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ABSTRACT

Background: Currently the level of competition in automotive industry is snowballing, and also fetching extra consistent, and auto base production of the furthermost of auto – giant corporations are being cleaned from the advanced industrialised countries to emerging countries to take the benefit of low cost of auto manufacture. The Association of South East Asian Nations (ASEAN) is a financial and a geo – political group consisting of ten nations situated in South East Asia for the purpose to comprise accelerating financial and social progress, educationally and culturally growth amid its associates, shield of provincial harmony and firmness and prospects for associates of south east Asian nations to deliberate variances tranquilly. To meet this requirement, various types and models of vehicles were produced by automotive companies of ASEAN to fulfil the needs of consumers especially in the context of passenger vehicles.

Objective: A study has been conducted to know the accident befalls through passenger vehicle of ASEAN despite the technology behind this kind of vehicle automation is being developed at a blistering pace. Results: Findings of the research reveals that the ASEAN automotive industries are still have to focus on quality auto product to prevent accidents through passenger vehicles by allocating funds towards research and development in automotive. Conclusion: Academic auto research is a powerful tool for communicating the benefits of safety features to new car consumers and also testing and analysis of safety auto technologies is the cornerstone of successful vehicle safety media campaigns.

INTRODUCTION

Automotive Corporation is a representation of mechanical genius by means of human generous. It is being one of the widest mounting segments in the world and its energetic progress stages are enlightened by nature of competition, auto product lifespan sequence and demand of the customers. International auto production networks play a key role in East Asian economies because transportation is one of the most essential economic goods in the modern world. An efficient mode of transportation ensures the mobility of individuals and product delivery could be conducted in a safe and timely manner. To meet this requirement, various types and models of vehicles were produced by automotive companies to fulfil the needs of consumers especially in the context of passenger vehicles. Automotive industry of ASEAN endures to rise on the back of mounting demand of domestic and expanding progress of auto export sources. In the elevation of financial growth of auto production, the market places of ASEAN, auto parts manufactures are vigorously enhancing outlay for the purpose of intensifying means of auto production. The Association of Southeast Asian Nations is a financial and a geo – political group consisting of ten nations situated in south east asia for the purpose to comprise accelerating financial and social progress, educationally and culturally growth amid its associates, shield of provincial harmony and firmness and prospects for associates of south east Asian nations to deliberate variances tranquilly. Automotive Industry includes altogether individual corporations and accomplishments which are involved in the production of motorized means of transportation as well as the utmost gears, such as locomotives and forms, but excluding tires, batteries and petrol. The auto manufacturing major auto products are passenger vehicles and light automobiles, as well as pick – up, sport utility automobiles and vans. Marketable vehicles such as distribution of automobiles and bulky vehicles though significant to the corporation are ancillary. Developments in in-vehicle technology and telematics in recent years have led to the introduction of a limited range of...
technologies aimed at both monitoring and reporting on driver performance, and providing assistance in terms of achieving the goals of eco-driving. At a very basic level, most modern vehicles are equipped with trip computers as standard equipment, most of which include average and instantaneous fuel consumption data. By monitoring the data, drivers can adjust their driving style (implementing the practices of eco-driving), and receive instant feedback on fuel consumption data from their trip computers, thereby enabling the optimisation of vehicle operation for fuel consumption. In this context, a study has been conducted to know the accident befalls through passenger a vehicle of ASEAN despite the technology behind this kind of vehicle automation is being developed at a blistering pace.

Need and Significance of the Study:

Automotive Manufacturing is obligating a robust multiplier consequence on the progress of any nation and also it is accomplished of being the driver of financial development. ASEAN are widening the border of land for the purpose of increasing trade and commerce, emerging global highways links, involvement of automotive segments significant in growing auto imports and exports and thereby generating job openings. It is need and significant to study about automotive industry in thoughtful determination to seize these prospects which consist of many Asian nations which also includes Indonesia, China, India and Thailand.

Objectives of the Study:

i. To Scrutinise the Road Traffic deaths through passenger vehicles across ASEAN.
ii. To examine the deaths arises through passenger vehicles according to Income status of people across ASEAN.
iii. To analyse the Road accidents contributory factors in ASEAN.

Scope of the Study:

The study covers the ASEAN countries to the extent of automotive industries, with special emphasis on knowledge of automotive of only ASEAN countries.

Limitations of the Study:

The study of enhancement of vehicle safety standards through automotive across of ASEAN countries is equipped grounded on primary and secondary sources and the secondary information was limited to the extent of the ASEAN automotive industry only.

Previous Studies:

1. The International Road Transport Union (IRU 2009) has produced a free two-page instruction guide on the principles of eco-driving, covering topics including trip planning, vehicle maintenance, tyre pressure maintenance, smooth driving and idle reduction, providing some details on each topic area.
2. Clean Run Eco Drive (State of Western Australia 2011), outlines the broad and specific benefits of eco-driving, provides a resource kit (material in paper format and on CD-ROMs), and outlines a timeline and action plan for the successful implementation of an eco-drive program.
3. Haworth et al (2008), concluded that courses aimed at teaching advanced driving skills were likely to yield less safety benefits than those aimed at modifying driver attitudes and behaviour. It is recommended that driver training courses provide a strong focus on this aspect.
4. Research conducted by the Transport Department Hong Kong (2011), noted that while trainers were often highly-experienced drivers and industry professionals, there was often a lack of a formal procedure to measure and ensure their effectiveness as a trainer and teacher.
5. Brock et al. (2007) highlighted the lack of understanding and adoption of recent research into learning styles, cognitive strategies and past training experience within the current range of driver training programs. This knowledge should be used to further develop driver training programs.
6. Mooren et al. (2011), conducted a review of existing corporate safety programs focusing on road transport. Although they concluded that there was slight indication near the efficiency of business protection programmes, they also concluded from a detailed examination of a small number of studies that protection organisation features could be associated with upright protective consequences.
7. Symmons et al. (2009), who reported on a small field-based in-traffic trial where heavy vehicle drivers were instructed in eco-driving practices, key performance indicators such as fuel consumed, and the number of brake applications and gear changes were measured at six and twelve-week intervals, and compared to the same measures taken from a control group.
8. American Transport Research Institute (ATRI 20088), showed that the rate of incidents (reported crashes, lesser crashes and violations) for drivers in their first year of driving trucks was unrelated to the length of training they had completed or to the specific type of training they had undergone.
9. European Union Directorate-General Transport and Energy (Safety Net 2011), went further and concluded that there was no evidence in the form of properly designed scientific studies to show that conventional fleet driver training is effective. Note that this does not necessarily mean that the training is ineffective – just that there are no robust studies to show that it is effective.

10. According to Mohan et al. (2009), probable explanations are that decommissioned vehicles were not removed from the databases, vehicle owners are not required to re-register their vehicles, or annual re-registrations are omitted from the databases.

11. A study through Shinar et al. (2005), originate that execution a arithmetic procedure mission dishonoured lashing presentation towards a better level than fetching in an expressively relating discussion. A substitute description is that the dual difficulty circumstances recycled ensured not to fluctuate sufficient in trouble to disclose slightly disparity on lashing presentation.

12. According to Patten et al. (2004), similarly originate that chauffeurs grabbed lengthier to respond to an outlying finding mission when they were complex in a composite discussion necessitating them to solve mathematics hitches, than when they were requiring a modest discussion necessitating them to reiteration back only figures articulated by the transformer.

13. According to Chiang and colleagues (2004), initiate that motorists allocated further consideration (as leisurely by length of glimpse period) to the street and fewer to ingoing terminus facts when pouring in a throughway setting than they prepared when pouring in the urban. The scholars determined that the chauffeurs may have observed the weightier circulation and advanced hurries related with throughway pouring as self-importance for a better care jeopardy than pouring in urban road traffic and, later, the chauffeurs abridged the sum of care they were enthusiastic to assign to the subordinate mission below such situations.

14. A Study through Matthews et al. (2003) and Mazzae, Ranney, Watson and Wightman (2004), has too exposed that chatting on a mobile handset while pouring enacts an augmented assignment request on chauffeurs irrespective of the handset border form second-hand (hand-held or hands-free) and that chauffeurs inclined to misjudge the comfort of consuming hands-free headphones while lashing.

15. In a pouring emulator study, Jamson et al. (2004), discovered that chauffeurs approved lengthier advances from a lead automobile while dispensation emails spending a talking- founded email scheme. Remarkably, though the chauffeurs in all three lessons endeavoured to recompense for their condensed consideration to the highway by assuming lengthier subsequent remoteness, in numerous circumstances this augmented progress was repeatedly insufficient to evade crashes with additional highway operators.

16. Procedures projected by the French Inter-ministerial Committee on Road Safety in December 2002 were executed in (2003), these procedures comprised to upsurge in consequences for worsening to apparel safety belt or helmets, by means of movable handsets while lashing and for pouring under the effect of liquor. Implementation procedures connecting to rapidity and liquor were strengthened and the enlarged consequences were smeared for destructions. The success of these procedures was improved by extensive media attention and give rise to an important modification in performance linking to lashing under the inspiration of liquor, fast-moving and safety belt tiring.

17. According to VDA: *Sicherung der Qualität vor Serieneinsatz* (1996), reported that, For individually part in the possibility of study (e.g. scheme close gears such as ECUs, sensors, actuators, etc. or hardware level gears such as memory, power transistors, microcontrollers, etc.), the agreed of potential disaster methods. For individually fiasco method, the likely possessions and connected brutality (S) and possible reasons are recognized as well as the possibility of prevention (P) and detection (D) grounded on prevailing procedures in the scheme. These standards are allocated mathematical standards (naturally amongst 1 and 10) grounded on predefined standards.

**Research Methodology:**

Sources of Data: The validity of any research reliant on the systematic method of informations assortment sources and its analysis. The study is equipped grounded on primary and secondary sources. The primary source has composed through oral interview from stalwarts of automotive industry. The secondary data has collected from the reports of international conference report of ASEAN automotive industry and all existing literature has obtained from internet automotive websites, auto business magazines, and e-auto journals.

Exploration of Data: In exploration of data, to display the occurrence or nonappearance of precise features and to associate and compare facts standards or features midst connected matters with numerous joint features or variables, figures have been equipped and figures are influential communiqué tools—it provides text the concentration of readers, and professionally existent great volumes of composite evidence.

**RESULTS AND DISCUSSION**
Fig. 1: Total Percentage of Road Traffic deaths through passenger vehicles across ASEAN.

Above Figure 1 represents about the total percentage of road traffic deaths through passenger vehicles across ASEAN. Out of total percentage of road traffic deaths, 48 percent of road accidents befall to car occupants, followed by 46 percent and 6 percent of road accidents occur to pedestrian, cyclists and motorized two-wheelers, riders and passengers and remaining by others. Therefore, car occupants are the highest fatalities of road accidents in ASEAN.

Fig. 2: Total percentage of deaths occurs through passenger vehicles according to Income status of passenger vehicle consumers across ASEAN.

Above figure 2 deals about the total percentage of death arises through passenger vehicles according to Income status of consumers across ASEAN. Out of total percentage of population, Middle Income consumers of passenger vehicles are the highest consumer income group, followed by 49.6 percent road traffic deaths occur towards Middle Income consumers of passenger vehicles and finally 52.1 percent are high income consumers of passenger registered vehicles. Therefore, it can be concluded that high income consumers of passenger vehicles are the highest consumers of registered passenger vehicles in ASEAN.

Fig. 3: Total percentage of Road accidents contributory factors.

Source: ASEAN Automotive Conference report.

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Above figure 3 depicts about the total percentage of road accidents contributory factors i.e. human, vehicles and road environment. Out of total percentage contributory factors, the highest road accidents occur through human beings and the rest through other road accidents contributory factors.

Therefore, it can be concluded that more road accidents occurs through human beings due to lack of knowledge of passenger vehicles in ASEAN.

Suggestions:
1. Automotive Manufacturers should inspire widespread placement of better – quality automobile protective technologies for equally dynamic and static protective with complete amalgamation of coordination of appropriate regulations of vehicle values, customer evidence systems and motivations to hasten approval of innovative automotive technologies.
2. Car Manufactures should enhance vehicle safety by making innovations as standard options in any class of their products and also enhance partnership and cooperation to reduce the cost of innovations in all production of passenger vehicles.
3. Smash evasion auto technologies should provide assistance to avoid help to prevent or alleviate smashes such as:
   a) Intervention Technologies which includes automated constancy regulator and anti – lock brake pedal that support the means of transportation below control lacking appointment by the driver.
   b) Advanced emergency braking systems containing technologies which deliver signals to support the driver such as blind spot cautioning, way leaving cautioning, irritated – road traffic signals, advancing smash cautions i.e. lane departure warning systems.
   c) Driver assistance technologies which consist of road protection schemes, adaptive voyage regulator, automotive tall rays.
4. Ultimately, finding out the research reveals that more road accidents occurs through human beings, in such a case the safety features should be vigorously encouraged by auto productions predominantly if they would like to augment the auto sales promotion for the purpose of image of the vehicles. Besides that, other auto technologies should be included through submitting lawful requirements such as limits of speed and wearing of seat belt and these incline to be promoted for the utmost vehicle manufacturer’s sales promotion.

Conclusion:
Therefore, there is opportunity for considerable better attentiveness about vehicle protection and benefits of safer vehicles amongst private and fleet car consumers, senior auto management corporations, car sales people and occupational health and safety auto professionals. Auto manufacturers could do a better job by promoting upright features with more safety standard to achieve better returns. Ultimately, academic auto research is a powerful tool for communicating the benefits of safety features to new car consumers and also testing and analysis of safety auto technologies is the cornerstone of successful vehicle safety media campaigns.

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