in competition (Stoffer, 2000).[33] Many companies have begun to enhance the relationship with existing clients because the cost of acquiring new clients is substantially higher than that of retaining the current clients. The easier availability of vehicle spare parts, easy availability of service technicians and number of service workshops have significantly influenced consumer's new car buying decision (Adrian, 1995). Vehicle safety features are one of the most important criteria for new vehicle selection (Sanatullah & Danish, 2011).

Possessing a strong brand name can enhance product differentiation and significantly influence consumer purchase decisions. Brand name is one of the most important criteria considerations while purchasing a new vehicle (Seyed & Ehsan, 2010). In addition, numerous studies have ascertained that global brands perceive higher quality than local brand (Hasan, 2008).

3.0 HYPOTHESIS DEVELOPMENT

As shown in Figure 1, the hypotheses are developed to test the causal relationship between the influencing factors and Generation Y's hybrid vehicle buying intention, as well as the moderating effect of demographic variables (education, income and gender) on the influencing factors and Generation Y's hybrid vehicle buying intention.

Hypothesis 1

Fuel efficiency is positively related to Generation Y's hybrid vehicle buying decision.

Hypothesis 2

Physical appearance is positively related to Generation Y's hybrid vehicle buying decision.

Hypothesis 3

Vehicle safety is positively related to Generation Y's hybrid vehicle buying decision.

Hypothesis 4

After-sales service is positively related to Generation Y's hybrid vehicle buying decision.

Hypothesis 5

Brand name is positively related to Generation Y's hybrid vehicle buying decision.

Hypothesis 6

Demographic variables (education, income and gender) moderate the relationship between the influencing factors and Generation Y's hybrid vehicle buying intention.

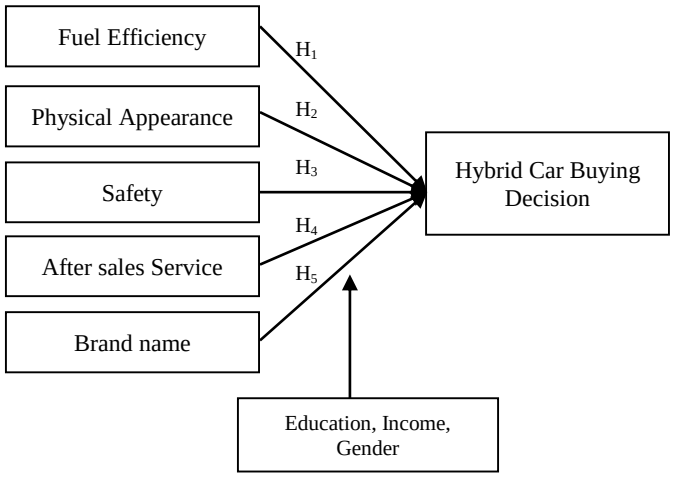

Figure 1 Proposed framework

4.0 RESEARCH METHODOLOGY

The population of this research will be derived from Johor Bahru who possess an interest toward a hybrid vehicle. The population can be further categorized as the potential buyers of a hybrid vehicle. According to the national census results conducted by Malaysia Statistic Department in 2010, the population of Johor Bahru is approximate1y 1.33 million. The population who possess an interest in a hybrid vehicle can be selected as the respondent in this study. The people who are not interested in buying a hybrid vehicle are excluded in this study in order to prevent sampling error. All of the respondents should possess a valid driving license. Further, the target population of this study is Generation Y. Therefore the age of respondents must range from 20 to 34. Data collection method can be regarded as an integral part of a research design (Wang et al. 2012). The questionnaire will be distributed to potential buyers of hybrid vehicles in Johor Bahru. Approximately 400 questionnaires will be distributed to respondents via electronic mail and postage mail. After completion of the data collection, the

researcher will conduct a data analysis on the raw data in order to obtain valuable results. Descriptive analysis, normality test, reliability analysis and validity analysis are important to be conducted before the hypotheses testing. Multiple regression will be used to analyze the relationship between the influencing factors (fuel efficiency, physical appearance, vehicle safety, after sales service and brand name) and Generation Y's hybrid vehicle buying intention. In addition, hierarchical regression analysis is used to explore the moderating effects of demographic variables (education, income and gender) on influencing factors and Generation Y's hybrid vehicle buying intention.

■5.0 CONCLUSION

The focuses and responsibility on environment and on natural systems have grown largely in most societies as research has indicated people are getting more concerned about the environment. This study play a role as a catalyst to facilitate and expedite the participation in green car marketing between consumers and vehicle marketer. Understanding the factors which affect green vehicle selection will enhance the effiectiveness of vehicle marketer's marketing plan and align thier marketing strategy to attain businesness objective in a more cost efficiency way. Overall, the researchers hope that potential buyers' perception on hybrid cars based on the constructs identified in this study willplay a significant role on their purchasing decisions.

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