
To legalise or not to legalise? Analysing the riding behaviours of the tricycle riders in Ghana.

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Background

Despite known safety limitations, tricycles remain a popular low-cost transport option, especially in low-income settings where affordability outweighs safety concerns. Commercial tricycles have become a crucial mode of transport in many urban and peri-urban providing affordable, flexible mobility and employment for young people. Yet their rapid growth has intensified debates over whether they should be fully legalised as commercial passenger vehicles, given mounting safety concerns.

Aim

This study aims to analyze riding behaviours of commercial tricycle riders in Ghana and how these behaviours shape crash involvement, with implications for regulation and legalisation.

Method

Using an explanatory sequential mixed-methods design, quantitative data were collected from 264 riders in Winneba and Kasoa using a refined 16-item Driver Behaviour Questionnaire, complemented by qualitative interviews with riders and road safety stakeholders.

Results

The study revealed that lapses rather than deliberate violations predominantly characterize unsafe riding behaviours among commercial tricycle riders. Lapses emerged as the most dominant behavioural pattern, followed by riding errors, while violations were the least frequently reported. Common lapses were largely associated with non-use of protective gear, particularly refusal to wear protective jackets and riding boots, reflecting poor adherence to basic safety practices. Errors were mainly related to operational judgment, with frequent disregard for speed limits on motorways and sudden hard braking to avoid collisions, indicating deficiencies in hazard perception and speed management. Although violations were less prevalent overall, ignoring traffic signals late at night was the most common form of deliberate non-compliance, suggesting situational risk-taking when enforcement is perceived to be low. Inferential analysis demonstrated that riding lapses significantly influenced crash involvement. Riders who frequently experienced lapses were nearly twice as likely to be involved in one to two crashes compared with those reporting five or more crashes. Age-related differences were

also evident, with younger riders recording higher error scores that declined steadily with increasing age. While riders with no formal education exhibited higher mean error scores than those with secondary education, these differences were not statistically significant after adjustment. Qualitative insights from traffic police officers reinforced the quantitative findings, highlighting overspeeding, fatigue-induced impairment, disregard for traffic signals, and refusal to use protective gear as major contributors to tricycle crashes.

Conclusions

- The study concludes that risky riding behaviours, including speeding, non-compliance with helmet use, and reckless overtaking, are major contributors to crashes. The findings reveal that lapses significantly predict minor crash involvement, while violations and errors, though prevalent, were not strong predictors of lower crash frequencies.
- Moreover, age and education level were found to influence risky behaviours, with younger and less-educated riders demonstrating higher susceptibility to violations and errors.
- Furthermore, to enhance safety interventions, it is crucial to address the risky riding behavior of commercial tricycle riders. Improving rider education, enforcing stricter safety regulations, and enhancing road infrastructure can help mitigate risks associated with tricycle transport.