

Seatbelt Safety Awareness Among Perlis Drivers: Demographic Differences

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Abstract – Some drivers think that seatbelt is not important, and some even not wearing it when driving a car. The awareness of using a seatbelt is questionable around the world. Even there are enough enforcement and rules, people may tend to forget or just ignore it. Some factors can lead or prevent someone from using a seatbelt, somehow the essence is always within the individual itself. This research discovered the seatbelt awareness among drivers that lives in the rural area. This research was done in Perlis, and a cross-sectional design was adopted in this study. The result reveal based on the three different generations and the area of living. Item constructed specifically for this study, and Cronbach Alpha is 0.75. Convenience sampling was done and 100 questionnaires were returned. Overall results showed the level of awareness among people living in Perlis is high, and there is a significant difference between three locations (village, FELDA, and residential area) in awareness level. The result of this study will bring benefits for the enforcement to help them identify areas and specific generations that need more attention.

Keywords: Safety, seatbelt, awareness, enforcement, rural area

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1.0 INTRODUCTION

Road accident statistics in Malaysia keep increasing year by year. However, statistics of road accidents in Perlis shows a low contribution towards the statistics of the entire country's road crashes (RMP, 2018). This makes Perlis among the "safest" state in Malaysia in terms of road safety. However, the downsides of it, people take for granted of proper safety attitude on the road. Some people only believe that wearing a seatbelt is only for the enforcers, for dangerous roads or long-distance trips. Even though the use of seatbelt has shown its reputation to save lives in severe crashes (Mathur & Bandhu, 2016), such awareness has still not reached the majority of people, especially in rural areas (Kulanthayan et al., 2004).

Therefore, this study is aimed to investigate the seatbelt safety awareness among Perlis drivers, i.e. the smallest state in Malaysia. To achieve the objective of this study, there are hypotheses that need to be answered: (H1) *There is a significant difference between three generations on the perception of wearing seatbelts*; and (H2) *There is a significant difference between three different locations towards the perception of wearing seatbelts*.

1.1 Literature Review

A previous study revealed that young people, men, certain ethnic group(s), individuals with lower incomes, and passengers were having less concern about the uses of the seatbelt (Lerner et al., 2001). This indicates that demographic factors influence the awareness level of using the seatbelt. This also can be associated with social learning theory, in which it explains how people learn through other people, through system, community, changing the knowledge, and communicate with each other (Bandura & Walters, 1977; Bandura, 1978; Wenger, 2000).

In this case, people are looking at their environment, perceive and process everything that they have seen into information and kept them as knowledge in the future. People learned how to drive through driving school. There is no doubt that in driving school, one will learn all rules and regulations, been provided with all required information, rules and regulations, guidelines, signboard and signage along the process (JPJ, 2015; Jawi et al., 2015). The most important thing being taught is to wear seatbelt right before moving the vehicle.

Somehow, people care less about the uses of the seatbelt (Özkan et al., 2012; Vecino-Ortiz et al., 2014). In Malaysia, MYR 300 (Section 199(2)) will be charged to the offenders guilty of not wearing a seatbelt (JPJ, 2015). Even though there is a compound that needs to pay by the offenders, it is still a questionable vision to have 100% seatbelt compliance in Malaysia (Ng et al., 2013). This is due to the attitude problems; as well as some natural factors such as pregnancy (Brown et al., 2016), body weight or Body Mass Index (BMI) (Schlundt et al., 2007) and obesity (Behzad et al., 2014) – which become the excuses and increase the rate of non-compliance. A study also reveals that people that live in rural areas have a lack of awareness in wearing a seatbelt (Mathur & Bandhu, 2016).

1.2 The State of Perlis

As mentioned above, the state of Perlis is the smallest in Malaysia, situated at the northernmost of the Peninsular of Malaysia (West Malaysia). It is bordered by Kedah state, as well as has the international border with Thailand on the north (Satun and Songkhla). With a population slightly over 200,000 people, it is the smallest among all states in Malaysia (except Malaysia's Federal Territories) (DOSM, 2015).

Based on the abovementioned facts, it is understood why Perlis is so-called the “safest” in terms of road safety – largely due to fewer exposures on the road. It is perhaps quite busy with commercial and tourism trips entering or from Thailand through Padang Besar, as well as for the ferry operation to Langkawi Island via Kuala Perlis ferry terminal – so a lot of outsiders are day-trippers (Herman et al., 2012). From the RMP's annual report, Perlis has an average of 1,790 reported accidents between 2008 and 2017, which is obviously the lowest among all states (RMP, 2018). In 2017, the fatality rate per month on average is 5.4, and to look at it more positively it is a single digit deaths for each month in 2017. In terms of vision zero, Perlis may become the first to achieve it by virtue of its demographic nature.

2.0 METHODOLOGY

A quantitative analysis was performed to gain information on drivers' perspectives towards the importance of safety awareness on the seatbelt. A questionnaire was constructed and a pilot test was done to test the reliability. The Cronbach alpha value is 0.75 which is past the requirement for reliability analysis. Therefore, these items are reliable to test for a full scale of research (Table 1). Moreover, to further investigate the seatbelt awareness among citizens of Perlis, two hypotheses need to be answered which are mentioned above.

To further explain Table 1, the range of mean has been set up into three categories which are low awareness level (0 - 1.66) moderate (1.67 - 3.33), and high awareness level (3.34 - 5.00). The computed mean score was derived after the items have been reversed. So far seven items indicated a high level of awareness, and five items indicated a moderate level of awareness. Mostly citizen of Perlis has "high" awareness of using the seatbelt. In the result section, a certain analysis was performed to test the hypotheses.

Table 1: Mean score and standard deviation for the items (n = 100)

| No. | Item | Mean | SD | Awareness Level Indicator |
|-----|---|------|------|---------------------------|
| 1. | There is a risk of being caught when not use a seatbelt. | 3.82 | 1.27 | High |
| 2. | Not wearing a seatbelt makes me feel unsafe. | 4.13 | .95 | High |
| 3. | Awareness of danger of no seatbelt use. | 3.92 | .93 | High |
| 4. | I will wear seatbelt whenever I am driving. | 3.89 | .97 | High |
| 5. | I'm not wearing a seatbelt when it is just 5 minutes of driving to the destination. (R) | 3.20 | 1.20 | Moderate |
| 6. | Seatbelt is not important for me. (R) | 3.41 | 1.38 | High |
| 7. | I will wear seatbelt when only for long drive. (R) | 3.20 | 1.38 | Moderate |
| 8. | I will where seatbelt when only there is a roadblock. (R) | 3.08 | 1.45 | Moderate |
| 9. | Seatbelt is for my safety. | 4.06 | 1.04 | High |
| 10. | I feel awkward when not wearing seatbelt. | 3.35 | 1.14 | High |
| 11. | Low traffic flow makes me feel there is no need to wear seatbelt. (R) | 3.08 | 1.27 | Moderate |
| 12. | It is a norm not to wear seatbelt in Perlis. (R) | 2.89 | 1.29 | Moderate |

3.0 RESULTS AND DISCUSSION

Descriptive statistics were performed and the data shows that the respondents involved in this study were: 45% of the respondents are females; the percentage of Malay ethnicity in this study is 63%, Chinese 20%, Indian 9%, and others 1%. Therefore, this study is largely contributed by the Malay ethnicity.

To test the significant difference between the three generations, a non-parametric test was performed to test the differences.

H1: There is a significant difference between the three generations on the perception of wearing a seatbelt.

Table 2: Kruskal-Wallis Generation – Awareness Score

| Generation | Mean Rank |
|--------------|-----------|
| Gen-Y | 53.80 |
| Gen-X | 47.13 |
| Baby Boomers | 39.67 |

Chi-Square: 2.835, p-value: ≥ 0.05

Using a non-parametric test Kruskal-Wallis, as the table shows above, there are two possible hypotheses in this test which are:

H0: $M1=M2=M3$ (The median test scores are equal).

Ha: Not all of the medians are equal.

The significant level of this test shown $p\text{-value} \geq 0.05$, therefore hypothesis null is accepted. Therefore, all means are equal and this shows that there is no significant difference between three different generations (Gen-Y, Gen-X, and Baby Boomers) in the perception of seatbelt awareness.

Meanwhile, to test the second hypothesis, the same method was done to test the significant difference between locations.

H2: There is a significant difference between three different locations towards the perception of wearing a seatbelt.

Table 3: Kruskal-Wallis Location – Awareness Score

| Location | Mean Rank |
|------------------|-----------|
| Village | 34.46 |
| FELDA | 40.05 |
| Residential Area | 54.23 |

Chi-Square: 6.945, p-value: ≤ 0.05

H0: $M1=M2=M3$ (The median test scores are equal).

Ha: Not all of the medians are equal.

The above table explained that not all means are equal their hypothesis null is rejected. The significant level of this test shown $p\text{-value} \leq 0.05$ and the Chi-Square value is 6.945. There exist enough findings to conclude that there is a difference in the median test scores among the three different locations.

The result of this study was supported by previous study, where people in rural areas are lacking the awareness to use a seatbelt (Mathur & Bandhu, 2016; Kulanthayan et al., 2004). As according to the result of H2, it indicates that the categories that people lived in the village and FELDA area has lower score mean compared to people lived in the residential area (*taman perumahan*). Therefore, even though people live in such a small state, but the different locations do matter in the perception of using a seatbelt. It is perhaps people living in the residential area are more structured and more disciplined as compared to villagers. The roads and the houses in villages are not well-structured and quite close to each other. Most of the roads do not physically allow drivers to exceed 40 km/hour due to the road conditions. Therefore, people in the village are having a low level of awareness in using seatbelt perhaps due to the environment where they are living.

4.0 CONCLUSION

In conclusion, underuse of seatbelt among drivers is a serious issue that needs to be handled by the authority. Government and enforcement should take this issue seriously. This study only revealed the situation among Perlis drivers. and it cannot be generalized to other areas (or other rural settings). Furthermore, the results reveal that different locations of living do matter to the awareness of safety (wearing seatbelt). This is because the environment does shape people and their actions. Due to the different settings, therefore, the enforcement agencies should think of appropriate and necessary action and formulate strategies to create awareness levels among rural folks.

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