

Analysis of Pedestrian Travel Demand Behaviour under Prevailing Land Use and Transport Setup at Galle City

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Abstract: The walking demand is always present and links with any transport demand in any spatial setup as the basic travel mode in present-day transportation demand system. Even though it is the basic mode of travel by humans, it is related to many demand activities and supply activities of the existing urban transportation setup. Therefore, the variation of any demand and supply attributes of the urban transportation setup will affect to the demand of the walking within the existing transportation system in an urban area. The existing public transportation supply, private motorized transportation supply, non-motorized transportation supply will contribute at different magnitude to the demand for pedestrian together with the existing land use setup. Hence, development of relationships between pedestrian demand and the land use setup in related to the existing transportation supply setup is a useful tool for decision making process for selection of effective transportation network improvements for an urban setup in modern cities.

The Galle City is the main district centre in Southern Province where present transportation supply setup consisted with bus, railways, motorized and non-motorized transportation facilities. The infrastructure facilities for urban transportation consisted, railway stations, central bus stand, road network, walkways and parking facilities etc. However, the integration of the transport facilities at its optimum respond for demand management will lead for effective use of infrastructure facilities in urban areas. The pedestrian demand across the road network and along the road links reflect the direct relationship between land use activities and the transport demand and supply management.

Attempt was made to identify the pedestrian demand across such demand corridors and the variations of them to establish a relationship between present transport supply and the pedestrian demand. The data collected at major pedestrian crossings, passenger demand at bus stand, railway station, are mainly used in the data analysis to establish the pedestrian demand and the transport supply attributes such as distance to the public transport stations, traffic level of the road link, linkage to the major trip generators etc. The analysis also focused on pedestrian behaviour among them such as age, gender, and the time of the day factors which are also important in facility designs for urban transportation supply.

Keywords: Pedestrian Demand, Walkways, Public Passenger Demand, Pedestrian Crossings.