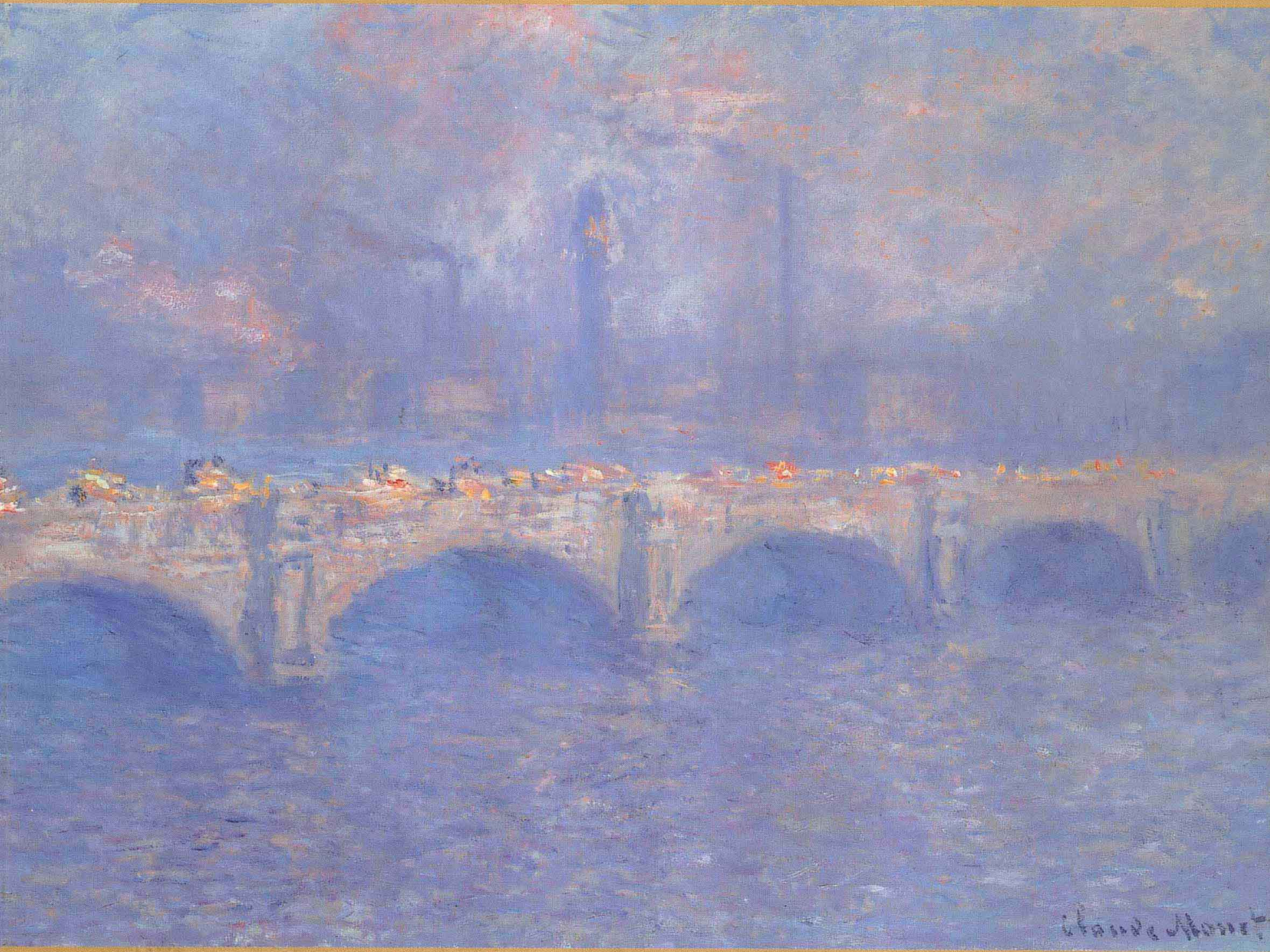
Economics of Strategy

Second Edition



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ECONOMICS OF STRATEGY
Second Edition

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PREFACE

In the preface to his classic work, *Competitive Strategy*, Michael Porter argued that the field of business strategy lacked an analytical base and contained few generalizable or robust insights. He also noted that economists, whose work on industries and competition might serve as the basis for the development of such insights, were by and large insensitive to the needs of practicing managers. Porter's book provides an important illustration of how economic reasoning can inform and develop useful insights for practicing managers, particularly with regard to strategies for dealing with a firm's external environment.

This insight could not have come at a more propitious time. Beginning in the early 1980s, top-tier business schools began to require three to five years of post-undergraduate work experience as a precondition for admission. "Graying" MBA students could readily relate classroom material to real-world managerial challenges. At the same time, they could readily identify circumstances when classroom material did not seem relevant. Freshly minted college graduates might unquestioningly compute Cournot equilibria, but a 27-year-old ex-McKinsey business analyst would demand to know why learning Cournot could possibly enhance business decision making. This development placed additional burdens on experienced teachers of strategy courses and made it increasingly difficult for new assistant professors out of traditional economics programs to begin teaching these courses.

Following on the heels of Porter, and in the face of a maturing student body, many business school economists, including us, searched for textbooks that might be used to provide an economic foundation for strategic analysis. Most of the available standard texts in strategic management lacked disciplinary grounding, and few contained discussions of the new knowledge generated in the 1980s and 1990s by researchers in economics and strategy (e.g., transactions cost economics, commitment, and the resource-based view of the firm). Moreover, most of these books were targeted at more general audiences than what one finds at a business school such as Kellogg. Discussions with colleagues around the country led us to conclude 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 appears to be problematic at many business schools.

One possibility was to teach business strategy using microeconomics texts. During the 1980s new texts such as Robert Pindyck and Daniel Rubinfeld's *Microeconomics*, appeared and were an improvement over earlier texts. In particular, Pindyck and Rubinfeld offered many real-world examples to demonstrate the practical importance of economics. But this text was targeted at the intermediate microeconomics market, and from the perspective of someone teaching strategy or business economics, it represented at best a compromise between traditional microeconomics and management strategy.

In the years immediately preceding our work on *Economics of Strategy*, two important books appeared. Sharon Oster's *Modern Competitive Analysis*, which first appeared in 1989, was remarkable for its breadth, covering most of the topics that we had identified as important to teach in a management strategy class. However, we believed that our MBA students would benefit from a more detailed exploration of the theoretical and empirical underpinnings of the ideas presented in Oster's book. Paul Milgrom and John Robert's *Economics, Organization, and Management*, which appeared in 1991, was remarkable for its depth. Milgrom and Roberts provided a deep theoretical basis for understanding issues involving organization, incentives, and hierarchy. This advanced book, however, lacked the range of topics that we needed to cover in our basic management strategy class. 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.

We believe that in the first edition of *Economics of Strategy*, we largely accomplished our goals. Even so, as we taught from the first edition we realized that there was room for improvement. Readers familiar with the first edition will note a number of changes that we believe will markedly improve the book's pedagogy. We have completely reworked our discussions of a number of difficult topics, such as "make-or-buy fallacies," competitor identification, commitment, and strategic positioning. We introduce an "industry analysis checklist" that students should find very useful when performing five-forces analyses. We have eliminated a number of peripheral discussions, particularly those for which there was substantial mathematics with little insight to show for it. There are more example boxes, with an increased emphasis on global applications. We have added a glossary of terms. Finally, there are substantially more end-of-chapter questions.

The careful reader of the first edition will also notice that we have changed the ordering of some chapters and eliminated one chapter. The chapter on horizontal boundaries now precedes the chapters on vertical boundaries—the former is essential to understanding the latter. The chapter on industry analysis now finishes, rather than begins, Part Two. While the chapter still stands on its own, it also serves a useful summary of the preceding material on competition. We have eliminated the chapter on measuring cost and benefit advantage. The bulk of this material now appears in appendixes to Chapters 2 and 12.

Organization of the Book

This book is organized in four parts. Part One focuses on the boundaries of the firm. Major topics include economies of scale and scope, the economics of the make-versus-buy decision (vertical boundaries), the transactions costs of market exchange, and diversification. Part Two covers competitive strategy from the perspective of industrial organization (IO) economies. It includes traditional IO topics such as market structure and entry and modern IO topics such as dynamic pricing rivalry. It concludes with a discussion of Porter's Five Forces, which we view as a systematic framework for assessing the IO issues presented in the preceding chapters. Part Three of the book covers strategic positioning and dynamics. The chapters in this section provide an economic foundation for understanding what competitive advantage is, how it might be diagnosed, the conditions under which it might be sustained, and how it might be acquired in the first place. This portion of the book draws from modern literature in both economics and strategy. Part Four covers topics associated with internal organization, including the economics of agency relationships; the economics of organizational design; and politics, power, and culture. A key innovation in this section of the book is the attempt to integrate insights from economics with those from organization theory.

The book is liberally interspersed with real-world examples that bring the economic models to life. There are an average of six "example boxes" per chapter that discuss a wide variety of organizations and industries in detail. Many of these examples involve businesses outside the United States. This international focus demonstrates that the principles in this book are relevant to business worldwide. The business world is ever changing, and by the time this book hits the market, some of our references to organizations and individuals might be obsolete. We hope that the lessons learned from them will endure.

We believe that this book can either be used as a text in a core strategy course or in a business economics course that focuses on the economics of industry and the economics of the firm. For a strategy or strategic management course for MBA students, we recommend use of the chapters in Parts One, Three, and Four. In our 10-week Fall quarter strategy course for first-year MBA students at Kellogg, we typically assign the following chapters:

Chapter 1 The Evolution of the Modern Firm
Chapter 2 The Horizontal Boundaries of the Firm: Economies of Scale and Scope
Chapter 3 The Vertical Boundaries of the Firm
Chapter 4 The Transactions Costs of Market Exchange
Chapter 5 Organizing Vertical Boundaries: Vertical Integration and Its Alternatives
Chapter 11 Industry Analysis
Chapter 12 Strategic Positioning for Competitive Advantage
Chapter 13 Sustaining Competitive Advantage
Chapter 16 Strategy and Structure
Chapter 17 Power and Culture

We exclude Chapter 6 on diversification in teaching our course because that topic is covered in depth in a later course. If diversification is covered in a basic strategy course, then that chapter should be included in the preceding list. If we had an entire semester for our strategy course, we would add Chapter 7 (Competitors and Competition), Chapter 14 (Origins of Competitive Advantage: Innovation, Evolution, and the Environment), Chapter 15 (Incentives and Agency), and Chapter 17 (Power and Culture).

Our placement of the boundaries of the firm chapters (2–6) before the strategy chapters (11–14) may strike some as atypical. However, it is not 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 (11–14) can be taught before the chapters on the boundaries of the firm (3–6).

The set of chapters 8–10 relating to commitment, dynamic competition, and entry/exit are the ones that are most closely tied to modern industrial organization economics and are thus the most "game theoretic" of the chapters in the book. This set of chapters is the most demanding one for students with weaker economic backgrounds (though the introduction to game theory in the primer coupled with material in Chapter 7 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. The material in Chapters 12 and beyond does not depend on the material in the Chapters 8–10, so these chapters can be easily skipped without any loss in continuity.

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

Chapter 2 The Horizontal Boundaries of the Firm
Chapter 7 Competitors and Competition
Chapter 8 Strategic Commitment
Chapter 9 The Dynamics of Pricing Rivalry
Chapter 10 Entry and Exit
Chapter 11 Industry Analysis
Chapter 12 Strategic Positioning for Competitive Advantage
Chapter 13 Sustaining Competitive Advantage
Chapter 14 The Origins of Competitive Advantage: Innovation, Evolution, and the Environment

For a one-semester course, one could add Chapter 6 to the preceding list and supplement the material from all the chapters with advanced readings on competitive strategy, industrial organization, and game theory.

Acknowledgments

Many individuals helped make the second edition of *The Economics of Strategy* possible. We are especially grateful to Marissa Ryan of Wiley for the substantial work she did in coordinating the development of the book. She was an effective and enthusiastic catalyst for the many didactical changes that emerged. She also arranged for the copyediting, found reviewers, and coordinated the marketing of the book. We want to thank Fred Courtright for the work that he did in securing copyright permissions for the various figures, tables, and quotations taken from other sources and we want to thank Christine Cervoni of Wiley for so ably keeping the production of this book on track. We greatly appreciate Gerald Lombardi's developmental editing. Having painstakingly read and suggested improvements to every chapter of both the first and second editions, Gerald probably knows this material better than we do!

Many of the improvements in the second edition are the result of comments received by instructors who used the first edition. Thanks to our colleagues who so kindly pointed out the problem areas and suggested ways to improve them. In this regard, we are especially grateful to our Kellogg colleagues James Dana, Anne Gron, and Sonia Marciano. Considerable gratitude also goes to Dean Donald Jacobs and to (former) Associate Dean Mark Satterthwaite and (current) Associate Dean Dipak Jain of the Kellogg School for giving us the opportunity to develop Kellogg's basic strategy course and for the enthusiasm and support they showed for us in writing the first and second editions of this book.

We are also grateful for the comments we received from those who reviewed the book, including Sheryl Ball, Virginia Tech; Robert Becker, Indiana University; Tim Campbell, University of Southern California; Darral Clarke, Brigham Young University; Gary Fournier, Florida State University; Kenneth Marino, San Diego State University; John Stevens, University of Minnesota; and Josefina Tranfa, Florida State University. We were pleased by the many substantive suggestions they offered to a book that had already been through several revisions.

A number of Kellogg Masters of Management students provided valuable assistance for specific parts of the book. We want to thank Christopher Meyer for writing Example 3.4 (Jagram) in Chapter 3. Ana Dutra helped research and write Example 6.2 in Chapter 6 on the merger between Continental Bank and Bank of America. Jack Pardee developed the expanded Cambridge Zoo in Chapter 8. Andrew Cherry is responsible for Example 9.1 (Philip Morris versus B.A.T.) in Chapter 9. Fuminori Takemura, Edward Arnstein, Tod Salzman, Rory Altman, and Masahiro Murakami suggested the Panasonic-Epson example in Chapter 9. Sanjay Malkani, David Pereira, Robert Kennedy, Katarzyna Pitula, and Mitsunari Okamoto are responsible for Example 9.2 (Dow Chemical in the market for reverse osmosis membranes) in Chapter 9. Diane Kityama, Jon Passman, Craig Safir, Todd Reichman, and Philip Yau contributed material for Example 9.4 in Chapter 9 on the cigarette industry. Andrew Calderwood wrote Example 10.3 on the Australian Airline industry in Chapter 10. James Carr, Nina Case, Kathleen Fabsits, Robert Musson, Chet Richardson, Andrew Schwartz, and Scott Swanson wrote the first draft of the Kona coffee example in Chapter 11. Joseph Baumann helped research and write Example 15.3 in Chapter 15 on the Illinois Department of Children and Family Services. Suresh Krishna helped research and write Example 16.2 in Chapter 16 on ABB. Michael Lounsbury helped research and write Example 16.5 in Chapter 16 on Samsung.

Finally, we want to thank all of the Kellogg students during the 1996–1997, 1997–1998, and 1998–1999 academic years who took Management and Strategy D31 (Management of Organizations) or Managerial Economics D41 (Competitive Strategy) and thus used the first edition of the book. They faithfully identified typographical and factual errors, while suggesting ideas for new examples. In these and many other ways, they left their mark on the second edition. The origin of this book lay in our desire to develop a challenging, principle-based strategy course for students at Kellogg. As was the case with the first edition, we are pleased to say that our students have had a significant impact on the final product!

David Besanko

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Mark Shanley

Evanston, Illinois January 1999

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Part Four: Internal Organization

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 "patterns 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 deci-

[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.

sions 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 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 (knowledge that we think is virtuous in its own right), and two, by developing a more secure foundation for making good strategic decisions. Having said this, we need to add that this is not intended to be a book of "strategic recipes." The situational complexity of real industries and real firms makes memorizing buzzwords or following fads risky business indeed. The successful application of the concepts and principles that are discussed in this book depends on the institutional, organizational, and economic complexity that occurs when a particular company faces a particular situation. We cannot guarantee that this book will make you a more skillful strategic decision maker. What studying this book can help you do is make much better sense of messy and ambiguous strategic situations, and that is an essential step toward skillful strategic decision making.

◆ ◆ ◆ ◆ ◆ 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 and on how competitive or strategic decisions can be understood as reflecting the biases of individual decision makers. One could study strategy-related questions from an organizational perspective, drawing from either the discipline of sociology, which stresses the role of social structures, peer networks, and organizational routines in determining the decisions made by complex organizations, or political science, which emphasizes the importance of governance structures and coalitions.

There is much to be said for viewing strategy from the perspective of multiple models and multiple disciplinary lenses. But depth of strategic knowledge is as important as breadth of strategic knowledge. In other words, there is much to be gained from detailed application of economics. Deep knowledge of economics permits the formulation of more subtle and powerful hypotheses and the development of richer strategies. Borrowing from concepts to be introduced in this book, we believe that there are deep "economies of scale" that justify a "focus" on economics.

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 taken as "fixed" in the situation at hand? (For example, are the capacity choices of certain firms fixed during one particular firm's planning horizon?)

- *Goals.* What are the decision makers trying to accomplish? Are they profit maximizing? Do they have nonpecuniary interests? How do decision makers trade off these conflicting goals?
- *Choices.* What actions are under consideration? What are the strategic variables? (For example, can manufacturers select different levels of quality or is quality fixed?) 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 there a functional relationship between certain choices, such as price, and certain outcomes, such as market share? (For example, will a firm lose market share if a particular rival lowers its price?) Is the relationship complicated by uncertainty about such factors as taste, technology, or the choices of other decision makers?

While political scientists, sociologists, and psychologists sometimes have to ask the same questions, economic theory is distinctive, we think, in that the answers to these questions are usually specified explicitly 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 that the scholar is making in studying the situation at hand. This leaves what Garth Saloner has called an "audit trail" that allows one to be able to distinguish between unsupported conjectures or claims and logically derived propositions.[4] We will not in general provide detailed audit trails, because this will require countless pages and advanced mathematics. But we will provide the intuition behind each of the propositions that we advance.

The explicit nature of economic models permits the application of economics to a wide variety of problems. Economics has been used to study Supreme Court decisions, suicide, and drug addiction, for example. Moreover, economics offers a wide range of perspectives, from an almost exclusive focus on the interaction of firms within an industry to views of individual interactions within the context of an organization. We believe that this book demonstrates that economics provides significant insights into the major themes of strategy that we describe below.

On the other hand, 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 to gain insight 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 their 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.

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

◆ ◆ ◆ ◆ ◆ THE NEED FOR PRINCIPLES

There is a keen interest among serious observers of business to understand the reasons for profitability and market success. This is understandable, since profit is the fundamental motive for business activity. However, observers of business often uncritically leap to the conclusion that the keys to success can be identified by watching and imitating the behaviors of successful firms. (This is sometimes known as "benchmarking.") A host of management prescriptions by consultants and in the popular business press is buttressed by allusions to the practices of high-performing firms and their managers. These recommendations carry all the more weight if the firms in question, and their industries, are new. The examples of biotechnology firms, such as Amgen, and software firms, such as Yahoo, easily come to mind.

However, uncritically using currently successful firms as a standard for action assumes that successful outcomes are associated with identifiable key success factors, and by imitating these factors, other firms can achieve similar successful results. While we do not believe that firms succeed randomly, we are convinced that using a given firm's experiences to understand what would make all firms successful is extremely difficult.

There are several dangers in jumping too quickly to the conclusion that the observable practices of successful firms provide lessons that observers can apply to their own firms. The reasons for success are often unclear, even to the executives of the successful firms, and also are likely to be complex. Many factors may contribute to a firm's performance, including some that are not apparent to observers. For example, the internal management systems of a firm may spur product innovation particularly well and not be apparent to individuals who are unfamiliar with how the firm operates.

The industry and market conditions in which successful firms operate may differ greatly from the conditions faced by would-be imitators. In past merger waves, for example, many firms sought to expand to gain the advantages of scale and market power. Many of these firms found out, to their dismay, that the technological conditions in their industries had to be just right before large firms can gain such advantages. We suspect that the same will occur during the present merger wave. Success may also be due in part to a host of idiosyncratic factors, including luck, 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. For example, one may find that among a sample of 50 successful firms, 35 engaged in aggressive acquisition programs, and from this one might be tempted to conclude that acquisitions are a hallmark of successful firms. However, without studying unsuccessful firms, this conclusion would be invalid. For example, if a well-matched sample of 50 unsuccessful firms revealed that 38 of them also engaged in aggressive acquisition programs, the correct (and possibly uninteresting) conclusion is that acquisition programs are a general characteristic of the 100 firms studied and not a particularly strong determinant of success.

Further biases may emerge from the failure to disentangle cause and effect. Suppose that only 10 of the unsuccessful firms engaged in acquisition programs. There would appear to be a correlation between acquisition activity and success.

But do acquisitions lead to success, or do firms that were successful for reasons that had nothing to do with acquisitions (e.g., they possessed valuable patents) use their cash surpluses to acquire other firms? Without the answer to these questions, one may again be led down a primrose path by mimicking the actions of successful firms.

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. Success or failure will be the result of firms pursuing their goals in a specific way and in a specific business context. The results of a firm's activities will be determined by the principles guiding its actions and how those principles match the conditions the firm faces. A strategy textbook can provide the general principles that underlie strategic decisions. It is not an exhaustive cookbook of uniformly effective recipes for business success. Success depends on the manager who must match principles with conditions.

To see this point, consider the variety that a serious observer of business in the late 1990s who attempted to identify success strategies would face. He or she would encounter a broad range of management practices among firms. Take, for example, three highly regarded and successful firms: Nike, Usiminas, and Wal-Mart.[5] Each of them has a different organizational structure and corporate strategy. Nike performs few of the functions traditionally associated with large industrial firms and instead uses independent contractors for much of its initial production work and to distribute its products. Nike's success is built largely on marketing campaigns involving well-known athletes. 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 Nike, there is an L.A. Gear. 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 until the 1970s 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 (now USX), the first firm in the world to achieve annual sales of $1 billion at the time of its inception in 1901, has greatly declined in relative size and now must rely on selling oil to remain one of the 25 largest U.S. industrial firms. The list of once-admired firms that today are struggling to survive is a long one.

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

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. If this is true, then a manager does not need to systematically study strategy except to track current trends and absorb the advice of management "gurus."

The second interpretation presumes that successful firms succeeded because the strategies their managers chose best allowed them to exploit the potential profit opportunities that existed at the time or to adapt to changing circumstances. We believe in this second interpretation. 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. Throughout this book we identify what we believe are general principles of firm behavior, industry structure, and market performance that are as applicable today as they were at any other time in business history. While these principles do not uniquely explain why firms succeed, they should be the basis for any systematic examination of strategy.

Note that this interpretation does not necessarily imply that the managers of successful firms were conscious of the link between their choices and the profit opportunities that existed. Nor, conversely, does it imply that the failure of a particular strategy or management practice means that the decision to undertake it was inconsistent with principled decision making. What it does imply, it seems to us, is that it should be possible to identify underlying principles of strategy that reveal for us the conditions under which some practices are likely to be more successful than others. If this is so, then the study of strategy is indispensable to the manager who must confront change and uncertainty.

◆◆◆◆◆ 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 between firms in those markets?
- *Position 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.[6] 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. While the relative importance of industry- versus firm-specific effects is still under debate, 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.

Position and Dynamics

Position 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 over the prices charged by the other firms with which it competes? 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 so eloquently 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.

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