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Analyzing and Managing Customers



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Preface

The confluence of more powerful information technology, advances in methodology, and management's demand for an approach to marketing that is both effective and accountable, has fueled explosive growth in the application of database marketing.

In order to position the field for future advances, we believe this is an opportune time to take stock of what we know about database marketing and identify where the knowledge gaps are. To do so, we have drawn on the rich and voluminous repository of research on database marketing.

Our emphasis on research – academic, practitioner, and joint research – is driven by three factors. First, as we hope the book demonstrates, research has produced a great deal of knowledge about database marketing, which until now has not been collected and examined in one volume. Second, research is fundamentally a search for truth, and to enable future advances in the field, we think it is crucial to separate what is known from what is conjectured. Third, the overlap between research and practice is particularly seamless in this field. Database marketing is a meritocracy – if a researcher can find a method that offers promise, a company can easily test it versus their current practice, and adopt the new method if it proves itself better.

We have thus attempted to produce a research-based synthesis of the field – a unified and comprehensive treatment of what research has taught us about the methods and tools of database marketing. Our goals are to enhance research, teaching, and the practice of database marketing. Accordingly, this book potentially serves several audiences:

Researchers: Researchers should be able to use the book to assess what is known about a particular topic, develop a list of research questions, and draw on previous research along with newly developed methods to answer these questions.

Teachers: Teachers should find this book useful to educate themselves about the field and decide what content they need to teach. We trust this book will enable teachers to keep one step ahead of their students!

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Ph.D. Students: Ph.D. students should utilize this book to gain the required background needed to conduct thesis research in the field of database marketing.

Advanced Business Students: By "advanced" business students, we mean undergraduate and MBA students who need a resource book that goes into depth about a particular topic. We have found in teaching database marketing that it is very easy for the curious student to ask a question about topics such as predictive modeling, cross-selling, collaborative filtering, or churn management that takes them beyond the depth that can be covered in class. This book is intended to provide that depth.

Database Marketing Practitioners: This group encompasses those working in, working with, and managing marketing analytics groups in companies and consulting firms. An IT specialist needs to understand for what purpose the data are to be used. A retention manager needs to know what is "out there" in terms of methods for decreasing customer churn. A senior manager may need insights on how to allocate funds to acquisition versus retention of customers. A statistician may need to understand how to construct a database marketing model that can be used to develop a customer-personalized cross-selling effort. An analyst simply may need to understand what neural networks, Bayesian networks, and support vector machines are. We endeavor to provide answers to these and other relevant issues in this book.

While it is true that database marketing has experienced explosive growth in the last decade, we have no doubt that the forces that produced this growth – IT, methods and managerial imperatives – will continue. This book is based on the premise that research can contribute to this growth, and as a result, that database marketing's best days are ahead of it. We hope this book provides a platform that can be used to realize this potential.

One of the most important aspects of database marketing is the interplay between method and application. Our goal is to provide an in-depth treatment of both of these elements of database marketing. Accordingly, there is a natural sectioning of the book in terms of method and application. Parts II–IV are mostly methodological chapters; Parts I, V, and IV cover application. Specifically, we structure the book as follows:

Part I: Strategic Issues – We define the scope of the field and the process of conducting database marketing (Chapter 1). That process begins with a database marketing strategy, which in turn leads to the question, what is the purpose and role of database marketing (Chapter 2)? We discuss this question in depth as well as two crucial factors that provide the backdrop for successful DBM: organizational structure and customer privacy (Chapters 3 and 4).

Part II: Customer Lifetime Value (LTV) – Customer lifetime value is one of the pillars, along with predictive modeling and testing, upon which database marketing rests. We discuss methods for calculating LTV, including providing detailed coverage of the "thorny" issues such as cost accounting

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that are tempting to ignore, but whose resolution can have a crucial impact on practice (Chapters 5–7).

Part III: Database Marketing Tools: The Basics – DBM has one absolute requirement – customer data. We discuss the sources and types of customer data companies use (Chapter 8). We provide in-depth treatment of two other pillars of database marketing – testing and predictive modeling (Chapters 9–10).

Part IV: Database Marketing Tools: Statistical Techniques – Here we discuss the several statistical methods, both traditional and cutting edge, that are used to produce predictive models (Chapters 11–19). This is a valuable section for anyone wanting to know, "How is a decision tree produced," or "What are the detailed considerations in using logistic regression," or "Why is a neural net potentially better than a decision tree," or "What is machine learning all about?"

Part V: Customer Management – Here we focus our attention squarely on application. We review the conceptual issues, what is known about them, and the tools available to tackle customer management activities including acquisition, cross- and up-selling, churn management, frequency reward programs, customer tier programs, multichannel customer management, and acquisition and retention spending (Chapters 20–26).

Part VI: Managing the Marketing Mix – We concentrate on communications and pricing. We provide a thorough treatment of what we predict will be the hallmark of the next generation of database marketing, namely "optimal contact models," where the emphasis is on taking into account – in quantitative fashion – the future ramifications of current decisions, truly managing the long-term value of a customer (Chapter 28). We also discuss the design of DBM communications copy (Chapter 27) and several critical issues in pricing, including acquisition versus retention pricing, and the coordination of the two (Chapter 29).

Our initial outline for this book took shape at the beginning of the millennium, in May 2000. The irony of taking 7 years to write a book about techniques that often work in a matter of seconds does not escape us. Indeed, writing this book has been a matter of trying to hit a moving target. However, this effort has been the proverbial "labor of love," and its length and gestation period are products of the depth and scope we were aiming for. This book is the outcome of the debates we have had on issues such as how to treat fixed costs in calculating customer lifetime value, which methods merit our attention and how exactly do they work, and why the multichannel customer is a higher-value customer. Writing this book has truly been a process, as is database marketing.

Along the way, we have become indebted to numerous colleagues in both academia and business without whom this book would be a shadow of its current self. These people have provided working papers and references, exchanged e-mails with us, talked with us, and ultimately, taught us a great deal about various aspects of database marketing. Included are: Kusum

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While people write and support the book, we also want to acknowledge significant institutional support that provided us with funding, facilities, and a stimulating environment in which to work. These include the Teradata Center for CRM at Fuqua Business School, Duke University, which hosted Scott Neslin during 2002, and our home institutions: the Kellogg School of Management, Northwestern; Seoul National University; and the Tuck School of Business, Dartmouth College.

Finally, we owe our profound and deepest gratitude simply to our *spouses* and families, who provided the support, enduring patience, and companionship without which this book would never have materialized. By showing us that family is what really matters, they enabled us to survive the ups and downs of putting together an effort of this magnitude. It is to our spouses and families that we dedicate this book.

R. Blattberg B. Kim S. Neslin

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