Modelling willingness to pay for improved public transport services: the challenges of non-response to stated preference hypothetical questions

ABSTRACT

The paper focuses on the modelling attempt of willingness to pay for an improved bus service in selected cities and towns of Malaysia. Using responses from onboard intercept surveys, 1,130 samples of bus passengers have been analysed so as to arrive at a simplified model of how passengers trade off their money with possible upgrading of bus services elements. The willingness to pay among these bus riders was very low, despite the high expectation of improvements aspired by them. For service providers, fares are a function of travel time, travel distance and other operating costs. For passengers, the utility function is explained by costs, time, distance and various latent parameters. This paper highlights the significant results of chi-square analysis at various confidence levels. However, modelling the exact utility function of preferences for staggered increased in fares could not be carried out successfully at 95 percent confidence level, due to the relatively small number of respondents stating their and/or undecided response to willingness to pay for the additional fare rate. The issue of non-response to hypothetical survey questions is also raised, explaining the difficulties in modelling this choice behaviour.

Keyword: Public transport; Bus; Willingness to pay; Frequency; Increased fare