

versed in this subject and is looking for the most recent knowledge. The chapter on surfactant is a useful discussion of a property that is often neglected in the context of inhaled particulate agents that can alter surfactant function. Surfactant plays a role in determining the fate of inhaled particles, which underscores the notion that “interactions” is used appropriately in the book’s title.

The chapter on interactions between nanoparticles and epithelial cell membranes in the lung is clearly written and provides useful insight into the ways these particles enter cells.

The final 3 chapters deal with toxicological mechanisms, including one on the immunologic reactions to airborne particles. These are excellent review chapters that provide interesting discussions of the current controversies over questions such as: how do small particles interact with the various cell types in the respiratory system, and which of the several particle properties is the most relevant in determining the effective dose to the ultimate target cells or organelles? This latter issue is very timely, as there is much debate on whether nanoparticles should be characterized by their number, surface area, or mass, in determining the health risk they pose. The final chapter includes a fascinating analysis of data obtained in animal studies, which clearly show the superiority of particle surface area as the most relevant indicator of dose and risk. Whether this conclusion applies to humans remains to be seen.

I have 2 minor criticisms of this otherwise strong contribution to the outstanding *Lung Biology in Health and Disease* series. One is common to all multiple-author monographs: the chapters by different authors are not fully consistent in sophistication, terminology, or currency of information. The editors made a commendable effort to achieve consistency with respect to coverage of nanoparticles, but readers of the entire volume will find that some chapters are substantially more advanced in content than others. In my view, this is a small matter and one that can be forgiven in light of one of the monograph’s objectives: to use experts in the specific topics for the individual chapters. The second problem is that a few chapters are not up to date: fewer than half of the references cited in those chapters were published in the last 10 years. In a field where much valuable research has been published very recently, and more is expected to

emerge in the next few years, this seems an important point that all authors should have addressed.

The illustrations in each chapter are of consistently high quality and uniformly support and enhance the points made in the text. Finally, the monograph includes a useful index that will be helpful to readers who wish to explore a specific topic that might span several chapters. One disappointment in this regard is the absence of an index entry, and indeed of content in the chapters, on bacterial and fungal endotoxins associated with airborne particles. This is a topic of active investigation and might have been included in this volume.

Overall, this is a solid revision of the original volume on particle-lung interactions, containing state-of-the-art reviews by investigators who are active in this field. It will be of value to those pursuing research in these topics, but also to others concerned primarily with treatment and prevention of particle-related lung and heart conditions.

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Health Care Marketing: Tools and Techniques, 3rd edition. John L Fortenberry Jr MBA PhD. Sudbury, Massachusetts: Jones & Bartlett. 2010. Hard cover, 311 pages, \$74.95.

Health care as a market is widely encompassing. It includes health-care providers, hospitals, managed care systems, independent provider groups, home health-care service groups, pharmacies, and companies that develop and market pharmaceuticals, devices, and diagnostics, to name but a few.

While marketing tools and techniques are routinely used by all of these constituents to strategically assess their business, some of these tools and techniques may be more useful to some than others. However, **Health Care Marketing: Tools and Techniques** does not indicate which tools and techniques have been used successfully and more routinely by some businesses rather than others.

An important element emphasized throughout the book is that health care is very dynamic and there is need to review

and update plans frequently. Complacency could threaten the viability of any business in the ever-changing health-care market in the United States.

The book’s contents are divided into 7 marketing processes and 39 chapters, each of which is devoted to marketing and/or business tools and techniques used to explore the processes in more detail.

All the sections encompass the fundamental marketing processes any business (not just health care) needs for successful management. The tools and techniques outlined and described under each of these processes are described in a standardized format—so much so that the book clearly positions itself as a textbook for students new to marketing and business management. Learning objectives are situated at the beginning of each chapter, and exercises to explore the use of the specific technique are located at the end of each chapter. Most chapters are no more than 3–6 pages, so the descriptions of the techniques are at a very top-line level. Each chapter describes a technique developed by revered leaders in marketing, such as Theodore Levitt, Philip Kotler, Reis & Trout, and Michael Porter, as well as techniques used by well known health-care consulting companies such as the Boston Consulting Group and Booz, Allen, & Hamilton. Some of the newer marketing tools and techniques have also been described.

At no point in the book is there an evaluation of the benefit of using one technique versus another, which might have been helpful, since not all of these tools would be used by a single organization. In addition, there was no attempt to identify which tools might be more useful for some health-care organizations over others. In general, the marketing tools could have applicability to all organizations in the health-care marketplace, but some are used more commonly by different people within an organization. Senior leadership would more likely use corporate strategic tools, whereas a brand management team would most likely use the techniques that would lead to gaining greater product market share.

The first section, “Product Development and Portfolio Analysis Tools,” has 7 chapters, starting from the basics of the product life cycle, followed by a description of how a product is defined. Ensuing chapters describe how to evaluate the business value of a new product and then progress to presenting techniques that show how to strategi-

cally evaluate one product versus another. These are sound strategic planning tools that, when utilized with extensive market research, can help health-care businesses succeed in their respective markets.

The second section, “Branding and Identity Management Tools,” describes the power of strong product branding and how important the brand image is, not only to customer loyalty but also to differentiate one product from another. The need to monitor the changing marketplace and keep the brand fresh is emphasized. The importance of conducting and constantly evaluating branding activities throughout the product life cycle is reinforced. The need to evaluate brands critically for strengths and weakness, so that they can either be enhanced or eliminated from the company portfolio, is also described.

The third section, “Target Marketing Tools,” outlines basic concepts in understanding the value of market segmentation. The importance of strategically approaching different market segments, termed target marketing, is also stressed. Perceptual mapping and the value of clear product positioning is underscored, but the complexity of developing the appropriate positioning is not referenced. Only a high-level description is provided, which undervalues this critical marketing tool. Positioning of a product, service, or organization causes more challenges to marketing teams than many other marketing tools.

The fourth section, “Consumer Behavior and Product Promotions,” superficially describes Maslow’s hierarchy of human (also known as “customer”) needs, followed by a chapter on the customer’s willingness to adopt new products and services. The need for effective communication with customers about products and services is described in the section on the tool for using the product marketing mix, and this is followed by a chapter devoted to the understanding of customer loyalty and how vital loyalty is to institutional survival, growth, and prosperity. The section closes with a customer-experience-management framework that high-

lights the importance of meeting customer needs based on the products and services they prefer.

The fifth section, “Environmental Analysis and Competitive Assessment Tools,” has 5 chapters, which briefly describe strategic and tactical approaches to analyzing the health-care competitive environment. The health-care marketplace is intensely competitive, so this section emphasizes the need to understand one’s competitors in great depth. Tools ranging from the SWOT (strengths, weaknesses, opportunities, and threats) model, which can be used for situation analyses for both institutions and products, to more strategic analyses performed with Michael Porter’s 5 Forces Model, are discussed briefly.

The sixth section, “Marketing Management Tools,” has 3 chapters, which explain the strategic principles under which organizations will probably succeed, as well as the need for organizations to be market focused and market driven. Personal selling is discussed from a conceptual level for health-care organizations not familiar with using a sales force for promotion. This section would have limited value to pharmaceutical, medical device, and health-insurance organizations, as they have very sophisticated sales models that surpass this cursory explanation.

The seventh section, “Marketing Strategy and Planning Tools,” describes the importance of value as a competitive advantage, and its potential impact on multiple health-care organizations is emphasized. The descriptions are generalized to be relevant to various health-care organizations, but the principles are sound. The chapter on generic strategies is primarily directed at organizational leadership as they plan their business approach in the markets in which they operate. Philip Kotler’s marketing plan completes the tools identified, where each section of a generic plan is briefly elucidated.

Students of business and marketing would most benefit from this text, as they would learn about the various tools and tech-

niques that businesses can use to manage their companies and develop products. Marketing instructors would find considerable benefit with this book because it includes a comprehensive set of instructor resources that are available through the publisher, Jones and Bartlett, including PowerPoint slides, a test bank, and teaching insights for each chapter.

Health-care-organization personnel who are not in the marketing department would also benefit from high-level exposure to these marketing tools and techniques, because it could help them work more efficiently on collaborative processes with their marketing colleagues. There would be limited use for seasoned marketing personnel, other than exploring the use of a technique with which they are unfamiliar. The book has a strong focus on strategic planning, and therefore could have utility for senior executives unfamiliar with marketing techniques.

In summary, Fortenberry has expanded on 2 previous editions of this text and given it greater utility for marketing educators and marketing students. Since there are 39 different marketing tools described in the book, an in-depth discussion of any of these tools was not feasible. A student of marketing would appreciate the breadth of this book, but those with marketing experience could be frustrated by the cursory descriptions of the tools. The reality of using these marketing tools can only come from extensive experience in a health-care organization, where the complexity of using these tools becomes apparent. The exercises at the chapter ends will provide the student of marketing a limited but valuable insight into the value and challenges of using these tools.

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