

## Emerging Issues in Car Purchasing Decision

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### ABSTRACT

*The automotive industry is an important segment of the economy in any country as it links industries and services. It is the key driver of any growing economy. It plays an important role in growing the economy in each country and one way to strengthen the industry is to improve consumer insight into vehicle buying behaviour. Besides, competitive pressure of automotive companies arising in Malaysia has led the companies to look for an edge to be competitive in automotive industry. Both the local and foreign cars are competing to get attention from the consumers. Therefore, the objective of this study is to identify the factors influencing consumer buying behaviour towards national automobiles in the Malaysian perspective. The independent variables in this study consist of four dimensions, namely reliability, safety, fuel economy, and price. The sample sizes of this study are 171 out of 200 targeted respondents through online questionnaire with 85.5% return rate. The unit of analysis for this research consists of individual potential car buyers in Kuala Lumpur. In addition, this study focused on the determinant of consumers buying behaviour towards national cars in Kuala Lumpur with their rapid growth in car ownership. It is clear that the rapidly-expanding car market in the Federal Territory of Kuala Lumpur is a direct product of the spectacular economic performance of these areas. The car markets in Kuala Lumpur plays a huge economic role towards the general development of Malaysia. The result is tested by using descriptive (frequency analysis) and statistical analysis (reliability analysis, and simple linear regression analysis). The result indicates that the three independent variables of car's reliability, safety, and price significantly influence consumer buying behaviour towards national cars in Kuala Lumpur. The result can assist the Malaysian automotive companies to increase their sales by focusing on those important factors.*

**Keywords:** Buying behaviour, Reliability, Safety, Fuel economy, Price

### INTRODUCTION

The automotive industry in Malaysia can be considered as one of the most important and strategic industries in the manufacturing sector. Compared with other industries in the manufacturing sector in Malaysia, the automotive industry has been earmarked to boost the industrialization process so that Malaysia can be a developed nation by 2020 (Unescap Organization, 2010). In addition, with the increasing demand on cars in the automobile market in Malaysia, both the local and foreign brands have to compete to get consumers' attention to purchase their cars. Competitive pressures and increasing complexity have led automotive companies to look for an edge wherever they can find it. Improved consumer insight into vehicle shopping and buying behaviour can provide that valuable advantage (Capgemini, 2008). Thus, it is crucial to find out what factors influencing consumer buying behaviour towards national automobiles in Malaysia to identify consumer needs and issues that influence their purchase.

Besides, automobiles play a pivotal role in our daily life, which makes them a subject of interest in many academic fields. However, customers make their own choice and judgments based on their own preferences and personal requirements; the question raised by dealers and

manufacturers is to find the preference factors for such selection models (Momeni & Nazemi, 2010). Guessing or measuring the consumers attitude is not a cake walk but this is because predicting consumers attitude is as tough as predicting consumer's mind (Bheri, 2004).

The next challenges facing by the local automobile industry is the changing needs of consumers. The automotive world today is changing and consumers are changing. The speed of change is continuing to accelerate. Competitive pressures and increasing complexity have led automotive companies to look for an edge wherever they can find it. Improved consumer insight into vehicle shopping and buying behaviour can provide that valuable advantage (Capgemini, 2008). Consumer behaviour is evolving and that automotive companies need to anticipate this evolution in order to be part of, or even influence, the changes (Scribd.com, 2009). Besides, the main challenge for the Malaysia's automobile industry is the competition from the Thailand's automobile industry in the areas of production, sales, technology, and product standards. In the global market, Thailand ranks as the 15th largest vehicle manufacturer in the world (Michael Shain & David Edmonds, 2004). It indicates that Thailand's automobile industry is one of the main competitors for our national cars.

As a result, the main problem arising in Malaysia is the competitive pressure of automotive companies. There is a widespread recognition that consumer behaviour is the key to contemporary marketing success (Hawkins *et al.*, 2003). The top four factors that consumers continue to claim they value when making vehicle purchasing decisions are reliability, safety, fuel economy, and price (Capgemini, 2009a).

## LITERATURE REVIEW

### Buying behaviour

According to the drive.com (2010), the top ten motivators influencing the purchase of a new or used car were fuel economy/environmental (45%), reliability (54%), brand has a good reputation (36%), price/value for money (36%), performance/engine power (29%), safety (28%), exterior appearance (25%), riding and driving comfort (19%), inexpensive to service/repair (17%), and internal space (14%). Today, the main characteristics consumers weigh in their vehicle purchase decision include fuel economy, purchase price, maintenance and reliability, safety, performance and personal or family needs (Timothy & Patricia Kearney, 2006).

Besides, most of the recent researches on car ownership explore the relationship between car choice and some other factors such as environment and alternative cars. The recent one revealed variables such as household demographics; household location characteristics, built environment attributes, household head characteristics, and vehicle attributes affect household vehicle holdings and use (Chandra *et al.*, 2009) and the other one included variables such as income, quality of public transport, employment in modelling of the number of cars per household (Matas & Raymond, 2008). Potoglou & Kanaroglou (2008) considered variables such as family structure, socio-economic characteristics and accessibility at the place of residence on the number of cars owned by a household while Ahn *et al.* (2008) emphasized more on vehicle attributes such as fuel type, body type, maintenance cost, engine displacement, fuel efficiency and fuel price. According to Cars Online (Capgemini, 2009a) the top four factors that consumers continue to claim they value when making vehicle purchasing decisions are reliability, safety, price, and fuel economy. Survey findings from Deloitte (2008) reported that fuel economy and price are the most important vehicle attributes by consumers who were between the ages of 17 and 30 years.

## Reliability

In terms of value reliability, consumers consider a vehicle to be reliable if it is likely to have fewer problems than other vehicles (Consumer Report, 2010). Vehicle reliability has been found to have a positive impact on the consumers' likelihood of choosing a vehicle (Woods *et al*, 2010). Reliability and quality are interrelated, perceived quality has direct impact on customer purchase decision and brand loyalty especially during the time customers have less or no information of the products that they are going to purchase (Armstrong and Kotler, 2003). Besides, reliability is one of the criteria to be considered for vehicle choice (destoop.com, 2010). Consumers want their vehicles to be both reliable, simple to maintain and to repair. The benefits that consumers see in buying a vehicle with high reliability include lower costs of repair and higher resale value (BuyingAdvice.com, 2007). Therefore, consumers are likely to be concerned about vehicle reliability when researching their upcoming vehicle purchase.

In addition, consumers choose a brand they recognize, compared to an unfamiliar brand. In specific industries like automotive, brand is the frontrunner in determining a purchase for both imported and domestic cars. Traditionally the market for luxury brands was considered to be for the ones between the age of 30 and 50 but now younger people are entering the market (Cheong & Phau, 2003). It is essential for the marketer to understand how consumers think and value a product. There has been a vast increase in the luxury market (Sriviroj, 2007) and attempts are being made to attract the youth through different marketing strategies. This is because youth are vulnerable and can easily be attracted by advertising and promotions. They have higher disposable incomes towards spending on luxury. Thus, it is indicated that people buy cars for all sorts of reasons such as exciting styling, cutting-edge safety technology, or a prestigious brand. But a reputation for reliability is important to just about every consumer. Good quality propels a virtuous circle in auto-industry performance. The more reliable a company's cars, the more people are willing to pay for them, which makes it easier to sell without enormous discounts and yields more money to build better cars. According to the David Champion (2010), Senior Director of Consumer Reports auto-test operations, he stated that it doesn't take very long to lose a good reputation, but it takes five or ten years to gain one. Therefore, reliability is essential to determine the reputation of the automotive companies.

## Safety

In terms of safety, consumers consider safety to be one of the most important considerations in buying a new or used vehicle. The vehicle safety performances are ratings before purchasing a vehicle (Harris, 2001). In addition, consumers are increasingly seeking safety features in their vehicles (Deloitte, 2010) and are willing to pay more for a vehicle to obtain improved safety levels (Harris, 2001). Furthermore, the Deloitte study also predicted that the current economic crisis will leave customers to value vehicle safety more than before and seek vehicles with enhanced safety features. Consumers' increasing demand for safety has led manufacturers to think and develop safety-related innovations and features (such as automatic crash notification, emergency assistance, and remote vehicle diagnostics) in their recent models (Deloitte, 2009; Dannenberg & Burgard, 2007).

Furthermore, car's safety has raised concern about Malaysia's consumer due to the high accident rate. A road safety institute is pushing for the manufacturer of cars to have higher standards to reduce crash fatalities. Besides, Malaysian Institute of Road Safety Research (Miros) Director-General Prof. Farhan Sadullah (2011) required Malaysian cars to install safety features, such as airbags, the anti-lock brakes, which halts the car at the shortest distance under most conditions. According to Farhan, Malaysia saw a drop in fatalities six

years ago with about 6,200 deaths. However, the figures have steadily gone up to 6,700. Based on the literature review above, it was identified that there is a relationship between performance and safety of the cars. Majority of the consumers would consider safety and make it as primary consideration in the purchase process of a new or used vehicle. In order to meet consumers' safety demand, most of the manufacturers are trying their best to develop safety-related innovations and features in the cars. Thus, consumer buying behaviour is essential for car manufacturers to reach their target market with their customer knowledge.

### **Fuel Economy**

Fuel economy is as important a factor in a consumer's choice of vehicle as are safety and reliability. The impact of volatile gasoline prices can be seen in all markets, with nine out of 10 respondents pointing to fuel economy as an important or very important consideration in their vehicle choice. Consumers across all markets expect to see greater emphasis on fuel efficiency and a significant shift to alternative-fuel vehicles in the coming decade. Electric/battery, water, hydrogen and solar were among the anticipated fuel sources for cars of the future (Car Online, 2009). Furthermore, Austin and Dinan (2005) assume that consumers fully value lifetime fuel savings when considering fuel economy in their vehicle choices. There is no doubt that consumers do care about fuel costs, do value fuel economy, and that their interest in fuel economy increases when fuel prices increase (Mahadi and Gallagher, 2009).

On the other hand, consumer demand for green products is growing. There is growing awareness of fuel-efficient and alternative fuel vehicles, and consumer research indicates a growing interest in purchasing more fuel efficient and low emissions "greener" vehicles. Consumer research shows that fuel savings is the primary factor influencing decisions to purchase green vehicle with concern about environmental impacts showing up as a secondary factor (Ernst and Young, 2010). According to Car Online Research (2009), more than one-quarter of respondents said they currently own or lease a fuel-efficient vehicle while almost half said they are planning to buy or thinking seriously about buying a fuel-efficient vehicle. The numbers for alternative-fuel vehicles were lower. Just 2% of respondents currently own an alternative-fuel vehicle and 11% are planning to buy or thinking seriously about buying one. The most common type of alternative-fuel vehicle represented in the survey was gas or electric hybrids, named by about half of current alternative-fuel car owners.

### **Price**

Price is often viewed as a dominant factor in the guiding process when it comes to making a purchase decision. Price in general has always been a determinant factor on consumers' brand choice when selecting a product or service. It is assumed that when a consumer is facing a buying decision in a product category, consumers observe a price to take into account on their current inventory position in the category. This helps them to maximize their immediate utility that they gain from the purchase. However, when consumer faces brand with varying prices and perceived quality levels, they would have to make a choice consistent with the relative importance attached to both attributes (Nor Khasimah Alimana and Md Nor Othman, 2007).

Furthermore, vehicle price is one of the top considerations that heavily impact consumers' vehicle purchasing decisions (Deloitte, 2009). In most cases, consumers want to buy a vehicle that they can afford without compromising much on other important factors such as reliability and safety. Vehicle price has become even more important than before due to the global recession. In addition, according to the European Commission (2011), when judging the price of a car, an individual will not always consider the value they are getting for their money. It

means that they compare the price to the cost of their last car, or their neighbour's car. In many countries, consumers are also attracted to things that are free. If a product is free, or comes with extras or features that are free, consumers will often find it more attractive than alternative choices. For example, a car that is tax free will be more attractive to consumers than a car in a very low tax bracket, even if the level of tax seems insignificantly low. Based on a recent survey, Deloitte (2009) predicts a critical shift in auto consumers' purchase priorities as customers seek value in the form of cheaper and more efficient vehicles. Consumers are increasingly using the Internet to search for vehicle pricing information (Consumer Reports, 2009) and are wanting to buy new vehicles online as an alternative to the traditional dealer model (Capgemini, 2009a).

## **METHODOLOGY**

In this study, the research was conducted in Kuala Lumpur, Malaysia through online survey. The population comprised of all potential car buyers in Kuala Lumpur. Therefore, 200 respondents were targeted in this study. Online questionnaires were distributed by using convenience sampling method. The unit of analysis for this research are individual potential car buyers in Kuala Lumpur.

All the questionnaires were distributed through online. The links of the online questionnaires have been posted on several automobile forums such as "Autoworld.com" that consists of the national car users and "CARI Forum" that consists of both national and foreign car users. Besides, online questionnaire has been sent through the personal email of the respondents. The use of online questionnaire is gaining acceptance because it is easy to use, is recorded as electronic data (Wilson and Laskey, 2003) and can provide a rich stimulus environment for participants (Tingling, Parent, and Wade, 2003). From the 200 respondents targeted for this study, 171 fully completed questionnaires were returned with 85.5% return rate.

## **FINDINGS**

Descriptive analysis was used to analyse the demographic profile; whereby the statistical analysis was used to evaluate the reliability analysis and hypothesis testing by using simple linear regressions analysis. The respondents' gender was almost evenly distributed to 200 people in Kuala Lumpur through online, with 54% male and 46% female respectively. Besides that, 68% of all respondents were between the ages of 21 to 25 years old. Respondents' between the ages of 26 to 35 years old group were the second highest with 28%. This is followed by 4% from the group between the ages of 36 to 55 years old and 0% from 55 years old and above. Total respondents of 90% are single and 9% are married, followed by 1% of respondents who are divorced. Besides that, occupation shows that the 26% of the respondents were working as administrative staff and 26% were students. Engineering field consists of 15% of respondents, and there were 14% of unemployed respondents. The 12% of the total respondents are from managerial level, followed by 7% from other positions.

Majority of 33.9% respondents' salary were between RM 1001 to RM 3000; followed by 19.3% of zero income respondents that consists of the students and those unemployed respondents. 17.5% of the total respondents' salary were between RM 3001 to RM 5000 and 14% of the respondents earn less than RM 1000 per month. Besides, 7.6% of the respondents earn between RM 5001 to RM 8000, followed by 4.7% earns a salary of RM 10 001 and above. There are 2.9% of the respondents from the salary between RM 8001- RM 10 000. A total of 39.8% respondents are using the internet as their source of information when they are planning to buy a car. 24% of the respondents get their information from their friends and 21.1% source information from the car dealers. There are 10.5% of the respondents who refer

to magazines, followed by 4% from other sources. A total of the 0.6% respondents get their information from television and 0% from radio.

Reliability test was conducted for both independent and dependent variables. The scale produced an alpha of 0.709 for reliability, 0.703 for safety, 0.710 for fuel economy, 0.682 for price, and 0.670 for consumer behaviour towards national cars. The alpha coefficients for the five variables are above 0.6, suggesting that the items are relatively acceptable in this study.

The car's reliability showed  $B = 0.267$  and significant at 0.001 ( $p = < 0.05$ ) level. The car's reliability has significantly influenced the consumer buying behaviour towards national cars. The Beta coefficient of 0.245 for reliability has moderately support the consumer behaviour. Among the other variables, car's reliability influence most variance in consumer behaviour. The respondents considered car's reliability as the most important factor when purchasing a car. They would consider the problems of the car, car's performance, spare parts, and the brands reliability in making their buying decision. The  $R^2$  of 0.060 means that approximately 6% of the variance of consumer behaviour is accounted for by the car's reliability.

The safety showed  $B = 0.129$  and significant at 0.034 ( $p = < 0.05$ ) level. The Beta coefficient of 0.162 for safety is moderately support the consumer behaviour. The car's safety has significantly influenced the consumer buying behaviour towards national cars. It shows that respondents of Kuala Lumpur considered car's safety when they are going to purchase a car. The  $R^2$  of 0.026 means that approximately 2.6% of the variance of consumer behaviour is accounted for by the car's safety.

It was found that the fuel economy showed  $B = 0.119$  and significant at 0.057 ( $p = > 0.05$ ) level. The fuel economy has not significantly influenced the consumer buying behaviour towards national cars. It shows that respondents of Kuala Lumpur would not consider fuel economy when they are going to purchase a car. However, the Beta coefficient of 0.119 for fuel economy is moderately support the consumer behaviour. This might be explained in terms of the Malaysian perspective that fuel economy is not a factor with strong influence for consumers in their car purchasing decision. The  $R^2$  of 0.021 means that approximately 2.1% of the variance of consumer behaviour is accounted for by the fuel economy.

It was found that the reliability showed  $B = 0.131$  and significant at 0.043 ( $p = < 0.05$ ) level. The price has significantly influenced the consumer buying behaviour towards national cars. The Beta coefficient of 0.155 for price is moderately support the consumer behaviour. It shows that respondents of Kuala Lumpur considered car's price when they are going to purchase a car. The  $R^2$  of 0.024 means that approximately 2.4% of the variance of consumer behaviour is accounted for by the car's price. The total  $R^2$  of the four variances are 0.131 means that approximately 13.1% of the variance of consumer behaviour is accounted for by the four variables of car's reliability, safety, fuel economy and price. There are some other factors to explain the variance of the consumer behaviour. Other factors might include the exterior appearance, riding and driving comfort, internal space and so forth. The small percentage of the  $R^2$  might be due to the group of the respondents in this research. The majorities of the respondents are students and engineers, their perception might be different from other group of respondents.

It showed that car's reliability, safety, and price has significantly influenced the consumer behaviour towards national cars accepted at significant level of less than 0.05. However, the fuel economy has not significantly influenced consumer behaviour towards national cars in Kuala Lumpur. Therefore, the variable is rejected at significant level of more than 0.05.

## **DISCUSSIONS AND CONCLUSIONS**

The testing results provide practical insights for vehicle manufacturers and dealers to develop and execute more effective strategies in targeting what consumers want according to their purchasing behaviour. The result showed that the consumers highly value car's reliability as the most important factor that influences their decision on buying a car. Thus, this indicates the importance of improving car's reliability. Besides, automobile companies have to work together and cooperate with automobile manufacturers since automobile manufacturers enhance the car's reliability and the marketing department of automobile companies have to increase the awareness of consumers regarding the car's reliability.

The statistical test shows that the car's safety has significantly influenced a consumer buying behaviour towards national cars. These characteristics include the airbag availability, auto lock system and car sensor availability, safety anti-lock system (ABS), rain sensor and so forth. The finding indicates that consumers are safety conscious about the cars they are going to purchase. The availability of certain safety features determines their purchasing decision. The car with higher safety score will be more favourable to be purchased by the consumers.

Besides, as vehicles improve with technological advancements, faster speeds were attained and annoying little bumps as well as more serious accidents were a by-product of our use. Automobile manufacturers became more concerned with improving car safety and preventing injuries and deaths (Morgan Hamilton, 2011). Most manufacturers are moving to curtain-style side air bags, they protect the driver and the front seat passenger as well as the passengers in the rear seat (Russ Rader, 2011). Thus, it shows that automobile manufacturers are aware that the safety measurement is an important consideration among consumers in making their purchase decision. In order to increase their sales, the automobile manufacturers have to ensure the safety measurement meets or exceeds the consumer expectation through implementing quality tools in their car production.

Based on the finding, the test shows that the fuel economy factor will not significantly influence the consumer buying behaviour towards national cars. The null hypothesis has been accepted. However, there is a positive relationship between the fuel economy and consumer buying behaviour. It indicates that in Malaysia, consumer would not place fuel economy as an important consideration although it has a small impact in their buying decision. In addition, the majority of the respondents in this study are students and engineers compared to other work fields. This indicates that they paid less concern on fuel economy compared to other consumers in different occupations.

Besides, the test also suggests that the consideration of fuel economy such as looking at the car's litres per 100 kilometres, green environment, and cheaper operations are not the main consideration in their purchasing decision. The result also shows that Malaysians are less conscious of green environment. They place less importance on the cars' feature of fuel economy. In terms of price factor, this finding also confirms previous studies in other fields that showed price has significant impact on consumer buying behaviour towards cars. The price of the car will significantly influence the car buying behaviour of consumers.

In most cases, consumers want to buy a vehicle that they can afford without compromising much on other important factors such as reliability and safety (Deloitte, 2009). Therefore, in order to increase the sales, automotive companies have to set reasonable and affordable prices for the consumers. Besides, they have to determine the price based on the car's quality. In order to offer a higher price, they should ensure that they are providing the car with higher quality. Those sellers providing higher quality will be able to charge a higher price to willing customers.

From the data collection, three independent variables factors, including car's reliability, safety, and price were indicated as having a significant influence on a consumer buying behaviour towards national cars. Besides, the testing results provide practical insights for automotive companies to develop their effective strategies in getting a higher sales and increasing customer satisfaction. The car's reliability has the most significant influence in a consumer buying behaviour towards national cars. This indicates that car's reliability is the main consideration in consumers buying decision. This finding also implies that the automotive companies should improve their quality of car, improve the vehicle safety feature, set reasonable price, provide better customer service, increase training programs for the employees especially the front line employees that represent the whole company, prepared for an effective internet marketing strategy plan and improve the atmosphere of their car showrooms in order to generate more sales and increase customer satisfaction.

### **LIMITATION OF THE STUDY AND FUTURE STUDIES**

In this study, online questionnaires were used to collect data from respondents through the Internet. Not everyone has access to the Internet, so the response rate is limited. The problems occurred when the respondents who answered an online questionnaire have very different attitudes or demographic characteristics to those who do not respond. This is particularly the case for online questionnaires because some social groups are underrepresented among internet users, including people of limited financial resources, members of some ethnic groups, older people and those with lower educational levels. The demographic that respond to online questionnaire invitations are generally younger people. In this study, there are zero respondents from the age above 55 and the majority are between the ages of 21 to 25. The majority of the respondents are students and engineers, their perception towards national cars might be different from other group of respondents.

In the future, this study might implement in other industry and different geographical areas to investigate the consumer buying behaviour towards national cars. The scope of the study might be expanded to investigate the research with wider respondents, This study has been successful in exploring the importance of factors in consumer buying behaviour towards national cars; the finding could be enhanced by using other collection methods such as normal distribution to the respondent without using online questionnaire.

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