



Causal factors of bus crashes in Ghana

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Introduction

Road accident is the eighth cause of death globally, and the leading cause of death for children and young adults between 5 and 29. Africa is the world's least motorised region, accounting for just 2% of the global vehicle population, yet, it records the highest frequency of road traffic deaths (20%). Generally, the number of people dying from accidents in Ghana is getting scary with no sign of halting. One of the most used public modes of intercity transit in Ghana is the bus. Unfortunately, bus passengers are ranked third among road users with the highest risk of road fatalities.

Although bus crashes usually records high number of casualties in Ghana, only a few studies have specifically examined causal factors associated with crashes involving buses in Ghana. However, an extensive study of literature on factors perceived to influence crashes involving at least a bus showed that the gap in understanding the causal factors of bus crashes in Ghana has received little attention and needs further investigation. Ultimately, this research seeks to address a gap on a large scale by complementing the Ghana Police Service reports on causal factors of crashes involving at least a bus with the opinion of bus drivers in Ghana.

Objective

To examine causal factors associated with crashes involving at least a bus.

Methodology

The research made use of both primary and secondary data. Primary data were obtained through informal interviews with some commercial drivers to add their technical inputs to the study. The secondary data used in this research were obtained from the Motor Transport and Traffic



Department (MTTD) of the Ghana Police Service (GPS) accident data which had been stored in the database of the Building and Road and Research Institute (BRRI) of the Council for Scientific and Industrial Research (CSIR), Kumasi, Ghana. The study used the five years of road traffic accident data in Ghana from the year 2016 to the year 2020.

Results

The analyses revealed that in all there were a total of 2322 accident events within the period under consideration in which at least a bus was involved. Driver inattentiveness and speeding were the leading cause of crashes. Whilst most clashes occurred under clear weather, it was revealed that some drivers had fatalistic beliefs influencing their reckless driving behaviour. A Chi-square test indicated that there was a statistically significant relationship between weather and the frequency of crashes. Most crashes occurred on good tarred roads. Brake failure was the leading vehicle defect cause of road crashes involving a bus. Most of the drivers interviewed suggest that the shoddy works of mechanics or welders are to be blamed for most vehicle failures.

Conclusions

This study aimed at assessing causal factors of crashes involving at least a bus in Ghana. The study found that:

- Driver inattentiveness and speeding were the leading cause of crashes. In addition, it was revealed that some drivers had fatalistic beliefs influencing their reckless driving behaviour. It was also revealed that because drivers in the private transport business have limited labour rights protection, transport owners impose heavy daily returns on them, influencing the drivers' aggressive driving behaviour on the road to meet the daily returns or “sales”.
- Most (78.21%) clashes occurred under clear weather.
- Most of the crashes occurred on good tarred roads (85.1%).

Recommendation

- The study contributed essential information on the fatalistic beliefs of some drivers. To address this issue, the National Road Safety Authority (NRSA) can investigate further for a possible review of driver training programs in Ghana or consider driver retraining or sensitization. The NRSA can partner with religious leaders to educate and sensitize drivers with fatalistic beliefs on the role of human factors in road traffic crashes.