

ELECTRIC CARGO BIKES FOR LAST MILE OF DELIVERIES

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ABSTRACT

The introduction of electric cargo bikes can serve as an alternative solution to more effective and environmentally friendly city logistics especially for the last mile of deliveries. It is necessary to create a comparison platform between the electric cargo bikes and other freight vehicles in order to evaluate the market potential, obstacles to market uptake and the productivity of the electric cargo bikes. To achieve this objective, we use information from an activity based evaluation tool used by drivers of the cargo bikes and waste trolley pullers as they collect and sell waste in Sharpeville, which is a town faced with waste collection issues. The results show two groups of waste collection modes, namely the electric cargo bikes and the comparable baseline trollies. The record of the drivers' activities show a much clear pattern of these two modes, based on their productivity, finances, safety, reliability, battery life, comfort and other qualitative data gathered during business operations.