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The theory and practice of revenue management. (English) Zbl 1083.90024

International Series in Operations Research & Management Science 68. Boston, MA: Kluwer Academic Publishers (ISBN 1-4020-7701-7/hbk). xxxii, 712 p. (2004).

The book presents the wide range of techniques, decision methods, processes, and technologies in revenue management (RM). The latter term is roughly synonymous to such terms used elsewhere as demand management, price and revenue optimization, yield management. The book is not about the demand management decisions themselves but about how these decisions are made, i.e. it presents science and technology used in RM. The book consists of an introduction, three parts (ten chapters), and six appendices.

Part 1, Quantity-based RM, covers the themes on demand management decisions, e.g. how much to sell to whom, whether to accept or reject for products etc. This part concerns the problems closely related industries like airlines, hotels, car rentals, etc. The titles of the chapters of this part are: Single Resource capacity Control, Network Capacity Control, and Overbooking.

Part 2, Price-based RM, covers the themes on pricing. This part examines problems typical of retail and manufacturing. The titles of chapters on this part are: Dynamic pricing, and Auctions.

Part 3, Common Elements, examines models and methods that are common to both quantity and price-based RM. The titles of chapters of this part are: Customer-behavior and Market-response Models, The Economics of RM, Estimation and Forecasting, and Industry Profiles.

The appendices introduce the mathematical models and tools used through the book: probability, convexity and optimization, dynamic programming, the theory of choice, and game theory.

The book seeks to represent the state of the art in RM including both the theory and practice of RM. The targeted audience is practitioners, and academic researchers and teachers. The knowledge of mathematics typical to undergraduates in engineering, economics and business management is sufficient to understand the theoretical/mathematical results discussed in the book. The proofs of the theoretical results frequently are omitted providing the references to the original sources. The general style of presentation is consistent with the applied orientation of the field of RM.

Reviewer: [Antanas Žilinskas \(Vilnius\)](#)

MSC:

- 90B50 Management decision making, including multiple objectives
- 90C90 Applications of mathematical programming
- 90-02 Research exposition (monographs, survey articles) pertaining to operations research and mathematical programming
- 90C39 Dynamic programming

Cited in **204** Documents

Keywords:

[revenue management](#); [demand management](#); [pricing](#); [revenue optimization](#); [yield management](#)