AWARENESS OF TRAFFIC SAFETY AMONG STATE TRANSPORT CORPORATION IN TAMILNADU

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Abstract

The aim of this study is to investigate the awareness of traffic safety among state transport corporation in Tamilnadu. Descriptive research method is suitable to discover questions to the bus Drivers. Villupuram division having eleven depots, there are 1758 drivers are worked. The research has used random sample method to collect the questionnaire. There are 368 samples are collected depend upon statistical formula. Further, statistical tools are applied to find out the problem. The result revealed that the vehicle registration documents, maintaining distance between two vehicle, general parking place, drinking driving, seat belt usage, right of way of the vehicle while driving on hill roads, broken lines, left lane on road, starting the vehicle on road during high traffic volume, and safety awareness for pedestrians are high opinion about the awareness of traffic safety.

Keywords: Drivers awareness, safety, and Villupuram depots

Introduction

Transportation plays a vital role in urban and rural lives, which is recognized as one of the major functions of a city, along with dwelling, work, and recreation. Guang Chena et al., (2013) alleged the awareness result would be safety of people on the road, and safety of the driver and a preservation of both the road and the cars that operate on that road. Guang Chena et al (2013) The roads designed according to standards specific regulation. Neelima et al., (2013) Traffic offence in the last few years, physical condition of the driver, usage of alcohol and drugs, usage of silt-belt, driving in excess of posted speed limit, failure to keep in proper lane, passing where prohibited by posted signs, usage of the cell phone.

The use of alcohol and drugs by a bus driver is a common cause of bus accidents' (Starr Austen (2012). Speeding reduces the driver's ability to steer safely around curves, extends the distance to stop a vehicle and increases the distance a vehicle travels, (Daniel et al., 2016; Hub Pages 2010). Drivers making inappropriate lane changes can either lose control and crash their vehicles and also run the risk of hit by other vehicles (Canadian News 2013). Suk (2012) proved that failure to signal when failure to turn off a signal after changing lanes happens 48 percent of the time. Most rear end accidents involve key factors such as driver inattention by the driver behind and following too closely. Failure to wear seat belts is responsible for more fatalities accident (Monahan 2005). Fatigue is one of the leading factors contributing to road crashes. Harsh braking and acceleration can have a number of effects on vehicle costs. Tyre Savings (2013) The failure to obey traffic signals is a clear danger to other road users, as well as the driver.

Research problem

According to Neelima et al., (2013) Drivers play a leading role in this system. Wundersitz (2012) Indian traffic scenario is varied when compared developed countries. Madeleine et al (2015) the heterogeneous traffic environment, minimal adherence to lane discipline and poor maintenance of road structures, it becomes highly essential for the drivers to remain patient and maintain vigilance throughout the task of driving. Neelima et al., (2013) Human error is considered as a contributing factor for up to 90 percent of road crashes worldwide.

Liu Haoxue, et al., (1992) Drivers can get 80 percent information of traffic from vision on the road, let limbs deal with steering wheel, brake, and accelerator pedal to make vehicles under control. Gabriela et al., (2015); Mehmet and Hatem (2017) it is inferred that if any mistake happens in the process of getting information and the action driver take will lead to traffic accident. Najah et al., (2016) Drivers are the most significant and active factor in road traffic system. Hence, this study focus on awareness about the traffic safety.

Scope of the study

Awareness regarding various road safety rules and road signs, first aid methods and techniques that improve practices related to the prevention, the awareness and the immediate response to health emergencies on road safety, and also in the household, workplace, and recreational areas.

Objectives of the study

1. To analyze the drivers opinion towards awareness of traffic safety.
2. To evaluate the awareness of traffic safety based on demographics characteristics.

Research Methodology

The aim of this study is to analyze the awareness of traffic safety among state transport corporation in Tamilnadu. Descriptive research method is applied. There are 11 depots in Villupuram division. In these depots, there are 1758 employees are work. The research has employed random sample method to collect the questionnaire. There are 368 samples are collected. Further, descriptive statistic, ANOVA and T-test is computed.

Analysis and Interpretation

Table 1 Drivers opinion towards Awareness of Traffic Safety

Statements	Mean	Std. Deviation
vehicle registration documents and type of vehicle to be used	3.86	1.09
maintaining minimum distance between two cars while driving	4.00	1.24
General Awareness about parking place	4.07	0.81
Awareness about drinking driving	3.74	1.07
Awareness about Seat belt usage	3.85	1.08
Right of way of the vehicle while driving on hill roads	4.42	0.87
Awareness about White continuous or Broken lines	4.24	0.91
Awareness about by left lane on road	4.31	0.75
Awareness about Starting the vehicle on road during high traffic volume	3.89	1.12
Safety Awareness for pedestrians during rainy seasons	3.92	1.24

Source: primary data computed

Table 1 depicts the drivers relating to towards their Awareness of Traffic Safety. Awareness of Traffic Safety is analyzed with ten statements for nominal scales. Further, mean and standard deviation are estimated for the each statement of Awareness of Traffic Safety. The calculated mean values are ranged from 3.74 to 4.42. The calculated standard deviation values are ranged from 0.75 to 1.23. From the mean values, it is obtained that the vehicle registration documents and type of vehicle (3.86), maintaining minimum distance between two vehicles while driving (4.00), general parking place (4.07), drinking and driving (3.74), seat belt usage 3.85, right of way of the vehicle while driving on hill roads (4.42), white continuous or broken lines (4.24), left lane on road (4.31), starting the vehicle on road during high traffic volume (3.89), safety Awareness for pedestrians during rainy seasons (3.92). The result revealed that the vehicle registration documents,

maintaining distance between two vehicle, general parking place, drinking driving, seat belt usage, right of way of the vehicle while driving on hill roads, broken lines, left lane on road, starting the vehicle on road during high traffic volume, and safety awareness for pedestrians are high opinion about the awareness of traffic safety.

It is found that the not obeying traffic laws include personal injury, death, and damage to your vehicle and other property. Hence, the traffic safety management has collect fine and license suspension those who are ticketed traffic laws.

New York Defensive Driving (2013); Adriana Faria et al., (2017) It was found that 89 percent of drivers were aware about the seat belts usage while driving however Jafarpour and Rahimi-Movaghar (2014) 40 percent of drivers were not aware about the safe way of stopping the vehicle during emergency while driving on road, Momber et al., (2013) found that 39 percent of drivers aware about the safe place of parking the vehicle and Charalampos et al., (2017) revealed that 27 percent of drivers aware about knowledge regarding road markings. Overall, 52 percent to 77 percent of drivers have average and above level of awareness.

Table 2 difference between awareness of traffic safety based on age group of drivers

Age	N	Mean	Std. Deviation	ANOVA	
				F	Sig.
Below 30 years	82	3.90	0.62		
30-40 years	116	3.87	0.59		
40-50 years	150	4.0	0.50	2.452	0.043
Above 50 years	20	3.99	0.63		
Total	368	3.96	0.57		

Source: primary data computed; ** significant at one percent

Ho: awareness of traffic safety does not varied based on age group of drivers

Table 2 depicts difference between awareness of traffic safety based on age group of drivers. The mean value, it is observed that below 30 years old drivers have (3.90) of traffic safety, 30-40 years old drivers are having (3.87) of traffic safety, mid 40-50 years old drivers having (4.05) of traffic safety and above 50 years old drivers are having (3.99) of traffic safety. In order to examine the above stated hypothesis, ANOVA test is executed. The calculated p-values were found to be significant. Hence, the stated hypothesis is rejected. It is inferred that the above 45 years old drivers are having higher level awareness of traffic safety.

Table 3 difference between awareness of traffic safety based on experience

Age	N	Mean	Std. Deviation	ANOVA	
				F	Sig.
Below 10 years	83	3.95	0.64		
11-15 years	130	3.85	0.54		
Above 15 years	155	4.07	0.55	5.084	0.007
Total	368	3.96	0.58		

Source: primary data computed; ** significant at one percent

Ho: awareness of traffic safety does not varied based on experience of drivers

Table 3 depicts difference between awareness of traffic safety based on experience of drivers. The mean value, it is observed that above 15 years drivers awareness of traffic safety are high when compared other years of experience drivers. ANOVA test is executed to examine the above stated hypothesis. The calculated p-value is found to be significant. Hence, the stated hypothesis is rejected. It is inferred that the above 15 years drivers are high awareness of traffic safety when compared other years of experience drivers. Wang et al., (2002) found that accident severity depends especially on driving experience.

Table 4 difference between awareness of traffic safety based on tobacco habit

Status	N	Mean	Std. Deviation	T-test	
				T-value	Sig.
Yes	86	3.77	0.69		
No	282	4.02	0.52	12.673	0.000
Total	368	3.96	0.57		

Source: primary data computed; ** significant at one percent

Ho: awareness of traffic safety does not varied based on tobacco habit of drivers

Table 4 depicts difference between awareness of traffic safety based on tobacco habit of drivers. The mean values ranged from 3.77 to 4.02 and standards deviation values lies between 0.52 and 0.69. The mean value, it is observed that the without tobacco habit used drivers are low level performance. In order to test the stated hypothesis, t-test test is executed. The calculated p-value is found to be significant. Hence, the stated hypothesis is rejected. It is inferred that the awareness of traffic safety is varied based on tobacco habit of drivers. Alcohol or drug use affects the ability to drive as a result of impaired vision, reduced reaction times, reduced concentration and vigilance, feeling more relaxed and drowsy, which may cause a driver to fall asleep

at the wheel, difficulty in understanding sensory information, difficulty doing several tasks at once, failure to obey road rules and over confidence are lead to risk taking, (Drug Info 2012).

Table 5 difference between awareness of traffic safety based on speed limit

Speed	N	Mean	Std. Deviation	T-test	
				t-value	Sig.
50 km	251	3.95	0.60	0.054	0.816
above 50 km	117	3.97	0.51		
Total	368	3.96	0.57		

Source: primary data computed; ** significant at one percent

Ho: awareness of traffic safety does not varied based on speed limit of drivers

Table 5 depicts difference between awareness of traffic safety based on speed limit of drivers. The mean values ranged from 3.87 to 4.05 and standards deviation values lies between 0.59 and 0.63. The mean value, it is observed that awareness of traffic safety is varied based on above 50 km speed limit of drivers. In order to examine the above stated hypothesis, ANOVA test is executed. The calculated p-value is significant. Hence, the stated hypothesis is rejected. It is inferred that the awareness of traffic safety is varied based on speed limit of drivers. Especially, it is observed that awareness of traffic safety is varied based on above 50 km speed limit of drivers.

Table 6 difference between awareness of traffic safety based on seat belt

Status	N	Mean	Std. Deviation	T-test	
				t-value	Sig.
Yes	38	4.16	0.19		
No	330	3.94	0.60	5.196	0.023
Total	368	3.96	0.58		

Source: primary data computed; ** significant at one percent

Ho: awareness of traffic safety does not varied based on seat belt of drivers

Table 6 depicts difference between awareness of traffic safety based on seat belt of drivers. Mean and standard deviation are calculated. The mean value, it is seat belt wear drivers are highly associated with awareness of traffic safety T-test is executed to examine the above stated hypothesis. The calculated p-value is found to be significant. Hence, the stated hypothesis is rejected. It is revealed that the awareness of traffic safety is varied based on seat belt of the drivers.

Conclusion

The drivers should improve their ability of guess the dangerous scene to eliminate the accidents. Inexperienced drivers often experience anxiety due to their underdeveloped and declining skills. To highlight the effectiveness of correct training on the drivers' performance

Bibliography

Suk, C.J., 2012, *Consequences of failing to use turn signals*, viewed 26 February 2013, from http://rochester.legalexaminer.com/automobile-accidents/consequences-of-failing-to-use-turn-signals.aspx?googleid=300618

Daniel Oesterwind, Andrea Rau, Anastasija Zaiko (2016) Drivers and pressures e Untangling the terms commonly used in marine science and policy. Journal of Environmental Management 181, 8-15

Wundersitz, L. (2012). *An analysis of young drivers involved in crashes using in-depth crash investigation data*. Report No. CASR101). Centre for Automotive Safety Research, Adelaide, Australia.

Adriana Faria, Ana Rita Matos, Vânia Rocha,Lucinda Rodrigues, Ana Araújo, Patrícia Magalhães,Davide Barroso, Catarina Samorinha, José Precioso (2017) Traffic risk behaviour: an observational study of drivers' behaviour in Braga (Portugal). Journal of Gac Sanit.. https://doi.org/10.1016/j.gaceta.2017.10.012

Jafarpour and Rahimi-Movaghar (2014) Determinants of risky driving behaviour: a narrative review. Med J Islam Repub Iran. 28 142.

Charalampos Marmaras, Erotokritos Xydas, and Liana Cipcigan (2017) Simulation of electric vehicle driver behaviour in road transport and electric power networks. Transportation Research (C 80). 239–256

Momber, I., Gómez, T., Rivier, M., (2013) Regulatory framework and business models integrating EVs in power systems. In: Electric Vehicle Integration into Modern Power Networks. Springer, New York, New York, NY, pp. 251–271.

Gabriela D. Roman a,*, Damian Poulter b, Edward Barker c, Frank P. McKenna d, Richard Rowe (2015) Novice drivers' individual trajectories of driver behavior over the first three years of driving Accident Analysis and Prevention 82 (2015) 61–69

Najah AbuAli and Hatem Abou-zeid (2016) **Driver Behavior Modeling: Developments and Future Directions.** International Journal of Vehicular Technology 12-25

Madeleine J. Groom, Editha van Loon, David Daley, Peter Chapman and Chris Hollis (2015) Driving behaviour in adults with attention deficit/hyperactivity disorder. BMC Psychiatry. 15:175

Mehmet Baran Ulak, Eren Erman Ozguvena, Lisa Spainhour (2017) Age-Based Stratification of Drivers to Evaluate the Effects of Age on Crash Involvement. Transportation Research Procedia (22). 551–560

Susanne Kaiser and Gerald Furiana, Christopher Schlembacha (2016) Aggressive behaviour in road traffic – findings from Austria. Transportation Research Procedia 14 (2016) 4384 – 4392

Guang Chena,Hongmei Jiaa,Zheng Lia,ManZhen Duana,Xueyu Mia (2013)An Analysis of Driver's Choice based on Information of Traffic Accidents. Procedia - Social and Behavioral Sciences 96 . 1055 – 1062

Zhao Jianyou, Zhong Ruib, Zhao Yang, Hao Longfei (2013) Analysis of Driver s adaptability of Stress response in dangerous situation. Procedia - Social and Behavioral Sciences 96; 2173 – 2178

Satoshi Hyodo, Tohio Yoshii, Matstushita Satoshi and Shirayanagi Hirotoshi (2016) An analysis of the impact of driving time on the driver's behavior using probe car data Transportation Research Procedia 21.

Neelima Chakrabarty, Kamini Gupta and Ankit Bhatnagar (2013) A Survey on Awareness of Traffic Safety among Drivers in Delhi, India. The SIJ Transactions on Industrial, Financial & Business Management 1 (2).

Tyre Savings, 2013, *Tyre wear*, viewed 23 February 2013, from http://www.tyresavings.com/articles/safe-driving/looking-after-your-tyres/tyre-wear