COMPETITIVE STRATEGY

TECHNIQUES FOR ANALYZING INDUSTRIES AND COMPETITORS

with a new introduction

Michael E. Porter

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Techniques for Analyzing Industries and Competitors

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Introduction

When *Competitive Strategy* was first published eighteen years ago, I hoped that it would have an impact. There were reasons to hope, because the book rested on a body of research that had stood the test of peer review, and the draft chapters had survived the scrutiny of my MBA and executive students.

The reception of the book and the role it has played in launching a new field, however, exceeded my most optimistic expectations. Most business school students around the world are exposed to the ideas in the book, invariably in core courses on policy or strategy, but often in specialized elective courses on competitive strategy and also in fields such as economics, marketing, technology management, and information systems. Practitioners in both large and small companies have internalized the ideas, as I learn from numerous thoughtful letters, personal conversations, and now E-mails. Most strategic consultants use the ideas in the book, and entire firms have emerged to assist companies in employing them. Budding financial analysts must read the book prior to certification.

Competitive strategy, and its core disciplines of industry analysis, competitor analysis, and strategic positioning, are now an accepted part of management practice. That a large number of thoughtful practitioners have embraced the book as a powerful tool has fulfilled a career-long desire to influence what happens in the real world.

Competitive strategy has also become an academic field in its own right. Now rich with its own competing ideas, this field is prominent among management researchers. It has also become a thriving area of inquiry among economists. The extent and vitality of the body of literature that traces in some way from the book, whether pro or con, is enormously gratifying. The number of outstanding scholars who are working in this field—some of whom I have had the privilege of teaching, mentoring, and writing with—has fulfilled my central aspiration of influencing the path of knowledge.

The re-issue of Competitive Strategy has led me to ponder the reasons for the book's impact. They are clearer to me now with the passage of time. Competition has always been central to the agenda of companies, but it certainly did not hurt that the book came at a time when companies all over the world were struggling to cope with growing competition. Indeed, competition has become one of the enduring themes of our time. The rising intensity of competition has continued until this day, and spread to more and more countries. Translations of the book in mainland China (1997) or into Czech, Slovak, Hungarian, Polish, or Ukrainian would have been unthinkable in 1980.

The book filled a void in management thinking. After several decades of development, the role of general managers versus specialists was becoming better defined. Strategic planning had become widely accepted as the important task of charting a long-term direction for an enterprise. Early thinkers in the field such as Kenneth Andrews and C. Roland Christensen had raised some important questions in developing a strategy, as I note in Competitive Strategy's original introduction. Yet there were no systematic, rigorous tools for answering these questions—assessing a company's industry, understanding competitors, and choosing a competitive position. Some newly founded strategy consulting firms had moved to fill this void, but the ideas they put forward, such as the experience curve, rested on a single presumed basis of competition and a single type of strategy.

Competitive Strategy offered a rich framework for understanding the underlying forces of competition in industries, captured in the "five forces." The framework reveals the important differences among industries, how industries evolve, and helps companies find a unique position. *Competitive Strategy* provided tools for capturing the richness and heterogeneity of industries and companies while providing a disciplined structure for examining them. The book also brought structure to the concept of competitive advantage through defining it in terms of cost and differentiation, and linking it directly to profitability. Managers looking for concrete ways to tackle strategic planning's difficult questions quickly embraced the book, which rang true to practitioners.

The book also signaled a new direction and provided an impetus for economic thinking. The economic theory of competition at the time was highly stylized. Economists focused mainly on industries; companies were presumed equal or differing primarily in size or in unexplained differences in efficiency. The prevailing view of industry structure encompassed seller concentration and a few sources of barriers to entry. Managers were all but absent in economic models, with virtually no latitude to affect competitive outcomes. Economists were concerned mainly with the societal and public policy consequences of alternative industry structures and patterns of competition. The aim was to push "excess" profits down. Few economists had ever even considered the question of what the nature of competition implied for company behavior, or how to push profits up. Moreover, economists also lacked the tools to model competition among small numbers of firms whose behavior affected each other. *Competitive Strategy* identified a range of phenomena that economists, armed with new game-theoretic techniques, have begun to explore mathematically for the first time.

My training and assignments—first an MBA, then an economics PhD, then the unique Harvard Business School challenge of using the case method to teach practitioners—revealed the gap between actual competition and the stylized models. They also created a sense of urgency to develop tools that would inform actual choices in real markets. With rich industry and company knowledge from many case studies, I was able to offer a more sophisticated view of industry competition and bring some structure to the question of how a firm could outperform its rivals. Industry structure involved five forces, not two. Competitive positions could be thought of in terms of cost, differentiation, and scope. In my theory, managers had important latitude to influence industry structure and to position the company relative to others.

Market signaling, switching costs, barriers to exit, cost versus differentiation, and broad versus focused strategies were just some of the new concepts explored in the book that proved to be fertile avenues for research, including the use of game theory. My approach helped open up new territory for economists to explore, and offered economists in business schools a way of moving beyond the teaching of standard economic concepts and models. ***Competitive Strategy*** has not only been widely used in teaching but has motivated and served as a starting point in other efforts to bring economic thinking to bear on practice.[1]

What has changed since the book was published? In some ways, everything has changed. New technologies, new management tools, new growth industries, and new government policies have appeared and reappeared. But in another sense, nothing has changed. The book provides an underlying framework for examining competition that transcends industries, particular technologies, or management approaches. It applies to high-tech, low-tech, and service industries. The advent of the Internet can alter barriers to entry, reshape buyer power, or drive new patterns of substitution, for example, yet the underlying forces of industry competition stay the same. Industry changes make the ideas in the book even more important, because of the need to rethink industry structure and boundaries. While 1990s companies may look very different than 1980s companies or 1970s companies, superior profitability within an industry still rests on relative cost and differentiation. One may believe that faster cycle time or total quality hold the key to competing, but the acid test comes in how these practices affect industry rivalry, a company's relative cost position, or its ability to differentiate itself and command a price premium.

The ideas in the book have endured for the very reason that they addressed the underlying fundamentals of competition in a way that is independent of the specifics of the ways companies go about competing. A number of other books on competition have come and gone because they were really about special cases, or were grounded not in the principles of competitive strategy but in particular competitive practices. That is not to say that ***Competitive Strategy*** is the last word on the subject. Quite the contrary, and there is much im-

[1] Notable examples include S. Oster, ***Modem Competitive Analysis,*** Second Edition, Oxford University Press, 1994; A. Dixit and B. Nalebuff, ***Thinking Strategically: The Competitive Edge in Business, Politics, and Everyday Life,*** W. W. Norton & Company, New York, 1991; and D. Besanko, D. Dranove; and M. Shanley, ***The Economics of Strategy,*** Northwestern University, 1996.

portant thinking that has advanced knowledge, and more will follow. *Competitive* Strategy remains, however, an enduring foundation and grounding point for thinking about industry competition and positioning within industries to which other ideas can be added and integrated.

What would I modify or change? This is a challenging question for any author to answer objectively. Competitive Strategy could clearly be enriched in the form of new examples, in both old and new industries. The concepts are just as powerful in services as in products, and more service examples could be added. The frameworks have been applied in virtually all significant countries, and an internationalization of the examples would be very much in order. While the industries, companies, and countries change, however, the power of the concepts is enduring.

On the level of ideas, I can honestly say that there is nothing yet that I am persuaded to retract. This does not mean that we have not pushed learning further. Various parts of the framework have been tested, challenged, deepened, and importantly extended by others, mostly academics. It is a source of pride, and some discomfort, that Competitive Strategy has so often been a foil for other authors. It is impossible here to do justice to this literature, which offers much new insight. The supplier side has been fleshed out, for example, as has our understanding of the theoretical underpinnings of barriers to entry. Also, while firms inevitably have a bargaining relationship with suppliers and buyers, firms can enhance total value to be divided by working cooperatively with buyers, suppliers, and producers of complementary products. This was developed in my later book Competitive Advantage, and in subsequent literature.[2] Finally, empirical work has verified many of Competitive Strategy's propositions.

Competitive Strategy has certainly stirred its share of controversy. Some of it involves misunderstandings, and suggests areas where the presentation could be clearer. For example, some have criticized the book for implying a static framework in a world that is rapidly changing. Nothing static was ever intended. Each part of the framework—industry analysis, competitor analysis, competitive positioning—stresses conditions that are subject to change. Indeed, the frameworks reveal the dimensions of change that will be the most significant. Much of the book is about how to understand and deal

[2] The most important single contribution is A. Brandenburger and B. Nalebuff. *Co-opetition*, Currency/Doubleday, New York, 1996.

with change: e.g., industry evolution (Chapter 8); emerging industries (Chapter 10); dealing with industry maturity (Chapter 11); declining industries (Chapter 12); and globalization (Chapter 13). Companies can never stop learning about their industry, their rivals, or ways to improve or modify their competitive position.

Another misunderstanding revolves around the need to choose between low cost and differentiation. My position is that being the lowest cost producer and being truly differentiated and commanding a price premium are rarely compatible. Successful strategies require choice or they can be easily imitated. Becoming "stuck in the middle"—the phrase I introduced—is a recipe for disaster. Sometimes companies such as Microsoft get so far ahead that they seem to avoid the need for strategic choices, but this becomes their ultimate vulnerability.

This never meant companies could ignore cost in the pursuit of differentiation, or ignore differentiation in the pursuit of lowest cost. Nor should companies forgo improvements in one dimension that involve no sacrifice in the other. Finally, a lowest-cost or differentiated position, whether broad or focused, involves constant improvement. A strategic position is a path, not a fixed location. I have recently introduced the distinction between operational effectiveness and strategic position that helps to clarify some of this confusion.[3]

Other controversies raised by the book, however, reflect real differences of opinion. A school of thought has emerged which argues that industries are not important to strategy, because industry structure and boundaries are said to change so rapidly or because profitability is seen as dominated by individual firm position. I have always argued that *both* industry and position are important, and that ignoring either one exposes a firm to peril. Industry differences in average profitability are large and enduring. Recent statistical evidence confirms the importance of industry in explaining both firm profitability and stock market performance, and finds that industry differences are remarkably stable even in the 1990s.[4] It also suggests that industry attributes are important in explaining the dispersion of

[3] M. E. Porter, "What is Strategy?," ***Harvard Business Review,*** November-December ***1996.***

[4] In assessing the statistical evidence, it is important also to note that the relative contribution of industry in explaining profitability is biased downward by overly broad SIC code industry definitions, overly broad line of business definitions in financial reporting, and the fact that partitioning of variance techniques artificially diminishes the measured contribution of industry. See A. McGahan and M.E. Porter, "What Do We Know About Variance in Accounting Profitability?," Harvard Business School manuscript, August 1997.

profitability within industries.[5] It is hard to concoct a logic in which the nature of the arena in which firms compete would not be important to performance outcomes.

Industry structure, embodied in the five competitive forces, provides a way to think about how value is created and divided among existing and potential industry participants. It highlights the fact that competition is more than just rivalry with existing competitors. While there can be ambiguity about where to draw industry boundaries, one of the five forces always captures the essential issues in the division of value. Some have argued for the addition of a sixth force, most often government or technology. I remain convinced that the roles of government or technology cannot be understood in isolation, but through the five forces.

Another school of thought asserts that factor market (input) conditions take primacy over industry competition in determining company performance. Again, there is no empirical evidence to weigh against the considerable evidence about the role of industry, and supplier conditions are part of industry structure. While resources, capabilities, or other attributes related to input markets have a place in understanding the dynamics of competition, attempting to disconnect them from industry competition and the unique positions that firms occupy vis-à-vis rivals is fraught with danger. The value of resources and capabilities is inextricably bound with strategy. No matter how much we learn about what goes on inside firms, then, understanding industries and competitors will continue to be essential to guide what firms should aim to do.

Finally, in recent years there have been some who argue that firms should not choose competitive positions at all but concentrate on, variously, staying flexible, incorporating new ideas, or building up critical resources or core competencies that are portrayed as independent of competitive position.

I respectfully disagree. Staying flexible in strategic terms renders competitive advantage almost unobtainable. Jumping from

[5] See also A. McGahan and M.E. Porter, "How Much Does Industry Matter, Really?," ***Strategic Management Journal,*** July 1997, pp. 15–30; A. McGahan and M.E. Porter, "The Persistence of Shocks to Profitability," Harvard Business School working paper, January 1997; A. McGahan and M.E. Porter, "The Emergence and Sustainability of Abnormal Profits," Harvard Business School working paper, May 1997; A. McGahan, "The Influence of Competitive Positioning on Corporate Performance," Harvard Business School working paper, May 1997; and J.W. Rivkin, "Reconcilable Differences: The Relationship Between Industry Conditions and Firm Effects," unpublished working paper, Harvard Business School, 1997.

strategy to strategy makes it impossible to be good at implementing any of them. Continuous incorporation of new ideas is important to maintaining operational effectiveness. But this is surely not at all inconsistent with having a consistent strategic position.

Concentrating only on resources/competencies and ignoring competitive position runs the risk of becoming inward looking. Resources or competencies are most valuable for a particular position or way of competing, not in and of themselves. While the resource/competency perspective can be useful, it does not diminish the crucial need in a particular business to understand industry structure and competitive position. Again, the need to connect competitive ends (a company's position in the marketplace) and means (what elements allow it to attain that position) is not just crucial but essential.

Competitive Strategy was written at a different time, and spawned not only extensions but competing perspectives. Yet in a curious way, appreciation of the importance of strategy is growing today. Preoccupation with issues internal to companies over the last decade had limits that are becoming apparent, and there is a renewed awareness of the importance of strategy. With greater perspective and less youthful enthusiasm, I hope we can now see, more clearly than ever, the place of competitive strategy in the broader palette of management, and develop a renewed appreciation for an integrated view of competition.

Michael E. Porter
Brookline, Massachusetts
January 1998

Preface

This book, which marks an important place in an intellectual journey that I have been on for much of my professional life, grows out of my research and teaching in industrial organization economics and in competitive strategy. Competitive strategy is an area of primary concern to managers, depending critically on a subtle understanding of industries and competitors. Yet the strategy field has offered few analytical techniques for gaining this understanding, and those that have emerged lack breadth and comprehensiveness. Conversely, since economists have long studied industry structure, but mostly from a public policy perspective, economic research has not addressed itself to the concerns of business managers.

As one teaching and writing in both business strategy and industrial economics, my work at the Harvard Business School over the past decade has sought to help bridge this gap. The genesis of this book was in my research on industrial economics, which began with my doctoral dissertation and has continued since. The book became a fact as I prepared material to use in the Business Policy course at the school in 1975 and as I developed a course called Industry and Competitive Analysis and taught it to MBA and executive students over the last several years. I not only drew on statistically based scholarly research in the traditional sense but also on studies of hundreds of industries that have been the result of preparation of teaching materials, my own research, supervision of dozens of industry studies by teams of MBA students, and my work with U.S. and international companies.

This book is written for practitioners who need to develop strategy for a particular business and for scholars trying to understand competition better. It is also directed at others who want to understand their industry and competitors. Competitive analysis is important not only in the formulation of business strategy but also in corporate finance, marketing, security analysis, and many other areas of business. I hope that the book will offer valuable insight to practitioners in many different functions and at many organizational levels.

It is also hoped that the book will contribute to the development of sound public policy toward competition. ***Competitive Strategy*** examines the way in which a firm can compete more effectively to strengthen its market position. Any such strategy must occur in the context of rules of the game for socially desirable competitive behavior, established by ethical standards and through public policy. The rules of the game cannot achieve their intended effect unless they anticipate correctly how businesses respond strategically to competitive threats and opportunities.

I have had considerable help and support in making this book a reality. The Harvard Business School lent a unique setting in which to do this research, and Deans Lawrence Fouraker and John McArthur have provided useful comments, institutional support, and, most importantly, encouragement right from the beginning. The Division of Research at the School extended much of the financial support for the study, in addition to support from the General Electric Foundation. Richard Rosenbloom, as Director of the Division of Research, has been not only a patient investor but also a valued source of commentary and advice.

The study would not have been possible without the efforts of a highly talented and dedicated group of research associates who have worked with me over the last five years in conducting industry research and preparing case material. Jessie Bourneuf, Steven J. Roth, Margaret Lawrence, and Neal Bhadkamkar—all MBA's from Harvard—have each spent at least one year working with me full time on the study.

I have also benefited very much from research by a number of my doctoral students in the area of competitive strategy. Kathryn Harrigan's work on declining industries was a major contribution to Chapter 12. Work by Joseph D'Cruz, Nitin Mehta, Peter Patch, and

George Yip has also enriched my appreciation of important topics covered in the book.

My colleagues at Harvard and associates in outside firms have played a central role in developing the book. Research that I co-authored with Richard Caves, a valued friend and colleague, made an important intellectual contribution to the book; he has also commented perceptively on the entire manuscript. Members of the Business Policy faculty at Harvard, particularly Malcolm Salter and Joseph Bower, helped me to sharpen my thinking and offered valued support. Catherine Hayden, Vice President of Strategic Planning Associates, Inc. has been a continued source of ideas, besides commenting on the entire manuscript. Joint research and innumerable discussions with Michael Spence increased my understanding of strategy. Richard Meyer has taught my course in Industry and Competitive Analysis with me, and stimulated my thinking in many areas. Mark Fuller was of assistance through his work with me on case development and industry studies. Thomas Hout, Eileen Rudden, and Eric Vogt—all of the Boston Consulting Group—contributed to Chapter 13. Others who have offered encouragement and useful comments on the manuscript in its various stages include Professors John Lintner, C. Roland Christensen, Kenneth Andrews, Robert Buzzell, and Norman Berg; as well as John Nils Hanson (Gould Corporation), John Forbus (McKinsey and Company), and my editor Robert Wallace.

I also owe a great debt to Emily Feudo and particularly Sheila Barry, both of whom managed the production of the manuscript and added to my peace of mind and productivity as I worked on this study. Finally, I would like to thank my students in Industry and Competitive Analysis, Business Policy, and Field Studies in Industry Analysis courses for their patience in serving as the guinea pigs while trying out the concepts in this book, but more importantly for their enthusiasm in working with the ideas and helping me clarify my thinking in innumerable ways.

Introduction, 1980

Every firm competing in an industry has a competitive strategy, whether explicit or implicit. This strategy may have been developed explicitly through a planning process or it may have evolved implicitly through the activities of the various functional departments of the firm. Left to its own devices, each functional department will inevitably pursue approaches dictated by its professional orientation and the incentives of those in charge. However, the sum of these departmental approaches rarely equals the best strategy.

The emphasis being placed on strategic planning today in firms in the United States and abroad reflects the proposition that there are significant benefits to gain through an explicit process of formulating strategy, to insure that at least the policies (if not the actions) of functional departments are coordinated and directed at some common set of goals. Increased attention to formal strategic planning has highlighted questions that have long been of concern to managers: What is driving competition in my industry or in industries I am thinking of entering? What actions are competitors likely to take, and what is the best way to respond? How will my industry evolve? How can the firm be best positioned to compete in the long run?

Yet most of the emphasis in formal strategic planning processes has been on asking these questions in an organized and disciplined way rather than on answering them. Those techniques that have been advanced for answering the questions, often by consulting firms, either address the diversified company rather than the industry perspective or consider only one aspect of industry structure, like the behavior of costs, that cannot hope to capture the richness and complexity of industry competition.

This book presents a comprehensive framework of analytical techniques to help a firm analyze its industry as a whole and predict the industry's future evolution, to understand its competitors and its own position, and to translate this analysis into a competitive strategy for a particular business. The book is organized into three parts. Part I presents a general framework for analyzing the structure of an industry and its competitors. The underpinning of this framework is the analysis of the five competitive forces acting on an industry and their strategic implications. Part I builds on this framework to present techniques for the analysis of competitors, buyers, and suppliers; techniques for reading market signals; game theoretic concepts for making and responding to competitive moves; an approach to mapping strategic groups in an industry and explaining differences in their performance; and a framework for predicting industry evolution.

Part II shows how the analytical framework described in Part I can be used to develop competitive strategy in particular important types of industry environments. These differing environments reflect fundamental differences in industry concentration, state of maturity, and exposure to international competition. These differing environments are crucial in determining the strategic context in which a business competes, the strategic alternatives available, and the common strategic errors. Part II examines fragmented industries, emerging industries, the transition to industry maturity, declining industries, and global industries.

Part III of the book completes the analytical framework by systematically examining the important types of strategic decisions that confront firms in competing in a single industry: vertical integration, major capacity expansion, and entry into new businesses. (Divestment is considered in detail in Chapter 12 in Part II.) The analysis of each strategic decision draws on application of the general analytical tools of Part I as well as on other economic theory and on administrative considerations in managing and motivating an organization. Part III is designed not only to help a company make these key decisions but also to give it insight into how its competitors, customers, suppliers, and potential entrants might make them.

To analyze competitive strategy for a particular business, the reader can draw on the book in a number of ways. First, the general analytical tools of Part I can be utilized. Second, the chapter or chapters from Part II that bear on the key dimensions of the firm's industry can be used to provide some more specific guidance for strategy formulation in the business's particular environment. Finally, if the business is considering a particular decision, the reader can refer to the appropriate chapter in Part III. Even if a particular decision is not imminent, Part III will usually be helpful in reviewing decisions that have already been made and in examining the past and present decisions of competitors.

Whereas the reader can dip into a particular chapter, a great deal is gained by having a working understanding of the entire framework as a starting point for attacking a particular strategic problem. The parts of the book are meant to enrich and reinforce each other. Sections seemingly not important to the firm's own position may well be crucial in looking at competitors, and the broad industry circumstances or the strategic decision currently on the table may change. Reading the full book may appear formidable, but the effort will be rewarded in terms of the speed and clarity with which a strategic situation can then be assessed and a competitive strategy developed.

It will soon be apparent from reading the book that a comprehensive analysis of an industry and its competitors requires a great deal of data, some of it subtle and difficult to obtain. The book aims to provide the reader with a framework for deciding what data is particularly crucial, and how it can be analyzed. Reflecting the practical problems of doing such an analysis, however, Appendix B provides an organized approach to actually conducting an industry study, including sources of field and published data as well as guidance in field interviewing.

This book is written for practitioners, that is, managers seeking to improve the performance of their businesses, advisors to managers, teachers of management, security analysts or other observers trying to understand and forecast business success or failure, or government officials seeking to understand competition in order to formulate public policy. The book is drawn from my research in industrial economics and business strategy and my teaching experience in the MBA and executive programs at the Harvard Business School. It draws upon detailed studies of hundreds of industries with all varieties of structures and at widely differing states of maturity. The book is not written from the viewpoint of the scholar or in the style of my more academically oriented work, but it is hoped that scholars will nevertheless be interested in the conceptual approach, the extensions to the theory of industrial organization, and the many case examples.

Review: The Classic Approach to Formulation of Strategy

Essentially, developing a competitive strategy is developing a broad formula for how a business is going to compete, what its goals should be, and what policies will be needed to carry out those goals. To serve as a common starting point for the reader before plunging into the analytical framework of this book, this section will review a classic approach to strategy formulation[1] that has become a standard in the field. Figures I-1 and I-2 illustrate this approach.

Figure I-1 illustrates that competitive strategy is a combination of the ***ends*** (goals) for which the firm is striving and the ***means*** (policies) by which it is seeking to get there. Different firms have different words for some of the concepts illustrated. For example, some firms use terms like "mission" or "objective" instead of "goals," and some firms use "tactics" instead of "operating" or "functional policies." Yet the essential notion of strategy is captured in the distinction between ends and means.

Figure 1-1, which can be called the "Wheel of Competitive Strategy," is a device for articulating the key aspects of a firm's competitive strategy on a single page. In the hub of the wheel are the

[1]This section draws heavily on work by Andrews, Christensen, and others in the Policy group at the Harvard Business School. For a more complete articulation of the concept of strategy see Andrews (1971); and more recently Christensen, Andrews, and Bower (1977). These classic accounts also discuss the reasons why explicit strategy is important in a company, as well as the relationship between strategy formulation and the broader role and functions of general management. Planning strategy is far from the only thing that general management does or should do.

FIGURE I-1. The Wheel of Competitive Strategy

firm's goals, which are its broad definition of how it wants to compete and its specific economic and noneconomic objectives. The spokes of the wheel are the key operating policies with which the firm is seeking to achieve these goals. Under each heading on the wheel a succinct statement of the key operating policies in that functional area should be derived from the company's activities. Depending on the nature of the business, management can be more or less specific in articulating these key operating policies; once they are specified, the concept of strategy can be used to guide the overall behavior of the firm. Like a wheel, the spokes (policies) must radiate from and reflect the hub (goals), and the spokes must be connected with each other or the wheel will not roll.

Figure I-2 illustrates that at the broadest level formulating competitive strategy involves the consideration of four key factors that

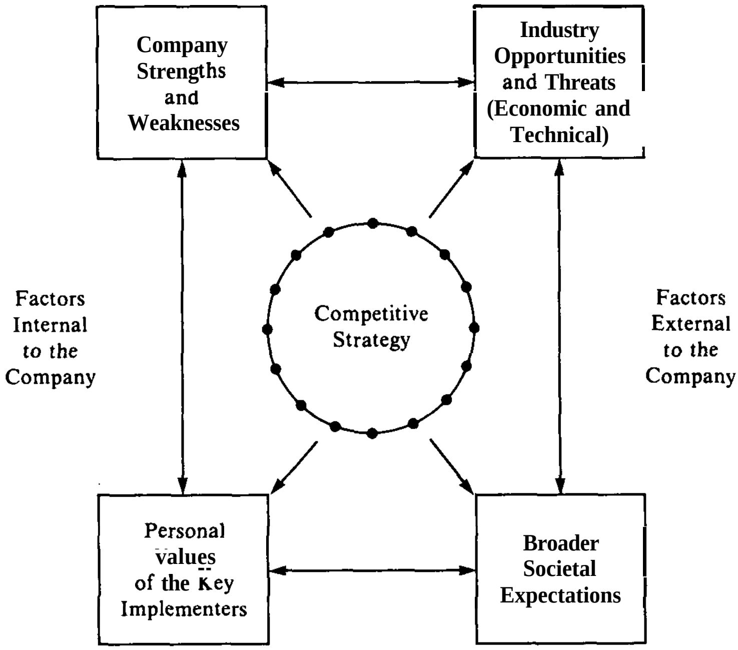

FIGURE I-2. Context in Which Competitive Strategy Is Formulated

determine the limits of what a company can successfully accomplish. The company's strengths and weaknesses are its profile of assets and skills relative to competitors, including financial resources, technological posture, brand identification, and so on. The personal values of an organization are the motivations and needs of the key executives and other personnel who must implement the chosen strategy. Strengths and weaknesses combined with values determine the internal (to the company) limits to the competitive strategy a company can successfully adopt.

The external limits are determined by its industry and broader environment. Industry opportunities and threats define the competitive environment, with its attendant risks and potential rewards. Societal expectations reflect the impact on the company of such things as government policy, social concerns, evolving mores, and many others. These four factors must be considered before a business can develop a realistic and implementable set of goals and policies.

The appropriateness of a competitive strategy can be determined by testing the proposed goals and policies for consistency, as shown in Figure I-3.

FIGURE I-3 Tests of Consistency[a]

Internal Consistency

Are the goals mutually achievable?

Do the key operating policies address the goals?

Do the key operating policies reinforce each other?

Environmental Fit

Do the goals and policies exploit industry opportunities?

Do the goals and policies deal with industry threats (including the risk of competitive response) to the degree possible with available resources?

Does the timing of the goals and policies reflect the ability of the environment to absorb the actions?

Are the goals and policies responsive to broader societal concerns?

Resource Fit

Do the goals and policies match the resources available to the company relative to competitors?

Does the timing of the goals and policies reflect the organization's ability to change?

Communication and Implementation

Are the goals well understood by the key implementers?

Is there enough congruence between the goals and policies and the values of the key implementers to insure commitment?

Is there sufficient managerial capability to allow for effective implementation?

[a]These questions are a modified version of those developed in Andrews (1971).

These broad considerations in an effective competitive strategy can be translated into a generalized approach to the formulation of strategy. The outline of questions in Figure I-4 gives such an approach to developing the optimal competitive strategy.

FIGURE I-4 Process for Formulating a Competitive Strategy

A. What is the Business Doing Now?

1. Identification
   What is the implicit or explicit current strategy?
2. Implied Assumptions*
   What assumptions about the company's relative position, strengths and weaknesses, competitors, and industry trends must be made for the current strategy to make sense?

*Given the premise that managers honestly try to optimize the performance of their businesses, the current strategy being followed by a business must reflect assumptions management is making about its industry and the business's relative position in the industry. Understanding and

B. What is Happening in the Environment?

1. Industry Analysis
   What are the key factors for competitive success and the important industry opportunities and threats?
2. Competitor Analysis
   What are the capabilities and limitations of existing and potential competitors, and their probable future moves?
3. Societal Analysis
   What important governmental, social, and political factors will present opportunities or threats?
4. Strengths and Weaknesses
   Given an analysis of industry and competitors, what are the company's strengths and weaknesses relative to present and future competitors?

C. What Should the Business be Doing?

1. Tests of Assumptions and Strategy
   How do the assumptions embodied in the current strategy compare with the analysis in B above? How does the strategy meet the tests in Figure I-3?
2. Strategic Alternatives
   What are the feasible strategic alternatives given the analysis above? (Is the current strategy one of these?)
3. Strategic Choice
   Which alternative best relates the company's situation to external opportunities and threats?

Although the process shown in Figure 1-4 may be intuitively clear, answering these questions involves a great deal of penetrating analysis. It is answering these questions that is the purpose of this book.

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addressing these implied assumptions can be crucial to giving strategic advice. Usually a great deal of convincing data and support must be mustered to change these assumptions, and this is where much if not most attention needs to be focused. The sheer logic of the strategic choice is not enough; it will not be convincing if it ignores management's assumptions.

COMPETITIVE STRATEGY

I

General Analytical Techniques

Part I lays the analytical foundation for the development of competitive strategy, built on the analysis of industry structure and competitors. Chapter 1 introduces the concept of structural analysis as a framework for understanding the five fundamental forces of competition in an industry. This framework is the starting point from which much of the subsequent discussion in the book begins. The structural analysis framework is used in Chapter 2 to identify at the broadest level the three generic competitive strategies that can be viable in the long run.

Chapters 3, 4, and 5 deal with the other key part of the formulation of competitive strategy: competitor analysis. In Chapter 3 a framework for analyzing competitors is presented. which aids in diagnosing probable moves by competitors and their ability to react. Chapter 3 gives detailed questions that can help the analyst to assess a particular competitor. Chapter 4 shows how company behavior gives off a variety of types of market signals that can be used to enrich competitor analysis and as a basis for taking strategic actions. Chapter 5 sets forth a primer for making, influencing, and reacting to competitive moves. Chapter 6 elaborates on the concept of structural analysis for developing strategies toward buyers and suppliers.

The final two chapters of Part **I** bring industry and competitor analysis together. Chapter **7** shows how to analyze the nature of competition ***within*** an industry, employing the concept of strategic groups and the principle of mobility barriers that are deterrents to shifts in strategic position. Chapter 8 concludes the discussion of general analytical techniques by examining ways of predicting the process of industry evolution and some of the implications of that evolution for competitive strategy.

1
The Structural Analysis of Industries

The essence of formulating competitive strategy is relating a company to its environment. Although the relevant environment is very broad, encompassing social as well as economic forces, the key aspect of the firm's environment is the industry or industries in which it competes. Industry structure has a strong influence in determining the competitive rules of the game as well as the strategies potentially available to the firm. Forces outside the industry are significant primarily in a relative sense; since outside forces usually affect all firms in the industry, the key is found in the differing abilities of firms to deal with them.

The intensity of competition in an industry is neither a matter of coincidence nor bad luck. Rather, competition in an industry is rooted in its underlying economic structure and goes well beyond the behavior of current competitors. The state of competition in an industry depends on five basic competitive forces, which are shown in Figure 1-1. The collective strength of these forces determines the ultimate profit potential in the industry, where profit potential is measured in terms of long run return on invested capital. Not all industries have the same potential. They differ fundamentally in their ultimate profit potential as the collective strength of the forces dif-

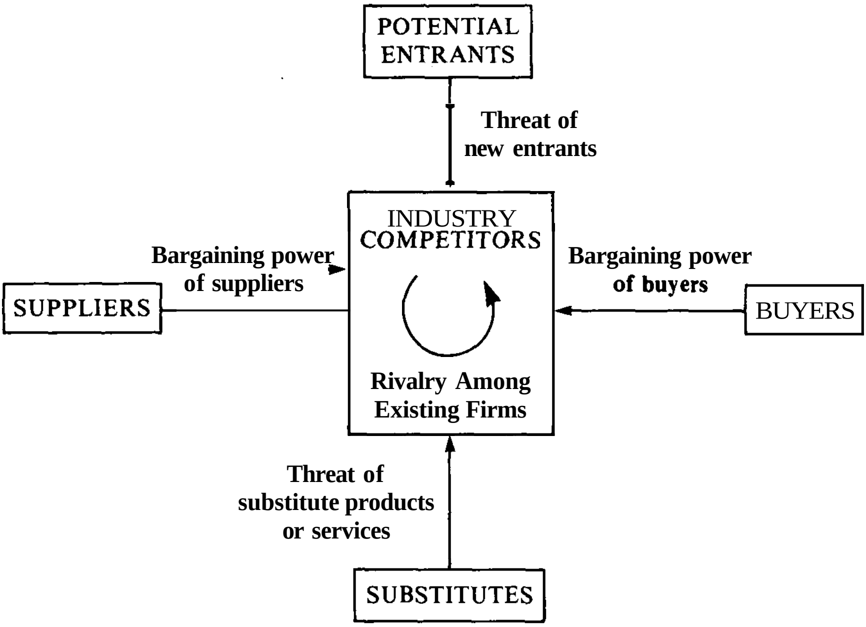

FIGURE 1-1. Forces Driving Industry Competition

fers; the forces range from intense in industries like tires, paper, and steel—where no firm earns spectacular returns—to relatively mild in industries like oil-field equipment and services, cosmetics, and toiletries—where high returns are quite common.

This chapter will be concerned with identifying the key ***structural*** features of industries that determine the strength of the competitive forces and hence industry profitability. The goal of competitive strategy for a business unit in an industry is to find a position in the industry where the company can best defend itself against these competitive forces or can influence them in its favor. Since the collective strength of the forces may well be painfully apparent to all competitors, the key for developing strategy is to delve below the surface and analyze the sources of each. Knowledge of these underlying sources of competitive pressure highlights the critical strengths and weaknesses of the company, animates its positioning in its industry, clarifies the areas where strategic changes may yield the greatest payoff, and highlights the areas where industry trends promise to hold the greatest significance as either opportunities or threats. Understanding these sources will also prove to be useful in considering areas for diversification, though the primary focus here is on strategy in individual industries. Structural analysis is the fundamental underpinning for formulating competitive strategy and a key building block for most of the concepts in this book.

To avoid needless repetition, the term "product" rather than "product or service" will be used to refer to the output of an industry, even though the principles of structural analysis developed here apply equally to product and service businesses. Structural analysis also applies to diagnosing industry competition in any country or in an international market, though some of the institutional circumstances may differ.[1]

Structural Determinants of the Intensity of Competition

Let us adopt the working definition of an industry as the group of firms producing products that are close substitutes for each other. In practice there is often a great deal of controversy over the appropriate definition, centering around how close substitutability needs to be in terms of product, process, or geographic market boundaries. Because we will be in a better position to treat these issues once the basic concept of structural analysis has been introduced, we will assume initially that industry boundaries have already been drawn.

Competition in an industry continually works to drive down the rate of return on invested capital toward the competitive floor rate of return, or the return that would be earned by the economist's "perfectly competitive" industry. This competitive floor, or "free market" return, is approximated by the yield on long-term government securities adjusted upward by the risk of capital loss. Investors will not tolerate returns below this rate in the long run because of their alternative of investing in other industries, and firms habitually earning less than this return will eventually go out of business. The presence of rates of return higher than the adjusted free market return serves to stimulate the inflow of capital into an industry either through new entry or through additional investment by existing competitors. The strength of the competitive forces in an industry deter-

[1]Chapter 13 discusses some of the particular implications of competing in global industries.

mines the degree to which this inflow of investment occurs and drives the return to the free market level, and thus the ability of firms to sustain above-average returns.

The five competitive forces—entry, threat of substitution, bargaining power of buyers, bargaining power of suppliers, and rivalry among current competitors—reflect the fact that competition in an industry goes well beyond the established players. Customers, suppliers, substitutes, and potential entrants are all "competitors" to firms in the industry and may be more or less prominent depending on the particular circumstances. Competition in this broader sense might be termed ***extended rivalry.***

All five competitive forces jointly determine the intensity of industry competition and profitability, and the strongest force or forces are governing and become crucial from the point of view of strategy formulation. For example, even a company with a very strong market position in an industry where potential entrants are no threat will earn low returns if it faces a superior, lower-cost substitute. Even with no substitutes and blocked entry, intense rivalry among existing competitors will limit potential returns. The extreme case of competitive intensity is the economist's perfectly competitive industry, where entry is free, existing firms have no bargaining power against suppliers and customers, and rivalry is unbridled because the numerous firms and products are all alike.

Different forces take on prominence, of course, in shaping competition in each industry. In the ocean-going tanker industry the key force is probably the buyers (the major oil companies), whereas in tires it is powerful original equipment (OEM) buyers coupled with tough competitors. In the steel industry the key forces are foreign competitors and substitute materials.

The underlying structure of an industry, reflected in the strength of the forces, should be distinguished from the many short-run factors that can affect competition and profitability in a transient way. For example, fluctuations in economic conditions over the business cycle influence the short-run profitability of nearly all firms in many industries, as can material shortages, strikes, spurts in demand, and the like. Although such factors may have tactical significance, the focus of the analysis of industry structure, or "structural analysis," is on identifying the basic, underlying characteristics of an industry rooted in its economics and technology that shape the arena in which competitive strategy must be set. Firms will each have unique strengths and weaknesses in dealing with industry structure, and industry structure can and does shift gradually over time. Yet understanding industry structure must be the starting point for strategic analysis.

A number of important economic and technical characteristics of an industry are critical to the strength of each competitive force. These will be discussed in turn.

THREAT OF ENTRY

New entrants to an industry bring new capacity, the desire to gain market share, and often substantial resources. Prices can be bid down or incumbents' costs inflated as a result, reducing profitability. Companies diversifying through acquisition into the industry from other markets often use their resources to cause a shake-up, as Philip Morris did with Miller beer. Thus acquisition into an industry with intent to build market position should probably be viewed as entry even though no entirely new entity is created.

The threat of entry into an industry depends on the ***barriers to entry*** that are present, coupled with the ***reaction*** from existing competitors that the entrant can expect. If barriers are high and/or the newcomer can expect sharp retaliation from entrenched competitors, the threat of entry is low.

BARRIERS TO ENTRY

There are six major sources of barriers to entry:

Economies of Scale. Economies of scale refer to declines in unit costs of a product (or operation or function that goes into producing a product) as the absolute volume ***per period*** increases. Economies of scale deter entry by forcing the entrant to come in at large scale and risk strong reaction from existing firms or come in at a small scale and accept a cost disadvantage, both undesirable options. Scale economies can be present in nearly every function of a business, including manufacturing, purchasing, research and development, marketing, service network, sales force utilization, and distribution. For example, scale economies in production, research, marketing, and service are probably the key barriers to entry in the mainframe computer industry, as Xerox and General Electric sadly discovered.

Scale economies may relate to an entire functional area, as in the case of a sales force, or they may stem from particular operations or activities that are part of a functional area. For example, in the manufacture of television sets, economies of scale are large in color tube production, and they are less significant in cabinetmaking and set assembly. It is important to examine each component of costs separately for its particular relationship between unit cost and scale.

Units of multibusiness firms may be able to reap economies similar to those of scale if they are able to share operations or functions subject to economies of scale with other businesses in the company. For example, the multibusiness company may manufacture small electric motors, which are then used in producing industrial fans, hairdryers, and cooling systems for electronic equipment. If economies of scale in motor manufacturing extend beyond the number of motors needed in any one market, the multibusiness firm diversified in this way will reap economies in motor manufacturing that exceed those available if it only manufactured motors for use in, say, hairdryers. Thus related diversification around common operations or functions can remove volume constraints imposed by the size of a given industry.[2] The prospective entrant is forced to be diversified or face a cost disadvantage. Potentially shareable activities or functions subject to economies of scale can include sales forces, distribution systems, purchasing, and so on.

The benefits of sharing are particularly potent if there are joint costs. Joint costs occur when a firm producing product A (or an operation or function that is part of producing A) must inherently have the capacity to produce product B. An example is air passenger services and air cargo, where because of technological constraints only so much space in the aircraft can be filled with passengers, leaving available cargo space and payload capacity. Many of the costs must be borne to put the plane into the air and there is capacity for freight regardless of the quantity of passengers the plane is carrying. Thus the firm that competes in both passenger and freight may have a substantial advantage over the firm competing in only one market.

[2]For this entry barrier to be significant it is crucial that the shared operation or function be subject to economies of scale which extend beyond the size of any one market. If this is not the case, cost savings of sharing can be illusory. A company may see its costs decline as overhead is spread, but this depends solely on the presence of *excess capacity* in the operation or function. These economies are short-run economies, and once capacity is fully utilized and expanded the true cost of the shared operation will become apparent.

This same sort of effect occurs in businesses that involve manufacturing processes involving by-products. The entrant who cannot capture the highest available incremental revenue from the by-products can face a disadvantage if incumbent firms do.

A common situation of joint costs occurs when business units can share ***intangible*** assets such as brand names and know-how. The cost of creating an intangible asset need only be borne once; the asset may then be freely applied to other business, subject only to any costs of adapting or modifying it. Thus situations in which intangible assets are shared can lead to substantial economies.

A type of economies of scale entry barrier occurs when there are economies to vertical integration, that is, operating in successive stages of production or distribution. Here the entrant must enter integrated or face a cost disadvantage, as well as possible foreclosure of inputs or markets for its product if most established competitors are integrated. Foreclosure in such situations stems from the fact that most customers purchase from in-house units, or most suppliers "sell" their inputs in-house. The independent firm faces a difficult time in getting comparable prices and may become "squeezed" if integrated competitors offer different terms to it than to their captive units. The requirement to enter integrated may heighten the risks of retaliation and also elevate other entry barriers discussed below.

Product Differentiation. Product differentiation means that established firms have brand identification and customer loyalties, which stem from past advertising, customer service, product differences, or simply being first into the industry. Differentiation creates a barrier to entry by forcing entrants to spend heavily to overcome existing customer loyalties. This effort usually involves start-up losses and often takes an extended period of time. Such investments in building a brand name are particularly risky since they have no salvage value if entry fails.

Product differentiation is perhaps the most important entry barrier in baby care products, over-the-counter drugs, cosmetics, investment banking, and public accounting. In the brewing industry, product differentiation is coupled with economies of scale in production, marketing, and distribution to create high barriers.

Capital Requirements. The need to invest large financial resources in order to compete creates a barrier to entry, praticularly if the capital is required for risky or unrecoverable up-front advertising or research and development (R&D). Capital may be necessary not only for production facilities but also for things like customer credit, inventories, or covering start-up losses. Xerox created a major capital barrier to entry in copiers, for example, when it chose to rent copiers rather than sell them outright which greatly increased the need for working capital. Whereas today's major corporations have the financial resources to enter almost any industry, the huge capital requirements in fields like computers and mineral extraction limit the pool of likely entrants. Even if capital is available on the capital markets, entry represents a risky use of that capital which should be reflected in risk premiums charged the prospective entrant; these constitute advantages for going firms.[3]

Switching Costs. A barrier to entry is created by the presence of switching costs, that is, one-time costs facing the buyer of switching from one supplier's product to another's. Switching costs may include employee retraining costs, cost of new ancillary equipment, cost and time in testing or qualifying a new source, need for technical help as a result of reliance on seller engineering aid, product redesign, or even psychic costs of severing a relationship.[4] If these switching costs are high, then new entrants must offer a major improvement in cost or performance in order for the buyer to switch from an incumbent. For example, in intravenous (IV) solutions and kits for use in hospitals, procedures for attaching solutions to patients differ among competitive products and the hardware for hanging the IV bottles are not compatible. Here switching encounters great resistance from nurses responsible for administering the treatment and requires new investments in hardware.

Access to Distribution Channels. A barrier to entry can be created by the new entrant's need to secure distribution for its product. To the extent that logical distribution channels for the product have already been served by established firms, the new firm must persuade the channels to accept its product through price breaks, cooperative advertising allowances, and the like, which reduce profits. The manufacturer of a new food product, for example, must per-

[3]In some industries suppliers are willing to help finance entry in order to increase their own sales (oil tankers, logging equipment). This obviously lowers effective capital barriers to entry.

[4]Switching costs may also be present for the seller. Switching costs and some of their implications will be discussed more fully in Chapter 6.

suade the retailer to give it space on the fiercely competitive supermarket shelf via promises of promotions, intense selling efforts to the retailer, or some other means.

The more limited the wholesale or retail channels for a product are and the more existing competitors have these tied up, obviously the tougher entry into the industry will be. Existing competitors may have ties with channels based on long relationships, high-quality service, or even exclusive relationships in which the channel is solely identified with a particular manufacturer. Sometimes this barrier to entry is so high that to surmount it a new firm must create an entirely new distribution channel, as Timex did in the watch industry.

Cost Disadvantages Independent of Scale. Established firms may have cost advantages not replicable by potential entrants no matter what their size and attained economies of scale. The most critical advantages are factors such as the following:

- Proprietary product technology: product know-how or design characteristics that are kept proprietary through patents or secrecy.
- Favorable access to raw materials: established firms may have locked up the most favorable sources and/or tied up foreseeable needs early at prices reflecting a lower demand for them than currently exists. For example, Frasch sulphur firms like Texas Gulf Sulphur gained control of some very favorable large salt dome sulphur deposits many years ago, before mineral rightholders were aware of their value as a result of the Frasch mining technology. Discoverers of sulphur deposits were often disappointed oil companies who were exploring for oil and not prone to value them highly.
- Favorable locations: established firms may have cornered favorable locations before market forces bid up prices to capture their full value.
- Government subsidies: preferential government subsidies may give established firms lasting advantages in some businesses.
- Learning or experience curve: in some businesses, there is an observed tendency for unit costs to decline as the firm gains more cumulative experience in producing a product. Costs decline because workers improve their methods and become more efficient (the classic learning curve), layout improves,

> specialized equipment and processes are developed, better performance is coaxed from equipment, product design changes make manufacturing easier, techniques for measurement and control of operations improve, and so on. Experience is just a name for certain kinds of technological change and may apply not only to production but also to distribution, logistics, and other functions. As is the case with scale economies, cost declines with experience relate not to the entire firm but arise from the individual operations or functions that make up the firm. Experience can lower costs in marketing, distribution, and other areas as well as in production or operations within production, and each component of costs must be examined for the effects of experience.

Cost declines with experience seem to be the most significant in businesses involving a high labor content performing intricate tasks and/or complex assembly operations (aircraft manufacture, shipbuilding). They are nearly always the most significant in the early and growth phase of a product's development, and later reach diminishing proportional improvements. Often economies of scale are cited among the reasons that costs decline with experience. Economies of scale are dependent on volume per period, and ***not*** on cumulative volume, and are very different analytically from experience, although the two often occur together and can be hard to separate. The dangers of lumping scale and experience together will be discussed further.

If costs decline with experience in an industry, and ***if the experience can be kept proprietary by established firms,*** then this effect leads to an entry barrier. Newly started firms, with no experience, will have inherently higher costs than established firms and must bear heavy start-up losses from below- or near-cost pricing in order to gain the experience to achieve cost parity with established firms (if they ever can). Established firms, particularly the market share leader who is accumulating experience the fastest, will have higher cash flow because of their lower costs to invest in new equipment and techniques. However, it is important to recognize that pursuing experience curve cost declines (and scale economies) may require substantial up-front capital investment for equipment and startup losses. If costs continue to decline with volume even as cumulative volume gets very large, new entrants may never catch up. A number of firms, notably Texas Instruments, Black and Decker, Emerson Electric, and others have built successful strategies based on the experience curve through aggressive investments to build cumulative volume early in the development of industries, often by pricing in anticipation of future cost declines.

The decline in cost from experience can be augmented if there are diversified firms in the industry who ***share*** operations or functions subject to such a decline with other units in the company, or where there are related activities in the company from which incomplete though useful experience can be obtained. When an activity like the fabrication of raw material is shared by several business units, experience obviously accumulates faster than it would if the activity were used solely to meet the needs in one industry. Or when the corporate entity has related activities within the firm, sister units can receive the benefits of their experience at little or no cost since much experience is an intangible asset. This sort of shared learning accentuates the entry barrier provided by the experience curve, provided the other conditions for its significance are met.

Experience is such a widely used concept in strategy formulation that its strategic implications will be discussed further.

Government Policy. The last major source of entry barriers is government policy. Government can limit or even foreclose entry into industries with such controls as licensing requirements and limits on access to raw materials (like coal lands or mountains on which to build ski areas). Regulated industries like trucking, railroads, liquor retailing, and freight forwarding are obvious examples. More subtle government restrictions on entry can stem from controls such as air and water pollution standards and product safety and efficacy regulations. For example, pollution control requirements can increase the capital needed for entry and the required technological sophistication and even the optimal scale of facilities. Standards for product testing, common in industries like food and other health-related products, can impose substantial lead times, which not only raise the capital cost of entry but also give established firms ample notice of impending entry and sometimes full knowledge of the new competitor's product with which to formulate retaliatory strategies. Government policy in such areas certainly has direct social benefits, but it often has secondary consequences for entry which are unrecognized.

Expected Retaliation

The potential entrant's expectations about the reaction of existing competitors also will influence the threat of entry. If existing competitors are expected to respond forcefully to make the entrant's stay in the industry an unpleasant one, then entry may well be deterred. Conditions that signal the strong likelihood of retaliation to entry and hence deter it are the following:

- a history of vigorous retaliation to entrants;
- established firms with substantial resources to fight back, including excess cash and unused borrowing capacity, adequate excess productive capacity to meet all likely future needs, or great leverage with distribution channels or customers;
- established firms with great commitment to the industry and highly illiquid assets employed in it;
- slow industry growth, which limits the ability of the industry to absorb a new firm without depressing the sales and financial performance of established firms.

The Entry Deterring Price

The condition of entry in an industry can be summarized in an important hypothetical concept called the ***entry deterring price:*** the prevailing structure of prices (and related terms such as product quality and service) which just balances the potential rewards from entry (forecast by the potential entrant) with the expected costs of overcoming structural entry barriers and risking retaliation. If the current price level is higher than the entry deterring price, entrants will forecast above-average profits from entry, and entry will occur. Of course the entry deterring price depends on entrants' expectations of the future and not just current conditions.

The threat of entry into an industry can be eliminated if incumbent firms choose or are forced by competition to price below this hypothetical entry deterring price. If they price above It, gains in terms of profitability may be short-lived because they will be dissipated by the cost of fighting or coexisting with new entrants.

Properties of Entry Barriers

There are several additional properties of entry barriers that are crucial from a strategic standpoint. First, entry barriers can and do change as the conditions previously described change. The expiration of Polaroid's basic patents on instant photography, for instance, greatly reduced its absolute cost entry barrier built by proprietary technology. It is not surprising that Kodak plunged into the market. Product differentiation in the magazine printing industry has all but disappeared, reducing barriers. Conversely, in the auto industry, economies of scale increased with post-World War II automation and vertical integration, virtually stopping successful new entry.

Second, although entry barriers sometimes change for reasons largely outside the firm's control, the firm's strategic decisions also can have a major impact. For example, the actions of many U. S. wine producers in the 1960s to step up introductions of new products, raise advertising levels, and undertake national distribution surely increased entry barriers by raising economies of scale in the industry and making access to distribution channels more difficult. Similarly, decisions by members of the recreational vehicle industry to vertically integrate into parts manufacture in order to lower costs have greatly increased the economies of scale there and raised the capital cost barriers.

Finally, some firms may possess resources or skills which allow them to overcome entry barrier into an industry more cheaply than most other firms. For example, Gillette, with well-developed distribution channels for razors and blades, faced lower costs of entry into disposable lighters than did many other firms. The ability to share costs also provides opportunities for low-cost entry. (In Chapter 16 we will explore the implications of factors like these for entry strategy in some detail).

Experience and Scale as Entry Barriers

Although they often coincide, economies of scale and experience have very different properties as entry barriers. The presence of economies of scale ***always*** leads to a cost advantage for the large-scale firm (or firm that can share activities) over small-scale firms, presupposing that the former have the most efficient facilities, distribution systems, service organizations, or other functional activities for their size.[5] This cost advantage can be matched only by attaining comparable scale or appropriate diversification to allow cost sharing. The large-scale or diversified firm can spread the fixed costs of operating these efficient facilities over a large number of units,

[5]And presupposing that the large-scale firm does not nullify its advantage through product line proliferation.

whereas the smaller firm, even if it has technologically efficient facilities, will not fully utilize them.

Some limits to economies of scale as an entry barrier, from the strategic standpoint of incumbents, are as follows:

- Large-scale and hence lower costs may involve trade-offs with other potentially valuable barriers to entry such as product differentiation (scale may work against product image or responsive service, for example) or the ability to develop proprietary technology rapidly.
- Technological change may penalize the large-scale firm if facilities designed to reap scale economies are also more specialized and less flexible in adapting to new technologies.
- Commitment to achieving scale economies by using existing technology may cloud the perception of new technological possibilities or of other new ways of competing that are less dependent on scale.

Experience is a more ethereal entry barrier than scale, because the mere presence of an experience curve does not insure an entry barrier. Another crucial prerequisite is that the experience be proprietary, and not available to competitors and potential entrants through (1) copying, (2) hiring a competitor's employees, or (3) purchasing the latest machinery from equipment suppliers or purchasing know-how from consultants or other firms. Frequently, experience cannot be kept proprietary; even when it can, experience may accumulate more rapidly for the second and third firms in the market than it did for the pioneer because followers can observe some aspects of the pioneer's operations. Where experience cannot be kept proprietary, new entrants may actually have an advantage if they can buy the latest equipment or adapt to new methods unencumbered by having operated the old way in the past.

Other limits to the experience curve as an entry barrier are as follows:

- The barrier can be nullified by product or process innovations leading to a substantially new technology and thereby creating an entirely new experience curve.[6] New entrants can leapfrog the industry leaders and alight on the new experience curve, to which the leaders may be poorly positioned to jump.

[6]For an example of this development drawn from the history of the automobile industry, see Abernathy and Wayne (1974), p. 109.

- Pursuit of low cost through experience may involve trade-offs with other valuable barriers, such as product differentiation through image or technological progressiveness. For example, Hewlett-Packard has erected substantial barriers based on technological progressiveness in industries in which other firms are following strategies based on experience and scale, like calculators and minicomputers.
- If more than one strong company is building its strategy on the experience curve, the consequences for one or more of them can be nearly fatal. By the time only one rival is left pursuing such a strategy, industry growth may have stopped and the prospects of capturing the experience curve benefits long since evaporated.
- Aggressive pursuit of cost declines through experience may draw attention away from market developments in other areas or may cloud perception of new technologies that nullify past experience.

INTENSITY OF RIVALRY AMONG EXISTING COMPETITORS

Rivalry among existing competitors takes the familiar form of jockeying for position—using tactics like price competition, advertising battles, product introductions, and increased customer service or warranties. Rivalry occurs because one or more competitors either feels the pressure or sees the opportunity to improve position. In most industries, competitive moves by one firm have noticeable effects on its competitors and thus may incite retaliation or efforts to counter the move; that is, firms are ***mutually dependent.*** This pattern of action and reaction may or may not leave the initiating firm and the industry as a whole better off. If moves and countermoves escalate, then all firms in the industry may suffer and be worse off than before.

Some forms of competition, notably price competition, are highly unstable and quite likely to leave the entire industry worse off from the standpoint of profitability. Price cuts are quickly and easily matched by rivals, and once matched they lower revenues for all firms unless industry price elasticity of demand is high enough. Advertising battles, on the other hand, may well expand demand or enhance the level of product differentiation in the industry for the benefit of all firms.

Rivalry in some industries is characterized by such phrases as "warlike," "bitter," or "cutthroat," whereas in other industries it is termed "polite" or "gentlemanly." Intense rivalry is the result of a number of interacting structural factors.

Numerous or Equally Balanced Competitors. When firms are numerous, the likelihood of mavericks is great and some firms may habitually believe they can make moves without being noticed. Even where there are relatively few firms, if they are relatively balanced in terms of size and perceived resources, it creates instability because they may be prone to fight each other and have the resources for sustained and vigorous retaliation. When the industry is highly concentrated or dominated by one or a few firms, on the other hand, then there is little mistaking relative strength, and the leader or leaders can impose discipline as well as play a coordinative role in the industry through devices like price leadership.

In many industries foreign competitors, either exporting into the industry or participating directly through foreign investment, play an important role in industry competition. Foreign competitors, although having some differences that will be noted later, should be treated just like national competitors for purposes of structural analysis.

Slow Industry Growth. Slow industry growth turns competition into a market share game for firms seeking expansion. Market share competition is a great deal more volatile than is the situation in which rapid industry growth insures that firms can improve results just by keeping up with the industry, and where all their financial and managerial resources may be consumed by expanding with the industry.

High Fixed or Storage Costs. High fixed costs create strong pressures for all firms to fill capacity which often lead to rapidly escalating price cutting when excess capacity is present. Many basic materials like paper and aluminum suffer from this problem, for example. The significant characteristic of costs is fixed costs relative to value added, and not fixed costs as a proportion of total costs. Firms purchasing a high proportion of costs in outside inputs (low value added) may feel enormous pressures to fill capacity to break even, despite the fact that the absolute proportion of fixed costs is low.

A situation related to high fixed costs is one in which the product, once produced, is very difficult or costly to store. Here firms will also be vulnerable to temptations to shade prices in order to insure sales. This sort of pressure keeps profits low in industries like lobster fishing and the manufacture of certain hazardous chemicals and some service businesses.

Lack of Differentiation or Switching Costs. Where the product or service is perceived as a commodity or near commodity, choice by the buyer is largely based on price and service, and pressures for intense price and service competition result. These forms of competition are particularly volatile, as has been discussed. Product differentiation, on the other hand, creates layers of insulation against competitive warfare because buyers have preferences and loyalites to particular sellers. Switching costs, described earlier, have the same effect.

Capacity Augmented in Large Increments. Where economies of scale dictate that capacity must be added in large increments, capacity additions can be chronically disruptive to the industry supply/demand balance, particularly where there is a risk of bunching capacity additions. The industry may face recurring periods of overcapacity and price cutting, like those that afflict the manufacture of chlorine, vinyl chloride, and ammonium fertilizer. The conditions leading to chronic overcapacity are discussed in Chapter 15.

Diverse Competitors. Competitors diverse in strategies, origins, personalities, and relationships to their parent companies have differing goals and differing strategies for how to compete and may continually run head on into each other in the process. They may have a hard time reading each other's intentions accurately and agreeing on a set of "rules of the game" for the industry. Strategic choices right for one competitor will be wrong for others.

Foreign competitors often add a great deal of diversity to industries because of their differing circumstances and often differing goals. Owner-operators of small manufacturing or service firms may as well, because they may be satisfied with a subnormal rate of return on their invested capital to maintain the independence of self-ownership, whereas such returns are unacceptable and may appear irrational to a large publicly held competitor. In such an industry, the posture of the small firms may limit the profitability of the larger concern. Similarly, firms viewing a market as an outlet for excess capacity (e.g., in the case of dumping) will adopt policies contrary to those of firms viewing the market as a primary one. Finally, differences in the relationship of competing business units to their corporate parents is an important source of diversity in an industry as well. For example, a business unit that is part of a vertical chain of businesses in its corporate organization may well adopt different and perhaps contradictory goals than a free-standing firm competing in the same industry. Or a business unit that is a "cash cow" in its parent company's portfolio of businesses will behave differently than one that is being developed for long-run growth in view of a lack of other opportunities in the parent. (Some techniques for identifying diversity in competitors will be developed in Chapter 3.)

High Strategic Stakes. Rivalry in an industry becomes even more volatile if a number of firms have high stakes in achieving success there. For example, a diversified firm may place great importance on achieving success in a particular industry in order to further its overall corporate strategy. Or a foreign firm like Bosch, Sony, or Philips may perceive a strong need to establish a solid position in the U. S. market in order to build global prestige or technological credibility. In such situations, the goals of these firms may not only be diverse but even more destabilizing because they are expansionary and involve potential willingness to sacrifice profitability. (Some techniques for assessing strategic stakes will be developed in Chapter 3.)

High Exit Barriers. Exit barriers are economic, strategic, and emotional factors that keep companies competing in businesses even though they may be earning low or even negative returns on investment. The major sources[7] of exit barriers are the following:

- Specialized assets: assets highly specialized to the particular business or location have low liquidation values or high costs of transfer or conversion.
- Fixed costs of exit: these include labor agreements, resettlement costs, maintaining capabilities for spare parts, and so on.
- Strategic interrelationships: interrelationships between the business unit and others in the company in terms of image, marketing ability, access to financial markets, shared facilities, and so on. They cause the firm to attach high strategic importance to being in the business.

[7]For a fuller treatment see Chapter 12, which also illustrates how diagnosing exit barriers is crucial in developing strategies for declining industries.

- Emotional barriers: management's unwillingness to make economically justified exit decisions is caused by identification with the particular business, loyalty to employees, fear for one's own career, pride, and other reasons.
- Government and social restrictions: these involve government denial or discouragement of exit out of concern for job loss and regional economic effects; they are particularly common outside the United States.

When exit barriers are high, excess capacity does not leave the industry, and companies that lose the competitive battle do not give up. Rather, they grimly hang on and, because of their weakness, have to resort to extreme tactics. The profitability of the entire industry can be persistently low as a result.

Shifting Rivalry

The factors that determine the intensity of competitive rivalry can and do change. A very common example is the change in industry growth brought about by industry maturity. As an industry matures its growth rate declines, resulting in intensified rivalry, declining profits, and (often) a shake-out. In the booming recreational vehicle industry of the early 1970s nearly every producer did well, but slow growth since then has eliminated the high returns, except for the strongest competitors, not to mention forcing many of the weaker companies out. The same story has been played out in industry after industry: snowmobiles, aerosol packaging, and sports equipment are just a few examples.

Another common change in rivalry occurs when an acquisition introduces a very different personality to an industry, as has been the case with Philip Morris' acquisition of Miller Beer and Procter and Gamble's acquisition of Charmin Paper Company. Also, technological innovation can boost the level of fixed costs in the production process and raise the volatility of rivalry, as it did in the shift from batch to continuous-line photofinishing in the 1960s.

Although a company must live with many of the factors that determine the intensity of industry rivalry—because they are built into industry economics—it may have some latitude in improving matters through strategic shifts. For example, it may try to raise buyers' switching costs by providing engineering assistance to customers to design its product into their operations or to make them dependent for technical advice. Or the firm can try to raise product differentiation through new kinds of services, marketing innovations, or prod-