

# Analysis of the Trip Characteristics of Southern Expressway Users

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**Abstract:** The first experience travel on expressways in Sri Lanka begins with opening of Southern Expressway in November 2011. This new experience may have change the demand specific travel characteristics behaviours of the road users to select the expressway distinguished from other available arterial roadways. The traffic attraction of an expressway might be different from that of traffic attraction of an arterial road after these expressways are introduced. However, the users analyse the benefit and cost from reduced vehicle operating cost as well as the toll cost is an important attribute to consider as there are competitive route options available now. The travel length, travel frequencies, trip purpose identification of transport catchment of expressway users are important characteristics to be revealed for future planning of expressways and to evaluate their economic feasibility analysis accurately. A comparison of these important travel characteristics with respect to the normal arterial road users are also of interest for decision making process.

The desire lines of the trip makers are developed with the recently completed OD Surveys and the traffic volumes at interchanges. The purpose based trips can be analysed and can be compared with the existing Galle Road (A2) as the competing arterial road for the toll expressway. OD Matrix analysis and the regression analysis techniques will be used to develop the comparative characteristics of the expressway users and the results are expected to use to identify the specific behaviour of the expressway users so that the outcomes could be used to predict future demand for forthcoming proposed expressways accurately. The research will also focus on the economic impact generated with the shifting of traffic from A2 corridor to Southern Expressway after its development.

**Keywords:** Expressway, Travel Characteristics, Trip Purpose, Expressway User Catchment, Toll Highway