People's Willingness to Pay for an Improved Public Transport Service in Kandy: Single Bound Dichotomous Choice Analysis

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Severe traffic congestion in main urbanized cities is one of the major development bottlenecks Sri Lanka is currently dealing with. Existing road capacity is insufficient to meet the transport requirements of the increasing vehicle population. As statistics of the Department of Motor Traffic indicate, the vehicle population has increased by 8.6% average from 2008 to 2018 which is greater than both the average population and economic growth of Sri Lanka. This study mainly suggested attracting private vehicle users to improved public transport as a sustainable solution to this severe traffic congestion. Therefore, this study attempted to address the question of what is people's Willingness to Pay for improved public transport to reduce traffic congestion. To investigate the hypothesis, the study was conducted in Kandy and primary data were collected from 389 individuals by conducting interviews based on structured questionnaires. Willingness to Pay for improved public transport was estimated by using the Single Bound Dichotomous Choice method. The study found that the mean Willingness to Pay for improved public transport is LKR 162 under the 99% confidence level. This is approximately four times the current ticket price which emphasizes people's expectations and requirements on improved public transport. Also, survey results emphasized that the mean distance from the surveyed area to the city is 15 km approximately. It highlights that the current bus fare of LKR 2.33 per km gets increased to LKR 10 per km with improved public transport. Further, results revealed that income and travel time as major determinants of peoples' Willingness to Pay towards improved public transport. Meantime, educational level, employment category, and age also have a considerable impact. Based on these findings, this study argued that the public is willing to substitute private transport with improved public transport if certain conditions are met which leads to a significant reduction of traffic congestion.

Keywords: Kandy, Public transport, Traffic congestion, Willingness to pay