

EXECUTIVE SUMMARY

Proactive Handling of Flight Overbooking: How to Reduce Negative eWOM and the Costs of Bumping Customers

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Service firms with fixed capacity (e.g., airlines, hotels, and restaurants) rely on overbooking to improve capacity utilization and profitability. Specifically, in the airline industry, analysis of archival data from the US Department of Transportation and interviews with industry experts indicate that all major airlines regularly overbook. According to aviation experts, overbooking has benefits for both the firms and their customers; it enables firms to improve their load factors and enhance revenues, and it offers customers reduced airfares, and the ability to purchase last minute tickets even on already sold-out flights. However, this practice can become problematic when airlines need to offload or bump passengers because the number of passengers who finally show up for a flight exceeds the number of available seats. For example, the United Airlines incident in April 2017 where a passenger was forcibly removed from an overbooked flight went viral and led to a decline of \$1.4 billion in the airline's market capitalization.

In light of this incident, some airlines changed their offloading policies and increased the compensation offered (e.g., some airlines now pay up to \$10,000). "Yet, paying higher compensation imposes additional costs that can damage tight profit margins" says the lead author, Amin Nazifi. The authors wanted to find out if there is a better way of handling offloading to mitigate negative customer responses and avoid excessive compensation.

This study shows that proactivity can play an important role in mitigating customers' negative reactions to offloading. Using a series of scenario-based experiments, the results show that compared with the default-reactive approach of denied boarding at the gate, a proactive approach (i.e., offloading passengers several hours prior to departure and before they leave for the airport) can substantially reduce customers' negative responses and sought compensation (down to 5% of the legal requirement). In contrast, a very reactive approach (i.e., offloading passengers after they have already boarded) can exacerbate the situation and significantly increase the sought compensation (up to 500% of the legal requirement).

Furthermore, the results show that when passengers volunteer to be offloaded, they are satisfied with up to 50% less compensation than when passengers are offloaded involuntarily. This finding suggests that appropriate care should be given to training frontline employees on how to handle offloading. Finally, the results of a Monte Carlo simulation reveal that a proactive approach can result in increased net revenue (up to 1.3%) through lower compensation payments which allow more aggressive overbooking and higher load factors. In contrast, a very reactive approach can lead to considerable net revenue losses (up to -1.0%).

The authors state, "Proactivity coupled with other strategies such as using artificial intelligence to enhance the prediction of no-shows, offering callable and flexi tickets to allow selling more expensive tickets to last-minute business travelers, and asking passengers (during online check-in) if they are open to be offloaded, may enable airlines to prevent incidents like the United Airlines fiasco and enhance net revenues. Given the limited additional fixed costs involved, such improvements can have a substantial impact on operating profits, particularly in an industry where margins are very tight."