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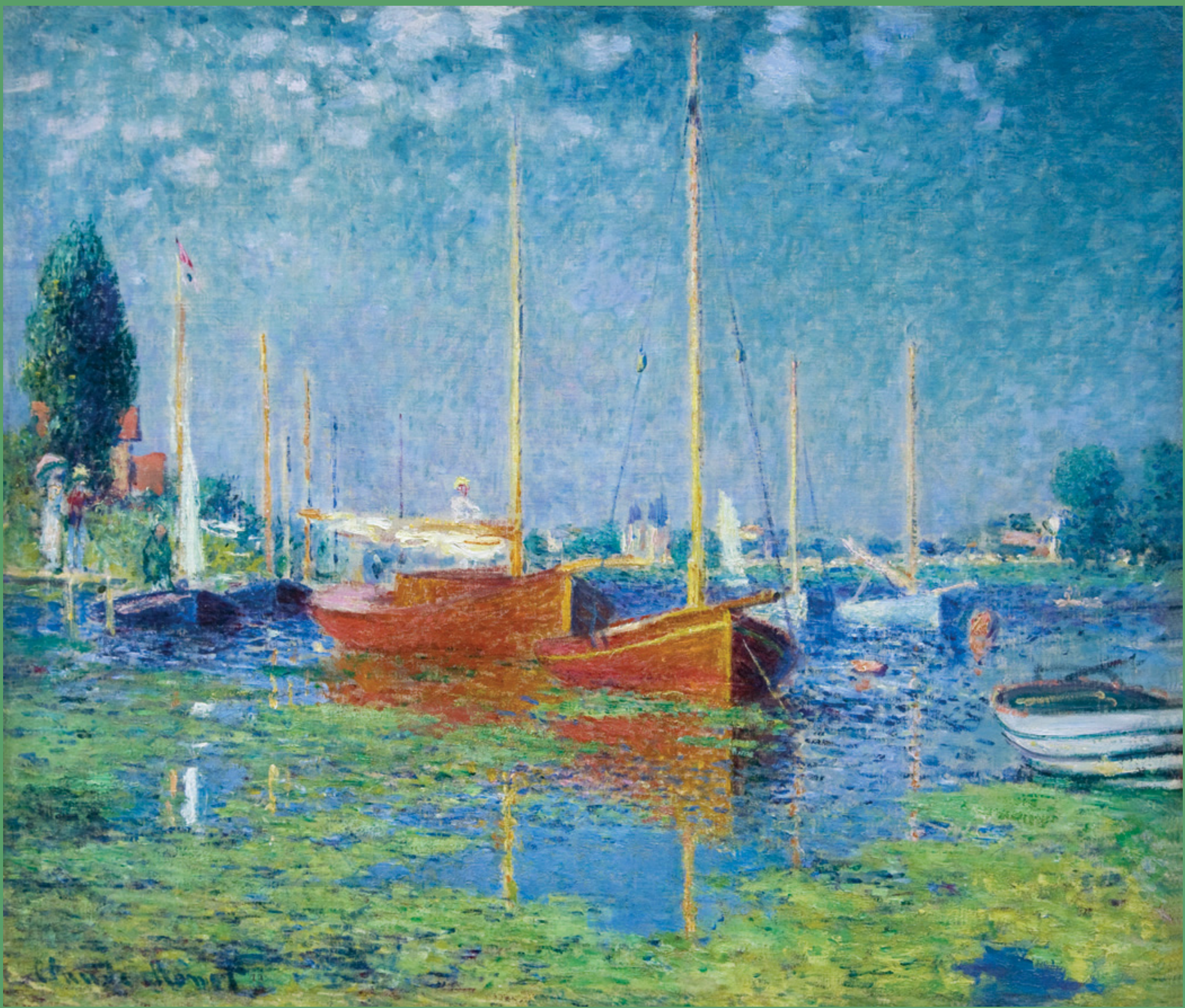
ECONOMICS OF STRATEGY



SIXTH EDITION

Businesses in the Book

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Kangbo
Keebler
Kellogg
Kenmore
Kentucky Fried Chicken

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ECONOMICS OF STRATEGY

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Economics of Strategy

6th Edition

David Besanko / *Northwestern University*

David Dranove / *Northwestern University*

Mark Shanley / *University of Illinois at Chicago*

Scott Schaefer / *University of Utah*

WILEY

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PREFACE

A lot has happened to the business landscape in the 20 years since my colleagues and I began teaching business strategy at the Kellogg School of Management. Several years of steady but unspectacular economic growth culminated with the dot-com bubble and a subsequent global recession. A broad-based recovery enabled many firms in both the "old" and "new" economies to enjoy unprecedented profitability, only to see profits dry up in the wake of a credit crunch and rising energy costs. The global economy now seems on hold, as nations deal with long-term structural budget issues.

Through it all, the strategy gurus have been quick to remind us that "the rules of business have changed."[1] The French have an apt rejoinder: Plus ça change, plus c'est la même chose. (The more things change, the more they stay the same.) Consider the fate of managers and investors who followed the latest fads of the last decade without paying attention to tried and true economic concepts. Dot-com businesses sold identical products (pet food, toys, you name it) and discovered the perils of perfect competition. Movie studios followed the mantra of convergence, creating entertainment supergiants that failed to overcome the risks of extensive vertical integration. Banks ignored basic economic principles of asymmetric information and loaned billions of dollars to home buyers who could not repay them.

These catastrophic mistakes confirm an important pedagogical message: there is a set of business principles that apply at all times to all sectors of the economy. Sound strategic management requires mastery of these principles, not blind adherence to the "strategy du jour." Managers who ignore these principles do so at their own peril.

By their nature, principles are enduring. But they are not always well understood and, as a result, managers often fail to adhere to them. Michael Porter's classic treatment of the principles of competition, *Competitive Strategy*, published until 1980, addressed this problem. Porter's book provided an important illustration of how economic reasoning can inform practicing managers, particularly with regard to strategies for dealing with a firm's external environment. But *Competitive Strategy* is not a textbook and does not provide the kind of economic foundation that we believe is required for deep strategic thinking.

David Besanko, Mark Shanley, and I joined Kellogg in 1991, where we were immediately charged by Dean Donald Jacobs with revitalizing the strategy curriculum. (Scott Shaeffer joined Kellogg shortly afterward and joined the *Economics of Strategy* writing team for the third edition.) We searched for a textbook that might provide a broader and deeper economic foundation for strategic analysis. What we found was at first discouraging. Most of the available texts in strategic management lacked disciplinary grounding. Few contained serious discussions of economics principles that are essential to strategy, such as economies of scale, transactions-cost economics, oligopoly theory, entry, commitment, incentives for innovation, and agency. Moreover, most of these books were targeted at more general audiences than what one finds at a business school such as Kellogg. We also learned that we were not the only ones struggling to find an appropriate text for teaching business strategy. Indeed, the choice of a text for the core strategy course appeared to be problematic at many business schools.

Seeking to expand on Porter's contributions to taking an economics-based approach to teaching strategy, we considered possible solutions. One possibility was to use a microeconomics text, which offers many real-world examples to demonstrate the practical importance of economics. But this represents at best a compromise between traditional microeconomics and management strategy.

In the years preceding our work on the first edition of *Economics of Strategy*, two important books appeared. Sharon Oster's *Modern Competitive Analysis* was remarkable for its breadth, covering most of the topics that we had identified as important to teach in a management strategy class. Paul Milgrom and John Roberts's *Economics, Organization, and Management* was remarkable for its depth. Milgrom and Roberts provided a deep theoretical basis for understanding issues involving organization, incentives, and hierarchy. Our objective in writing *Economics of Strategy* was, in part, to capture the breadth of Oster at a level of analysis approaching Milgrom and Roberts, while offering the kinds of illustrative examples that appear in both books.

Organization of the Book

In preparing to write the sixth edition, I heard from many instructors that they preferred the organization of editions one through four. The sixth edition therefore reverts to form. Part One focuses on the boundaries of the firm; Part Two explores competition; Part Three covers positioning and sustaining advantage; and Part Four examines the interface between the theory of the firm, organization design, and business strategy. Despite these surface similarities to earlier editions, the sixth edition represents the most substantial revision to date, with many substantial changes including the following:

- Several chapters have been consolidated. Economies of Scale and Diversification are now combined in a single chapter. This reflects the logical connections between the two topics. Commitment and Dynamics of Competition have been consolidated into a single chapter titled "Dynamics: Competing Across Time." This chapter builds on static oligopoly models to explore the many ways that firms compete across time, including an expanded discussion of how industry structures evolve across time. Finally, I have combined the chapters on Sustaining Advantage and The Origins of Competitive Advantage, again reflecting the strong logical connections between the two.
- The chapter on Positioning has been dramatically streamlined.
- I have added a new chapter on Information and Value Creation. Heretofore, strategy books have emphasized that firms must differentiate themselves to thrive. But there has been little discussion of how firms inform consumers about their points of differentiation. This chapter describes how firms, markets, and certifiers disclose information about product attributes. This material helps explain the success of Google, Facebook, and many Internet businesses.
- I expand on many important theoretical ideas and introduce some new ones. Readers will find detailed treatment of the Property Rights Theory of the Firm, Business Groups, Dynamic Learning Models, Endogenous Sunk Costs, Rent-Seeking Behavior, Disruptive Technologies, and other topics.

As always, the book is liberally interspersed with real-world examples that bring the economic models to life. The examples are drawn from around the world and cover business practice from the eighteenth century to the present day. I have updated examples as needed and added many new examples including several that discuss business in China and India. I am especially grateful to doctoral student Bingyang Li for developing the China examples. The business world is ever changing, and by the time you read this book, some references to organizations and individuals will be obsolete. I hope that the lessons learned from them will endure.

My colleagues and I believe that this book can be used as a text either in a core strategy course or in a business economics course that focuses on the economics of industry and the economics of the firm. In our 10-week strategy course for first-year MBA students at Kellogg, we typically assign the following chapters:

Primer	Basic Principles
Chapter 2	The Horizontal Boundaries of the Firm
Chapter 3	The Vertical Boundaries of the Firm
Chapter 8	Industry Analysis
Chapter 9	Strategic Positioning for Competitive Advantage
Chapter 11	Sustaining Competitive Advantage

If we had an entire semester for our strategy course, we would add Chapter 5 (Competitors and Competition), Chapter 10 (Information and Value Creation), and Chapter 12 (Performance Measurement and Incentives). A more organizations-focused course might replace Chapters 5 and 10 with Chapters 13 (Strategy and Structure) and/or 14 (Environment, Power, and Culture).

The placement of the boundaries of the firm chapters (1–4) before the strategy chapters (9–11) may strike some as atypical. However, it is not at all essential that instructors follow this ordering. As long as students understand the material in the Economics Primer and the material on economies of scale and scope in Chapter 2, the strategy chapters can be taught before the chapters on the boundaries of the firm.

Chapters 6 and 7 are the most "game theoretic" of the chapters in the book and are the most demanding for students with weaker economic backgrounds (though the introduction to game theory in the Economics Primer coupled with material in Chapter 5 should be sufficient for students to understand this material). Because students in our basic strategy course at Kellogg have not yet taken economics, we do not cover these chapters until the advanced class in Competitive Strategy. The material in Chapters 12 and beyond does not depend on the material in Chapters 9–11, so these chapters can be easily skipped without any loss in continuity.

The book can also be used in a managerial economics course that emphasizes competitive strategy and modern industrial organization. For a one-quarter course, we recommend use of these chapters:

Primer	Basic Principles
Chapter 2	The Horizontal Boundaries of the Firm
Chapter 3	The Vertical Boundaries of the Firm
Chapter 5	Competitors and Competition
Chapter 6	Entry and Exit
Chapter 7	Dynamics: Competing Across Time
Chapter 8	Industry Analysis
Chapter 9	Strategic Positioning for Competitive Advantage
Chapter 11	Sustaining Competitive Advantage

For a one-semester course, one could add Chapters 4 and 10.

Supplementary Materials

Thank you to Kevin Cochrane of College of the Desert for working with us to update and revise the supplementary materials.

Companion Web Site

A companion web site specific for this text contains the resources found here and more. **www.wiley.com/college/besanko**

Instructor's Manual

The Instructor's Manual provides several valuable resources that enhance each chapter of the text, including a list of the chapter contents, a chapter summary, approaches to teaching the chapter, suggested Harvard Business School Case Studies that complement the chapter, suggested extra related readings, and answers to all of the end-of-chapter questions.

PowerPoint Presentations

PowerPoint Slides including text art and lecture outlines for each chapter are provided on the companion web site and can be viewed or downloaded to a computer.

Test Bank

Sample tests for each chapter contain a mix of multiple-choice questions varying in level of difficulty.

Acknowledgments

Many individuals helped make the sixth edition of *Economics of Strategy* possible. We are especially grateful to Jennifer Manias and Emily McGee of Wiley for the substantial work they did in coordinating the development of the book. We want to also thank Suzanne Ingrao of Ingrao Associates for so ably keeping the production of this book on track. And a special thanks to Angie Malakhov for preparing the "Businesses in the Book."

Many of the improvements in the sixth edition are the result of comments received by instructors who used previous editions. My thanks to colleagues who so kindly pointed out the problem areas and suggested ways to improve them. I am also grateful for the comments we received from those who reviewed the book, including Jed DeVaro, California State University, East Bay; Stephan F. Gohmann, University of Louisville; Richard R. Hawkins, University of West Florida; Christine P. Ries, Georgia Tech; Matthew Roelofs, Western Washington University; and, Frank C. Schultz II, University of California, Berkeley. I was pleased by the many substantive suggestions they offered for a book that has already been through five editions.

David Dranove
Evanston, Illinois

Endnote

[1]A Google search of "the rules have changed" comes up with hundreds of business-related hits. I conduct a similar search for every edition and always discover a multitude of hits. I wonder how they can be called rules if they are constantly changing.

Brief Contents

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Introduction: Strategy and Economics

Why Study Strategy?

To answer this question, we first have to understand what strategy is. Consider how three leading contributors to the field define the concept of strategy:

> . . . the determination of the basic long-term goals and objectives of an enterprise, and the adoption of courses of action and the allocation of resources necessary for carrying out these goals—Alfred Chandler[1]
>
> . . . the pattern of objectives, purposes or goals, and the major policies and plans for achieving these goals, stated in such a way as to define what business the company is in or should be in and the kind of company it is or should be—Kenneth Andrews[2]
>
> . . . what determines the framework of a firm's business activities and provides guidelines for coordinating activities so that the firm can cope with and influence the changing environment. Strategy articulates the firm's preferred environment and the type of organization it is striving to become—Hiroyuki Itami[3]

These definitions have much in common. Phrases such as "long-term goals" and "major policies" suggest that strategy has to do with the "big" decisions a business organization faces, the decisions that ultimately determine its success or failure. The emphasis on "pattern of objectives" and "the framework of a firm's business" suggests that strategy is revealed in terms of consistent behavior, which in turn implies that strategy, once set, is not easy to reverse. Finally, the idea that strategy "defines . . . what kind of company it is or should be" suggests that strategic decisions shape the firm's competitive persona, its collective understanding of how it is going to succeed within its competitive environment.

Strategy is, in short, fundamental to an organization's success, which is why the study of strategy can be both profitable and intellectually engaging. The objective of this book is to study and analyze strategy primarily (though not exclusively) from the perspective of economics. Our central theme is that much can be learned by uncovering durable economic principles that are applicable to many different strategic situations. This value shows up in two fundamental ways: one, by gaining a better understanding of how firms compete and organize themselves, and two, by developing a more secure foundation for making good strategic decisions.

Why Economics?

One can approach the study of strategy in many ways. One could study strategy from the perspective of mathematical game theory, seeking to discover the logic of choice in situations that involve rivalry. Strategy could also be studied from the perspective of psychology, focusing on how the motivations and behaviors of individual decision makers shape the direction and the performance of their organizations. One could study strategy-related questions from an organizational perspective, political science, or even anthropology.

There is much to be said for viewing strategy from the perspective of multiple disciplinary lenses. But depth of strategic knowledge is as important as breadth. Deep knowledge of a discipline permits the formulation of subtle and powerful hypotheses that generate rich strategies. An advantage of economics, and one reason for its widespread use for analyzing individual and institutional decision making, is that it requires the analyst to be explicit about the key elements of the process under consideration. Economic models must carefully identify each of the following:

- *Decision makers.* Who are the active players? Whose decisions are "fixed" in the situation at hand?
- *Goals.* What are the decision makers trying to accomplish? Are they profit maximizing, or do they have nonpecuniary interests?
- *Choices.* What actions are under consideration? What are the strategic variables? What is the time horizon over which decisions can be made?
- *Relationship between choices and outcomes.* What is the mechanism by which specific decisions translate into specific outcomes? Is the mechanism complicated by uncertainty regarding such factors as taste, technology, or the choices of other decision makers?

While other social sciences often address the same questions, economic theory is distinctive, we think, in that the answers to these questions are nearly always explicitly obtained as part of the development of the theory. The advantage to this is that there is clear linkage between the conclusions one draws from the application of economic reasoning and the assumptions used to motivate the analysis. This leaves what Garth Saloner has called an "audit trail" that allows one to distinguish between logically derived propositions and unsupported conjectures.[4] We will not provide the detailed audit trails that support our propositions, as this will require countless pages and advanced mathematics. But we will provide the intuition behind each of the propositions that we advance.

Economic modeling, by its very nature, abstracts from the situational complexity that individuals and firms face. Thus, the application of economic insights to specific situations often requires creativity and a deft touch. It also often requires explicit recognition of the constraints imposed on firms by mistakes, history, and organizational and political factors. Nor does economics fully address the *process* by which choices are made and translated into actions and outcomes. The process of managing the implementation of a competitive strategy decision or a change in the nature of internal organization is often fundamental to a firm's success. Our emphasis on economics in this book is not intended to downgrade the importance of process; it is simply beyond the scope of our expertise to say much about it.

The Need for Principles

There is an understandably keen interest among serious observers of business to understand the reasons for profitability and market success. Observers of business often leap uncritically to the conclusion that the keys to success can be identified by watching and imitating the behaviors of successful firms. A host of management prescriptions by consultants and in the popular business press are buttressed by allusions to the practices of high-performing firms and their managers.

A classic example of this type of analysis is provided by the famous 1982 book, *In Search of Excellence*, by Thomas Peters and Robert Waterman.[5] Peters and Waterman studied a group of 43 firms that were identified as long-term superior performers on dimensions such as profitability and growth. The study concluded that successful firms shared common qualities, including "close to the customer," "stick to the knitting," and "bias for action."

Another famous example is provided by *The New Market Leaders*, by Fred Wiersema.[6] Wiersema identified the behaviors of leading firms in the "new economy," with a focus on Internet, technology, and telecom firms. The average annual return for investors in these firms was 48 percent. In explaining their success, Wiersema's findings mirror those of Peters and Waterman. New market leaders are close to their customers and skilled at segmenting markets. They develop new products, advertise intensively, and outsource all but core activities, so as to better concentrate on what they do best.

A final seminal work is *Good to Great*, by Jim Collins.[7] Collins studied the characteristics of firms that broke a long pattern of good (above-average) performance and entered into a 15-year period of great performance (cumulative stock return three times that of the general market). Only 11 firms met this demanding hurdle, including such well-known firms as Walgreens, Wells Fargo, Philip Morris, and Abbott. Collins finds several characteristics that help explain his group's performance. These firms possess leaders who shun the spotlight and work for the firm. Performance shifts at these firms begin with management staffing, so that the "right" people are put in place. The firms use technology to support their strategies, not determine them. Managers at these firms can "confront the brutal facts" of their situation and determine what to do about it.

So What's the Problem?

The traditional approach to strategy, one that is embodied in best-selling strategy trade books including the three classic books cited above, has at least two key features. First, these books derive their recommendations by studying the past performance of successful firms. Second, their recommendations seem to make sense. Who wouldn't strive to "put the right people in the right places," or have a "bias toward action." Let us address the latter feature first; the former will require a bit more time.

Popularizers of business strategy are persuasive arguers, often relying on "proof by assertion." Armed with doctoral degrees and academic titles, they make assertions that carry substantial gravitas. When these assertions also carry the weight of common sense, it would be foolish for the average manager to ignore them. But in the book *Everything Is Obvious*, Duncan Watts warns against basing decisions on common-sense arguments. Watts gives the example of strategy guru Malcolm Gladwell, who claimed that "social epidemics are launched by a few *exceptional* people who possess the ability to make ideas go viral." This argument, which was based on observational studies of a few successful firms, makes so much sense that readers take it as a proven fact. As a result, firms commonly pay a handful of "heavy influencers" substantial fees to push new products through social networks. The problem is that Gladwell's observational studies do not stand up to rigorous scrutiny. Watts's research finds that *unexceptional* people can effectively exert social influence. It might therefore be less costly to pay small amounts to thousands of "ordinary Twitter" users than a small fortune to one or two exceptional influencers.

Watts shows that obvious arguments—for example, "put the right people in the right places"—are not always correct and that "proof by assertion" is no proof at all. While many of the ideas in *Economics of Strategy* may seem obvious upon reflection, they are supported by more than just the assertions of the authors or a few casual observational studies. Our ideas were developed from fundamental principles of economic theory and debated by the profession, often for decades. This provides the arguments with an "audit trail" through which it is possible to explore the exact set of assumptions that lead to the conclusions. Moreover, most of the ideas in this book have been subject to rigorous empirical testing that has survived peer review. (Most trade books do not undergo such scrutiny.)

Most trade strategy books do not provide an audit trail of assumptions and conclusions, but they seem to offer empirical support through extensive case studies. We believe that using a given firm's experiences to understand what would make all firms successful is extremely difficult and not likely to lead to valid conclusions. For one thing, the reasons for success are often unclear and also are likely to be complex. We can think of no better example than Enron. Enron was once held up as an exemplar of how to conduct business in the new economy, but was ultimately revealed to be a company that relied on accounting shell games and lacked any real sustainable advantage. There are many other, less pernicious, examples of this complexity. The internal management systems of a firm may spur product innovation particularly well but may not be apparent to individuals who are unfamiliar with how the firm operates. In addition, the industry and market conditions in which successful firms operate may differ greatly from the conditions faced by would-be imitators. Success may also be due in part to a host of idiosyncratic factors that will be difficult to identify and impossible to imitate.

Finally, there may be a bias resulting from trying to understand success solely by examining the strategies of successful firms. Strategies associated with many successful firms may have been tried by an equally large number of unsuccessful firms. In addition, successful firms may pursue several strategies, only some of which contribute toward their success. Finally, successful firms may possess proprietary assets and know-how that allow them to succeed where imitators would fail. Under any of these conditions, a "monkey see, monkey do" strategy offers no guarantee of success.

To further understand the potential bias, consider that the choices of successful firms always seem correct in *hindsight*. But managers want to determine which strategic choices will work in *advance*. To appreciate the distinction, consider a firm investing in a risky new technology. If it is fortunate enough to select the correct technology, then the firm will succeed and the technology will appear to "support its strategy," a good thing according to strategy gurus. But if it chooses incorrectly, the firm will struggle. The gurus will say that the firm is struggling because it has let technology determine its strategy. But the real mistake was in selecting the wrong technology to begin with, not its ongoing application. In fact, economics teaches us that it may still be optimal to stick with the chosen technology, especially if the costs cannot be recovered and the firm has no better alternative. "Monkey see, monkey do" strategizing ignores these important nuances.

Managers cannot wait until after the fact to determine what technologies to adopt, which employees to hire, or which customers to cultivate. This is what makes managerial work risky. We do believe that it is useful to study the behaviors of firms. The value of this study, however, lies in helping us identify the general principles behind why firms behave as they do, not in trying to develop lists of characteristics that lead to automatic success. *There is no such list.* A strategy textbook can provide the general principles that underlie strategic decisions. Success depends on the manager who must match principles with conditions.

To see this point, consider the variety of strategies employed by some of today's most successful firms: Trek, Usiminas, and Wal-Mart.[8] Each of them has a different organizational structure and corporate strategy. Trek's success is built largely on low-cost outsourcing of bicycle production and careful brand management. Trek performs few of the functions traditionally associated with large industrial firms and instead uses independent contractors for much of its production, distribution, and retailing. Usiminas is a traditional, vertically integrated steel firm best known for its operational excellence in manufacturing. That excellence, coupled with its access to Brazil's low-cost labor and abundant energy supplies, has made Usiminas one of the lowest-cost producers of steel in the world. Unlike the first two, Wal-Mart is a distributor and retailer. It relies on the initiative of its local store managers, combined with sophisticated purchasing and inventory management, to keep its retailing costs below those of its rivals.

Making sense of this variety of strategies can be frustrating, especially because, within most industries, we see poorly performing firms employing the same strategies and management practices as industry exemplars. For every Trek, there is a Raleigh. For every Usiminas, there is a Bethlehem Steel. For every Wal-Mart, there is a Kmart. If we find this variety of management practices bewildering, imagine the reactions of a manager from 1910, or even 1960, who was transported ahead in time. The large hierarchical firm that dominated the corporate landscape throughout most of the twentieth century seems out of place today. General Motors received its share of criticism in the wake of the oil shortages and Japanese invasion of the 1970s, but its structure and strategy were models for manufacturing from the 1920s through the 1960s. United States Steel, the first firm in the world to achieve annual sales of one billion dollars at the time of its inception in 1901, is no longer ranked among the Fortune 100 and has struggled to make money in recent years. The list of once-admired firms that today are struggling to survive is a long one.

There are two ways to interpret this bewildering variety and evolution of management practice. The first is to believe that the development of successful strategies is so complicated as to be essentially a matter of luck. The second interpretation presumes that successful firms succeeded because the strategies best allowed them to exploit the potential profit opportunities that existed at the time or to adapt to changing circumstances. If you are reading this book, then it is likely that you (or your professor) believe in this second interpretation. We certainly do. While there is no doubt that luck, both good and bad, plays a role in determining the success of firms, we believe that success is often no accident. We believe that we can better understand why firms succeed or fail when we analyze decision making in terms of consistent principles of market economics and strategic action. And we believe that the odds of competitive success increase when managers try to apply these principles to the varying conditions and opportunities they face. While these principles do not uniquely explain why firms succeed, they should be the basis for any systematic examination of strategy.

Because this is an *economics* book, we will necessarily gloss over (if not completely ignore) some possible paths to profitability. We will not discuss how firms can improve manufacturing techniques or reduce inventory costs. We will mention advertising only insomuch as it touches other topics that are of direct interest to strategy, such as entry deterrence. We examine accounting mainly to point out that costs and profits reported on accounting statements are often poor measures of economic performance. We give short shrift to leadership and team building, not because these are unimportant, but because economics has little to say about them.

Firms or Markets?

Some books, including Porter's *Competitive Strategy*, take the view that firms can prosper if their industries avoid grueling competitive forces. Others, including Gary Hamel and C. K. Prahalad's *Competing for the Future*, pay little regard to market competition and argue instead that successful firms get that way by outperforming their rivals. Our view is that the economics of the firm's market and the firm's position in that market jointly determine the firm's profitability. But how would we determine which is more important?

To answer this question, imagine taking a broad sample of different firms over many years. Would we see persistent variation in profitability of firms *within industries* but little variation in profitability *across industries*? If so, we would conclude that the effect of the market environment on profitability (the market effect) is unimportant, but the effect of a firm's competitive position in the industry (the positioning effect) is important. Or would we see little variation in profitability of firms within industries but persistent variation in profitability of entire industries? If so, the market effect is paramount, and the positioning effect is unimportant.

In fact, research suggests that the profitability varies both within and across industries, and that within-industry variability is a bit bigger than across-industry variability. In other words, firms matter and markets matter, though perhaps firms matter a bit more. Note also that a large component of the variation in profitability across firms is not persistent over time. Turnover of key management personnel, or a failed product launch, new regulations, or just plain luck could cause temporary swings in profitability.

We believe that the successful strategist must master principles associated with both market competition and positioning and that this motivates the framework for strategy that we provide in this book.

A Framework for Strategy

In our opening discussion of what strategy is, we asserted that strategy is concerned with the "big" issues that firms face. But what specifically does this mean? What are these "big" issues? Put another way, to formulate and implement a successful strategy, what does the firm have to pay attention to? We would argue that to successfully formulate and implement strategy, a firm must confront four broad classes of issues:

- *Boundaries of the firm.* What should the firm do, how large should it be, and what businesses should it be in?
- *Market and competitive analysis.* What is the nature of the markets in which the firm competes and the nature of competitive interactions among firms in those markets?

- *Positioning and dynamics.* How should the firm position itself to compete, what should be the basis of its competitive advantage, and how should it adjust over time?
- *Internal organization.* How should the firm organize its structure and systems internally?

Boundaries of the Firm

The firm's boundaries define what the firm does. Boundaries can extend in three different directions: horizontal, vertical, and corporate. The firm's horizontal boundaries refer to how much of the product market the firm serves, or essentially how big it is. The firm's vertical boundaries refer to the set of activities that the firm performs itself and those that it purchases from market specialty firms. The firm's corporate boundaries refer to the set of distinct businesses the firm competes in. All three boundaries have received differing amounts of emphasis at different times in the strategy literature. The Boston Consulting Group's emphasis on the learning curve and market growth in the 1960s gave prominence to the firm's horizontal boundaries. Formal planning models organized around tools, such as growth-share matrices, gave prominence to the firm's corporate boundaries. More recently, such concepts as "network organizations" and the "virtual corporation" have given prominence to the firm's vertical boundaries. Our view is that all are important and can be fruitfully analyzed through the perspectives offered by economics.

Market and Competitive Analysis

To formulate and execute successful strategies, firms must understand the nature of the markets in which they compete. As Michael Porter points out in his classic work *Competitive Strategy*, performance across industries is not a matter of chance or accident.[9] There are reasons why, for example, even mediocre firms in an industry such as pharmaceuticals have, by economywide standards, impressive profitability performance, while the top firms in the airline industry seem to achieve low rates of profitability even in the best of times. The nature of industry structure cannot be ignored either in attempting to understand why firms follow the strategies they do or in attempting to formulate strategies for competing in an industry.

Positioning and Dynamics

Positioning and dynamics are shorthand for how and on what basis a firm competes. Position is a static concept. At a given moment in time, is the firm competing on the basis of low costs or because it is differentiated in key dimensions and can thus charge a premium price? Position, as we discuss it, also concerns the resources and capabilities that underlie any cost or differentiation advantages that a firm might have. Dynamics refers to how the firm accumulates resources and capabilities, as well as to how it adjusts over time to changing circumstances. Fundamentally, dynamics has to do with the process emphasized by the economist Joseph Schumpeter, who argued that "the impulse of alluring profit," even though inherently temporary, will induce firms and entrepreneurs to create new bases of competitive advantage that redefine industries and undermine the ways of achieving advantage.

Internal Organization

Given that the firm has chosen what to do and has figured out the nature of its market, so that it can decide how and on what basis it should compete, it still needs to organize itself internally to carry out its strategies. Organization sets the terms by which resources will be deployed and information will flow through the firm. It will also determine how well aligned the goals of individual actors within the firm are with the overall goals of the firm. How the firm organizes itself—for example, how it structures its organization, the extent to which it relies on formal incentive systems as opposed to informal influences—embodies a key set of strategic decisions in their own right.

The Book

This book is organized along the lines of this framework. Part One explores firm boundaries; Part Two deals with competition; Part Three addresses positioning; and Part Four examines internal organization.

The principles that we present should prove useful to managers across a wide range of business conditions and situations. They will clearly benefit managers trying to improve results that have been below expectations. Managers often can make immediate improvements in performance by better matching their firm's strategy to the demands of the business environment. Learning about principles, however, can also benefit managers of the most successful firms. As most managers should know, conditions change over time and industry contexts evolve. Strategies that are appropriate for today's business environment may evolve into arrangements that are inappropriate and out of touch with competitive conditions. Sometimes conditions that influence the business environment change gradually, as with the growth of suburban areas in the United States after 1950. Sometimes changes come more quickly, such as with the rapid improvements in communications, information processing, and networking technology during the 1990s. Some changes with major business repercussions seem to occur overnight, as with the privatization of businesses in Eastern Europe and the former Soviet Union after 1989 or the credit crisis of 2008. Armed with some general principles, however, the manager will be better prepared to adjust his or her firm's business strategy to the demands of its ever-changing environment and will have less need to rely on good luck.

Endnotes

[1]Chandler, A., *Strategy and Structure: Chapters in the History of the American Industrial Enterprise*, Cambridge, MA, MIT Press, 1962, p. 13.

[2]Andrews, K., *The Concept of Corporate Strategy*, Homewood, IL, Irwin, 1971.

[3]Itami, H., *Mobilizing Invisible Assets*, Cambridge, MA, Harvard University Press, 1987.

[4]Saloner, G., "Modeling, Game Theory, and Strategic Management," *Strategic Management Journal*, 12, Winter 1991, pp. 119–136.

[5]Peters, T. J. and R. H. Waterman, *In Search of Excellence*, New York, Harper and Row, 1982.

[6]Wiersema, F., *The New Market Leaders*, New York, Free Press, 2001.

[7]Collins, J. C., *Good to Great*, New York, Harper Business, 2001.

[8]The full name of Usiminas is Usinas Siderurgicas de Minas Gerais.

[9]Porter, M., *Competitive Strategy*, New York, Free Press, 1980.

ECONOMICS PRIMER: BASIC PRINCIPLES

In 1931 conditions at the Pepsi-Cola Company were desperate.[1] The company had entered bankruptcy for the second time in 12 years and, in the words of a Delaware court, was "a mere shell of a corporation." The president of Pepsi, Charles G. Guth, even attempted to sell Pepsi to its rival Coca-Cola, but Coke wanted no part of a seemingly doomed enterprise. During this period, Pepsi and Coke sold cola in 6-ounce bottles. To reduce costs, Guth purchased a large supply of recycled 12-ounce beer bottles. Initially, Pepsi priced the 12-ounce bottles at 10 cents, twice the price of 6-ounce Cokes. However, this strategy failed to boost sales. But then Guth had an idea: Why not sell 12-ounce Pepsis for the same price as 6-ounce Cokes? In the Depression, this was a brilliant marketing ploy. Pepsi's sales shot upward. By 1934 Pepsi was out of bankruptcy. Its profit rose to \$2.1 million by 1936 and to \$4.2 million by 1938. Guth's decision to undercut Coca-Cola saved the company.

This example illustrates an important point. Clearly, in 1931 Pepsi's chief objective was to increase profits so it could survive. But merely deciding to pursue this objective could not make it happen. Charles Guth could not just order his subordinates to increase Pepsi's profits. Like any company, Pepsi's management had no direct control over its profit, market share, or any of the other markers of business success. What Pepsi's management did control were marketing, production, and the administrative decisions that determined its competitive position and ultimate profitability.

Pepsi's success in the 1930s can be understood in terms of a few key economic relationships. The most basic of these is the law of demand. The law of demand says that, all other things being the same, the lower the price of a product, the more of it consumers will purchase. Whether the increase in the number of units sold translates into higher sales revenues depends on the strength of the relationship between price and the quantity purchased. This is measured by the price elasticity of demand. As long as Coke did not respond to Pepsi's price cut with one of its own, we would expect that the demand for Pepsi would have been relatively sensitive to price, or in the language of economics, price elastic. As we will see later in this chapter, price-elastic demand implies that a price cut translates not only into higher unit sales, but also into higher sales revenue. Whether Coke is better off responding to Pepsi's price cut depends on another relationship, that between the size of a competitor and the profitability of price matching. Because Coke had such a large share of the market, it was