

ESSAYS ON ASIAN AIRPORTS' PRODUCTIVITY AND COMPETITIVENESS

A Summary of Dissertation

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In this dissertation I conducted two empirical studies under the framework of interactions of different interest groups in civil aviation industry. The first study deals with the interaction between policy maker and airport, namely the influence of one policy change on the operational efficiency of airports. The second study analyzed the interaction between passenger and airport. It reveals factors affecting passengers' choice on different airport.

The first study is about the effect of the Three Links agreement between mainland China and Taiwan which resumes the commercial airline services across the Taiwan Strait. I analyzed changes in the efficiency of Taiwanese airports with data envelopment analysis and Malmquist Index analysis. I found that airports in Taiwan with a direct China route would have a lower efficiency score but a higher Malmquist Index comparing to their counterparts. An overall improvement of Taiwanese airports' efficiency and shrinking of the gap between big airports and small airports are also observed.

The second study analyzed the competition patterns between Hong Kong International Airport (HKG) and Singapore Changi Airport (SIN) with regard to air route connecting Europe and Oceania. Hong Kong and Singapore have traditionally been Asia's busiest airports by international passenger traffic. While super-connectors in the Persian Gulf and Turkey are stimulating the growth of their base airports, analyzing passengers' trade-offs in choosing a transit airport in this route is vital for traditional Asian hubs' developing strategy.

Airport choice for multi-airport regions (MARs) has been studied for long but transit airport choice analyses for long-haul passengers remain limited. This study uses revealed preference data of passengers travelling between Europe and Oceania on July, 2015, who took a transit in HKG or SIN. The estimation of alternative-specific logit model indicates that frequency, fare and flight duration significantly affect people's choice on transit airport. Case-specific attributes such as days-to-departure, round-trip affect passengers' choice behavior via airline companies' sales strategies.