Research with industry executives reveals impact of COVID-19 on air transport sector

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Cranfield-led research has assessed the initial impact of COVID-19 on air transport and found that it is likely to lead to a smaller, consolidated sector in the future.

The research—involving a series of in-depth interviews with senior aviation industry executives along with analysis of flight and air freight data—provides an early assessment of the medium- and long-term impact of COVID-19 on air transport for both passenger and cargo traffic.

After a rapid geographical spread of the virus with initial manifestation in Asia and a lagged response in the rest of the world, most airlines tried to operate a normal schedule until they were prevented by mobility restrictions such as border closures and lockdowns, translating into sudden drops in flight numbers from mid-March.

Data showed that impact has been stronger in international than domestic markets. There was a partial recovery of Asia Pacific domestic markets during March, fueled by China's recovery, turning into a double-dip in April as other Asian countries experienced drops in domestic traffic in line with global trends.

Interviewees thought the crisis would lead to consolidation and a significantly smaller industry and were concerned about the possible differences in state aid and how that could affect the level playing field in a post-COVID-19 aviation market.

Dr. Pere Suau-Sanchez, Senior Lecturer in Air Transport Management at Cranfield University, said: "Along with other sectors of the economy, air traffic is vulnerable to external factors, such as oil crises, natural disasters, armed conflicts, terrorist attacks, economic recessions and disease outbreaks. The findings of this paper represent an early assessment that can help the aviation industry and other related industries like tourism in the preparation for the recovery period.

"We focused on identifying aspects that can structurally redefine the aviation industry in the medium and long term for both passenger and cargo traffic, particularly around supply and demand, traffic resilience, passenger behaviour, health regulations and business ethics. Understanding these structural elements in an integrated way can provide more confidence in efforts to predict the future context. As the views of senior stakeholders might change as the crisis evolves, a record of their early assessments also represents a valuable reference for future analysis."

Other COVID-19 consequences highlighted by the interviewees included:

- Full-service network carriers (FSNCs) are likely to be major losers since the recovery in international markets will be slower and they may face new competition with the potential entry of new airlines in their home hub markets.
- Regional airlines were identified as possible short-term winners during the recovery period as they could potentially help FSNCs adjust their feeding capacity.
- Low-cost carriers are expected to concentrate in primary markets with possible entry in hub airports, and a general reduction in frequencies at the route level.
- Regional and secondary airports are likely to lose out as capacity is freed up in larger markets, attracting airlines and enabling larger hub airports to reinforce their positions.

Interviewees were concerned about the recovery of business travel, mainly due to the cancellation of meetings, incentives, conferencing and exhibitions (MICE) events, and the uneven lift of travel bans. Teleworking was seen as a serious threat to demand, with the current context of digital transformation and cloud apps offering better solutions for teleworking than the traditional videoconference.

The recuperation of the leisure passenger segment was expected to be quicker but reduced disposable incomes would curtail propensity to fly and require significant support, such as route subsidies. Fear and health concerns were identified as major issues for the leisure traveller, more so than for the business traveller.

In regulatory terms, all interviewees believed that new health screening controls would be imposed at airports, translating into higher costs for airports and passengers, but did not consider social distancing to be a viable commercial option for airlines.

The interviews also identified areas in which the industry could be transformed towards a more ethical business, for example around supply chains and more responsible consumption.

Interviews with 16 managers from across the airline and airport sectors (including major, low-cost and regional carriers, large hub, medium and regional airports, a pilots' union and an aviation insurance broker) were conducted between 19 March and 17 April. Global flight supply and air freight data, including origin and destination airport, time of departure and arrival, number of seats supplied, aircraft type, and day of operation was analysed for the first four months of 2020.

The full paper—An early assessment of the impact of COVID-19 on air transport: Just another crisis or the end of aviation as we know it? - published in the *Journal of Transport Geography*, and co-authored with Augusto Voltes-Dorta, University of Edinburgh Business School, and Natàlia Cugueró-Escofet, Universitat Oberta de Catalunya.

More information: Pere Suau-Sanchez et al, An early assessment of the impact of COVID-19 on air transport: Just another crisis or the end of aviation as we know it?, *Journal of Transport Geography* (2020).
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