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SUPPORT SYSTEMS:**
Principles, Tools, and Implementation

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MARKETING MANAGEMENT SUPPORT SYSTEMS

Principles, Tools, and Implementation

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Preface

Today there is a rich collection of tools that can help marketing managers improve the quality of their decisions. Decision aids like marketing information systems, marketing models, marketing expert systems, marketing neural networks, and so on, have been developed and implemented in companies. The term *marketing management support systems* (MMSS) refers to this collection of tools; it is also the title and subject of this book.

Marketing management support systems are important because the gathering and transforming of information into actionable marketing knowledge is of utmost strategic value. Marketing management support systems are of interest to researchers who want to know how to design and develop successful ones and identify the factors that determine their effectiveness. In a sense, MMSS can be considered a link between practice and research, because they act as channels through which the results of marketing research (e.g., knowledge about marketing processes) can be brought to bear on marketing decision making in practice. Although the primary audiences for this book are academics and students, we want to emphasize the relevance of MMSS for marketing practice.

This book is the first comprehensive, systematic textbook treatment of marketing management support systems. In this monograph we deal with the principles of MMSS, with the different decision support tools currently available, and with their successful implementation in companies. In doing so we build on a wealth of earlier work on specific aspects and components of marketing management support systems. For example, there is a large literature on analytical methods, including marketing models, which are used in data-driven MMSS. Much has also been written on topics such as the

“marketing information revolution.” In addition, the literature on cognitive science and artificial intelligence describes the basis for knowledge-driven marketing management support systems. There are also numerous publications about special-purpose MMSS that have been developed over the last thirty years. In this book we approach marketing management support systems from the decision-making perspective and use insights from behavioral decision theory and information systems wherever these are relevant to our discussion. We also take an integrative perspective by bringing together different approaches and insights regarding marketing management support systems.

We start by discussing the *principles* of marketing management support systems. Here we follow a demand-oriented approach, taking the marketing manager and his or her decision-making processes as the object of decision support. Our underlying belief is that decision aids for marketing managers should fit with the thinking and reasoning processes of the marketing decision makers who use them. We also develop a contingency framework in which the different types of marketing problem-solving modes are linked with the most appropriate MMSS.

Next, we describe in detail the different *tools* that are currently available as marketing management support systems, including their underlying technologies. We describe not only the more conventional data-driven systems, but also knowledge-driven systems, such as marketing expert systems, marketing case-based reasoning systems, marketing neural networks, and marketing creativity support systems. These systems are relatively new (some of them very new) to the field of marketing and therefore deserve extended attention.

Finally, we address the *implementation* of marketing management support systems. We present a framework for matching demand and supply, which can guide the design and development of MMSS in specific situations. We also discuss the factors that determine the success of marketing management support systems. From the work that has been done, both in marketing and in information systems, systematic insights into the critical factors for the success of MMSS are emerging. These insights allow us to formulate research priorities for marketing management support systems.

This book should be of interest to a variety of audiences. First, it can serve as a textbook for courses on marketing management support systems. Marketing academics with a general interest in MMSS can also use it to familiarize themselves with the current state of the art of such systems. In addition to marketing students and scholars in general, a second, more specialized audience consists of researchers and doctoral students who are active themselves (or want to become active) in research on marketing management support systems. This can be in the field of MMSS as such or

in fields that supply “components” to these systems, for example, marketing models, marketing data analysis methods, knowledge-based technologies for marketing, and so on. We hope that this book will stimulate creativity in developing new, effective marketing management support systems and in determining the factors that lead to their success. A third group of potentially interested readers are researchers working in information systems or knowledge-based systems in other domains. For them, the book contains interesting information on how MMSS can be used to improve the quality of decision making in a data-intensive environment that also includes relatively ill-structured problems. We think that many of the concepts and approaches developed in this book are applicable to other areas of management besides marketing.

Finally, the book should also be of interest to readers outside academia. Here we think of managers in companies who have to make decisions about investing in marketing management support systems and of the information systems and marketing people who have to implement and use such systems. We realize that the book does not provide directly implementable, hands-on solutions. However, before embarking on the installation of far-reaching and expensive MMSS in a company, these persons may find it useful to think about the desired functionality of such a system and about the match between it and the decision processes it is supposed to support. This book offers useful concepts and frameworks for reflecting on such issues. For the same reasons the book should also be useful for marketing consultants and the providers of (syndicated) marketing data services, for example, companies that operate retail, household, and Web panels.

We want to thank several people who provided inspiration for the book and/or offered direct support in actually completing the work. Our colleagues Gary Lilien and Arvind Rangaswamy, both from Penn State University, share with us a vivid interest in marketing management support systems. They provided us with stimulating comments on our work and were a continuing source of inspiration during the several projects that we have done together. Jehoshua Eliashberg (The Wharton School) was a wise and patient editor of Kluwer International Series in Qualitative Marketing (ISQM) and also gave helpful comments on material that can now be found in several chapters of the book. We also want to thank other colleagues who provided constructive comments on papers and other material that ultimately ended up in this book: John Little (MIT), John Rossiter (University of Woollongong), and Ale Smidts (Erasmus University). The ISQM reviewers gave most helpful and constructive comments on an earlier version of the book. We also want to thank our other colleagues at the Center of Information Technology in Marketing (C/IT/M) at the Rotterdam School of Management. To our deep regret our doctoral student Arco Dalebout did not live to see the publication of this book. Arco developed a real expertise with

respect to marketing management support systems and was a most promising scholar. His many comments and suggestions on the book were well thought-out and immensely valuable. He is also one of the coauthors of Chapter 8, along with Soumitra Dutta from INSEAD (Fontainebleau, France). We also want to thank Zhimin Chen, another doctoral student at Erasmus University, for reading parts of the book and giving very useful comments.

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We hope you will derive much pleasure, satisfaction, and valuable information and insight from reading and working with this book—and also that it will stimulate ongoing and new research in the important field of marketing management support systems. We welcome your comments and suggestions.

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