

ABSTRACT

Information on the elasticity of urban transportation demand with respect to price or service level is important in analyzing the effects of urban travel demand management policies. For a certain policy to be successfully implemented depends on the level of acceptance of the policy. The two important issues to address under transportation facilities include (1) reliable prediction of demand, and (2) efficient estimation of the users response to changes in prices and the characteristics of the services; i.e. the price and service elasticity. Therefore the objective of this research paper is to provide information on the effectiveness of policy measures to reduce demand for trans-urban travel in private automobiles. Specifically, the study is intended to derive and analyze the demand function for trans-urban transportation and to estimate the price elasticity of the demand function. This research found that the elasticity of demand for private transportation with respect to fuel price and parking fee are estimated to be -0.075020 and -0.033792 respectively, suggesting that the price-based travel demand management policies are relatively ineffective. Meanwhile, the elasticity of private transportation demand with respect to in-vehicle time appears to be much higher than fuel and parking cost. This suggests that any regulation to increase the travel time may be effective in reducing demand for travel in private vehicle. On the other hand, the car users consider services quality as an important factor in using public transportation. This is shown by the higher elasticity of public transportation demand with respect to crowdedness (-0.187055) compared to fare price (-0.069113). In term of policy making, promoting public transport usage should be based on overall service level which include comfort and travel time.