



## Recent Trends on Airline and Airport Management Research: Selected Papers from the 22nd ATRS World Conference, Seoul, 2018

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The 22nd Air Transport Society World Conference was held in Seoul, Korea, from 2nd to 5th July 2019. The conference was jointly organised by the Korea Transport Institute, the Korea Transport University, the Korea Airports Corporation and Incheon Airport. During the four days of conference, 222 papers were presented in 62 sessions covering most of topics of air transport research, and airport and airline management. In this special issue, we present four papers covering trending research issues on airline and airport management. Three of them cover topics about airline management: the relationship between airline's efficiency and profitability, an experimental research on user experience in online air tickets purchase and dynamic refund policies applied to passengers cancelling air tickets. The last paper is about an important topic of airport management: strategies of risk mitigation of unmanned air vehicles (UAV) accidents near airports.

Low and Yang paper analyzes the relationship between service efficiency and profitability in the airline industry. They measure service efficiency in five key airline cost centres: (1) business orientation, (2) network coverage, (3) physical resources, (4) maintenance, repair and overhaul (MRO) and (5) human resources. They measure efficiency using data envelopment analysis using a slack-based model. Model results are independent variables of an alternate conditional expectations regression model. They find that the relationship between efficiency and profitability is mediated by airline's generic strategy. Airlines following a cost leadership strategy raise their profitability increasing efficiency on physical resources, MRO and human resources, while airlines pursuing a differentiation strategy must focus on service quality, rather than on efficiency, to foster their profitability.

Pasupa and Churamakara perform an experimental research on airline e-commerce user experience, examining consumer behaviour and preferences between purchasing media, including computer website, mobile website and mobile application. They find five factors that determine user experience (UX) in airline ticket purchasing: physical experience, trust, willingness to learn, context of use and adjustment. The importance of airline ticket purchasing for customers makes them willing to learn a relatively complex user interface (UI), unlike other industries such as videogames. Physical experience makes computer website preferable to other media, as screen size and ease data input lead to a better user experience. Context of use (location and urgency) can make mobile applications preferable in some cases. As a consequence, airlines need to ensure that UI of all their media conforms to the best UX practices.

Zhao and Deng use game theory to study a situation that occurs frequently in the transportation industry: a passenger has to cancel the ticket so that she has to pay a refund to the transportation company. An astringent refund policy may reduce company's losses in the short run, but may harm airline's reputation in the long run, putting in danger future profitability. Authors propose airlines to adopt a dynamic refund policy scheme, charging different refund fees in different refund times, so that the utility of airlines and passengers is maximized.

Finally, Pyrgies' paper is about a trending issue in airport security, incidents caused by unmanned air vehicles (UAV) in the vicinity of airports. He analyzes through quantitative and qualitative techniques a sample of 139 serious UAV incidents in the vicinity of worldwide airports. Using data from this sample, he performs a risk analysis based on FAA Safety Management 5-steps procedure to identify root causes of UAV accidents. He finds that UAV accidents occur more frequently than expected, and that happen higher and further from airports than anticipated. As a consequence, the paper suggests that mitigation measures of UAV potential incidents should be deployed not only on airports, but also on-boarded in UAV themselves.

We hope that the contributions presented in this special issue will be of value to the readership of Journal of Airline and Airport Management and serve to stimulate future work in the realm of air transport. We extend our gratitude to all the people who contributed to the ATRS Seoul Conference: the organization team, the participants and the reviewers. Moreover, we are in debt with all the reviewers that have provided excellent suggestions to the accepted papers and helped to improve their quality. We hope the readers find the articles valuable and an encouraging step for further inquiry into the respective topics.

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