New Products Management

Eighth Edition

Merle Crawford

Anthony Di Benedetto
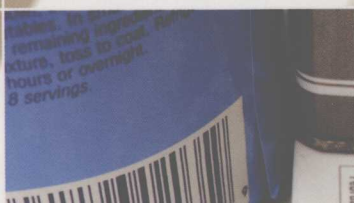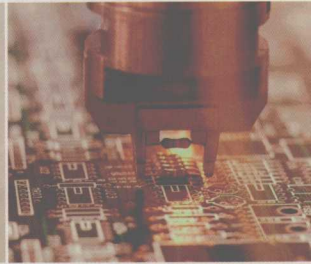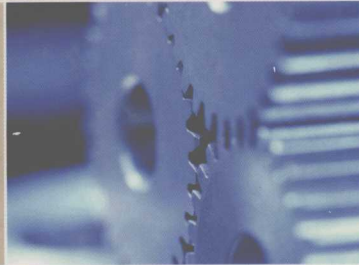
New Products
Management

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Eighth Edition

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Preface

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 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 21st year of publication. The job title new products manager or director is becoming much more common and is offering much earlier entry than 10 or 15 years ago; we also see the emergence of higher level positions for careers to build to. The Association now offers a practitioner certification (New Product Development Professional, or NPDP), 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 the perspective of marketing. 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, or 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 products 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 seven 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 one thing, and only that one thing. 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, 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, or of consumer durables, industrial goods, services, and so on. 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 they look around, see what others in comparable situations are doing (inside and outside their firm), and pick and choose to fit the situation. To the extent there are generalizations (e.g., there should be some form of strategy), these will stand out as you work your way through the course. But what strategy, and exactly how should one determine it—that 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. This choice has been argued for many years. But the argument is usually specious, moot. Most firms seek to optimize on both, a sort of dual-drive strategy. Of course, true to the previous point, firms will build on one or the other if the situation seems to fit—for example, DuPont's platform program to find applications for the superstrength fabric; Kevlar, or auto components firms which rely on process development engineering to better meet the needs of original equipment manufacturers. And yet, DuPont works to advance that technology, 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, but such lists are just a resource for thinking. The above belief about the best approach being situational is based on the need to analyze, consider, discuss, apply. The great variety in approaches used by businesspeople is not a testimony to ignorance, but to thinking. On a majority of the issues facing us today, intelligent people can come down with different views. Decisions are the same—they 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. An example of this phenomenon is the sadness we feel 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. Last, we have tried to implement more clearly the view that two things are being developed—the product and the marketing plan. There are two development processes going on in tandem. Marketing strategy begins at the very start and runs alongside the technical work and beyond it.

Changes in the Eighth Edition

Past adopters of *New Products Management* will notice major changes in this edition. While there are some changes in virtually every chapter, some of the most substantial changes are as follows:

1. Current new product practice places emphasis on the development of both radical and incremental new product development. As firms recognize the

strategic importance of new products, speed to market and the role of teams in accelerating the new products process have continued to be major issues in new product development. As a result, we go much deeper into radical new product development in Chapter 2. We discuss to a fuller extent how the familiar new products process is adapted in the case of radical innovation, for example in the use of a probe-and-learn approach. We nevertheless reemphasize that all new products processes begin with a new product strategy or Product Innovation Charter. We also introduce speed to market, and the role of the new products team, in Chapter 2, due to their strategic importance.

2. Chapter 15 of the seventh edition, the Special Issues chapter, has been broken apart. Most of the topics previously covered in that chapter have been integrated into appropriate places elsewhere in the text. For example, as noted above, speed to market has been moved up to Chapter 2; so has new service development. Global new product development now focuses on the topic of global product development teams and is combined with the discussion of organizational issues in Chapter 14. The marketing ramp-up is now combined with product use-testing in the new Chapter 15. Some of the older material on marketing-R&D interface has been retired, and the topic of achieving interface is taken up in Chapter 14. The user will find a few other instances of reorganization as well.

3. Chapters 19 and 20 of the seventh edition both treated market testing. This material has been greatly updated with information about current practice, and old-fashioned test marketing has been de-emphasized. In this edition, these two chapters have been combined into one: Chapter 18, Market Testing. The net result of these first three changes is that the material is now presented in 20 chapters as compared to 22 in the previous edition.

4. There continues to be much new research in the areas of strategic planning for new products (Chapter 3), team organization and management issues and global product development (Chapter 14), brand equity and brand strategy (Chapter 16), market testing and measurement (Chapter 18), and public policy issues (Chapter 20). We have tried to stay current on all these topics.

5. Many new cases, drawn from the most recent business press headlines, have been added. We have expanded the practice of including more than one case per chapter. New cases range from a new low-carb snack cake (in Chapter 2) and the design of the MINI Cooper (in Chapter 13) to launch management for Levitra (in Chapter 19). A new sequence of cases on perceptual mapping, based on the computer industry, replaces the old Magicphone sequence. A few cases that have served their purpose have been retired, and others have been updated, including Merck, which addresses the Vioxx recall.

6. Several examples throughout the text have been updated. We try to make use of illustrative examples that will resonate with today's students wherever possible. For example, problem analysis as applied to the telephone has been replaced with a similar example involving problems with cell phones.

7. We continue the practice of referencing Web sites of interest throughout the text (from the Product Development & Management Association and the

Consumer Product Safety Commission, to Web sites referencing failed products or bad designs), and we have added a few new ones as well. Rather than a collective list of sites, we chose to place each reference in a suitable context in the book.

We still use the analytical models to integrate the stages of the new products process. As in the seventh edition, perceptual mapping is introduced early in the new products process, during concept generation, but its output 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. The sequence of three Dell Computer end-of-chapter cases illustrates how the analytical models bind the new products process together. As in previous editions, 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.

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. Our thanks go to the thoughtful and constructive reviewers recruited by Irwin/McGraw-Hill:

Lynn Marie Earl, *Wright State University*

John Farris, *Grand Valley State University*

Doron Goldman, *University of Massachusetts*

Paul Lane, *Grand Valley State University*

Dwight Scherban, *Central Connecticut State University*

We also wish to thank Geoff Lantos of Stonehill College for his extensive comments and suggestions.

We are very excited about the changes to this new edition and sincerely hope they fit 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 products 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 second 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.

Acknowledgments

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C.M.C.

A.D.B.

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