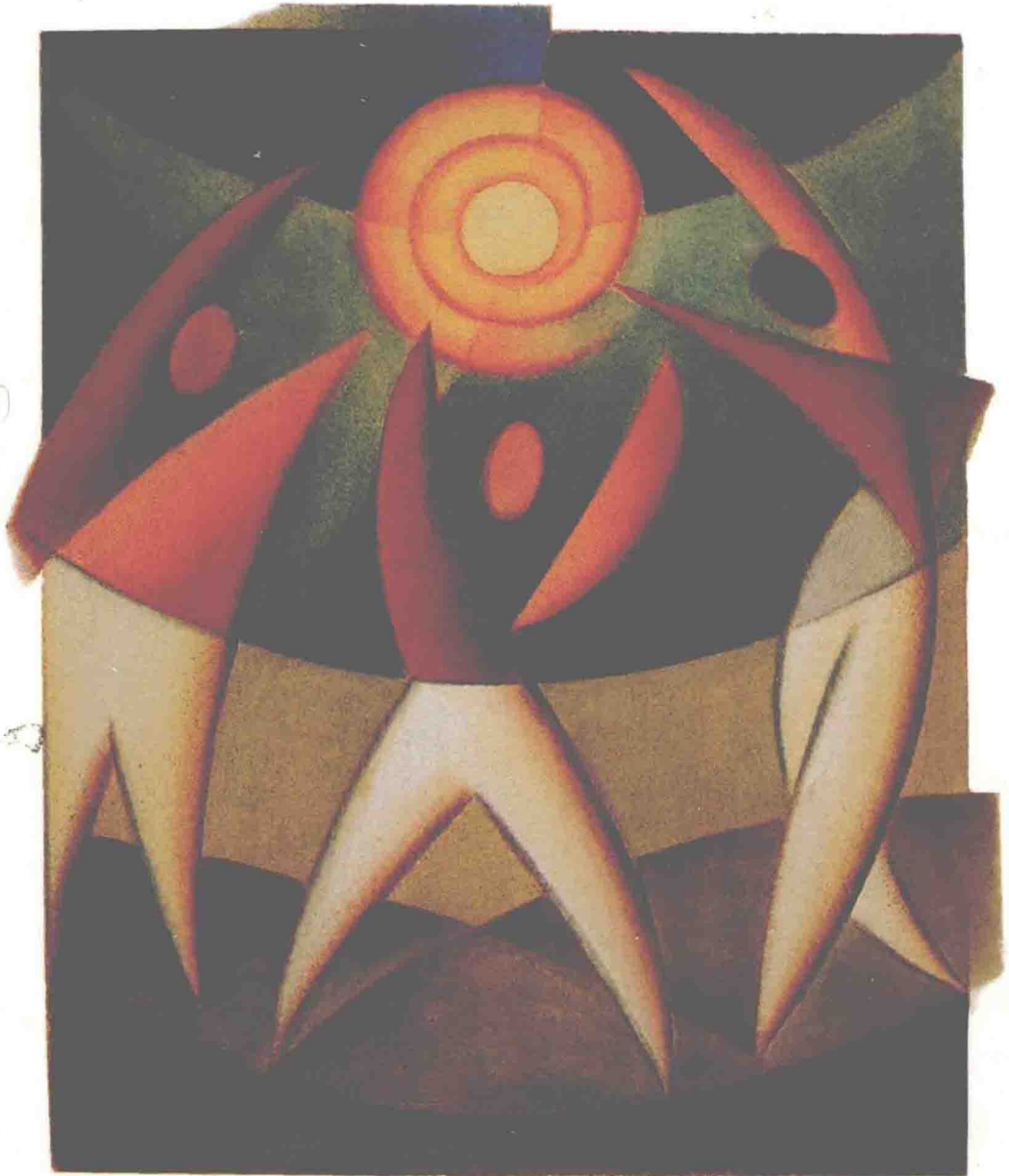


New Products Management

Sixth Edition



C. Merle Crawford / C. Anthony Di Benedetto

NEW PRODUCTS MANAGEMENT

SIXTH EDITION

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The University of Michigan

C. Anthony Di Benedetto

Temple University



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NEW PRODUCTS MANAGEMENT

PREFACE

The first thing professors will notice in this book is that there is a new co-author. Merle Crawford wrote the first edition and made the four revisions. But times change, and the market has recently said they want additional materials for classroom use, even though adoptions have increased steadily. This move is best put under the direction of a different person, and that person for the 6th edition, is Anthony Di Benedetto. The changes made to this new edition will be described in a moment, but first, the field's history is relevant.

New products have always been of interest to both academics and practitioners, and organized, college-level instruction on the subject of new products management traces back to the 1950s. By the 1990s a new products management discipline had evolved. The Product Development & Management Association has flowered to over 2,000 members in some 30 countries around the world; over 300 colleges have courses on the subject of new products; and the field's journal, the *Journal of Product Innovation Management*, is now successfully into its 15th year of publication. The job title new products manager or director is becoming much more common and is offering much earlier entry than 10 years ago; we also see the emergence of higher level positions for careers to build to. The Association is currently developing a practitioner certification; it has a strong international operation; and has been able to do what those in many fields have not, that is, merge the thinking and activity of professors and practitioners.

How This Book Views the Field of New Products Management

Such exploding growth means that we still take a variety of approaches to the teaching of the new products subject—marketing, technical, creative, design, and so on. This book provides the management approach, with a marketing perspective. In every organization (industry, retailing, government, churches, etc.) there is a person or group of persons who, knowingly or unknowingly, are charged with getting new goods and services (both are products) onto the “market.” More and more today those people are new products managers, project managers, or team leaders. They lead a multifunctional group of people, with the perspective of a general manager, operating as a company within a company. They must deal with the *total task*—strategy, organization, concept generation, evaluation, technical development, marketing, and so on. They are not finished with their work until the new product has achieved the goals assigned to the team—this usually means some form of sales or profit, and certainly means the task is not finished when the new product is put onto the shipping dock.

We try to avoid a functional myopia, and it is rare today to hear that “marketing tells everyone what to do” or “R&D runs our new products activity.” When a functional specialist is assigned leadership of a new products team, that person must learn the general manager viewpoint, but one usually has to succeed as a functional member of new product teams before getting a shot at being a team leader. Marketing people, working as team members or as team leaders, need the types of information in this book.

Some Basic Beliefs that Guided the Writing

People who have used the first five editions of this book know its unique viewpoints on the subject. But for newcomers, and of course all students are newcomers, here are some of them.

1. Product innovation is one single operation in an organization. It has parts (strategy, teams, plans, etc.), but they are all just parts. Any operation that runs as separate pieces misses the strength of the whole.

2. The field is still new enough that it lacks a systematic language. This makes it very difficult for students, who are accustomed to studying subjects where a term means something, and only that something. We wish this were so in new products. What should we do—slip and slide around over the many terms and their variations? We believe we should not. So terms are used consistently throughout the book, and we urge students to use them. Naturally, new terms come and go; some survive and some don't.

Because of the terminology problem in a rapidly growing field, the Index has been expanded considerably. Every term that might require definition has been made bold the first time it is used, and the Index directs the reader to that section. We agree with the past users who recommended this approach when

they argued that a definition of a term should be presented in the context of its actual use in the text, not separately in a glossary.

3. Ideas learned without application are only temporary residents in your mind. To become yours, a concept must be applied, in little ways or in big ones. Thus the book is peppered with applications, short cases, and other opportunities for using the concepts studied. Projects are encouraged in the *Instructor's Manual*. There are many examples from the business world, and up-to-date references on all important topics.

4. As much as we would like them, and have diligently tried to find them, we believe there is no standard set of procedures for product innovators, nor particular sets for makers of consumer packaged goods, consumer durables, industrial goods, services, and so forth. There are no recipes. Like a marketing plan, there is a best plan for any particular situation. A manager must look at a situation, and then compile a set of tools and other operations appropriate to that situation. All large firms use scores of different approaches, not one.

5. Next, there is the *halo* effect, which hurts the field of new products more than anything else—more than competition, more than government, more than tight budgets. The halo effect shows in the statement “It must be a good thing for us to do—3M does it, or GE does it, or Hewlett-Packard does it.” Those are excellent companies, but one reason they’re good is they spend lots of time and money studying, learning from others. They have huge training programs in product innovation, and bring in every expert who appears on the scene with what looks like a good new products management idea. They assume everything they do is wrong, and can be improved. You should too. This book does. Citations of their actions are given as examples, not recommendations. These well-known firms have many divisions, and hundreds of new products under development at any one time. Managers there can’t know what each other is doing, nor do they care, in the prescriptive sense. Each group aims to optimize its situation, so managers look around, see what others in comparable situations are doing (inside and outside their firm), and pick and choose to fit them. You will find some generalizations; these will stand out as you work your way through the course. But what strategy to choose, and exactly how one should determine it, is situational.

6. An example of this lies in rejection of the belief that new products strategy should rest on the base of either technology or market. The choice has been argued for years. But the argument is usually specious, moot. Most firms seek to optimize in both areas, using a sort of dual-drive strategy. Of course, true to the previous point, firms will build more on one or the other if the situation seems to fit—for instance, DuPont’s platform program to find applications for the superstrength fabric, Kevlar, or auto components firms’ reliance on process development engineering to better meet the needs of original equipment manufacturers. And yet, DuPont works to advance that technology via marketing, and the components firms are evolving their own research and development operations!

7. We believe that students should be challenged to think about concepts they have been introduced to. This book contains lists of things from time to time, which are useful catalysts for thinking. The belief that the best new products approach is situational is based on the need to analyze, consider, discuss, apply. The great variety of approaches used by businesspeople is a testament to their intelligence. On a majority of the issues facing us today, intelligent people can arrive at any number of different views.

Decisions are not necessarily right or wrong, at the time they are made. Instead, the manager who makes a decision then has to *work hard to make that decision turn out right*. The quality of the work is more important than the quality of the decision. We feel sad when a manager says, “We’re looking for the really great idea.” Managers of product innovation *make* ideas great—they don’t come that way.

8. Lastly, we have tried to implement more clearly the view that *two* things are being developed—the product and the marketing plan. Two development processes are going on in tandem. Marketing strategy begins at the very start and runs alongside the technical work and beyond it.

Changes in the Sixth Edition

Past adopters of *New Products Management* will notice substantial changes in this edition. Most obviously, we have added much more analytical rigor. Chapter 7 from the 5th edition (Analytical Attribute Approaches) has been split into two chapters for this edition. The new Chapter 6 goes deeply into perceptual gap analysis and shows how perceptual maps are derived using both attribute rating and overall similarity techniques. The new Chapter 7 provides an illustrative application of conjoint analysis and also presents several qualitative analytical attribute approaches. In addition to the expanded treatment of these topics, the instructor will note more analytical depth in several other chapters. For example, joint space analysis and preference regression are presented in the context of concept testing, and the discussions of screening, forecasting, quality function deployment, and A-T-A-R models are richer.

Furthermore, we use the analytical models to integrate the stages of the new products process. Perceptual mapping, for example, may well be used early in new product development, during concept generation. The output from perceptual mapping may guide selection of attributes in a conjoint analysis task, and may later be used in benefit segmentation and product positioning. Conjoint analysis results may be used in concept generation or evaluation, and may provide a set of desired customer attributes for house-of-quality development. Qualitative concept generation techniques can provide perspectives that complement those derived using quantitative approaches. We have tried, through text discussion, the use of running examples, and the

sequence of three Magicphone end-of-chapter cases, to illustrate wherever possible how the analytical models bind the new products process together. As in the previous edition, many other concepts—product innovation charter, A-T-A-R models, evaluation techniques, the multifunctional nature of new products management—are also used to integrate topics horizontally throughout the text.

Besides the upgrading of analytical rigor, the reader will note other changes. Chapter 2 from the 5th edition, which was an overview of key concepts in new product development, has been deleted. After a single introductory chapter, we “hit the ground running” with a standard New Products Process early in the new Chapter 2 (Figure 2–1). This process serves as an outline for the whole text (and, essentially, dictates the organization of chapters into the five parts). The instructor will note some reorganization and refinement of this process from the previous edition.

Also, Parts IV and V have been extensively rearranged and rewritten. Part IV is now enlarged from Technical Development to simply Development (which includes both technical and marketing tasks). Product design and team management issues have been organized into two chapters (Chapters 13 and 14 respectively), and the new Chapter 15 expands on the role of marketing throughout the development stage. Product use testing (Chapter 16) remains in Part IV, as a part of the development activity. That’s where business does it, and it “learns” best that way. In Part V, Chapters 17 and 18 from the 5th edition (Strategic Launch Planning and Strategic Action Dimensions) have been streamlined to a single Chapter 17. Part V is now devoted to launch: launch plan development, launch management, and public policy issues. Part V also includes market testing, following launch plan development, because that is where it occurs in real life.

Up-to-date examples and applications—such as computer-assisted creativity techniques and virtual reality in concept testing—have been added throughout. Several end-of-chapter cases are totally new or greatly rewritten, and others have been “tweaked.” For the first time, we are including more than one case at the end of a few chapters, to provide an analytical challenge or just a different perspective. The changes and reorganizations have resulted in a net loss of one chapter. Expanding the Index (as discussed above) also allowed us to eliminate the Glossary from the text (though it is still available as part of the Instructor’s Manual).

As always, effort has been aimed at making the book increasingly relevant to its users. We consider a text revision to be a “new product,” and thus an opportunity for us to become even more customer-oriented. Academic colleagues have made many thoughtful suggestions based on their experiences with previous editions, and have provided much of the driving force behind the changes you see in this edition. While we have received helpful suggestions from many of our colleagues, we would particularly like to recognize Alan Flaschner, University of Toledo; Geoff Lantos, Stonehill College; and

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This was a major revision, and we sincerely hope it meets your needs. A new Instructor's Manual, reflecting the changes in this edition, is available through your Irwin/McGraw-Hill representative.

To the Practitioner

Because this book takes a managerial focus and is updated extensively, it is useful to the practicing new product manager. It has been used in many executive education programs. Great pains have been taken to present the best practices of industry and offer footnote references to business literature.

The Applications

From the first edition, the ends of chapters do not have a list of questions. Rather, we have culled mainly from many conversations with students the questions and comments they received from business managers on their fly-backs. These comments are built into a conversation with the president of a conglomerate corporation. Explanation of how to use them is given at the end of Chapter 1. As has been the practice since the 2nd edition, several of these have been newly written to reflect new material or to update illustrations. We have also brought back a few of the favorite applications from previous editions, due to requests from adopters.

**Merle
Tony**

ACKNOWLEDGMENTS

After acknowledging students, faculty, practitioners, and family as key inputs of ideas and encouragement in the preparation of the first five editions, I want to give thanks to all of the people who grew the Product Development & Management Association into the international leadership position it has today. I can't cite all of the individuals whose contributions made that possible, but I must thank Professor Thomas Hustad of Indiana University. He was the greatest single force for growth in that association, and the whole world is the innovation beneficiary.

The other person I want to acknowledge is the book's new co-author: Anthony Di Benedetto. Most of you academics know Tony, and your students soon will too. Under his leadership, we have made a major turn in the life of this book, recognizing certain suggestions users have made from the beginning. The freshness and vigor of his writing contribution will certainly be evident. No single author ever had a more pleasant relationship with a new partner, even as he showed me many ways we could be more helpful to our customers. Any suggestions you have for further improvements should now go direct to Tony, as he will carry the total load of future revisions.

C.M.C.

At the risk of sounding repetitious, I would also like to acknowledge the leadership of the Product Development & Management Association (PDMA). The efforts of Merle Crawford and Thomas Hustad resulted in the creation of this organization, completely dedicated to the discipline of new products

management, and the establishment of the *Journal of Product Innovation Management*. Many capable individuals have helped the PDMA grow and thrive, from its origins in the mid-1970s to its prominent position today.

With the publication of the first edition of *New Products Management*, Merle set out to create a unique textbook for this discipline, and he has nurtured it through four succeeding editions as our discipline matured. In my contributions, I have tried to stay close to his original vision and intentions. It is truly an honor to be a part of this book.

My work on this edition is dedicated to Kim and Alessandra.

C.A.D.B.

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