

## Applicability and Effectiveness of the Park and Ride System for Kandy City

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### Abstract

Kandy is the main city in Kandy District and Central Province. As a result of increased car ownership with increase of income level among other reasons, modal share of public transport has decreased over the years. This will increase congestion of roads, reduction of mobility and reliability. One possible option is to reduce the private vehicle users to public transport modes or combination of both private vehicles with public transport mode. “Kandy City Transport Study, (KCTS)” and “Kandy Transport Improvement Program, (KTIP)” have proposed strategic plans to improve transportation system in Kandy city. Furthermore three Satellite Stations were proposed at Getambe, Katugasthota and Thennakumbura with Kandy Multimodal Transport Terminal. In this research, applicability and effectiveness of the park and ride system to Kandy city was studied. Based on available traffic data, number of private vehicles entering to Kandy city in the year 2018 was forecasted in main links. Recent studies found that 59.5% of passenger vehicles’ trips end are in Kandy CBD. Willingness to use of park and ride system among private vehicle users were assessed through questionnaire.

Questionnaire was mainly focused on traveler’s background information, travel behavior data, satisfaction of present transport mode and important factors for better Park and Ride system. Trip information data and other information given by the responders were analyzed through the statistical methods. Finally acceptability of the proposed Park and Ride system was analyzed with monthly income level, average travel time, average trip length, expected waiting time on average journey and average walking distance from point of egress from the public transport mode.

According to the results, acceptability of the proposed Park and Ride system mainly depends on average walking distance from the point of egress from the public transport mode to destination, monthly income level and waiting time on an average journey. The effect of Travel time and Average trip length has not strong correlation with acceptability of the proposed Park and Ride system. Most responders were not satisfied with the current travel time, pedestrian walkways and satisfactory level of bus stands, bus halts, railway stations and

halts. Responders are expecting reliable and comfortable public transport system with high frequency for successful proposed Park and Ride system in Kandy city.

Key words: Park & Ride System, Private vehicle users, Public transport

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