

Analysis of Factors Affecting Pedestrian Route Choice

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Walking is considered as a most efficient mode of transport for shorter distances as it is environmentally friendly, requires minimal energy, costs nothing and is accessible to all irrespective of the age, gender and ability if facilities are provided appropriately. Pedestrian facilities in an urban area have a significant influence on the traffic flow and socio-economic environment. Communities with good pedestrian facilities will enhance the quality of life. Pedestrians enjoy a high degree of freedom of movement even in a highly congested area as opposed to vehicles. Accordingly, more alternative paths are available for pedestrians between any origin-destination (O-D) pair. This paper describes a study carried out in Panadura city center in Sri Lanka to estimate the relative importance given by pedestrians to various factors such as travel time and visual attractions in their route choice. The first part of the questionnaire that was used in the study was on their current journey and the second part was based on stated preference using a series of hypothetical route choice questions. Here respondents were presented with choices between hypothetical yet realistic alternatives, with each alternative being described in terms of their attributes. The results were obtained by conjoint analysis and highlighted that travel time is the most significant factor in route choice for less than 1000m trips and travel distance got priority for longer distance trips. Further, it is apparent that congestion and visual attractions were secondary factors their route choice.

Key words: Panadura city center, Origin-destination, Stated preference, Conjoint analysis

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