Aviation Resilience In The Pandemic

Jason A. Major, RRU DBA Student

The Research Problem

Two years have now passed since the WHO declared the COVID-19 outbreak a public health emergency of international concern (World Health Organization, 2021). **The global aviation industry while a victim of COVID-19, is also known to have played a significant role in the spread of the disease turning a local epidemic into a global pandemic** (Sun et al., 2021, p. 1). Governments have learned that some of the options available to reduce active cases is to impose air travel restrictions, quarantines and increased testing.

Impact on the Aviation Industry

It is perhaps the depth of the plunge in revenues and sustained financial losses over the last two years that demonstrate a lack of readiness and resilience across airlines and airports. Based on December 2021 data, the International Civil Aviation Organization (ICAO) estimates the global aviation operating **loss in revenues was USD $371 billion in 2020, a 60% drop in passengers** and this only slightly improved to a **USD $325 billion loss in revenues in 2021, representing a 49% drop in passengers** (ICAO, 2021, December, 14). Dube et al. (2021) acknowledge a heavy toll the pandemic has caused on global aviation resulting in ratings downgrades, the liquidation and bankruptcy of many airlines and airports due to severe cash burn instigated by travel restrictions (p. 1). **Governments around the world including Canada are financially supporting their aviation industries out of necessity, but this cannot last forever.**

Research Question and Purpose

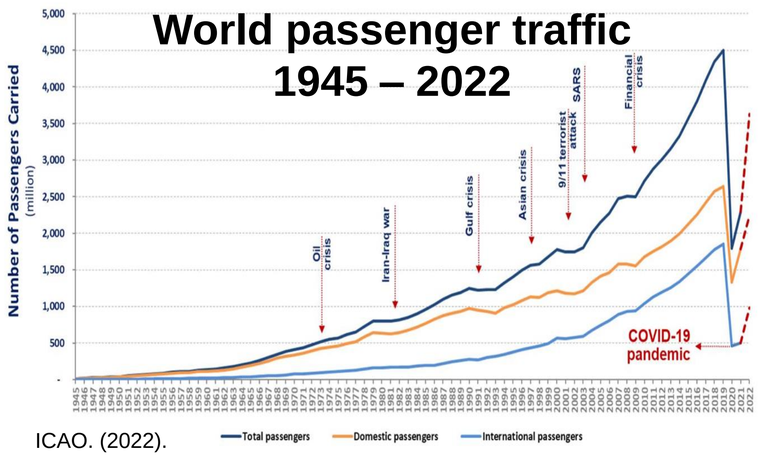
How has resilience emerged from within the aviation industry as a result of the COVID-19 pandemic?

The purpose of this study is to provide a deeper understanding of resilience in the aviation industry.

Contact: jasonmajor@hotmail.com

Revenues recovering, but slowly

Statistics Canada. (2022).



ICAO. (2022).

Methodology

The research will use an exploratory case study design that will explore organizational resilience during the pandemic with a focus on the case of the global aviation sector. Intending to start the research with a **survey** (may produce quantitative frequencies) and **interviews** (add material qualitative richness to the information collected).

Research Objectives

1. To describe the overall impact of the COVID-19 pandemic on the global aviation industry and how the operating environment continues to change. Explore how the different regions of the world faired as compared to Canada and what caused the differences.
2. To understand which regions and organisations showed greater resilience from the effects of the pandemic and what the key factors were that allowed them to be more resilient.
3. The research will provide a definition of aviation resilience and build a framework for resilience in the aviation industry going forward.
4. To provide recommendations based on observed best practices, processes, and innovation from around the world that Canadian airlines and airports should consider for implementation.

Gap in the Literature

In a December 2021 search using the Royal Roads Discovery Search with the key words "**aviation industry resilience**" and selecting peer reviewed and using the years 2020 to 2022 generated 15 results. But a search using "**impacts of COVID-19 on Canadian aviation**" or "**Canadian aviation resilience**" generated zero peer reviewed results confirming a gap in the literature and an opportunity for this research to make a significant contribution.

References

Dube, K., Nhamo, G., Chikodzi, D. (2021). COVID-19 pandemic and prospects for recovery of the global aviation industry. *Journal of Air Transport Management. 92*. https://www.sciencedirect.com/science/article/pii/S0969699721000053

ICAO. (2022, March, 1). *Effects of Novel Corona Virus (COVID-19) on Civil Aviation: Economic Impact Analysis*. Located at https://www.icao.int/sustainability/Documents/COVID-19/ICAO_Coronavirus_Econ_Impact.pdf

Jiuxia, G., Xinping, Z., Chenxi, L., & ShuzhiSam, G. (2021). Resilience modeling method of airport network affected by global public health events. *Mathematical Problems in Engineering*, *2021*. https://doi.org/10.1155/2021/6622031

Statistics Canada. (2022). Table 23-10-0079-01 Operating and financial statistics for major Canadian airlines, monthly. https://doi.org/10.25318/2310007901-eng

Sun, X., Wandelt, S., Zheng, C., Zhang, A. (2021). COVID-19 pandemic and air transportation: Successfully navigating the paper hurricane. *Journal of Air Transport Management. 94*. https://doi.org/10.1016/j.jairtraman.2021.102062

World Health Organization. (2021). *Timeline: WHO's COVID-19 Response*. Located at https://www.who.int/emergencies/diseases/novel-coronavirus-2019/interactive-timeline