

INVESTIGATION ON CONSUMER AWARENESS TOWARDS ASEAN NEW CAR ASSESSMENT PROGRAM FOR ASEAN COUNTRIES

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Abstract

The establishment of ASEAN NCAP is intended to lessen the high rates of road accidents within the ASEAN region and especially in major producing countries in Asia. The Road Safety agenda is not merely aimed at road users, but also towards vehicle manufacturers that applies the latest advancements in their vehicle designs in order to elevate their safety vehicle standards. This study is undertaken to gauge the level of understanding of road safety through ASEAN NCAP amongst current consumers in Malaysia, Indonesia and Thailand. As many as 1447 respondents participated in this study. Data was collected throughout 30 main cities in these 3 selected countries. From the analysis, 5 main contributing factors towards consumer purchasing new vehicles were identified. Fuel economy was the most important factor as compared to the rest followed by Comfort, Safety Assist Technology, Purchase Price and Maintenance and Operation Cost). This study also dealt with respondent's feedback on the selection of the important Safety Technology and Comfort technology features being developed and installed by automotive manufacturers. In Safety Technology features, Anti-lock braking system, Anti-Theft Devices/Alarms and Head Protection Technology were chosen as the important features for a new vehicle. In addition, for the features of Comfort Technology, 5 top features were selected i.e. Air-Conditioning, Route Navigation, Window Tinting, Automatic Transmission and Car Body Kit. For consumer's attitudes and perceptions on the Vehicle safety, it can be concluded that respondents take the issue of driving safety as an important aspect. Besides that, the level of awareness on the ASEAN NCAP was also analyzed, with 29.2% of the total respondents being aware of the ASEAN NCAP existence. This value indicates that the effectiveness of these numerous promotional activities conjured by various stakeholders has had an impact. Nevertheless, continuous

effort needs to be effected to ensure the ASEAN NCAP becomes a sensible benchmark for consumers and car manufacturers in ASEAN to continuously promote and highlight the importance of the road safety in these developing countries.

Keywords: Road safety, ASEAN NCAP, Vehicle safety, Comfort technology, Safety assist technology, Consumer Awareness

1.0 INTRODUCTION

Road traffic accidents are the biggest contributor towards the national fatality figure, which includes other high risk diseases in all Asean countries. Road safety is at the forefront of the agenda and often being discussed within countries of Asean especially in Malaysia, Indonesia and Thailand. As these countries are producers of automobiles in the region, automobile safety has become an important element and the main specification aspects of latest car designs, to enabled seamless penetration of the domestic market, as well as globally. Thus, the ASEAN NCAP was introduced to properly address the need to have elevated safety vehicle standards as well as to encourage the automotive industry towards producing safer vehicles.

The ASEAN NCAP (New Car Assessment Program for Southeast Asian Countries) has brought multiple changes and adaptations with regards to the region's socioeconomic development, with more focus given to road safety aspects [1-3]. Formally launched as a cooperation exertion between the Malaysian Institute of Road Safety Research (MIROS) and Global NCAP, in December 2011. The general aim is in raising the level of vehicle safety in the region [1,4]. Manufacturers are encouraged to improve their product's safety performance whilst also having reliable and objective information about the protection provided by these vehicles [5-7]. All vehicles produced in the ASEAN region would be tested, assessed and rated using this program. Vehicles would undergo stringent testing such as a frontal impact test at 64 km/h and 40% overlap, later which the data would be analyzed through objective and subjective methods; to determine the strength of protection provided to both adult and child occupants. Weighted scores are consolidated and then translated to a star rating [7].

Awareness and education aimed at the public is the emphasis of the ASEAN NCAP, the importance and usefulness of safety rating on cars sold within all ASEAN countries, are highlighted. As there is no single standard format being used to secure a 'pass' on the assessment of the ASEAN NCAP rating, for car manufacturers it is regarded as being beneficial in having this stamped 'star rating'. As it signifies having a "value added" identifier attached to their promotional and commercial campaigns.

ASEAN NCAP rating existence pushes information regarding safety levels of produced vehicles from various automakers to the masses. Coming from an independent rating agency and using standard benchmarks, effective dissemination thus provides an overview to all potential buyers in making purchasing judgements, that is not only limited to price, comfort and optional offerings [8-9].

However, in trying to elevate awareness of vehicle safety issues by the government via the ASEAN NCAP via numerous agendas and programs, there is still a lack of proper ways and clever dispersion of information to the targeted consumers. In such, knowledge of NCAP is not effectively utilized in making considerations during vehicle purchases [1. 6,10]. So, this study aims to gauge the level of consumers' awareness, knowledge and understanding towards the ASEAN NCAP. It is also hopeful that a clearer understanding on what and how the ASEAN NCAP rating can offer, towards influencing consumers purchasing decision.

2.0 METHODOLOGY

2.1 Development of Questionnaire

A quantitative method was used in this study in order to obtain the information on the consumer awareness and their perception in ASEAN NCAP. A set of questionnaire was designed and adopted based on the collective of related literatures and study needs [2,11]. The questionnaire also was designed based on the 5 Likert-Scale. The questionnaire comprises of 5 Sections as follows:

- a) Demographic Data – Consumer/Respondent information
- b) Contributing Factors towards Consumer Buying Decision – New Vehicle
- c) Knowledge on the Vehicle Safety Features
- d) Consumer Attitudes and Perceptions toward Vehicle Safety
- e) Knowledge on ASEAN NCAP

2.2 Selection of Respondents

The study was conducted in 3 ASEAN Countries, i.e, Malaysia, Indonesia and Thailand with the target population consisted of respondents from big cities or capital city in these countries. These locations were chosen as they are the capital city and have the largest proportion of car ownership in each respective country. A simple random sampling technique was adopted in the study to select the sample respondents.

A total of 1500 sets of questionnaire were distributed with high levels of car ownership and having a high purchasing power. The respondents were drivers from various backgrounds and holds a valid driving licenses.

2.3 Data Analysis

Data analysis were performed using Statistical Package for Social Science (SPSS) version 20.0. All the collected data was properly verified to ensure any missing information was dealt with before the data analysis began. The data consisted purely of descriptive analysis.

3.0 RESULTS AND ANALYSIS

3.1 Demographic Analysis

A total of 1447 respondents took part in this study which comprised an 96.5% respond rate. Based on Table 1, the Male respondents were dominant (69.80%) compared to Female (30.20%). The range of respondents were between 17 – 68 years old with the highest age range of 29.6% of 68 years and above and 25% between 18 -27 years old. The highest range of respondents driving experiences are between 1-10 years (81.2%) and 0.9% having more than 30 years driving experiences

In terms of educational background, majority of the respondents possess a bachelor degree (53%) The monthly income ranges less than USD 553.45 (23.5%). Based on the feedback received, 53.1% of respondents have the intention to buy a new car and 27.6 % planned to buy between 10-12 months with 55.4% recorded that Family is the main influencer of the purchase decision. Figure 1a and Figure 1b shows the demographic results between 3 ASEAN countries (Malaysia, Indonesia and Thailand)

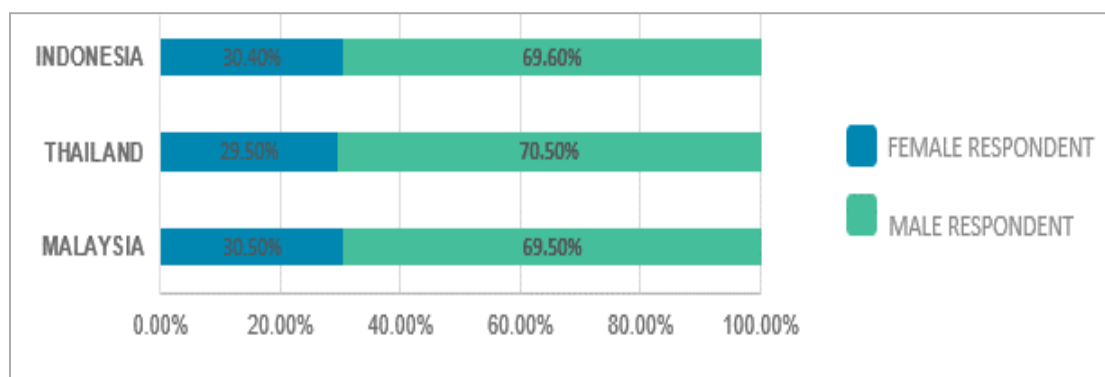


Figure 1a: Distribution of Respondents by Genders

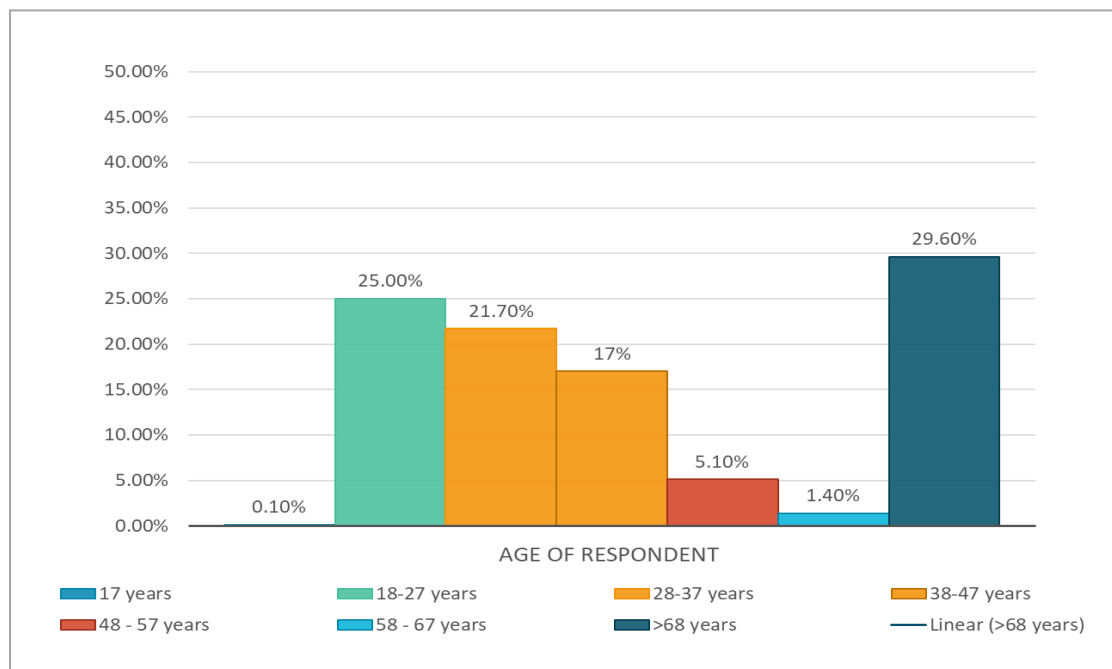


Figure 1b: Distribution of Respondents by Age

3.2 Contributing Factors towards Consumer Buying Decision – New Vehicle

Data for identifying the main contributing factors towards the buying decision were also collected from the respondents. Based on the analysis, the top 5 factors were identified as consideration by the respondents in purchasing the new vehicles.

Fuel economy was the main factors among the rest with the mean values at 4.52. with the fluctuate pricing on petrol / fuel, this was the main reason chosen by Malaysian, Indonesian and Thailand for the main selection in vehicle purchasing decision.

Beside the main factor mentioned, comfort become the second highest as the contributing factors in buying decision with mean values of 4.48, followed by safety assist technology (4.45), purchase price (4.35) and maintenance and operation cost with the mean values at 4.32.

On the other hand, country of manufacturer with number of mean 3.92 is the least significant factor that is being considered by respondents when purchasing a new vehicle. Figure 2 shows the list of factors (mean values) that contributed towards consumer buying decision in selecting the vehicle for Malaysia, Indonesia and Thailand markets.

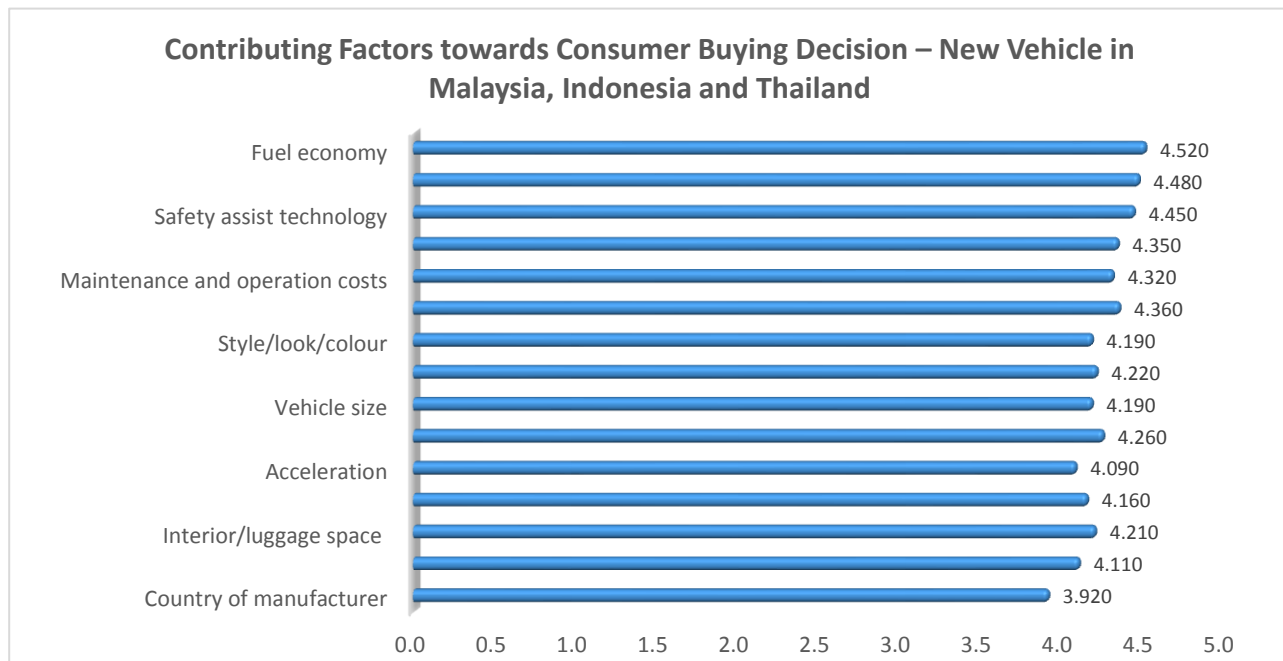


Figure 2: Contributing Factors towards Consumer Buying Decision – New Vehicle in Malaysia, Indonesia and Thailand

3.3 Knowledge on the Vehicle Safety Features

Other than influencing factors that affects purchasing decisions, this study also tries to determine the importance of safety features being preferred and selected by those consumers within these three nations; by asking them to answer a feedback questionnaire. Besides determining the safety feature of choice, a measurement of respondents' understanding on various safety features are also measurable. In addition to those specific questions, a more detailed explanation would also be delivered to these respondents as to ensure full understanding of the questions asked. Particularly, the main features of ASEAN NCAP Rating, which are Safety Technology and Comfort Technology.

3.3.1 Safety Technology

Safety Technology is the most important feature on a vehicle, as it refers to the special technology developed to ensure the safety and security of automobiles and their passengers.

Referring to the analyzed data, the highest mean recorded for safety technology was the Anti-lock braking system with a mean value of 4.47. This can prevent any unwanted incidents. Following with Anti-Theft Devices/alarms with 4.46 and Head Protection

Technology (HPT) with 4.43. The least mean recorded was Speed alert with (3.97). Figure 3 shows the safety technology based on each countries.

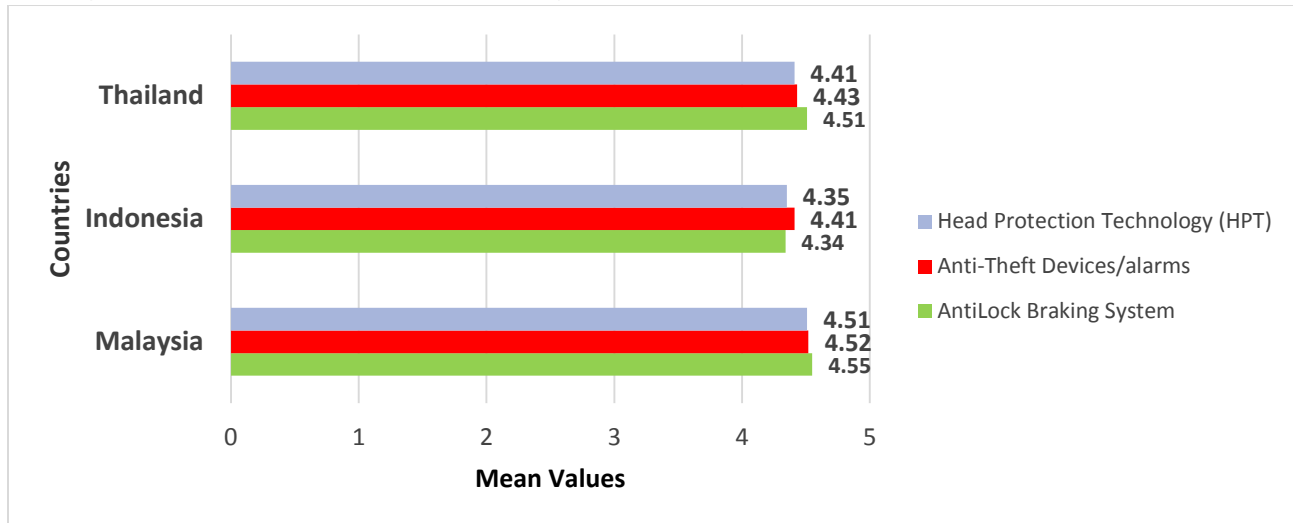


Figure 3: Top 3 of Safety Technologies in Malaysia, Indonesia and Thailand

3.3.2 Comfort Technology

Higher traffic density in ASEAN Countries causes many drivers to spend a large amount of time in their vehicle. This heightens the need in having a vehicle that provides extended comfort to drivers and as such becomes a buying preference for potential buyers.

Within this study, there are five features being listed as being preferable to Malaysian drivers, Indonesian and Thai. Air-conditioning is regarded as the most important feature, having a mean value of 4.42. This selection is justifiable as the constant humid and hot weather with intermittent rain in ASEAN countries creates this need. Car Body Kits or sets of modified body parts or additional components that installs on a stock car, is the least required option to consumers in all three countries, with a low mean of 3.80. Figure 4 show the 5 favorable features of Comfort Technology (Mean Value) for the selected 3 countries in ASEAN.

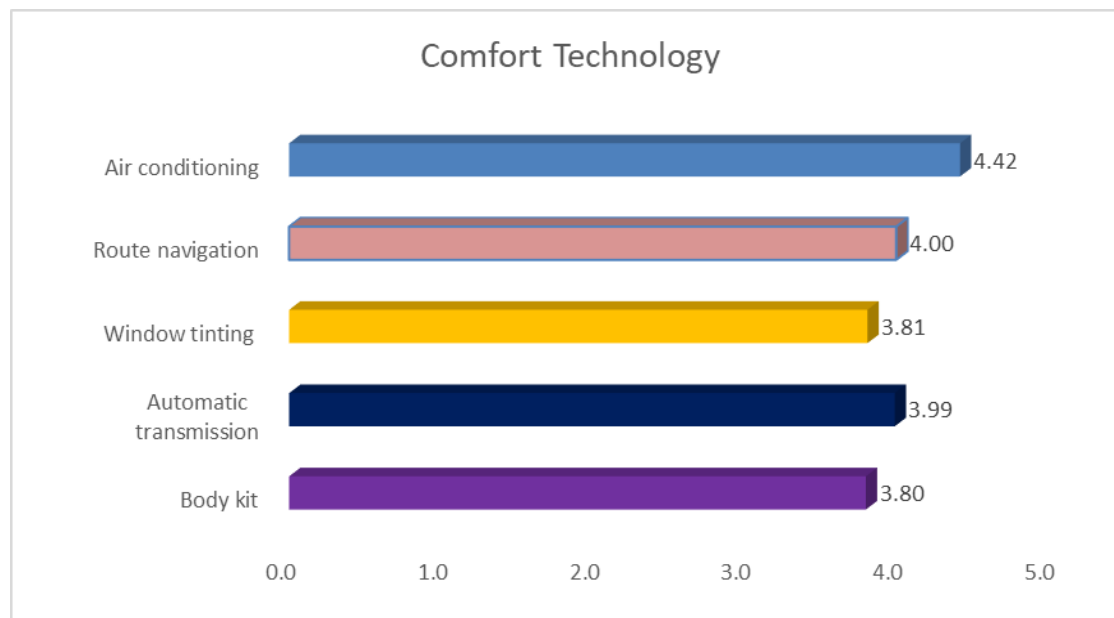


Figure 4 show the Comfort Technology (Mean Value) for the selected 3 countries in ASEAN

3.3.3 Consumer Attitudes and Perceptions toward Vehicle Safety

In order to obtain a clearer view in determining the importance of vehicle safety amongst vehicle users, measurements on the consumer attitudes and consumer perceptions towards vehicle safety was undertaken. Through these collected and consolidated data, it shows that 39.2% respondents agree with the statement that “Seatbelts are always necessary, even if you drive carefully”. 83.4% then also agreed that “Seatbelts reduce the risk of injury for drivers and passengers” and 72.6% of respondents were agreeable in being “I feel vulnerable when I am not wearing a seatbelt”

Furthermore, 54.4% of the total respondents did not agree with the statement that “If there are airbags in a car, seatbelts are not necessary”, 55.6% of total respondents’ does not agree with “I am a good driver; I do not need many safety features”. The statement of “I do not need additional safety features”, had as many as 57.5% of respondents not in agreement.

To measure consumer’s perception towards vehicle safety, a further analysis was done on responses provided by respondents. The statement being “Federal state and local government are responsible for making roads and traffic signs safer for motorists and pedestrians” was agreed upon by 88.1% subjects. “It is the responsibility of vehicle manufacturers to guarantee the safety of the vehicles” was considered true by 86% of respondents. Then 87.9% also agreed that “I would be interested in safety systems that

switches on automatically in an emergency when I can't react quickly enough". Overall, it can be judged conclusively that vehicle safety features are an important element for drivers during driving sessions in Malaysia, Indonesia and Thailand.

3.3.4 *Knowledge on ASEAN NCAP*

The Vehicle safety rating through ASEAN NCAP assessment can be used by automakers as valuable add-on in conjunction with their promotional campaigns. This should strengthen confidence in vehicle buyers prior to purchase, whereby these consumers themselves should educate or be aware of what the ASEAN NCAP rating is all about. As vehicle users understand better and then uses these recognized ratings to make better judgement prior to purchase of a new car. This study intends to better understand the level of knowledge about the ASEAN NCAP among consumers in Malaysia, Indonesia and Thailand.

Referencing to the collected data of 1449 respondents, 29.2% of the total respondents were aware on the ASEAN NCAP. Malaysian consumers had the most knowledge about the ASEAN NCAP registering at 39.9%, making it having the highest percentage, followed by Indonesia having 30.2% and Thailand at 13.8%. This shows the increment of approximately 50% from the survey conducted by [1-3,12]. Nevertheless, if judged against the set-up of the ASEAN NCAP being nine years ago, the level of knowledge dissemination to the consumers, is still relatively low.

As these new information is being discovered, future initiatives to effectively spread information and knowledge regarding the ASEAN NCAP, needs to be intensified. The importance of vehicle safety for consumers and upgrades by manufacturers needs to be prioritized. A majority of respondents had verified that information related to the ASEAN NCAP was gathered through the vehicle manufacturer's website (21%). Further to that, pertinent sources from the ASEAN NCAP had influenced 18% of the respondents that participated in this study. Respondents were also influenced by discussion with technical personnel and mechanical professionals within the automotive field, these word-of-mouth deliberations contributed 18%. Lastly, consumer reports have only a small influence to respondents in this study, contributing only 4% of the total tally.

4.0 CONCLUSION

Road Safety can be regarded as an important agenda in efforts to reduce high road casualties. Through an upgrade of vehicle safety, the safety of all road users can be enhanced as it comprises measures in crash avoidance and injury preventions which addresses one of the initiatives in the reduction of unwanted crashes

The New Car Assessment Program for Southeast Asian Countries, or known as ASEAN NCAP, was introduced as an initiative to raise the level of vehicle safety in the region. The emphasis upon awareness and education to the public is heightened, regarding the importance of safety rating on cars being sold within all ASEAN countries. Through the existence of this ASEAN NCAP rating, all information regarding safety levels of produced vehicles, from various automakers would be better disseminated and understood by the masses.

Based on the results gained from this study, 4 main areas of measuring the consumer's perspective in Vehicle safety have been analyzed. The five main factors that influences buying decisions of new vehicles were identified, among the most important are Fuel Economy, Comfort, Safety Assists Technology, Purchase Price and Maintenance and Operation Cost.

Better choices with regards to safety, comfort and practicality can be determined by the consumers themselves by having access to knowledge of vehicle safety available to them. Consumers were found to have an inclination towards the selection of having Antilock Braking System, Anti-Theft Devices/Alarm and Head Protection Technology as important features, that translates into better safety and transportation standards.

In addition to that, for the comfort driving experiences factor the condition of constant traffic congestion in all major cities across Malaysia, Indonesia and Thailand. Higher ratings were given to Air-Conditioning, Route Navigation, Window Tinting, Automatic Transmission and Car Body Kit as the Comfort Technology features preferred in vehicles.

Driving safety is regarded as a very important and serious aspect among road users and vehicle owners alike. This can be judged accordingly, as feedback from respondents stated their strict adherence to the use of seatbelts and other live-saving features whilst driving.

ASEAN NCAP rating has enjoyed an increase in awareness as the delivery of information improved over the years and judging by the number of studies being carried out. However, efforts to familiarize this rating system should not stop and all relevant parties should step-up their contribution. As to ensure this information be delivered more extensively, thus becoming a standard guide for all users or potential vehicle buyers. The ultimate aim is having lower reports in vehicle accidents, through an increased understanding of vehicle safety factors and its effective management.

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