

Road Traffic Violations and Drivers Training

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Abstract

This article evaluates the violations and on the basis of these violations, the high violations commuters are referred for training for traffic rules of the highways and motorways. The study is conducted for highways and motorways of Pakistan. The data set of 108063 traffic violations is collected for the period of one year. The results of the study shows that five violations are committed regularly. These violations are obstructing traffic, no use of seat belt, motorcyclist without helmet, careless driving and improper U-turn. The top five vehicles committing violations are trailer, truck, motor cyclist, bus and car. The drivers who conduct more than 12 violations in a year are referred for training. Total 50 drivers are referred for training to follow the highways rules.

Keywords: data mining, traffic violations, drivers training, road safety.

1. Introduction

Road traffic accidents are a main public health concern particularly in developing countries like in South Asia. Overall, developing countries carry a large part of the burden of road traffic accidents, accounting for 85% of annual deaths and 90% of the disability-adjusted life years lost from road traffic injury [1]. Pakistan is also facing the same problems in spite of having very good road structure of highways and motorways. In Pakistan a total of 8988 accidents occurred (mention the period) resulting in 9876 vehicles destroyed, while 4719 people were expired and 9710 injured [2]. This alarming figure of casualties can be minimized by drivers training, therefore, this study is conducted. This study is conducted on data sets of National Highways and Motorways Police.

The National Highways & Motorway Police (NH&MP) is a police force in Pakistan that is responsible for enforcement of traffic and safety laws, security and recovery on Pakistan's National Highways and Motorway network. The NH&MP use special unit vehicles, cars and heavy motorbikes for patrolling purposes and uses speed cameras for enforcing speed limits laws. Three kind of violations are enforced by NH&MP i) A Category that is before travelling ii) B Category that is moving violations and iii) C Category

is a such kind of violation that is not defined in A and B e.g. passenger bus used for commercial loading NH&SO-2000 [3]. There are 108,063 violations occurred during the period of one year from 01-01-2013 to 31-12-2013.

2. Violations analysis and drivers training

It has been observed that there is a significant relationship between traffic rule violations and accident involvement [4]. The analysis of violations recorded by NH&MP shows the spirit of working of enforcement, the category of violations occurred during the period is shown in Table 1. It is showing that moving violations are 96% of total violations.

Table 1 Violations in categories

A Category	B Category	C Category
34	104275	3754

The top code violations from the categories are shown in Table 2. It exhibits that moving violations of obstructing traffic, driving without seat belt and motorcyclists without safety helmet occurred frequently. Violations code B41 is mostly related to heavy traffic vehicles e.g. Trailer, Truck etc. During our analysis, we found that drivers of Trailers committed 29,504 and Truck driver's 28,490 violations that is 54% of the total violations, therefore, government should start the drivers training for both type of vehicles. Driving motorcycle without helmet is at 3rd position which shows that there is high volume of motorcyclist on highway and belongs to young generation. This study suggest that, an educational subject may be introduced regarding the traffic safety rules and regulations.

Table 2 Code wise Violations

Violations Code	Violations occurred	Violations descriptions
B41	17701	Obstructing traffic.
B61	15823	Seat Belt
B43	14022	Driver of motor cycle without safety helmet.
B49	11327	Careless driving.
B39	8921	Improper turn. (Turn from wrong lane.)
B56	8810	Improper lane usage.
B42	7964	Failure to observe slow sign.
B27	4840	Loading in excess of the restriction of dimension of goods.
C21	3403	Violations not specified in A and B categories.
B69	2973	Parking in a "No. Parking" zone.

3. Conclusions

It has been concluded that NH&MP enforcement is very good but drivers of Trailers and Truck should go for training because they frequently commit the violations on the highway. Traffic education may be considered as a compulsory subject at least at intermediate level.

References

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