Over the past decade, many initiatives for personalized travel have been proposed and debated, and the debates continue. In the airline context, offer management is the process of selling the right bundle (base fare and air ancillaries) to the right customer at the right price at the right time. Prior to the COVID-19 pandemic, airline ancillary sales worldwide exceeded $100 billion in 2019. In the context of intelligent retailing, there have been discussions between airlines, industry consortiums like IATA and ATPCO, Global Distribution Systems (GDS), Online Travel Agencies (OTAs), airline direct websites, related intermediaries, and vendors on the future of airline retailing and personalized travel. Personalized offers is one of the key value propositions touted by IATA as part of the New Distribution Capability (NDC) initiative that was launched in 2012, but seen only modest adoption to date. NDC lets airlines promote personalized travel to both direct and indirect channels of distribution.

The fundamental questions on the minds of travel executives are: is personalized travel a myth or reality? What are the boundaries for personalization? How can I make it a competitive differentiator? What is the path to personalized travel over the next decade?

Travel industry analysts frequently debate on entities in travel that will be capable of delivering personalization at scale to manage all customer touchpoints during the lifecycle of the trip: Suppliers (airlines, hotels, etc.)? OTAs? GDSs? Each of these entities have made claims that they plan to be the leader in personalized travel. The big question is: who is well positioned to deliver personalized travel? Unquestionably, it is the supplier who controls the offer creation process and not the intermediaries (OTAs, GDSs).

Besides the core personalization initiatives in travel today, technology will play a very significant role in shaping and transforming personalized travel. Significant changes are expected in the world of personalized travel with Web 3.0 and blockchain. Over the next decade, personalization in travel will change dramatically and will require three key components to bring it all together [Vinod, 2021, 2022]. They are as follows:

1. Decentralized Digital Identity. The industry will transition from centralized identity and federated identity to a distributed and decentralized digital identity in the future. Distributed and decentralized storage will allow authentication of credentials to be independently verified by every participant without mutual trust between participants. This allows a user to control their own identity and manage their own risk.

2. Decentralized Universal Profile. A traveler owns their personal data on the universal profile, communicates directly and shares parts of the information in the profile with a travel or non-travel entity to provide the requested service for a seamless experience.

3. Universal Data Exchange. The data owner, which is the traveler, authorizes the exchange of data through a broker that securely exchanges data between travel and non-travel partners. The data are never centralized and stored but relevant data are exchanged in real-time.

And now, back to the present.

This special issue gathers the best minds in the industry to contribute their thoughts and initiatives to improve customer experiences and industry profits with personalized travel.

The paper from Amadeus (Kevin Wang, Michael Wittman, Thomas Fiig) is a well-written and valuable contribution to the science of offer management. The paper presents a comprehensive, detailed model to generate offers. I communicated to Kevin Wang at MIT about deployment challenges of the offer model, and he promised me that an area of active research was to address the dimensionality of the parameters to be estimated. However, the application of the model is useful for simulation studies to understand the impact of various decision variables on the offer creation process.
The two-paper contribution from Sabre (Michal Sznjader, Richard Ratliff, and Cuneyd Kaya) have three core contributions to the science of revenue management. The two papers are expansive and cover new ideas on the accuracy of choice models, hedonic regression for ancillary value scoring, and combine choice and hedonic on a common scale.

The paper by Helene Millet addresses the feasibility, efficiency, and boundaries of 1:1 personalization given the GDPR (Generalized Data Protection Regulation) that was passed into law in the European Union in 2015. Her arguments are spot on, describing the importance of a traveler’s context for travel and associated preferences to drive personalized offers instead of the specific individual itself.

Against the backdrop of the COVID-19 pandemic and the uncertainty associated with travel, Zhicheng Gong, Hao Wang, Qiangqiang Nie, Zhenhua Zhang, and Quanwu Xiaofrom from Trip.com, the largest OTA in China, make a significant contribution by developing and validating a very practical recommendation engine for selling flight cancellations and change services during the booking process.

The CEO and co-founder of Quad Optima, Gopal Ranganathan, presents a top down personalization framework for an organization leveraging micro segmentation and AI concepts to generate revenues based on revenue management principles. Examples of personalization actions are offers, promotions, advertising, and chatbots. The approach does not rely on historical demand patterns and monitors key performance indicators in real time to generate a response to prevailing market conditions.

Personalization@Scale is an important topic that is foremost on the minds of travel executives. The consultants from the Boston Consulting Group (Alberto Guerrini, Gabriele Ferri, Stefano Rocchi, Marcelo Cirelli, Vicente Pina, and Antoine Grieszmann) share their experiences working with many airlines in this area. They present various approaches to price-product personalization, and the role of experiential learning for declared and anonymous users.

In the Thoughts section, the Chief Scientist at Charter and Go, Ross Darrow, provides a contrarian viewpoint on the current thinking of personalized offers and its related tools. It is a paper that should be read at least twice to make the reader ponder as they invest in personalized travel initiatives.

B. Vinod
Grapevine, Texas

References

Vinod, B. 2021. The Evolution of Yield Management in the Airline Industry: Origins to the Last Frontier. Switzerland: Springer Nature, May. ISBN-13: 978–3030704230, ISBN-10: 3030704238
Vinod, B. 2022. Revenue Management in the Lodging Industry: Origins to the Last Frontier. Switzerland: Springer Nature, November. ISBN-13: 978–3031143014, ISBN-10: 3031143019

Publisher’s Note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

B. Vinod is a co-founder at Charter and Go, a charter management and pricing software solution for charter operators. Previously he was Chief Scientist and Senior Vice President at Sabre (2008–2020).