

捷運與公車轉乘優惠政策對轉乘優惠運量之影響分析

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摘要

據統計資料顯示捷運與公車轉乘優惠人數逐年增加。自民國 85 年 11 月起，台北捷運公司推出一系列轉乘優惠政策，期間也經歷了多次捷運路線通車與重大災害。捷運與公車轉乘優惠人數的逐漸增加是由多項因素所組成，無法輕易得知任一因素對轉乘優惠量之影響。

本研究欲探討轉乘優惠政策對轉乘優惠運量之影響程度，因此利用時間序列分析之 ARIMA 模式建構轉乘優惠運量成長模式，並將轉乘優惠政策、捷運路線通車、重大災害等列為影響優惠運量之重大事件，利用介入模式分析各因素對轉乘優惠運量之影響。

由介入模式分析其結果顯示短期之轉乘優惠政策有立即明顯之吸引效果，但對整體轉乘優惠運量增加有限；而長期之轉乘優惠政策雖會有政策延滯之效果，但其對轉乘優惠運量之增加有較顯著之效果。

關鍵字：轉乘優惠、時間序列分析、介入模式

The Impact of Transfer Fare Discount Policy between MRT and Bus on Transfer Ridership

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Abstract

According to the statistical data, the transfer ridership between MRT and bus is increasing year by year. TRTC(Taipei Rapid Transit Corporation) has carried out a series of transfer discount policy since 1996, and few significant events occurred during that period, such as metro line was open to traffic and disasters. The increasing transfer ridership between MRT and bus is composed by some events, so we can't easily realize any impact of the events on transfer ridership.

The objective of this study is to discuss how much did those policies affect the transfer ridership between MRT and bus. In order to fulfill this objective, a model in Time Series Analysis called ARIMA is used to build the Transfer Ridership Growth Model. Transfer discount policy, the metro line was open to traffic and disasters are considered as significant events, and intervention model is used to analyze the transfer ridership affected by all events in this study.

The short-term transfer discount policies immediately result in increasing capacity, nevertheless, the increase of whole capacity is limited. Moreover, the long-term transfer discount policies delayed the effects but have more obvious effects on increasing the transfer ridership .

Key words : transfer discount 、 Time Series Analysis 、 Intervention Model