

Spatial Competition for Routing Choice and Subsidy Differentiation in a  
Paratransit Duopoly Market

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Abstract

The purpose of this paper was to investigate the effects of Fu-Kang bus routing choice strategies on the subsidy differentiation in Taiwan. Building a spatial competition model between the public and the private bus firm and resolving the sub-game perfect Nash equilibrium, it was found that equilibrium of routing choice and price exists. Furthermore, both firms between the profits and the social welfare were compared and discussed through numerical analysis. It was concluded that the firms obtained precisely information so that subsidized transport fare policy and bus routing choices could be possible and easier made.

Keyword : demand responsive transport service; subsidy differentiation; duopoly market; Fu-Kang Bus Service; routing choice strategy.