When your only tool is a hammer, every problem looks like a nail.

—Abraham Maslow

Preface

PREAMBLE

This book offers conceptual tools of business strategy with descriptions of practical implementations of the theory. It is intended for a general business audience, especially readers with technical training. It is also designed as a text for a course in business strategy that uses examination of cases as the primary teaching method.

Strategy texts tend to be comprehensive, which entails covering much material that is low on useful insights. In contrast, this book focuses on practical strategy—insights that have significant application in real situations. I use actual rather than hypothetical examples when possible.

A first feature of this practical approach is that I cover different material than other strategy books. The selection of material springs from my work in advising companies and evaluating mergers for antitrust purposes. Pricing provides an example. I pay much more attention to pricing than do most traditional texts. Pricing has been neglected in business strategy. Because many business schools devote a separate course to pricing, strategists often ignore it. Marketers tend to focus on increasing demand for one's product, dismissing prices as either a markup on cost or "what the market will bear." Economists tend to think of price as a single variable rather than as a pattern or dynamic array of prices. On the contrary, I believe that pricing ought to be at the core of business strategy rather than an afterthought. In particular, pricing strategies are important determinants of the profitability of R&D, service contracts, warranties, market segmentation, and other strategic choices.

By the same token, I pay greater attention to litigation and antitrust than is common in other books on strategy. The U.S. Department of Justice's suit against Microsoft showed the folly of ignoring the antitrust laws in the design of business strategy. While few companies receive the level of antitrust scrutiny devoted to

Microsoft, even for much smaller enterprises litigation is a common tool for harassing and punishing competitors. I provide an overview of litigation strategies, which is useful if only to defend against unscrupulous competitors.

Another feature of my more practical approach is that I make only a modest effort to describe strategy as a grand, comprehensive, fully integrated plan. Instead I offer a toolkit of strategic concepts adaptable for different purposes in different situations. The problem with grand comprehensive plans is that they need to be designed for specific firms in specific industries. The right business strategy for oil company British Petroleum is very different from the best strategy for chip designer and manufacturer Intel, and both of these differ from the right strategy for retailer Wal-Mart. Even within low-cost retailing, Dollar General has been very successful competing against, or coexisting with, Wal-Mart, in spite of Wal-Mart's reputation for invincibility and destruction of competitors. Dollar General's success is a consequence of its strategy, which is very different from Wal-Mart's. Indeed, a major theme of modern business strategy is that the best strategy for any firm depends on those the firm's rivals adopt, and this best strategy can be very different from the rival's, as imitation is often a guarantee of mediocre profits. Two rival firms such as Wal-Mart and Dollar General, doing very different things, may be following quite distinct optimal strategies.

Vision is critical to the practical formulation of business strategy. Business strategy is a vision of a profitable future and a feasible path to get there. However, profits arise because of the *uniqueness* of the company's vision. A book that promises to provide a single vision, or even three visions, for all firms in all circumstances should be discarded, or should be read only to identify the activities uninspired competitors might choose.

At the very general level, strategy is about complementarity—choices that fit with each other. In contrast to most books about business strategy, this book focuses primarily on the individual elements of strategies. Again, the book is a toolkit, not a bible. My intention is that those reading this book will find valuable insight into the elements of business strategy and how these elements have been used successfully in the past. Combining and applying the elements in new specific situations will often require additional analysis.

A great deal has been written on the merits and problems of using game theory in business strategy.[1] While there are some situations in which other firms can reasonably be viewed as nonstrategic, in most situations several players are strategic—aware of each other and considering how the others will behave, which is precisely the situation that game theory is designed to study. At a general level, game theory involves specifying the actions and returns to all the participants in a situation, and looking for behavior, called equilibrium behavior, which results in each participant maximizing his or her payoff, given the behavior of others. Equilibrium behavior has the advantage that no one can do better, given the behavior of others. Critics of game theory complain that game-theoretic equilibrium concepts are inappropriate and that game theory has no robust predictions. These critics have a point: it is often the case that equilibrium reasoning will be unhelpful to a strategist. Game-theoretic equilibrium reasoning requires that all firms have figured out their own best strategy as well as the best strategy for their opponents, and that these calculations (each firm's beliefs about what a particular firm should do) coincide, so that no firm is surprised when the game is played. Thus, equilibrium reasoning implies that the strategist's job is already accomplished! However, the logic of the "best response"—how a firm should behave, given an expectation of its rivals' behaviors—is an invaluable conceptual tool for the design of strategy. Moreover, the strategic notion of putting oneself in a rival's position is enormously valuable, and comes straight from game-theoretic reasoning.*

An example of the perils of price-cutting illustrates the importance of game-theoretic reasoning. Nonstrategic reasoning (for example, resource-based) suggests that it is valuable to offer a price cut to the customers who purchase from competitors. If it is possible to offer selective price cuts, offer them not to one's own customers but to the customers of rivals, thereby permitting the firm to obtain extra sales without cutting prices to existing customers. While this sounds plausible, in most cases it is a terrible strategy, for it neglects the reaction of rivals. Rivals—losing business—have an incentive to cut prices as well, to try to preserve their customer base. The consequence is fierce price competition, which can easily spill over to the firms' existing customers and decrease prices for all. Instead, consider the strategy of setting an increase in price for a rival's customers, which can be accomplished by making a general price increase combined with a discount to existing customers that leaves the prices to existing customers unchanged. Such a pricing scheme makes the firm less of a competitive threat to its rivals, inducing the rivals to respond with a price increase. All of the firms make more money.[2] In other words, because of strategic effects, a price increase to potential customers who are not current customers can increase the firm's profits by a general softening of price competition. This situation is a powerful example of game-theoretic reasoning getting the right answer where other approaches fail.

I have attempted to avoid mathematics wherever possible, but there are a

*Of course, the Native American aphorism, "Never criticize a man until you've walked a mile in his moccasins," predates game theory but was not employed to deduce behavior but rather to induce empathy. A game theorist's perspective on the subject, in contrast, is, "Before you criticize a man, walk a mile in his shoes. That way, when you do criticize him, you'll be a mile away and have his shoes." This led Robert Byrne to counter, "Until you walk a mile in another man's moccasins, you can't imagine the smell."

couple of topics where moderately sophisticated mathematics is intrinsic to the topic. One such topic is yield management, which is a sophisticated, dynamic pricing scheme. A second example is asset pricing and valuation, and the capital asset pricing model (CAPM) theory. Because both of these examples are quite sophisticated, some mathematics is essential to communicate their functioning and basis. Ultimately, both yield management and CAPM are formulas. These formulas have proved to be extraordinarily valuable—CAPM guides trillions of dollars of investments while yield management has increased airline and hotel revenues by billions of dollars. In addition, I offer a chapter on statistics, another mathematical field. There are many issues associated with uncertainty in strategy—options, competing against a rival with unknown resources, uncertainty about the future—and an understanding of probability and statistics is valuable for a full understanding of these subjects. Moreover, there are some common statistical mistakes associated with seeing patterns that do not actually exist, and an understanding of statistics can mitigate such common errors.

CONTENTS

This book starts with an application—America Online. AOL serves as a multifaceted example of many of the tools developed within the book. Chapter 2 presents a broad overview—as if from an orbital satellite—of industry analysis. I relate characteristics of industries to their profitability and to the appropriate "big picture" strategies for those industries. Appropriate business strategies associated with industry analysis are further explored in chapter 3. These include the well-known value and cost strategies—up-market or mass-market positioning—but also include accommodation and dissuasion, which involve positioning for cooperation or for a price war. An important issue in the development of a firm's strategy involves the way the firm handles mistakes.

One of the key firm-level strategies involves differentiation—the creation of uniqueness—so we take a closer look at differentiation in chapter 4. Basic strategy for differentiation involves creation of synergies and patent strategy. Strategy for dynamic differentiation is developed in chapter 5, on the product life cycle. Many academic strategists have pooh-poohed the product life cycle, thereby missing important insights associated with positioning for changes that are destined to come. For example, durable goods such as computers are generally subject to a much harsher saturation than nondurables such as writable compact discs, hence confirming the continuing importance of the product life cycle.

Chapter 6 explores cooperation, both between firms in different industries and between firms in the same industry. Cooperation is often the difference between profitability and chronic losses. The techniques for sustaining cooperation involve identifying a shared interest, punishing misbehavior, and recovering from mistakes. These techniques are important for setting product standards, lobbying the government for favorable legislation, avoiding negative advertisements, and many other aspects of corporate existence.

Next, I turn to the design and scope of the organization as an element both of strategy and of profitability. For example, vertical integration facilitates surviving price wars by reducing marginal costs. What is within the scope of the organization—for example, whether to make a product or to buy it—is considered in chapter 7, while the methods of how to motivate employees (and nonemployees who provide services for a company) are explored in chapter 8. The major theme of chapter 7 is the costs of internal production, which must be compared to market prices. A major theme of chapter 8 is the unintended consequences of incentives—strong incentives in one aspect of a job can have significant and often undesirable effects on performance of other duties.

Antitrust enforcement has a powerful effect on corporate activity. Not only do federal and state antitrust laws restrict the firm's set of legal activities, often in somewhat mysterious or unpredictable ways, but private antitrust suits are a common and potentially devastating means of harassing competitors. An understanding of antitrust laws is critical for survival in modern business. Chapter 9 sets out some of the principles and concepts of antitrust at a general level. Chapter 9 is not intended to replace the company's general counsel but rather to insure that executives and managers are aware of the law, so that they do not say, "Cut off the competition's air supply," or call up a rival CEO at home and suggest a price increase.

Probability and statistics are often unpopular topics because they are technical and challenging. However, these topics are of increasing importance to business strategy, and thus chapter 10 provides an overview of statistics for business. This chapter presents some basic ideas and then explores major fallacies. Most people consistently see patterns where there are none, and this psychological misunderstanding of basic statistics accounts for errors ranging from chartism in the stock market to belief in the canals of Mars.

Chapter 11 presents the strategy of pricing. The goal is to charge each person what he or she is willing to pay, which is known as price discrimination or value-based pricing. Pricing is at the heart of profitability because prices determine revenue. Moreover, pricing has important effects on competitors and thus is critical to strategy: pricing and business strategy cannot be formulated separately. The branch of pricing involving auctions is increasingly important, and chapter 12 is devoted to bidding strategy and the design of auctions by sellers.

The way companies respond to crises, the nature of their offices, even the style of clothes executives wear, communicate a great deal about the way the company does business. Because people care about the way a company does business—Does it clean up its mistakes? Does it exploit short-term advantages?—a great deal may be read into ostensibly small behaviors. Such signaling is the subject of chapter 13.

Chapter 14 examines a theory of bargaining, and then illustrates how this theory can be used to toughen a bargaining position. An important scenario in bargaining is the war of attrition or "winner take all" competition. The last chapter of the book provides some concluding remarks.

WHAT IS STRATEGY?

Strategy is the way in which decisions are made. The origin of the term is a Greek word for "military commander," which comes from *stratós,* the army, and *egós,* to lead. The use of the word has broadened from its original military usage, where it meant long-range planning and methods for directing military operations. In military usage, strategy is used both in wartime and in peacetime. Having sufficient force to deter an attack is part of peacetime military strategy, for example. In contrast, tactics are used only during wartime. Business strategy involves the same long-range planning designed to achieve desired goals. As in military strategy, opponents are a major focus of business strategy, those who, in the current jargon, would like to "eat your lunch." As in military situations, firms have allies, who share substantial common interests. Finally, there are usually many neutrals in both military and business situations.

Some of the variables that firms can use strategically are provided in the following list.

Some of the Strategic Variables Chosen by Firms

Product Features and Quality	Vertical Integration
Targeting of Customers	Cost Reduction Focus
Product Line	Service Provision
Product Standardization	Warranties
Technological Leadership	Input Pricing
Research and Development	Financial Leverage and Debt
Product Marketing and Positioning	Government Relations
Market Development and Education	Types of Corporate Divisions
Provision of Complementary Goods	Flow of Internal Communications
Brand Identification	Accounting System
Geographic Markets	Delegation of Decision Making
Distribution Channels	"Build to Order" or Inventory
Product Pricing	Inventory Levels

Not all of these entries represent choices for all firms. For example, warranties may be impossible to provide for some services, such as legal services,* and some firms, such as a coal supplier, may have little ability to influence product quality.

Often firms choose a strategy by setting a goal, such as "40% market share in five years," or "technological leadership of the industry." There are two major problems with the goal-oriented approach. First, until the means of reaching goals are considered, the profitability of various strategic choices is unclear. For example, most General Motors divisions produced mediocre cars during the 1980s. These cars embodied little new technology and did not command a premium price. Was this a bad strategy? It did not enhance GM's market share, nor did it establish GM as a technological leader. However, the GM cars were profitable because there was only a modest investment in them. Moreover, massive R&D expenditures do not seem to have been profitable for GM. In an analogous situation, by 1990 it appeared that Nissan/Infiniti had dropped out of a technology race with Toyota/Lexus, ceding the position of "most technologically advanced Japanese car manufacturer" to Toyota (although recently Nissan has shown signs of reentering the race). Dropping out of the race is not necessarily a mistake; sometimes the less glamorous position is the more profitable.

The second problem with the goal-oriented approach to setting firm strategies is that competitors rarely stand still. Predicting the response of competitors is clearly a crucial aspect of the design of a business strategy, and goals should not be formulated in a vacuum.

For businesses, strategy is usually aimed at creating and sustaining high profits. High profits tend to encourage entry into the field by competitors, which erodes the high profits. A necessary requirement for sustaining high profits is some method or reason for blocking entry. Thus, strategic analysis is often focused on means of deterring or deflecting entry of, and expansion by, competitors.

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*The attorney who offers the warranty, "If you are convicted with my representation, I'll appeal for free," is as successful as the parachute manufacturer who offers a money-back guarantee.

I have learned a great deal from existing work. Especially notable are Paul Milgrom and John Roberts's *Economics, Organization and Management,* John McMillan's *Games, Strategies, and Managers,* and Adam Brandenburger and Barry Nalebuff's *Co-opetition.* All three are strongly recommended for students of business strategy, whether in class or in the real world. Thomas Schelling's brilliant 1960 book, *The Strategy of Conflict,* remains an invaluable resource for a strategist. The origins of business strategy can be traced to Schelling's analysis of national strategy, which in turn can be traced to John von Neumann and Oskar Morgenstern's 1944 mathematical treatise, *The Theory of Games and Economic Behavior.* Many of the insights brought together here come from other books and articles, and I have provided extensive references.

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