Revenue Management In The Age Of Consolidation
Emerging Capability To Optimize Airline Revenue In Partnerships

Airline alliances are expanding, connecting destinations from the most remote corners of the globe. But even as partnership challenges arise, new technology to optimize revenue in partnerships is on the horizon.

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Airlines around the world are increasingly looking at expanding their network reach by entering into partnerships with other airlines to gain a greater share of customers.

According to the 59th Edition of IATA World Air Transport Statistics report, the three major airline alliances (oneworld, SkyTeam and Star Alliance) accounted for nearly 62 percent of all passenger air traffic in 2014. At that time, the three major alliances included between 15 and 27 member airlines each. These numbers indicate the increasing criticality invested by airlines in partnerships.

Clearly, alliances also represent a lucrative option for air travelers because they offer access to broader networks, provide benefits in the form of combined frequent-flyer miles and allow for seamless baggage handling and check-ins.

To remain competitive, most airlines are either joining major alliance groups or entering into strategic partnerships with other carriers, such as codeshare agreements or joint ventures.

**Being part of an alliance helps an airline:**
- Tap into newer markets while retaining its existing customer base,
- Increase network expanse,
- Create additional sources of revenue.

However, being in an alliance also brings an increased number of stakeholders, complex revenue-sharing agreements, demand forecasting over expanded markets with varied fare valuations, and information-exchange-related challenges between and among partner airlines.

Entering into partnerships allows airlines to move beyond their capacity frontier, thereby increasing demand on their network. Revenue-management systems become more important in these scenarios to capitalize on this increased demand. However, current revenue-management systems need to tackle the many challenges that arise out of partnerships among airlines. In addition to the challenges previously mentioned, they have to consider:
- Identification of true origin and destination, based on whether a partner airline is carrying the demand to further destinations;
- Forecasting demand across operating markets, as well as partner markets;
- Potentially different valuations for the same seat, based on whether it is a partner’s demand or its own demand;
- Strategies for optimizing revenue from demand generated by the partnership without cannibalizing revenue from demand in operating markets;
- Optimal bid-price control and information exchange with partners to align individual airline goals with alliance goals.

A study by Sabre’s operations research team has emphasized the benefit of using Sabre AirVision Revenue Optimizer for total revenue optimization, including partnership revenue. It is a key feature, which is required to achieve optimal results and to align with alliance or partnership goals.

It is instructive to demonstrate the benefits of partnership revenue management through contradiction, that is, what happens when an airline’s revenue-management system is not modified suitably to handle the various aspects of partnerships?

**What's Lacking?**

Current revenue-management systems, when faced with the task of optimizing inventory controls in a partnership environment, often do not identify the true origin and destination of the demand. The partner airline may carry the demand to a further destination or destinations, and the true destination may be “invisible” to the revenue-management system because of lack of data integration with up-line systems that can provide information on true origin and destination.

Forecasting host-operated demand only, without consideration of partnership demand, can lead to suboptimal results.

The revenue from codeshare demand is shared with partner airlines. Hence, this demand, when given the same value as demand from operating markets, can yield an incorrect indication of expected revenue.

Furthermore, revenue-sharing agreements on codeshare markets need to be incorporated to get a more realistic picture of achievable revenue in a market.

The revenue sharing between airlines need not be mileage-based or fixed. Often, airlines sign special proration agreements that define revenue sharing for different codeshare markets. Generalizing revenue sharing across markets can be another source of inaccuracy.

Another challenge that arises due to partnerships is the inventory-information-sharing mechanism. Airlines may choose to share bid-price controls, or to have a seamless availability-exchange system. Information exchange plays a vital role in getting accurate availability for a codeshare- or alliance-booking request, and this can directly impact the choice of accepted demand and its benefit to all partner airlines.

In a bid to continue providing a comprehensive revenue-optimization solution to the constantly changing airline industry, Sabre is working on the next step in revenue management, Revenue Optimizer.

Preliminary studies have involved quantifying the revenue impact of each of the challenges brought about by partnership environments, and assessing the benefits of incorporating these as features in the optimizer.

**The Sabre Advantage**

A series of experiments was conducted using a Sabre in-house airline planning-and-operating simulator on a sample network to...
highlight the potential benefits of Revenue Optimizer as a total revenue-optimization solution.

A two-airline partnership network was chosen, where both airlines used O&D revenue-management systems with bid-price control, and each airline optimized its own network to maximize its own revenue. Three sets of experiments were conducted.

In the first set, the performance of Sabre’s Bid Price Exchange and Seamless Codeshare was compared with the availability status. Both Bid Price Exchange and Seamless Codeshare showed revenue gains over availability status.

In the second set of experiments, the performance of true O&D forecasting with proration was measured against operated O&D revenue management. Once again, revenue gains were observed.

Finally, experiments with various revenue-sharing agreements, static and dynamic, were conducted.

Overall, the study concluded that more than 80 percent of revenue opportunity between decentralized and centralized revenue-management systems could be achieved with true O&D revenue management and Bid Price Exchange. Also, Bid Price Exchange helped fill the majority of the gap between decentralized and centralized revenue-management systems.

Revenue Optimizer addresses the complexities of emerging partnership trends, while providing optimal inventory controls for revenue maximization.

As such, the solution targets total revenue optimization with capabilities to:
- Forecast true origin and destination;
- Estimate proration factors for capturing revenue-proration agreements;
- Optimize revenue, considering proration factors;
- Incorporate proration in inventory control.

With features to help distinguish between marketing and operating demand, Revenue Optimizer is capable of identifying the true origin and destination for the demand. Inclusion of proration agreements enables it to differently evaluate codeshare and regular demand, thereby making better decisions in accepting demand. The solution further allows for incorporation of different inventory controls to factor in their impact on revenue.

Additionally, SabreSonic Inventory enables sharing of bid prices and seamless availability, which, when used with Revenue Optimizer, can further improve its performance.

Simulation Capability

Another tool from Sabre to further aid decision-making in partnership environments is the airline planning-and-operations simulator. It offers the capability of in-depth what-if analyses, and it facilitates evaluations of various revenue-sharing agreements, proving especially useful in evaluating dynamic agreements. So the potential benefits of an agreement can be quantified, along with realistic revenue estimates for the agreement.

The simulator offers flexibility to customers to input various aspects of contracts and methods of information sharing. Applying highly insightful analyses provided by the simulator, Sabre is working on a solution to align airline goals with alliance or partnership goals.

Through comparison of multiple, carefully defined scenarios, special proration agreements can be fashioned that better emulate partnership features. This, in turn, can directly impact the quality of decisions an airline makes, while ensuring its adherence to partnership requirements.

Thorough Revenue Management

While the Sabre simulation tool promises to provide a definite edge in partnership decision-making for airlines, Revenue Optimizer aims at a complete and thorough solution to revenue management under partnership constraints.

To remain competitive in a highly dynamic airline industry during an era of increasing partnerships, carriers need to look beyond current revenue-management systems.

Revenue Optimizer is intended to be a one-stop shop for all partnership revenue-management needs, and is equipped to handle a wide variety of features, such as specially designed proration agreements and true origin-and-destination demand forecasts.

Revenue Optimizer is anticipated to take revenue-management systems a step forward, as well as to help airlines always be prepared to meet the short-term and long-term decision-making challenges of partnership revenue management.

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