

FACTORS AFFECTING ELECTRONIC BIKE ACCIDENTS IN BAGONG SILANG PHASE 1 CALOOCAN CITY: AN ASSESMENT

ABSTRACT

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Risk & Safety Science

KEYWORDS

*electronic bikes; accidents;
traffic education; e-bike
riders; urban transportation;
road safety*

ARTICLE ID

AASGBCPJMRA-B06995

Electronic bikes (e-bikes), equipped with electric motors to assist with pedaling, have become a widely used alternative mode of transportation in urban areas. These vehicles offer practical benefits, such as reducing traffic congestion and promoting active mobility. However, e-bike-related accidents have become increasingly common, primarily due to factors such as limited awareness of traffic regulations, lack of required licenses, and the involvement of underage riders. This study aimed to identify the major contributing factors to e-bike accidents in Bagong Silang Phase 1, Caloocan City, and propose measures to mitigate such incidents. This study employed a quantitative research design using random sampling to ensure that every respondent has an equal chance of selection. The researchers personally approached traffic enforcers and e-bike riders in the study area and obtained informed consent to participate. Data were gathered using structured survey questionnaires designed to assess the variables related to traffic education, accountability, and community perception. After data collection, responses were statistically analyzed to determine the most significant factors influencing e-bike accidents. The findings revealed that traffic education received the highest weighted mean of 3.27, interpreted as "Strongly Agree," indicating its critical role in accident prevention. Accountability followed with a mean of 3.16, and community perception received a mean of 3.15, both interpreted as "Agree." These Results suggested that increasing awareness and enforcing regulations could significantly reduce the incidence of e-bike accidents in the area. Based on the findings, the study recommends that authorities implement stricter enforcement of road safety policies, including mandatory helmet use, speed regulations, and designated e-bike lanes. E-bike users are encouraged to adopt defensive driving practices, remain alert in high-risk areas such as intersections and narrow roads, and maintain a safe distance from larger vehicles. Emphasizing traffic education and fostering accountability among both riders and community members can contribute to a safer environment for all road users.

RECOMMENDED CITATION

Cinco, E. H., Egmlan, I. J., Gabanzo, J. M., Laranja, L., & Toscano, E. (2025). Factors Affecting Electronic Bike Accidents in Bagong Silang Phase 1 Caloocan City: An Assesment. *Ascendens Asia Singapore – Bestlink College of the Philippines Journal of Multidisciplinary Research Abstracts*, 7(5), 171.