

Factors Impacting Airport Service Quality Using Multi-Criteria Decision-Making Approach

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Abstract

In this study, we present a multi-criteria decision-making approach for the evaluation of the performance of airline service quality. Our method is developed using Analytic Hierarchy Process (AHP) technique. We systematically reviewed the previous studies which have been conducted for airline service quality performance. Accordingly, a set of quality criteria under ten dimensions were identified to be evaluated by the proposed approach. By the use of AHP, we select the most important quality criteria for assessing the service quality performance of the airport. The evaluation results of the main dimensions showed that safety and reliability, passenger service, and airline website are the most important quality criteria for improving airline efficiency. In addition, the results by AHP analysis showed that baggage delivery time, up-to-date aircraft and in-flight facility, courtesy of employees, on-time performance, online purchase process, value for money, handling of delayed flight, promptness of booking, the convenience of buying ticket and loyalty program are the most important indicators respectively in passenger service, in-flight service, employees safety and reliability, airline website, pricing policy, responsiveness, booking service, ticketing service, and promotions. The finding of this study and the proposed multi-criteria decision-making approach make important contributions to the literature by helping to identify quality criteria for improving the service quality in airports.

Keywords: AHP, Airline efficiency, Service quality performance, Multi-criteria decision making

1. Introduction

The evidence shows that there is a significant relationship between airport efficiency and service quality improvement (Perçin, 2017). It is important to identify how the service quality in the airline can continuously be improved to achieve long-term success and competitiveness. The previous research showed that service quality improvement can lead to

customer satisfaction of the service (Park, Robertson, & Wu, 2006; Tsafarakis, Kokotas, & Pantouvakis, 2017). Accordingly, in recent years many attempts have been made for assessing the airline service quality by the use of quality criteria to improve the efficiency of the airport (Kuo, 2011; Tsaur, Chang, & Yen, 2002). The assessment of service quality has been considered as a multi-criteria decision