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JATS publishes the following categories of papers written in scholarly English: a) Full Research Papers, b) Conference Reports, c) Book Reviews, d) Industry Perspectives. Papers should be submitted electronically via journal’s website https://jats.aviationsociety.gr in MS-Word format ONLY using British spelling, single-column, 1.5 line spacing, Tahoma letters, font size 11. Section headings (and sub-headings) should be numbered and written in capital letters. Upon acceptance of a paper and before its publication, the corresponding author will be asked to sign the Transfer of Copyright form on behalf of all identified authors.

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Industry Perspectives are usually shorter than full research papers and should provide a practitioner’s point of view on contemporary developments in the air transport industry. Contributors should explicitly specify whether their views are espoused by their organization or not.

Conference Reports should be between 1,000 and 1,500 words. They should provide factual information (e.g. conference venue, details of the conference organizers), present the various programme sessions and summarize the key research findings.

Book Reviews should be between 1,000 and 1,500 words. They should provide factual information (e.g. book publisher, number of pages and ISBN, price on the publisher’s website) and critically discuss the contents of a book mainly in terms of its strengths and weaknesses.
Ioulia Poulaki

1. CRISIS AND DISRUPTION COMMUNICATIONS MANAGEMENT IN THE AIRPORTS SECTOR: THE EFFECTIVE USE OF SOCIAL MEDIA
   Lúcia de Fátima Silva Piedade, David Warnock-Smith

   Although the use of social media within the airport industry is not a new practice, there are still varying degrees of real and perceived concerns around how to best deliver positive rather than negative user engagement and experiences through social media platforms. This perceived risk becomes particularly apparent during times of significant airport operational disruption and crisis. Using an airport user questionnaire (in Portugal) and operational expert interviews (in the UK), this study aimed to determine the ways in which airport use of social media platforms should be integrated into overall airport crisis and disruption management strategies. This led to an evidence-based template communications flow model for airport operations managers and their communications teams to help ensure common and consistent messaging, positive user engagement/experiences, and reduced business fallout from significant disruption and crises. Future research should seek to test the usefulness of specific communications and social media guidance that airports use internally to determine if they are consistent with the different user preferences by crisis typology as detailed in this study.

2. SUPPORTING DOOR-TO-DOOR AIR TRAVEL: TOWARDS A PRIVACY PRESERVING VIRTUAL ASSISTANT FOR PASSENGERS
   Moritz Höser, Ulrike Schmalz

   Seamless and personalised door-to-door air transport, supported by virtual assistants, has the potential to make air travel more convenient and profitable. However, processing passengers’ data comes with major privacy concerns. Commercial interests and functionalities need to be reconciled with data protection. Current concepts do not meet these requirements. Filling this gap, this paper conceptualises an architecture for a travel assistant that mediates between mobility and air transport providers as well as passengers while assuring privacy through local computation. The concept targets a time horizon of 10+ years and addresses steady growth of air passenger volume (post-Covid) with a technical solution that includes an open, modular platform. The proposed architecture can support business advantages like network effects, the improvement of passengers’ overall travel experience, and a new approach that ensures traveller’s privacy online. Further research and the development of a prototype are necessary for first simulations and implications.

3. FACTORS OF SUCCESS OR FAILURE OF AVIATION INDUSTRY: A MULTIPLE CASE STUDY OF AVIATION INDUSTRY & CONCEPTUALIZATION OF NEW THEORY OF SUCCESS
   Dipak Prasad Bastola, Binod Krishna Shrestha, Prakash C. Bhattarai

   A study of six different airlines has been performed using a case study method, in which a full range of leadership development theories and themes, as well as organizational performance measurement themes to measure organizational performance have been used. Three failure airlines and three successful airlines were chosen for the study. The scope of the research is
limited to the airline as a unit of analysis. In this unit of analysis, further leadership and organization are considered as two sub-units of analysis. In the leadership sub-unit, mainly leadership traits and determinants, leadership perspectives, leadership styles and types of leadership have been studied, whereas in the organization sub-unit of analysis, human resources, technology, structure, safety culture, strategy, environments, the role of government, unhealthy competition, political instability and its effects, have thoroughly been studied. The results indicate that leadership and organizational performance of Nepali aviation industries are two sides of a coin and without effective leadership, better organizational performance is not possible. Besides other factors like culture, environment, technology and financial constrain, most of the cases revealed that the role of government leadership while formulating the policies and aviation leadership that fails in coopetition with governmental bodies due to lack of political competency are the two main factors for aviation organizational success or failure in Nepal. Success factors, as per the research findings, are: merit-based employee selection process, no discrimination based on gender, consideration of all employees as owners, and ownership feeling within employees due to profit distribution, highly qualified and well-educated employees. Finally, a new theory of successful airline has developed at the end of this research based on multiple case studies.

4. ASSESSING THE IMPACT OF AIR PASSENGER TRAFFIC IN AIRPORTS ON COVID-19 RATES IN EUROPEAN REGIONS ..............................................................104-131

*Michael Stanton-Geddes*

This study provides the result of statistical analysis of weekly airport passenger traffic data and the rate of new COVID-19 cases (COVID-19 incidence rate) in Europe at both the country and sub national level during 2020, controlling for the prior incidence rate, the level of stringency of government measures, and the mobility of people. This paper focuses on the relationship between air travel and the COVID-19 incidence rate during the second half of the year because this addresses the real problem faced in Europe about whether to permit air travel after a novel virus was already highly present in the community. The paper does not seek to add to the literature about the role of air travel in the initial propagation of a novel virus, nor does it consider the impact of vaccine availability. The analysis provides evidence that a 10% increase in airport passengers is correlated with a 0.14% increase in the COVID-19 incidence rate in Europe’s subnational regions during the second half of 2020. As comparison, an increase of 10% in the index of the stringency of government measures is correlated with a 4.3% reduction in the COVID-19 rate, and 10% more mobility in the population with a 2.9% increase in the COVID-19 rate. The paper uses a model that is based in literature and applies ordinary least squares (OLS) regression techniques for fixed effects and pooled panel data. The finding that increases in air transport traffic when a novel virus is already widely present suggests that efforts to restrict or control air travel are not likely to be efficient.

5. LABOR USE EFFICIENCY OF ETHIOPIAN AIRPORTS .............................................105-128

*Tsegay Kaleab, Almas Heshmati*

This study analyses labor use efficiency of Ethiopian airports using an input requirement function approach. The study considers panel data for 13 international and domestic airports covering the period 2002-2017. The fixed effects, a multi-step model of separating persistent and transitory inefficiency, and maximum likelihood estimation techniques are used for estimating the airports’ labor use efficiency. The study concluded that labor use and airport output were complementary hence expansion of airport facilities is recommended. Capital, energy, and maintenance and repair inputs substitute labor use. The efficiency results vary according to the models’ underlying assumptions. The average labor use efficiency of the
fixed-effects, multi-step and maximum likelihood methods are 47.52, 49.60 and 50.59% respectively. Despite these minor differences, many domestic airports performed relatively better compared to international airports. Thus, deployment of resources above the minimum requirements should be reconsidered as a source of cost reduction. The airports with high persistent inefficiency will continue to remain inefficient which may necessitate structural changes and revision of employment and labor use policies so as to increase their labor productivity.
This issue collects five papers focusing on a variety of topics related with the contemporary air transport environment.

In the first paper, Lúcia de Fátima Silva Piedade and David Warnock-Smith investigate the ways that airports use social media platforms for the cases of crisis and disruptions to highlight the need of their inclusion in overall airport crisis and disruption management strategies. Primary research concerned questionnaires distributed in Portuguese airport users and interviews with UK airport operational experts aiming to determine the engagement degree of passengers with airports’ social media platforms upon crises and significant operational disruptions. An evidence-based template communications flow model for airport operations managers and their communications teams was the result of this work to ensure a) common and consistent messaging b) positive user engagement/experiences and c) reduced business fallout from significant disruption and crises. Future research is also indicated by the authors related with the consistency of social media usefulness among airport users who present different preferences by crisis typology.

Moritz Höser and Ulrike Schmalz, in the second paper, driven by the fact that major privacy concerns do not reconcile with commercial interests and functionalities towards a more convenient and profitable air travel, conceptualise an architecture for a virtual travel assistant that mediates between mobility and air transport providers as well as passengers while assuring privacy through local computation. In the post-Covid era the steady growth of air passenger volume, an open modular platform may be the technical solution in a time horizon of 10+ years, according to the authors. Network effects, passengers’ overall travel experience improvement and ensuring traveller’s privacy online, are business advantages that the proposed architecture can support. The way forward, as suggested by the authors, concerns initial simulations and implications of this open, modular platform.

The factors of the airline success or failure in the context of Nepali aviation are investigated, in the third paper, by Dipak Prasad Bastola, Binod Krishna Shrestha and Prakash C. Bhattarai, using a case study method that concerns six airlines that have been studied in an analysis based on two pillars: leadership and organization. The first pillar has been studied in terms of leadership traits and determinants, leadership perspectives, leadership styles and types of leadership, while the second one focused on human resources, technology, structure, safety culture, strategy, environments, the role of government, unhealthy competition, political instability and its effects. Research findings indicated that that leadership and organizational performance of Nepali aviation industries are two sides of a coin. In fact, the authors postulate that without effective leadership, better organizational performance is not possible, while the role of government leadership is very significant when it comes to aviation organizational success or failure in Nepal. Furthermore, the authors highlight the success factors which include, among others, merit-based employee selection process, no discrimination based on gender, and ownership feeling within employees due to profit distribution.

The fourth paper focuses on the relationship between air travel and the COVID-19 incidence rate during the second half of the year because this addresses the real problem faced in Europe about whether to permit air travel after a novel virus was already highly present in the community. Michael Stanton-Geddes provides the result of statistical analysis of weekly airport passenger traffic data and the rate of new COVID-19 cases (COVID-19 incidence rate) in Europe at both the country and sub-national level during 2020, controlling for the prior incidence rate, the level of stringency of government measures, and the mobility of people. The authors use a model that is based in literature and applies ordinary least squares (OLS) regression techniques for fixed effects and pooled panel data. The finding that increases in air transport traffic, when a novel virus is already widely present, suggests that efforts to restrict or control air travel are not likely to be efficient.
In the fifth and last paper Tsegay Kaleab and Almas Heshmati analyse labor use efficiency of Ethiopian airports using an input requirement function approach. Their research methodology considers panel data for 13 international and domestic airports covering the period 2002-2017. Labor use and airport output were found complementary hence expansion of airport facilities is recommended. Capital, energy, and maintenance and repair inputs substitute labor use. Nonetheless, the efficiency results vary according to the models’ underlying assumptions, while minor statistical differences have been found among airports when it comes to average labor use efficiency of the fixed-effects. The authors postulate that many domestic airports performed relatively better compared to international airports. Furthermore, the airports with high persistent inefficiency will continue to remain inefficient which suggests structural changes and revision of employment and labor use policies to increase their labor productivity.

We would like to extend our thanks to all these authors and all the reviewers for their hard work and contribution to this issue of Journal of Air Transport Studies. We believe that these works are providing a valuable contribution to the aviation practitioners as well as encouraging further research on the respective topics.

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