### Interfaces

*Articles in Advance,* pp. 1–10 ISSN 0092-2102 | EISSN 1526-551X



http://dx.doi.org/10.1287/inte.1110.0591 © 2011 INFORMS

# Improving Airline Revenues with Variable Opaque Products: "Blind Booking" at Germanwings

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Airlines often confront the challenge of determining how to profitably sell their distressed inventory (i.e., seats that their revenue management systems forecast will remain unsold). One solution to this problem is to sell this distressed inventory as opaque products via either the airline's own channels or a third party. An extension of the opaque product is the variable opaque product (VOP), whereby the customer can vary the amount of opaqueness in one or more attributes. Germany's leading low-cost airline, Germanwings, tested this concept during a period of more than three years with very encouraging results; the airline experienced a significant increase in revenues. Furthermore, competing airlines have not reacted to this new initiative; thus, it appears that Germanwings has generated a new set of customers. In this paper, we describe the significant results achieved by combining revenue management and marketing insights in the development of a VOP at Germanwings, present business metrics generated by the VOP, and offer insights on the use of VOPs in other industries.

Key words: variable opaque product; pricing; airline; revenue management; marketing; OR.

History: This paper was refereed. Published online in Articles in Advance.

Tochen Schmidt lives in Cologne, has not taken a vacation for a while, and wants to take a weekend trip to an exotic European city next month. He has heard that Germanwings (www.germanwings.com), a large European low-cost carrier, has a product known as blind booking that might suit his requirements. On the airline's website, he chooses "Metropolis Western Europe." Although he considers the 13 destinations in this group to be generally desirable, the group includes some destinations that he does not want to visit. Therefore, he removes Berlin, Vienna, and Munich from his selection; to eliminate these destinations from the list, he pays a fee of 5€ (i.e., five euros) per city. Before he submits his payment, Schmidt does not know for which of the 10 remaining destinations in the group he will purchase a flight; however, he does know the dates on which he will be flying. Schmidt pays with his credit card and is then notified of his destination.

Blind booking is an example of a variable opaque product (VOP) that we propose as a new pricing practice for airlines. In this paper, we discuss the influence

of VOPs on an airline by recounting the implementation of blind booking at Germanwings. Our purpose is to showcase the success and value of an innovative product application, which is complementary to the existing RM system and combines insights from RM and marketing (cf. Metters et al. 2008)—not to describe innovative revenue management (RM) algorithms. The blind booking VOP generates substantial revenues, which Germanwings has found to be predominantly incremental and noncannibalistic. We also discuss other industries in which VOPs can be used.

## Revenue Challenge for Low-Cost Airlines

In full-service airlines (FSAs), RM is highly developed, and a large volume of literature has been devoted to the topic (e.g., Weatherford and Bodily 1992, Kimes 1994), whereas the study of RM as practiced by low-cost airlines (LCAs) is still in its infancy.

One of the main difficulties in developing an RM system for an LCA is that the products that LCAs