

Willingness to Purchase Safer Vehicles: A Study Base on Malaysia B40 Income Group

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ABSTRACT

Passenger car is one of the most preferable modes of transportation used in Malaysia. It is very important to keep safety features as suggested by ASEAN NCAP in a vehicle that we used in order to avoid and minimize the accident occurrence. However, new vehicle with advanced safety features is more expensive, where there are certain people that cannot afford to buy an expensive car such as B40 consumers (bottom 40% which household income is under RM3,860.00). According to the Maslow's Hierarchy of Needs, the lower income group consumer will put the physiological need first rather than safety needs. As they cannot afford to buy a new car with extra safety features, they bought an old vehicle which currently has less safety features but with cost of maintenance were rather high. In this study – with regard to owning vehicles, specifically cars – the willingness to buy safer vehicle among lower group based on economic strength will be analyze.

Keywords: ASEAN NCAP; B40; Low Income Group, Consumerism; Safety

INTRODUCTION

Vehicle is the main transportation in daily life where use to move from one place to another place. The existing vehicles for carrying passengers need to have acceptable safety features. It is involving crumple zone, seat belt, airbag, shatter proof glass, padded dashboard, collapsible steering columns, bumper, passenger safety cell, anti-lock braking system and etc. – the best reference in the region now is according to New Car Assessment Program for Southeast Asian Countries (ASEAN NCAP) (Abu Kassim et al. 2018).

Nowadays, Malaysian has faced so many obstacles in daily life such as substantial increase in living cost and comparatively low monthly income. It happens because there are several factors that cause the rising cost of living such as growing cost of fuel and high taxes rate. This problem can lead to reducing the quality of life, where the consumers cannot afford to provide better safety and healthy environment for themselves and their family. Quality of life is a degree of well-being that is felt or enjoyed by individuals or groups of people. According to a research, the human quality of life can be divided into eight general principles which are emotional well-being, interpersonal relationship, instrumental well-being, personal growth, physical well-being, decision making, social relationship, and rights. To create a quality environment, the safety is one of the most important factors that can influence the quality of life. Safety is a matter of safety, well-being or security including in the context of being protected from any catastrophic or event related to health and economy. It is very important to

implement safety in daily life in order to increase the quality of life and prevent the known risks or hazards.

Each NCAP is suitable to protect the safety of the vehicle users for their own region. For Malaysia, it is very important to keep safety features as implemented in New Car Assessment Program for Southeast Asian Countries (ASEAN NCAP) in a vehicle that we used in order to avoid and minimize the accident occurrence. ASEAN NCAP targeted to elevate vehicle safety standards, raise consumer awareness and thus encourage a market for safer vehicles for South East Asian region. However, vehicle with extra advanced safety features will cost more, where there are certain people that cannot afford to buy a new car such as B40 consumers. According to the Maslow's Hierarchy of Needs in Figure 1, we know that the B40 consumer normally will put the physiological need first rather than safety needs. As they cannot afford to buy a new car with more safety features, they were need to buy an old vehicle which has less safety features and with cost of maintenance were rather high.

The definition of household according to the income group adopted in Malaysia is divided into three, the highest income group 20%, middle 40% and the lowest 40%. Based on the Household Income and Expenditure Survey (HIES) 2014 shown in Figure 2, the group is defined as follows:

1. The highest income group of 20% (T20) households refers to households with average monthly income of RM3,319.00 and above.

- The 40% middle-income household group (M40) refers to households with average monthly income ranging from RM3,860.00 to RM8,319.00.
- The lowest 40% household income group (B40) refers to households with average monthly income below RM3,860.00.

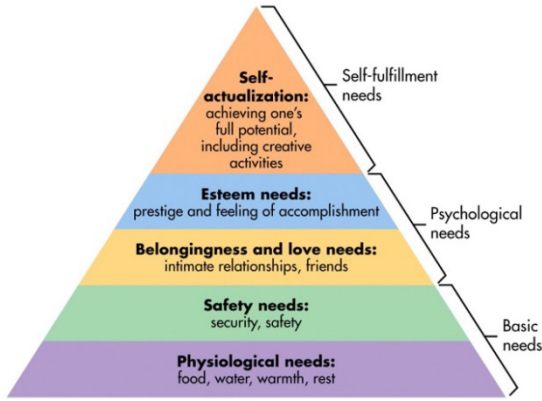


FIGURE 1. Maslow's hierarchy of needs (Maslow 1943; Saul McLeod 2018)

The B40 household group also includes poor households with monthly income less than the poverty line (PGK) income. National PGK value is RM950.00 per month (DOSM, 2014).

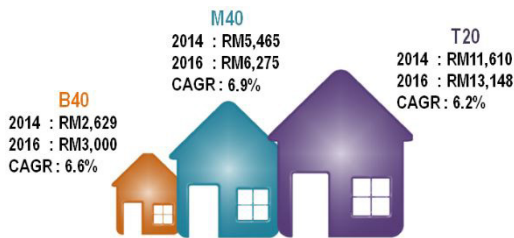


FIGURE 2. Mean monthly household income by group of households, Malaysia, 2014 and 2016 (DOSM 2014).

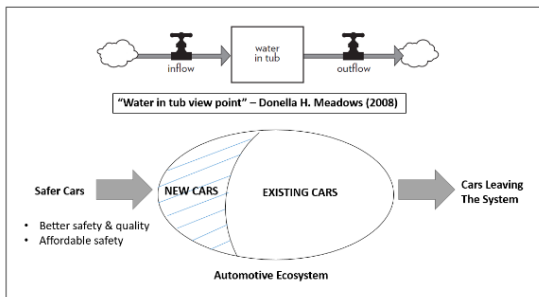


FIGURE 3. ASEAN NCAP pushes only safer car entering the system (Abu Kassim et al. 2017)

The safety concern also involves the End-of-Life Vehicle policy (ELV), in which by addressing ELV will complement safety in the complete perspective. The concept shown in Figure 3 explains on how safer vehicles initiative through ASEAN NCAP and Vehicle Type Approval (VTA) can

gradually clean up the system, as new cars that are generally safer will replace existing ones (Abu Kassim et al. 2017).

In order to make safer car reachable to B40 consumers, we need study and understand the priority of feature that the B40 group consumers look into when buying a car.

METHODOLOGY

This study used survey method to collect data about preferences in buying a car. The survey was conducted for two months and distributed to Malaysians those aged 18 years and above who have a car driving license. A total number of 445 respondents from entire country had answered the questionnaire with 61% are B40, 20% are M40 and 9% are T20 respondents.

There are four main sections in survey which is about respondent's personal information, respondent's exposure to ASEAN NCAP, perceptions from respondents, and respondent's judgement on changing of policy or price. Likert scale five points have been used to see respondents feedback of needed car feature when searching for a car as result of their answers either 1=Very Not Important, 2=Not Important, 3=Neutral, 4=Important and 5=Very Important for each statement in survey. The survey was validated with help from experts in the field of survey analysis and vehicle safety related to safety assessment protocols. The respondents were also asked whether they want spend more money for better safety system in their vehicle and did they agree on implementation of child safety regulations.

RESULTS AND DISCUSSION

Figure 4 shows the total survey and household income division based on category. From a total of 445 respondents 274 are B40, 130 are M40 and 41 are T20 base on household income. Since we are focusing on B40 for this study the data will only consider for 274 respondents. 65 respondents have one car and 209 have two cars. No respondent have more than 2 cars. From total of 483 cars, 23% is brand new car and 77% are second hand cars. 7% have no child, 12% have 1 children, majority of 72% have 2 children and 9% have 3 children and more.

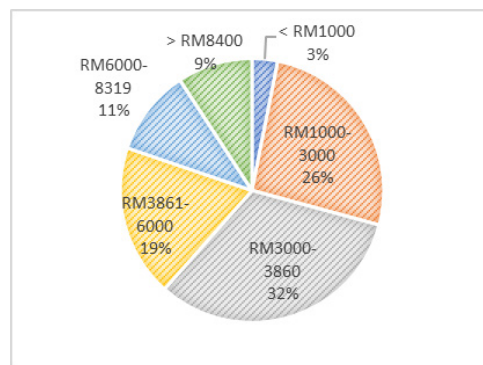


FIGURE 4. Total survey and division of household income base on B40, M40 and T20 category

TABLE 1. Respondent Personal Information for B40 category only (274 respondents)

	Frequency	Percentage (%)
Income		
<RM1000	14	3
RM1000-3000	116	26
RM3000-3860	144	32
Age		
<20	0	0
20-29	207	75
30-39	53	19
>40	4	6
Number of Kids		
0	19	7
1	32	12
2	199	72
3	14	5
>4	10	4

As shown in Figure 5, 35% from the total respondent have heard about ASEAN NCAP. This number is a good number and will increased further since the Ministry of Domestic Trade and Consumer Affairs (KPDNHEP) has introduce that all new car to be sold in Malaysia must have the ASEAN NCAP label at the showroom and if the car have not yet been tested, the manufacturer must put the label stating not yet been tested.

As obtained from the survey, consumers are really considering a cost factors such price and maintenance cost as the main factor in buying their car. Style and fuel consumption are the next important factor and the come the safety features and reliability at almost same value of importance when buying a car. The consumer does not really take into consideration the resale value and environmental

factor as a consideration when searching for a car. Figure 6 shows the preference of features when consumer buying a vehicle.

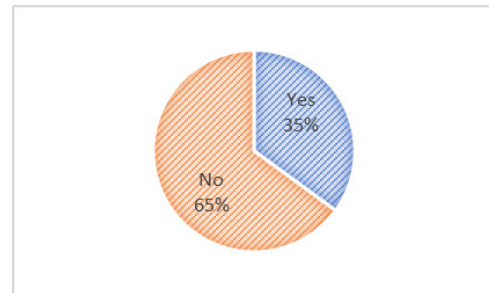


FIGURE 5. ASEAN NCAP awareness

However, most of the respondents do not want to spend more money to own advanced safety assist technologies in their vehicle. Even though most of the respondent agrees safety is a very important feature, only 1% agrees to pay extra for safety features. Most of the respondents want the price of the car to maintain at the same price but with better safety feature base on Figure 7. A further clarification is needed base on what type of safety advanced feature implementation is possible without increasing the cost of the car need to be study.

One of the most important issue is, the consumer need to aware that some of available feature in another part of NCAP does not necessary fit the requirement for Malaysia demographic (Baharuddin et al. 2019). In ASEAN NCAP one of the priority given is the child presence detection. Respondents were also asked specifically for child safety regulation in Malaysia. From the survey, 75% agree the must be a specific regulation for child safety in Malaysia as shown in Figure 8. Some of the technologies for child presence detection have been introduced for the ASEAN NCAP 2021-2025 Protocol (Abu Husain et al. 2018 and Rosli et al. 2019).

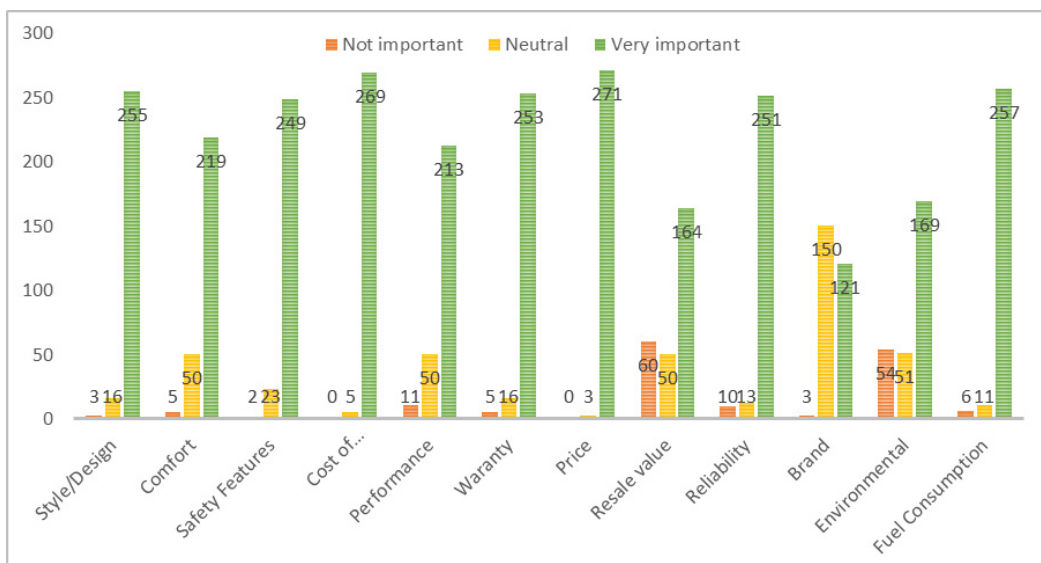


FIGURE 6. Preferences of feature when buying a vehicle

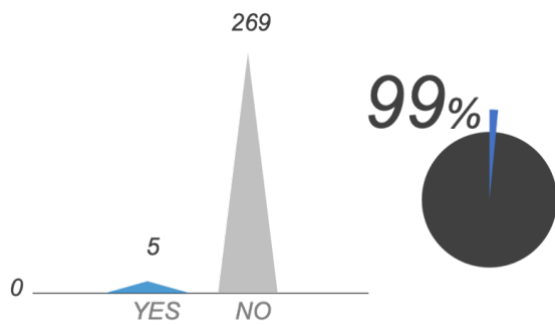


FIGURE 7. Opinion on buying better safety car with higher price

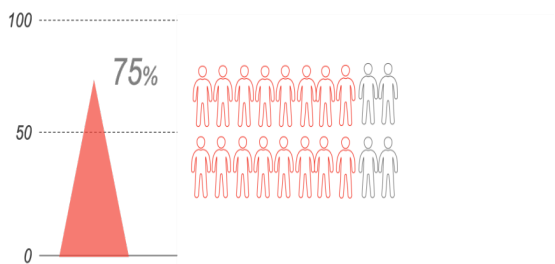


FIGURE 8. Opinion of regulation for child safety in Malaysia

CONCLUSION

In order to avoid accident, or reduce the impact to driver and passengers during collision, vehicle safety is a very important factor for all income groups, so it is very important to help B40 to be able to use a safer car. 99% of this group does not want to pay extra price for safety. One of the possible suggestions is to introduce an End-of-Live Vehicle (ELV) policy in Malaysia as proposed in the National Automotive Policy 2015, where the owner of the vehicle can get RM 5,000 rebate if they trade their old car. By doing this, it will help the safer car to enter the market faster and old car with less safety feature to be properly dismantled (Abu Kassim et al. 2017). Moreover, the movement of second hand car to the next user will also move faster since first hand user car will sell their car earlier compared to if there is no ELV policy. It can help B40 consumer to use the balance of car

life with lower purchasing cost and lower maintenance cost, and help to provide them a vehicle with a good quality and better safety features.

DECLARATION OF COMPETING INTEREST

None.

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