Modeling User Departure Time Choice for Trips in Urban Streets

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Abstract : Modeling users' decisions on departure time choice is the main motivation for this research. In particular, it examines the impact of social-demographic features, household, job characteristics and trip qualities on individuals' departure time choice. Departure time alternatives are presented as adjacent discrete time periods. The choice between these alternatives is done using a discrete choice model. Since a great deal of early morning trips and traffic congestion at that time of the day comprise work trips, the focus of this study is on the work trip over the entire day. Therefore, this study by using questionnaire of stated preference models users' departure time choice affected by congestion pricing plan in downtown Tehran. Experimental results demonstrate efficient social-demographic impact on work trips' departure time. These findings have substantial outcomes for the analysis of transportation planning. Particularly, the analysis shows that ignoring the effects of these variables could result in erroneous information and consequently decisions in the field of transportation planning and air quality would fail and cause financial resources loss.

Keywords : modeling, departure time, travel timing, time of the day, congestion pricing, transportation planning

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