Designing of Revenue Management Model on Two Parallel Flight by Considering the Passenger Movement Using Discrete Simulation Method

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ABSTRACT

This research talks about Airline Revenue Management (ARM) for parallel flight by combining the seat capacity control strategy and the dynamic pricing one. This research is the continuation of the previous researches that used the combination of those two strategies. The model is improved by using discrete simulation for knowing the effect of the number of the applicant passengers on the decision period, the flexible passenger proportion, the composition of the affordable class chairs, and the probability of the event of the passenger movement meets the sum of income received by the company on departure. The existance of the affordable class (fixed price) and the flexible one (flexible price) make it possible to transfer passenger among the flight class. Besides the income received from addition fee as the passenger using the transfering, it’s also affected by the number of passengers that book or cancel on the horizon booking. The number of the applicant passengers, the proportion of the flexible passengers, the composition of the affordable class chairs, and the proportion of the transfering (cancel to re-book) affect the company income. That’s why the company should be able to manage the availability of the chairs based on the price of the classes that has been determined before.

Key words : Discrete Simulation, Parallel Flights, Seat Capacity Control, Dynamic Pricing, Affordable Class, Flexible Class, Cancel To Re-book