

Airlines Data Analytics for Aviation Industry

PROBLEM STATEMENT 1:

Airline Infrastructure

Airports must consistently upgrade their infrastructure – the runways, terminals, concourses, hotels, shopping centers, lounges, and more. There is major competition in this area; to maintain the reputation of the airline and remain ahead of competition, onsite amenities such as aircraft ground handling systems will need to be periodically renovated. While doing so occasionally is advantageous no doubt, leading to increasing passenger numbers, repeating the upgrade every now and then will have a significant impact on the airline company's finances. Aircrafts need to be periodically upgraded and maintained as well – this in fact, is even more crucial, as passenger safety is reliant on the same. Having faulty aircraft doors or aircraft seating is liable to get the airline sued. Airline infrastructure is one of most vital challenges of the aviation market, as carriers need to maintain their current fleet and also ensure to purchase new, modern ones, while ensuring fuel efficiency and lowered costs.

PROBLEM STATEMENT 2:

Passenger Comfort and Experience

The aviation industry is service-driven; its success depends enormously on how satisfied passengers are. The reason passenger comfort forms the crux of challenges faced by the airline industry is that no passenger is alike; at some point, a section of customers may always be dissatisfied. However, this is what has pushed airline companies to ensure seamlessness throughout – the actual air travel, excellent security, less/no hassles in airport lines, convenient baggage claim, customer care, and more.

To achieve these in a flawless manner is a consistent tussle of sorts. Customer surveys and feedback always depict that not all passengers have great travel experiences. For instance, IATA's 2017 Global Passenger Survey depicts that only around 56% of North American customers were happy with their last travel experience. To that end, there's always space for bettering customer comfort, which airline companies will continue to battle with.

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PROBLEM STATEMENT 3:

Climate Change

Without a shred of doubt, climate change and environmental issues have remained among the key challenges faced by the airline market since a very long time. Since commercial aviation is responsible for a considerable percentage of carbon emissions, the airline industry is under tremendous pressure to undertake measures that will reduce environmental impact of air travel. As part of a response to this challenge, the IATA had suggested a multi-faceted, four-pillar strategy, including enhanced technology, efficient aircraft operations, improved infrastructure, and a single global market-based measure. Until these are completely and seamlessly met, climate change will continue to be one of the current challenges of the airline industry. The aviation industry forms an important part of the global economy. Pre-COVID, airline companies had to deal with considerable challenges, the solutions of which were being thought out and assessed by industry experts periodically. The advent of the pandemic however, brought forth a set of groundbreaking challenges for the airline industry that it hadn't encountered in any of the previous global disasters such as the 9/11 attack or the economic recession of 2008. It has not only brought about an entire 180-degree change in the way previous challenges were perceived, but a new set of risks that will now form the base of how the industry will function in the forthcoming decades.

PROBLEM STATEMENT 4:

Technological Advancements

To think that technological developments are one of the challenges of the airline industry may come as a surprise. Technology, however, is a double-edged sword, and despite the revolution it has brought about, rising dependence on the same can make the entire industry vulnerable. For instance, in case of a software issue, the operations of the airline may remain crippled until it is resolved. In case of insufficient funding, upgrading crucial infrastructure such as aircraft communication systems may be impossible, causing the entire system to collapse.

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PROBLEM STATEMENT 5:

Global Congestion

A couple of decades back, air travel had been a luxurious affair; playthings of the rich, especially in the developing countries. The scenario has changed drastically, today, airports the world over are so crowded that it has led to unnecessary flight delays. Most flights seem full, terminals are always congested, and more importantly, the skies are overcrowded with the excessive number of aircraft. Air traffic and airport congestion are major challenges faced by the airline market, which seem to have no feasible solution, at least in the immediate future. Carriers continue to make trips seamless for flyers, however, this will continue to remain a viable challenge.