

ABSTRACT

In this study, a linear structural equations modeling system is applied to incorporate the service quality of airline companies into the passengers' airline choice models to enhance the models' performance and the forecasting ability. An asymmetric response model is used to capture the passengers' perceived gains and losses of service quality related to their reference points in passenger's choice models. Game theory is introduced to analyze the competitive behavior of the ticket price and the service quality among airline companies. The results of this study show that the service quality that influences passengers' airline choice behavior includes safety, convenience, and diversity. The results also indicate that passengers' response more to the gains of price and convenience, respectively, whereas response more to the losses of safety and diversity, respectively. The results obtained from Static Game Theory show that the profit of American and Canadian airlines decreases significantly in the competition of ticket price and the decreasing rate is higher than the competition of service quality. On the other hand, the results of Dynamic Game Theory show that all airlines improve their safety and diversity to the reference points; and the airlines also approach the maximum profit by improving their service quality of convenience to the highest values.

Keywords : Linear structural equation's model, Service quality, Asymmetric Response Model, Static Game theory, Dynamic Game theory.