

A host of external factors influence a firm's choice of direction and action and, ultimately, its organizational structure and internal processes. These factors, which constitute the *external environment*, can be divided into three interrelated subcategories: factors in the *remote environment*, factors in the *industry environment*, and factors in the *operating environment*.¹ This chapter describes the complex necessities involved in formulating strategies that optimize a firm's market opportunities. Figure 3-1 suggests the interrelationship between the firm and its remote, its industry, and its operating environments. In combination, these factors form the basis of the opportunities and threats that a firm faces in its competitive environment.

REMOTE ENVIRONMENT

The remote environment comprises factors that originate beyond, and usually irrespective of, any single firm's operating situation: (1) economic, (2) social, (3) political, (4) technological, and (5) ecological factors. That environment presents firms with opportunities, threats, and constraints; but rarely does a single firm exert any meaningful reciprocal influence. For example, when the economy slows and construction starts to decrease, an individual contractor is likely to suffer a decline in business; but that contractor's success in stimulating local construction activities would be unable to reverse the overall decrease in construction starts. The trade agreements that resulted from improved relations between the United States and China and the United States and Russia are examples of the effects of political factors on individual firms. The agreements provided individual U.S. manufacturers with opportunities to broaden their international operations.

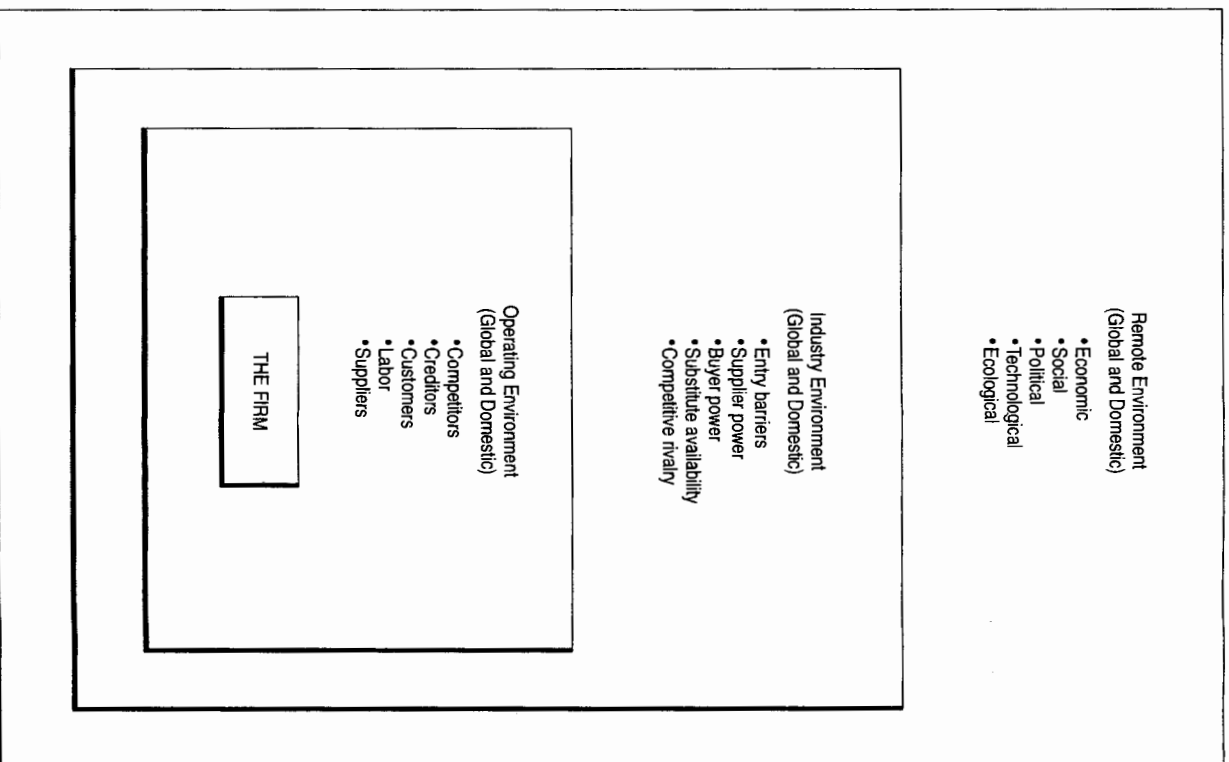
1. Economic Factors

Economic factors concern the nature and direction of the economy in which a firm operates. Because consumption patterns are affected by the relative affluence of various market segments, in its strategic planning each firm must consider economic trends in the segments that affect its industry. On both the national and international level, it must consider the general availability of credit, the level of disposable income, and the propensity of people to spend. Prime interest rates, inflation rates, and trends in the growth of the gross national product are other economic factors it must consider.

Until recently, the potential impact of international economic forces appeared to be severely restricted and was largely discounted. However, the emergence of new international power brokers has changed the focus of economic environmental forecasting. Among the most prominent of these power brokers are the European Economic Community (EEC, or Common Market), the Organization of Petroleum Exporting Countries (OPEC), and coalitions of developing countries.

The EEC, whose members include most of the West European countries, was established by the Treaty of Rome in 1957. It has eliminated quotas and established a tariff-free

FIGURE 3-1
The Firm's External Environment



¹ Many authors refer to the operating environment as the *task* or *competitive* environment.

trade area for industrial products among its members. By fostering intra-European economic cooperation, it has helped its member countries compete more effectively in non-European international markets.

Vying with the opening of Eastern European borders to commerce as the most significant marketplace occurrence of the 1990s has been the opening of protected markets by the European Community. Commonly referred to as EC 92, the stated goal of this cooperative effort is the elimination of all technical, physical, and fiscal barriers to the conduct of international trade in Europe by 1992. While pragmatists see the EC 92 as a concept and not a deadline, significant progress is being made each year toward the attainment of aims of the collaboration. As of early 1990, 125 of the 265 directives related to 1992 had become EC law.

Much of the excitement over EC 92 stems from the size of the market in Europe, which exceeds 320 million consumers. As Europeans' incomes rise and their tastes become less geocentric, a booming market is expected for consumer goods, from appliances to soft drinks. As evidence of their enthusiasm for the EC 92 marketplace, U.S. companies spent \$20.9 billion in 1987 alone to build plants and buy companies in Europe, an amount 28 times greater than their expenditures in 1982.

Among the U.S. firms that invested heavily and early in Europe in the hope of profiting from the EC 92 developments were:

American Express, which projected a 20 percent annual growth rate in Europe in the 1990s owing to weak competition from "mom-and-pop" travel agencies.

AT&T, which completed a five-year, \$27 billion deal with Italy's state-owned telephone equipment maker to overhaul the country's aging telephone system.

Federal Express, which was among the early organizers of warehousing and distribution services for European companies. Its \$200 million-a-year business in Europe is forecasted to grow 80 percent annually during this decade.

Following the original EEC initiative of economic cooperation, the United States, Canada, Japan, the EEC, and other countries conducted multilateral trade negotiations in 1979 to establish rules for international trade and conduct. Those negotiations had a profound effect on almost every aspect of U.S. business activity.

In terms of impact on the United States, OPEC is at present among the most powerful international economic forces. This cartel includes most of the world's major oil and gas suppliers. Its drastic price increases impeded U.S. recovery from the recession of the early 1970s and fueled inflationary fires throughout the world. Those price increases in particular affected the U.S. automobile industry by raising the fuel costs of automobile users and by giving rise to legislation on engine design and performance standards.

Historically underdeveloped countries recently have assumed a greater role in international commerce as a source of both threats and opportunities. Following OPEC's success, these countries found it economically beneficial to directly confront the established powers. Since 1974, producers of primary commodities in the developing countries have formed or greatly strengthened trade organizations to enforce higher prices and achieve larger real incomes for their members. Even developing countries not desiring or unable to form cartels now exhibit an aggressive attitude in their international economic relations. On the other hand, developing countries offer U.S. firms huge new markets for foodstuffs and capital equipment.

The intense nationalism of the developing countries, with nearly three fourths of the world's population, represents perhaps the greatest challenge our industrialized society and multinational corporations will face in the next two decades. As one Third World expert puts it, "the vastly unequal relationship between the rich and poor nations is fast becoming the central issue of our time."²

All of these international forces can affect—for better or worse—the economic well being of the U.S. business community. Consequently, firms must try to forecast the repercussions of major actions taken in both the domestic and international economic arenas. For example, after the second quarter of 1991, some economists and business analysts determined that the United States was recovering from the recession that began during July 1990. Optimistic economists cited increases in industrial production, housing expenditures, and retail sales as signs of better days ahead for U.S. businesses. When the United States entered the fourth quarter of 1991, economists forecasted that recovery was under way and would bode well domestic and international business activity in 1992.

2. Social Factors

The social factors that affect a firm involve the beliefs, values, attitudes, opinions, and lifestyles of persons in the firm's external environment, as developed from cultural, ecological, demographic, religious, educational, and ethnic conditioning. As social attitudes change, so, too, does the demand for various types of clothing, books, leisure activities, and so on. Like other forces in the remote external environment, social forces are dynamic, with constant change resulting from the efforts of individuals to satisfy their desires and needs by controlling and adapting to environmental factors. Teresa Iglesias-Solomon hoped to benefit from social changes with *Mimos*, a children's catalog written in both English and Spanish. The catalog featured books, videos, and Spanish cultural offerings for English-speaking children who wanted to learn Spanish and for Spanish-speaking children who wanted to learn English. The first edition of *Mimos* was mailed in August 1991. Nino's target market included middle-to-upper income Hispanic parents and a greater number of consumers, educators, bilingual schools, libraries, and purchasing agents. Iglesias-Solomon had reason to be optimistic about the future of *Mimos*, because the Hispanic population was growing five times faster than the general U.S. population.

One of the most profound social changes in recent years has been the entry of large numbers of women into the labor market. This has not only affected the hiring and compensation policies and the resource capabilities of their employers; it also has created or greatly expanded the demand for a wide range of products and services necessitated by their absence from the home. Firms that anticipated or reacted quickly to this social change offered such products and services as convenience foods, microwave ovens, and day-care centers.

A second profound social change has been the accelerating interest of consumers and employees in quality-of-life issues. Evidence of this change is seen in recent contract negotiations. In addition to the traditional demand for increased salaries have been worker

² R. Steade, "Multinational Corporations and the Changing World Economic Order," *California Management Review*, Winter 1978, p. 5.

demands for such benefits as sabbaticals, flexible hours or four-day workweeks, lump-sum vacation plans, and opportunities for advanced training.

A third profound social change has been the shift in the age distribution of the population. Changing social values and a growing acceptance of improved birth control methods are expected to raise the mean age of the U.S. population, which was 27.9 in 1970, to 34.9 by the end of the 20th century. This trend will have an increasingly unfavorable impact on most producers of predominantly youth-oriented goods and will necessitate a shift in their long-range marketing strategies. Producers of hair- and skin-care preparations already have begun to adjust their research and development to reflect anticipated changes in demand.

A consequence of the changing age distribution of the population has been a sharp increase in the demands made by a growing number of senior citizens. Constrained by fixed incomes, these citizens have demanded that arbitrary and rigid policies on retirement age be modified and have successfully lobbied for tax exemptions and increases in Social Security benefits. Such changes have significantly altered the opportunity-risk equations of many firms—often to the benefit of firms that anticipated the changes.

Translating social change into forecasts of business effects is a difficult process, at best. Nevertheless, informed estimates of the impact of such alterations as geographic shifts in populations and changing work values, ethical standards, and religious orientation only can help a strategizing firm in its attempts to prosper.

3. Political Factors

The direction and stability of political factors is a major consideration for managers on formulating company strategy. Political factors define the legal and regulatory parameters within which firms must operate. Political constraints are placed on firms through fair-trade decisions, antitrust laws, tax programs, minimum wage legislation, pollution and pricing policies, administrative jawboning, and many other actions aimed at protecting employees, consumers, the general public, and the environment. Since such laws and regulations are most commonly restrictive, they tend to reduce the potential profits of firms. However, some political actions are designed to benefit and protect firms. Such actions include patent laws, government subsidies, and product research grants. Thus, political factors either may limit or benefit the firms they influence. For example, when Ethiopian Airlines organized in 1945, it received assistance from TWA and various Ethiopian governments. This support made Ethiopian Airlines one of the most successful members of the African air transport industry. The airline pioneered the hub concept in Africa and arranged its schedules to provide easy connections between many of the continent's countries, as well as between Africa and points in Europe and the Middle East and Asia. Without the political support of the Ethiopian governments, it would have been impossible for the airline to operate.³ Political activity also has a significant impact on three governmental functions that influence the remote environment of firms:

Supplier Function Government decisions regarding the accessibility of private businesses to government-owned natural resources and national stockpiles of agricultural products will affect profoundly the viability of the strategies of some firms.

Customer Function Government demand for products and services can create, sustain, enhance, or eliminate many market opportunities. For example, in the same way that the Kennedy Administration's emphasis on landing a man on the moon spawned a demand for thousands of new products, the Carter Administration's emphasis on developing synthetic fuels created a demand for new skills, technologies, and products; and the Reagan Administration's strategic defense initiative (the "Star Wars" defense) sharply accelerated the development of laser technologies.

Entrepreneurial firms often feel such influences especially strongly. For example, in the six months following the August invasion of Kuwait, D. M. Offray & Son, a Chester, New Jersey, bow and ribbon manufacturer, sold about 28,409 miles of yellow ribbon in support of the armed forces. In order to keep up with the demand, the plant manager had to go to a triple-shift, six-day work week.⁴

4. Technological Factors

The fourth set of factors in the remote environment involves technological change. To avoid obsolescence and promote innovation, a firm must be aware of technological changes that might influence its industry. Creative technological adaptations can suggest possibilities for new products, for improvements in existing products, or in manufacturing and marketing techniques.

A technological breakthrough can have a sudden and dramatic effect on a firm's environment. It may spawn sophisticated new markets and products or significantly shorten the anticipated life of a manufacturing facility. Thus, all firms, and most particularly those in turbulent growth industries, must strive for an understanding both of the existing technological advances and the probable future advances that can affect their products and services. This quasi science of attempting to foresee advancements and estimate their impact on an organization's operations is known as technological forecasting.

Technological forecasting can help protect and improve the profitability of firms in growing industries. It alerts strategic managers to both impending challenges and promising opportunities. As examples: (1) advances in xerography were a key to Xerox's success but caused major difficulties for carbon paper manufacturers and (2) the perfection of transistors changed the nature of competition in the radio and television industry, helping such giants as RCA while seriously weakening smaller firms whose resource commitments required that they continue to base their products on vacuum tubes.

The key to beneficial forecasting of technological advancement lies in accurately predicting future technological capabilities and their probable impacts. A comprehensive analysis of the effect of technological change involves study of the expected impact of new technologies on the remote environment, on the competitive business situation, and on the business-society interface. In recent years, forecasting in the last area has warranted particular attention. For example, as a consequence of increased concern over the environment, firms carefully must investigate the probable effect of technological advances on quality-of-life factors, such as ecology and public safety.

³ *Air Transport World*, February 1992, pp. 110-12.

⁴ *Fortune*, March 11, 1991, p. 14.

5. Ecological Factors

As strategic managers forecast the 1990s, the most prominent factor in the remote environment is often the reciprocal relationship between business and the ecology. The term *ecology* refers to the relationships among human beings and other living things and the air, soil, and water that support them. Threats to our life-supporting ecology caused principally by human activities in an industrial society are commonly referred to as *pollution*.

Air pollution is created by dust particles and gaseous discharges that contaminate the air. Acid rain, or rain contaminated by sulfur dioxide, which can destroy aquatic and plant life, is believed to result from coal-burning factories in 70 percent of all cases. A health-threatening "thermal blanket" is created when the atmosphere traps carbon dioxide emitted from smokestacks in factories burning fossil fuels. This "greenhouse effect" can have disastrous consequences, making the climate unpredictable and raising temperatures. Finally, airborne carcinogens resulting from manufacturing processes have been linked to approximately 20,000 deaths each year.⁵ An interesting example of a way in which the free market system can help to reduce air pollution problems is discussed in Strategy in Action 3-1.

Water pollution occurs principally when industrial toxic wastes are dumped or leak into the nation's waterways. Since fewer than 50 percent of all municipal sewer systems are in compliance with Environmental Protection Agency requirements for water safety, contaminated waters represent a substantial present threat to public welfare.

Land pollution is caused by the need to dispose of ever-increasing amounts of waste. Routine, everyday packaging is a major contributor to this problem, as described in Global Strategy in Action 3-1. Land pollution is more dauntingly caused by the disposal of industrial toxic wastes in underground sites. With approximately 90 percent of the annual U.S. output of 500 million metric tons of hazardous industrial wastes being placed in underground dumps, it is evident that land pollution and its resulting endangerment of the ecology have become a major item on the political agenda.

As a major contributor to ecological pollution, business now is being held responsible for eliminating the toxic by-products of its current manufacturing processes and for cleaning up the environmental damage that it did previously. Increasingly, managers are being required by the government or are being expected by the public to incorporate ecological concerns into their decision making.⁶ For example, between 1975 and 1992, 3M cut its pollution in half by reformulating products, modifying processes, redesigning production equipment, and recycling by-products. Similarly, steel companies and public utilities have invested billions of dollars in costlier but cleaner-burning fuels and pollution control equipment. The automobile industry has been required to install expensive emission controls in cars. The gasoline industry has been forced to formulate new low-lead and no-lead products. And thousands of companies have found it necessary to direct their R&D resources into the search for ecologically superior products, such as Sears' phosphate-free laundry detergent and Pepsi-Cola's biodegradable plastic soft-drink bottle.

STRATEGY IN ACTION 3-1 COLD CASH FOR OLD CLUNKERS

Whaddy'a bid me for this 1971 Ford? Forget the Blue Book. The value of this beauty depends on how much choking black smoke blasts out of its rusted tailpipe—and the more the better. Thanks to the Bush Administration, there is a thriving free market in dirty old cars: companies that pollute the air buy them, junk them, and earn a "pollution credit" for saving however much smog- and ozone-forming exhaust the cars would have belched out before they died. The company—anything from a utility to a paint factory—subtracts the amount of the credit from the quantity of air pollution they're required to cut under the 1990 Clean Air Act. The idea of this and other market-based approaches to environmental cleanup is to get the most clean for the least green. "Lots of little smokestacks on the highway are equivalent to one big smokestack," says energy-policy analyst Will Schroeder of the U.S. Environmental Protection Agency. "But it will be cheaper to scrap cars than to put emission controls on smokestacks."

Adam Smith would love it. Say a factory must reduce its nitrogen oxide (NO_x) emissions by 130,000 pounds a year. And say it will cost \$1 million to do that by installing scrubbers on its smokestacks. If the factory buys 1,000 old cars for an average \$700 each, and if each car spews out 130 pounds of NO_x a year, the company will have met its clean-air mandate and saved \$300,000 in the bargain. People who sold their old clunkers could buy a cleaner, later-model car. That's how it worked in 1990 in California, when Unocal bought 8,376 pre-1971 cars for \$700 apiece. The junked cars accounted for nearly 13 million pounds of emissions per year—as much as the hydrocarbons from 250,000 new cars, one large oil refinery, or all the barbecue lighter fluid used in the Los Angeles basin.

Such "green economics" has become as trendy as recycling newspaper. In 1993, southern California allowed factories to meet clean-air standards by buying pollution credits from companies that had exceeded their mandated emissions cuts. Still, although using market forces to clean up the planet has found support in Congress, the administration, and even among environmental groups, cash-for-clunkers has its detractors. Dan Becker of the Sierra Club calls it "the Chestnut Cat approach. Pollution from the car will continue after the [car] has disappeared"—because the car's "quota" is now coming from the smokestack of the buyer, who can avoid cleaning up his own act. But there is no debate that old cars make a tempting target. The 37.6 million cars that predate 1980 are responsible for 86 percent of the smog-making gases from autos but represent only 38 percent of the fleet; the 5.9 million dirtiest cars cause a whopping 50 percent of all hydrocarbons. Next up for the green marketers: giving companies pollution credits if they switch to alternative-fuel fleets. Capitalism may turn out to be an environmentalist's friend after all.

Source: Excerpted from S. Bagley and M. Heger, "Cold Cash for Old Clunkers," *Newsweek*, April 6, 1992, p. 61.

The increasing attention by companies to protect the environment is evidenced in the attempts by firms to establish proecology policies. One such approach to environmental activism is described in Global Strategy in Action 3-2.

Despite cleanup efforts to date, the job of protecting the ecology will continue to be a top strategic priority—usually because corporate stockholders and executives choose it, increasingly because the public and the government require it. As evidenced by Figure

⁵ "How the EPA Plans to Live with Cancer Risks," *Business Week*, August 8, 1982, p. 84.

⁶ P. Kotler, *Marketing Management* (Englewood Cliffs, N.J.: Prentice Hall, 1989), p. 98.

GLOBAL
STRATEGY IN **PACKAGING FOR THE ENVIRONMENT**
ACTION 3-1



Packaging is the ultimate symbol of the 20th century's consumer culture. It protects what we buy and raises our standard of living. In developing countries, 30 percent to 50 percent of food shipments are spoiled because of inadequate packaging and distribution systems. In developed countries with more sophisticated packaging, storage, and distribution, only 2 percent to 3 percent are wasted. Packaging not only protects goods but also conveys information about their contents and preparation or administration, and—in some cases—foils would-be tamperers. It plays a vital and growing role in the global economy.

At the same time, packaging is on the environmental frontline. It is the largest and fastest growing contributor to one of the most troubling environmental problems: garbage.

In the United States, packaging accounted for more than 30 percent of the municipal solid waste stream in 1990. Where is all this packaging going? In this country, most packaging and other waste is buried in landfills. But even with its abundance of open land, America is running out of room for its garbage.

One quarter of the country's municipalities are expected to exhaust their landfill capacity before 1995, and more than half the population lives in regions with less than 10 years of landfill capacity.

Meanwhile, the environmentally sound alternatives to burying garbage—recycling, reuse, and energy recovery—are only just beginning. For the throwaway society, the 1990s are the decade of reckoning.

While packaging is not the only culprit in the solid waste crisis, it is a highly visible component, and one that directly involves consumers. And its short lifetime exacerbates the problem. Although the useful lives of some packages—such as paint cans and reusable canisters—may be as long as several years, the useful lives of others—such as fast-food hamburger wrappers—can be as fleeting as a few minutes.

Fortunately, because of the sheer volume of packaging in the solid waste stream, even relatively small improvements in packaging can make a real difference in the magnitude of the garbage crisis. Packaging, thus, offers a unique opportunity for companies to assume a leadership role in environmental responsibility.

In terms of packaging choices, industry's response to the environmental challenge has so far focused on recycling and source reduction. But the complexity of the issues involved demands a more systemic, integrated approach based on comprehensive analysis and long-term vision as well as innovative solutions.

Among the analytical tools now being deployed is life-cycle analysis. This is a fairly new technique for exploring the environmental implications of a given product decision—in this case, a packaging choice from raw material acquisition through manufacturing, energy consumption, design, and transportation to final use and disposal of the package. Life-cycle thinking is an important step toward understanding the full environmental implications of packaging choices.

Source: Excerpted from E. J. Stillwell and H. B. C. Tibbs, "Packaging for the Environment," *Management Review*, December 1991, p. 48.

3-2, the government has made numerous interventions into the conduct of business for the purpose of bettering the ecology. The consequences of one such attempt are detailed in Strategy in Action 3-2 and 3-3 (continued on p. 75).

GLOBAL
STRATEGY IN **TAKING A STEP IN THE RIGHT DIRECTION**
ACTION 3-2



"The ongoing occurrence of environmental incidents has become unacceptable in the public's mind," says George Pilko, president of Houston-based Pilko & Associates, an environmental consulting firm. That's why companies today are taking a proactive stance when it comes to managing environmental issues. The public just won't tolerate any more Love Canals, Bhopals, or major oil spills. "You've got strong public sentiment, increasingly stringent environmental regulations at the local, state, and federal level, stricter enforcement of existing regulations, and an exponential rise in environmentally oriented lawsuits. It clearly doesn't make sense for companies to continue to operate as they had been up until the late 1980s where they focused in on just remaining in compliance with existing regulations," Pilko adds.

Instead, according to Pilko, companies need to make sure they've got an environmental policy that clearly explains their commitment to being proactive and is communicated clearly to all employees. Companies also should be aware of the effectiveness of their current programs and where they stand relative to their competitors, because "there is a tremendous discrepancy between executives' perception of how they are doing and what is reality." In fact, a recent Pilko & Associates survey of 200 senior executives representing large industrial firms found that 40 percent of the respondents believed their company was doing an excellent job of managing their environmental problems, while only 8 percent thought their competitors were doing an excellent job.

Regardless of perception, however, management of environmental issues must be supported from the top. "Corporate environmental policy is most effectively communicated by the president or CEO," Pilko says. For those CEOs or senior executives interested in getting out the message that they are serious about dealing with the environment, Pilko advises them to ask themselves the following 10 questions:

1. Do you have a clearly articulated environmental policy that has been communicated throughout the company?
2. Have you had an objective, third-party assessment of the effectiveness of your environmental programs?
3. Have you analyzed how your company's environmental performance compares with that of the leading firms in your industry?
4. Does your company view environmental performance not just as a staff function but as the responsibility of all employees?
5. Have you analyzed the potential impact of environmental issues on the future demand for your products and the competitive economics in your industry?
6. Are environmental issues and activities discussed frequently at your board meetings?
7. Do you have a formal system for monitoring proposed regulatory changes and for handling compliance with changing regulations?
8. Do you routinely conduct environmental due-diligence studies on potential acquisitions?
9. Have you successfully budgeted for environmental expenditures, without incurring surprise expenses that materially affected your profitability?
10. Have you identified and quantified environmental liabilities from past operations, and do you have a plan for minimizing those liabilities?

Source: Excerpted from Julie Cohen Mason, "Taking a Step in the Right Direction," *Management Review*, December 1991, p. 23.

Tighter Restrictions on Tailpipe Emissions from Automobiles and Small Light Trucks. The restrictions are phased in over the 1994 through 1996 model years. They require a reduction of about 35 percent in nonmethane HC tailpipe emissions (to 0.25 grams per mile) and 60 percent in NO_x emissions (to 0.4 grams per mile), beginning in 1994. The emission-control requirements would apply for 10 years or 100,000 miles, up from five years or 50,000 miles under current law.

Tailpipe Standards for Light- and Medium-Duty Trucks. Trucks in the 6,000 to 8,500 pounds gross-vehicle-weight range must phase the new California tailpipe standards beginning in the 1996 model year.

Cleaner Fuels for Fleets. Based on noncompliance levels and population, 22 areas must establish a Clean-Fuel Vehicle program. The program applies to commercial fleets of 10 or more vehicles that can be refueled at a central location. Under the program, fleet operators must purchase cars and light trucks that meet emission standards that are more than 80 percent stricter than those for 1991 vehicles, starting with 1998 models. Purchase requirements for heavy-truck fleets (8,500 to 26,000 pounds gross vehicle weight) also are included.

California Pilot Program. Automakers are required to produce Clean-Fuel Vehicles for sale in California. Between 1996 and 1998, the industry annually must sell 150,000 cars and light trucks meeting the lower emission requirements of Clean-Fuel Vehicles. Beginning in 1999, automakers must sell 300,000 a year. These vehicles may run on clean fuels, such as methanol, natural gas, or reformulated gasoline. However, any fuel may be used, provided the Clean-Fuel Vehicle emission requirements are met.

Reformulated Gasoline. Starting in 1995, reformulated gasoline will be required in nine cities that are most out of compliance with federal ozone air quality standards. To qualify as reformulated gasoline, beginning in 1995, volatile organic compounds (VOCs) and toxic emissions will have to decrease by 15 percent, compared with conventional gasoline. In 2000, additional technologically feasible emission reductions must occur.

Low-Temperature CO Provisions. Starting in 1994, cars cannot emit more than 10 grams per mile tested at 20°F. (Exceedances of the ambient CO standard occur most frequently at low temperatures.) This requirement will be phased in at 40 percent of vehicles sold in 1994 MY, 80 percent in 1995 MY, and 100 percent in 1996 MY. Depending on CO air quality, even more stringent levels may be imposed, beginning with MY 2001.

Onboard Diagnostics. Vehicle manufacturers must install systems to alert drivers when an emission-control system has malfunctioned or degraded.

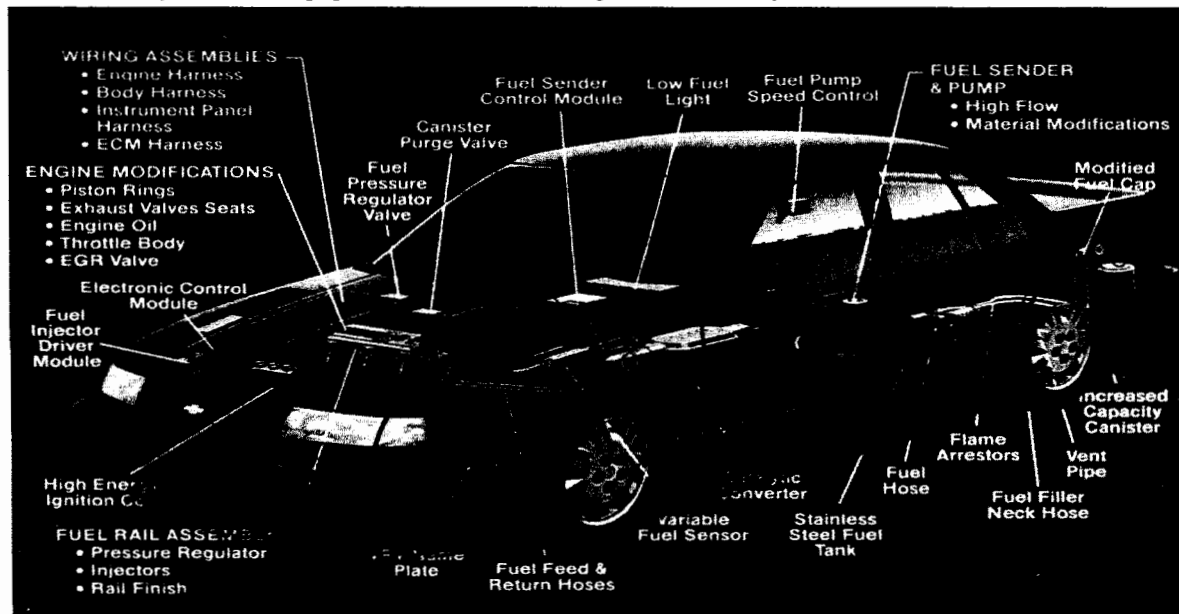
Warranty Provisions. The warranty period for most light-duty vehicle emission-control equipment components is shortened to 2 years/24,000 miles, starting in 1995. The warranty period for major emission-control components (catalytic converter, onboard diagnostics, and the electronic control module) is extended to 8 years/80,000 miles.

Chlorofluorocarbons. Production of stratospheric ozone-depleting chemicals must cease: chlorofluorocarbons (CFCs) and carbon tetrachloride by 2000; methyl chloroform by 2002. Output of hydrochlorofluorocarbons, which are less damaging substitutes for CFCs, will cease by 2030.

Toxic Air Pollutants. The new provisions are intended to reduce emissions of toxic air pollutants from stationary sources by as much as 90 percent by 2003. They list 189 toxic pollutants and require EPA to establish hundreds of categories of industrial and commercial sources of hazardous pollutants (chemical plants, oil refineries, and the like) for the purpose of promulgating standards. Between 1995 and 2003, all except the smallest sources will be required to install the best-pollution control equipment available.

STRATEGY
IN ACTION concluded
3-2

Variable-Fueled Lumina Shown here are the many Chevrolet Lumina components unique to a variable-fueled vehicle that can run on any fuel blend ranging from 85% methanol, 15% gasoline, to 100% gasoline.



STRATEGY IN ACTION THE EXPERIENCE CURVE AS AN ENTRY BARRIER

3-3

In recent years, the experience curve has become widely discussed as a key element of industry structure. According to this concept, unit costs in many manufacturing industries (some dogmatic adherents say in all manufacturing industries) as well as in some service industries decline with "experience," or a particular company's cumulative volume of production. (The experience curve, which encompasses many factors, is a broader concept than the better-known learning curve, which refers to the efficiency achieved over time by workers through much repetition.)

The causes of the decline in unit costs are a combination of elements, including economies of scale, the learning curve for labor, and capital-labor substitution. The cost decline creates a barrier to entry because new competitors with no "experience" face higher costs than established ones, particularly the producer with the largest market share, and have difficulty catching up with the entrenched competitors.

Adherents of the experience curve concept stress the importance of achieving market leadership to maximize this barrier to entry, and they recommend aggressive action to achieve it, such as price cutting in anticipation of falling costs in order to build volume. For the combatant that cannot achieve a healthy market share, the prescription is usually, "Get out."

Is the experience curve an entry barrier on which strategies should be built? The answer is: not in every industry. In fact, in some industries, building a strategy on the experience curve can be potentially disastrous. That costs decline with experience in some industries is not news to corporate executives. The significance of the experience curve for strategy depends on what factors are causing the decline.

A new entrant may well be more efficient than the more experienced competitors; if it has built the newest plant, it will face no disadvantage in having to catch up. The strategic prescription, "You must have the largest, most efficient plant," is a lot different from "You must produce the greatest cumulative output of the item to get your costs down."

Whether a drop in costs with cumulative (not absolute) volume erects an entry barrier also depends on the sources of the decline. If costs go down because of technical advances known generally in the industry or because of the development of improved equipment that can be copied or purchased from equipment suppliers, the experience curve is not an entry barrier at all—in fact, new or less-experienced competitors may actually enjoy a cost advantage over the leaders. Free of the legacy of heavy past investments, the newcomer or less-experienced competitor can purchase or copy the newest and lowest-cost equipment and technology.

If, however, experience can be kept proprietary, the leaders will maintain a cost advantage. But new entrants may require less experience to reduce their costs than the leaders needed. All this suggests that the experience curve can be a shaky entry barrier on which to build a strategy.

While space does not permit a complete treatment here, I want to mention a few other crucial elements in determining the appropriateness of a strategy built on the entry barrier provided by the experience curve:

The height of the barrier depends on how important costs are to competition compared with other areas like marketing, selling, and innovation.

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

If more than one strong company is building its strategy on the experience curve, the consequences can be neatly fatal. By the time only one rival is left pursuing such a strategy, industry growth may have stopped and the prospects of reaping the spoils of victory long since evaporated.

FIGURE 3-2
Federal Ecological Legislation

CENTERPIECE LEGISLATION
National Environmental Policy Act, 1969 Established Environmental Protection Agency; consolidated federal environmental activities under it. Established Council on Environmental Quality to advise president on environmental policy and to review environmental impact statements.

AIR POLLUTION

Clean Air Act, 1963 Authorized assistance to state and local governments in formulating control programs. Authorized limited federal action in correcting specific pollution problems.
Clean Air Act, Amendments (Motor Vehicle Air Pollution Control Act), 1965 Authorized federal standards for auto exhaust emission. Standards first set for 1968 models.
Air Quality Act, 1967 Authorized federal government to establish air quality control regions and to set maximum permissible pollution levels. Required states and localities to carry out approved control programs or else give way to federal controls.

Clean Air Act Amendments, 1970 Authorized EPA to establish nationwide air pollution standards and to limit the discharge of six principal pollutants into the lower atmosphere. Authorized citizens to take legal action to require EPA to implement its standards against undiscovered offenders.

Clean Air Act Amendments, 1977 Postponed auto emission requirements. Required use of scrubbers in new coal-fired power plants. Directed EPA to establish a system to prevent deterioration of air quality in clean areas.

SOLID WASTE POLLUTION

Solid Waste Disposal Act, 1965 Authorized research and assistance to state and local control programs.

Resource Recovery Act, 1970 Subsidized construction of pilot recycling plants; authorized development of nationwide control programs.

Resource Conservation and Recovery Act, 1976 Directed EPA to regulate hazardous waste management, from generation through disposal.

Surface Mining and Reclamation Act, 1976 Controlled strip mining and restoration of reclaimed land.

WATER POLLUTION

Refuse Act, 1899 Prohibited dumping of debris into navigable waters without a permit. Extended by court decision to industrial discharges.

INDUSTRY ENVIRONMENT

Harvard professor Michael E. Porter's book *Competitive Strategy* propelled the concept of industry environment into the foreground of strategic thought and business planning. The cornerstone of the book is an article from the *Harvard Business Review*, in which Porter explains the five forces that shape competition in an industry. His well-defined analytic framework helps strategic managers to link the impact of remote factors to the resulting effects on a firm's operating environment.

With the special permission of Professor Porter and the *Harvard Business Review*, we present in this section of the chapter the major portion of his seminal article on the industry environment and its impact on strategic management.⁷

⁷ M. E. Porter, "How Competitive Forces Shape Strategy," *Harvard Business Review*, March-April 1979, pp. 137-45.

FIGURE 3-2 (concluded)

Federal Water Pollution Control Act, 1956 Authorized grants to states for water pollution control. Gave federal government limited authority to correct specific pollution problems.

Water Quality Act, 1965 Provided for adoption of water quality standards by states, subject to federal approval.

Water Quality Improvement Act, 1970 Provided for federal cleanup of oil spills. Strengthened federal authority over water pollution control.

Federal Water Pollution Control Act Amendments, 1972 Authorized EPA to set water quality and effluent standards; provided for enforcement and research.

Safe Drinking Water Act, 1974 Set standards for drinking water quality.

Clean Water Act, 1977 Ordered control of toxic pollutants by 1984 with best available technology economically feasible.

OTHER POINTS

Federal Insecticide, Fungicide and Rodenticide Act, 1947 To protect farmers, prohibited fraudulent claims by salespersons. Required registration of poisonous products.

Federal Insecticide, Fungicide, and Rodenticide Amendments, 1967, 1972 Provided new authority to license users of pesticides.

Pesticide Control Act, 1972 Required all pesticides shipped in interstate commerce to be certified as effective for their stated purposes and harmless to crops, animal feed, animal life, and humans.

Noise Control Act, 1972 Required EPA to set noise standards for major sources of noise and to advise Federal Aviation Administration on standards for airplane noise.

Federal Environmental Pesticide Control Act Amendments, 1975 Set 1977 deadline (not met) for registration, classification, and licensing of many pesticides.

Toxic Substances Control Act, 1976 Required testing of chemicals; authorized EPA to restrict the use of harmful substances.

Comprehensive Environmental Response, Compensation, and Liability Act, 1980 Commonly called "Superfund Act"; created a trust fund (paid for in part by toxic-chemical manufacturers) to clean up hazardous waste sites.

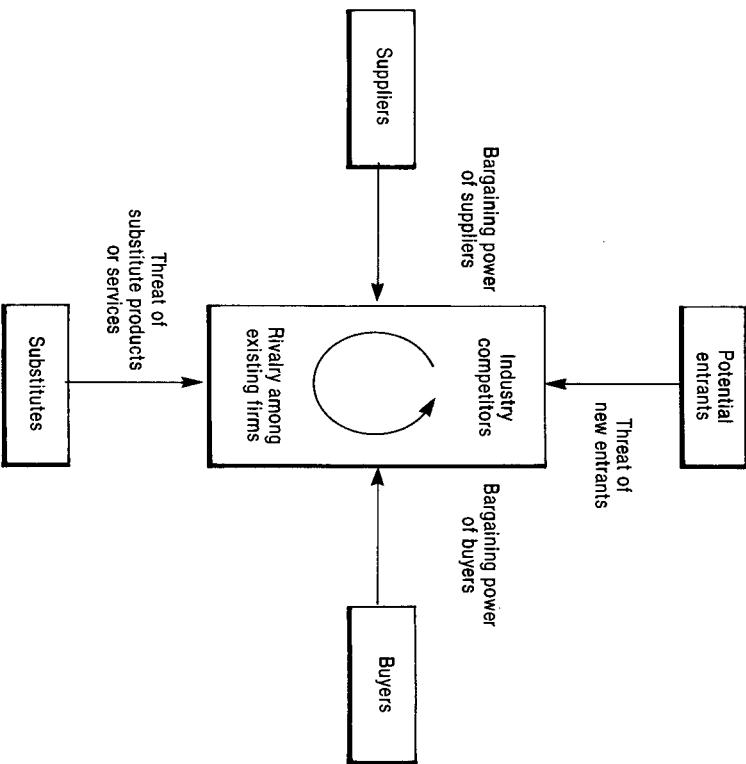
OVERVIEW

The nature and degree of competition in an industry hinge on five forces: the threat of new entrants, the bargaining power of customers, the bargaining power of suppliers, the threat of substitute products or services (where applicable), and the jockeying among current contestants. To establish a strategic agenda for dealing with these contending currents and to grow despite them, a company must understand how they work in its industry, and how they affect the company in its particular situation. This chapter will detail how these forces operate and suggest ways of adjusting to them, and, where possible, of taking advantage of them.

HOW COMPETITIVE FORCES SHAPE STRATEGY

The essence of strategy formulation is coping with competition. Yet it is easy to view competition too narrowly and too pessimistically. While one sometimes hears executives complaining to the contrary, intense competition in an industry is neither coincidence nor bad luck.

FIGURE 3-3 Forces Driving Industry Competition



Moreover, in the fight for market share, competition is not manifested only in the other players. Rather, competition in an industry is rooted in its underlying economics, and competitive forces exist that go well beyond the established combatants in a particular industry. Customers, suppliers, potential entrants, and substitute products are all competitors that may be more or less prominent or active depending on the industry.

The state of competition in an industry depends on five basic forces, which are diagrammed in Figure 3-3. The collective strength of these forces determines the ultimate profit potential of an industry. It ranges from intense in industries like tires, metal cans, and steel, where no company earns spectacular returns on investment, to mild in industries like oil-field services and equipment, soft drinks, and toiletries, where there is room for quite high returns.

In the economist's "perfectly competitive" industry, jockeying for position is unbridled and entry to the industry very easy. This kind of industry structure, of course, offers the worst prospect for long-run profitability. The weaker the forces collectively, however, the greater the opportunity for superior performance.

Whatever their collective strength, the corporate strategist's goal is to find a position in the industry where his or her company can best defend itself against these forces or can influence them in its favor. The collective strength of the forces may be painfully apparent to all the antagonists; but to cope with them, the strategist must delve below the surface and analyze the sources of competition. For example, what makes the industry vulnerable to entry? What determines the bargaining power of suppliers?

Knowledge of these underlying sources of competitive pressure provides the groundwork for a strategic agenda of action. They highlight the critical strengths and weaknesses of the company, animate the positioning of the company in its industry, clarify the areas where strategic changes may yield the greatest payoff, and highlight the places where industry trends promise to hold the greatest significance as either opportunities or threats.

Understanding these sources also proves to be of help in considering areas for diversification.

CONTENDING FORCES

The strongest competitive force or forces determine the profitability of an industry and so are of greatest importance in strategy formulation. For example, even a company with a strong position in an industry unthreatened by potential entrants will earn low returns if it faces a superior or a lower-cost substitute product—as the leading manufacturers of vacuum tubes and coffee percolators have learned to their sorrow. In such a situation, coping with the substitute product becomes the number one strategic priority.

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

Every industry has an underlying structure, or a set of fundamental economic and technical characteristics, that gives rise to these competitive forces. The strategist, wanting to position his or her company to cope best with its industry environment or to influence that environment in the company's favor, must learn what makes the environment tick.

This view of competition pertains equally to industries dealing in services and to those selling products. To avoid monotony, I refer to both products and services as *products*. The same general principles apply to all types of business.

A few characteristics are critical to the strength of each competitive force. They will be discussed in this section.

A. Threat of Entry

New entrants to an industry bring new capacity, the desire to gain market share, and often substantial resources. Companies diversifying through acquisition into the industry from other markets often leverage their resources to cause a shape-up, as Philip Morris did with Miller beer.

The seriousness of the threat of entry depends on the barriers present and on the reaction from existing competitors that the entrant can expect. If barriers to entry are high and a

newcomer can expect sharp retaliation from the entrenched competitors, he or she obviously will not pose a serious threat of entering.

There are six major sources of barriers to entry:

1. **Economies of Scale** These economies deter entry by forcing the aspirant either to come in on a large scale or to accept a cost disadvantage. Scale economies in production, research, marketing, and service are probably the key barriers to entry in the mainframe computer industry, as Xerox and GE sadly discovered. Economies of scale also can act as hurdles in distribution, utilization of the sales force, financing, and nearly any other part of a business.
2. **Product Differentiation** Brand identification creates a barrier by forcing entrants to spend heavily to overcome customer loyalty. Advertising, customer service, being first in the industry, and product differences are among the factors fostering brand identification. It is perhaps the most important entry barrier in soft drinks, over-the-counter drugs, cosmetics, investment banking, and public accounting. To create high fences around their business, brewers couple brand identification with economies of scale in production, distribution, and marketing.
3. **Capital Requirements** The need to invest large financial resources in order to compete creates a barrier to entry, particularly if the capital is required for unrecoverable expenditures in up-front advertising or R&D. Capital is necessary not only for fixed facilities but also for customer credit, inventories, and absorbing start-up losses. While major corporations have the financial resources to invade almost any industry, the huge capital requirements in certain fields, such as computer manufacturing and mineral extraction, limit the pool of likely entrants.
4. **Cost Disadvantages Independent of Size** Entrenched companies may have cost advantages not available to potential rivals, no matter what their size and attainable economies of scale. These advantages can stem from the effects of the learning curve (and of its first cousin, the experience curve), proprietary technology, access to the best raw materials sources, assets purchased at preinflation prices, government subsidies, or favorable locations. Sometimes cost advantages are enforceable legally, as they are through patents. (For analysis of the much-discussed experience curve as a barrier to entry, see Strategy in Action 3-3.)
5. **Access to Distribution Channels** The new boy or girl on the block must, of course, secure distribution of his or her product or service. A new food product, for example, must displace others from the supermarket shelf via price breaks, promotions, intense selling efforts, or some other means. The more limited the wholesale or retail channels are and the more that existing competitors have these tied up, obviously the tougher that entry into the industry will be. Sometimes this barrier is so high that, to surmount it, a new contestant must create its own distribution channels, as Timex did in the watch industry in the 1950s.
6. **Government Policy** The government can limit or even foreclose entry to industries, with such controls as license requirements and limits on access to raw materials. Regulated

industries like trucking, liquor retailing, and freight forwarding are noticeable examples; more subtle government restrictions operate in fields like ski-area development and coal mining. The government also can play a major indirect role by affecting entry barriers through such controls as air and water pollution standards and safety regulations.

The potential rival's expectations about the reaction of existing competitors also will influence its decision on whether to enter. The company is likely to have second thoughts if incumbents have previously lashed out at new entrants or if:

- The incumbents possess substantial resources to fight back, including excess cash and unused borrowing power, productive capacity, or clout with distribution channels and customers.
- The incumbents seem likely to cut prices because of a desire to keep market shares or because of industrywide excess capacity.
- Industry growth is slow, affecting its ability to absorb the new arrival and probably causing the financial performance of all the parties involved to decline.

B. Powerful Suppliers

Suppliers can exert bargaining power on participants in an industry by raising prices or reducing the quality of purchased goods and services. Powerful suppliers, thereby, can squeeze profitability out of an industry unable to recover cost increases in its own prices. By raising their prices, soft-drink concentrate producers have contributed to the erosion of profitability of bottling companies because the bottlers—facing intense competition from powdered mixes, fruit drinks, and other beverages—have limited freedom to raise their prices accordingly.

The power of each important supplier (or buyer) group depends on a number of characteristics of its market situation and on the relative importance of its sales or purchases to the industry compared with its overall business.

A *supplier* group is powerful if:

1. It is dominated by a few companies and is more concentrated than to the industry it sells.
2. Its product is unique or at least differentiated, or if it has built-up switching costs. Switching costs are fixed costs that buyers face in changing suppliers. These arise because, among other things, a buyer's product specifications tie it to particular suppliers, it has invested heavily in specialized ancillary equipment or in learning how to operate a supplier's equipment (as in computer software), or its production lines are connected to the supplier's manufacturing facilities (as in some manufacturing of beverage containers).
3. It is not obliged to contend with other products for sale to the industry. For instance, the competition between the steel companies and the aluminum companies to sell to the can industry checks the power of each supplier.
4. It poses a credible threat of integrating forward into the industry's business. This provides a check against the industry's ability to improve the terms on which it purchases.
5. The industry is not an important customer of the supplier group. If the industry is an important customer, suppliers' fortunes will be tied closely to the industry, and they will want to protect the industry through reasonable pricing and assistance in activities like R&D and lobbying.

C. Powerful Buyers

Customers likewise can force down prices, demand higher quality or more service, and play competitors off against each other—all at the expense of industry profits.

A *buyer* group is powerful if:

1. It is concentrated or purchases in large volumes. Large-volume buyers are particularly potent forces if heavy fixed costs characterize the industry—as they do in metal containers, corn refining, and bulk chemicals, for example—which raise the stakes to keep capacity filled.
 2. The products it purchases from the industry are standard or undifferentiated. The buyers, sure that they always can find alternative suppliers, may play one company against another, as they do in aluminum extrusion.
 3. The products it purchases from the industry form a component of its product and represent a significant fraction of its cost. The buyers are likely to shop for a favorable price and purchase selectively. Where the product sold by the industry in question is a small fraction of buyers' costs, buyers are usually much less price sensitive.
 4. It earns low profits, which create great incentive to lower its purchasing costs. Highly profitable buyers, however, are generally less price sensitive (i.e., of course, if the item does not represent a large fraction of their costs).
 5. The industry's product is unimportant to the quality of the buyers' products or services. Where the quality of the buyers' products is very much affected by the industry's product, buyers are generally less price sensitive. Industries in which this situation exists include oil-field equipment, where a malfunction can lead to large losses, and enclosures for electronic medical and test instruments, where the quality of the enclosure can influence the user's impression about the quality of the equipment inside.
 6. The industry's product does not save the buyer money. Where the industry's product or service can pay for itself many times over, the buyer is rarely price sensitive; rather, he or she is interested in quality. This is true in services like investment banking and public accounting, where errors in judgment can be costly and embarrassing, and in businesses like the mapping of oil wells, where an accurate survey can save thousands of dollars in drilling costs.
 7. The buyers pose a credible threat of integrating backward to make the industry's product. The Big Three auto producers and major buyers of cars often have used the threat of self-manufacture as a bargaining lever. But sometimes an industry so engenders a threat to buyers that its members may integrate forward.
- Most of these sources of buyer power can be attributed to consumers as a group as well as to industrial and commercial buyers; only a modification of the frame of reference is necessary. Consumers tend to be more price sensitive if they are purchasing products that are undifferentiated, expensive relative to their incomes, and of a sort where quality is not particularly important.
- The buying power of retailers is determined by the same rules, with one important addition. Retailers can gain significant bargaining power over manufacturers when they can influence consumers' purchasing decisions, as they do in audio components, jewelry, appliances, sporting goods, and other goods.

D. Substitute Products

By placing a ceiling on the prices it can charge, substitute products or services limit the potential of an industry. Unless it can upgrade the quality of the product or differentiate it somehow (as via marketing), the industry will suffer in earnings and possibly in growth.

Manifestly, the more attractive the price-performance trade-off offered by substitute products, the firmer the lid placed on the industry's profit potential. Sugar producers confronted with the large-scale commercialization of high-fructose corn syrup, a sugar substitute, are learning this lesson today.

Substitutes not only limit profits in normal times but also reduce the bonanza an industry can reap in boom times. In 1978, the producers of fiberglass insulation enjoyed unprecedented demand as a result of high energy costs and severe winter weather. But the industry's ability to raise prices was tempered by the plethora of insulation substitutes, including cellulose, rock wool, and styrofoam. These substitutes are bound to become an even stronger force once the current round of plant additions by fiberglass insulation producers has boosted capacity enough to meet demand (and then some).

Substitute products that deserve the most attention strategically are those that (a) are subject to trends improving their price-performance trade-off with the industry's product or (b) are produced by industries earning high profits. Substitutes often come rapidly into play if some development increases competition in their industries and causes price reduction or performance improvement.

E. Jockeying for Position

Rivalry among existing competitors takes the familiar form of jockeying for position—using tactics like price competition, product introduction, and advertising slugfests. This type of intense rivalry is related to the presence of a number of factors:

1. Competitors are numerous or are roughly equal in size and power. In many U.S. industries in recent years, foreign contenders, of course, have become part of the competitive picture.
2. Industry growth is slow, precipitating fights for market share that involve expansion-minded members.
3. The product or service lacks differentiation or switching costs, which lock in buyers and protect one combatant from raids on its customers by another.
4. Fixed costs are high or the product is perishable, creating strong temptation to cut prices. Many basic materials businesses, like paper and aluminum, suffer from this problem when demand slackens.
5. Capacity normally is augmented in large increments. Such additions, as in the chlorine and vinyl chloride businesses, disrupt the industry's supply-demand balance and often lead to periods of overcapacity and price cutting.
6. Exit barriers are high. Exit barriers, like very specialized assets or management's loyalty to a particular business, keep companies competing even though they may be earning low or even negative returns on investment. Excess capacity remains functioning, and the profitability of the healthy competitors suffers as the sick ones hang on. If the entire industry suffers from overcapacity, it may seek government help—particularly if foreign competition is present.

7. The rivals are diverse in strategies, origins, and "personalities." They have different ideas about how to compete and continually run head-on into each other in the process.

As an industry matures, its growth rate changes, resulting in declining profits and (often) a shakeout. 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 members, not to mention many of the weaker companies. The same profit story has been played out in industry after industry—snowmobiles, aerosol packaging, and sports equipment are just a few examples.

An acquisition can introduce a very different personality to an industry, as has been the case with Black & Decker's takeover of McCullough, the producer of chain saws. Technological innovation can boost the level of fixed costs in the production process, as it did in the shift from batch to continuous-line photo finishing in the 1960s.

While a company must live with many of these factors—because they are built into the industry economics—it may have some latitude for improving matters through strategic shifts. For example, it may try to raise buyers' switching costs or increase product differentiation. A focus on selling efforts in the fastest-growing segments of the industry or on market areas with the lowest fixed costs can reduce the impact of industry rivalry. If it is feasible, a company can try to avoid confrontation with competitors having high exit barriers and, thus, can sidestep involvement in bitter price cutting.

INDUSTRY ANALYSIS AND COMPETITIVE ANALYSIS

Designing viable strategies for a firm requires a thorough understanding of the firm's industry and competition. The firm's executives need to address four questions: (1) What are the boundaries of the industry? (2) What is the structure of the industry? (3) Which firms are our competitors? (4) What are the major determinants of competition? The answers to these questions provide a basis for thinking about the appropriate strategies that are open to the firm.

INDUSTRY BOUNDARIES

An industry is a collection of firms that offer similar products or services. By "similar products," we mean products that customers perceive to be substitutable for one another. Consider, for example, the brands of personal computers (PCs) that are now being marketed. The firms that produce these PCs, such as ATT, IBM, Apple, and Compaq, form the nucleus of the microcomputer industry.

Suppose a firm competes in the microcomputer industry. Where do the boundaries of this industry begin and end? Does the industry include desktops? Laptops? These are the kinds of questions that executives face in defining industry boundaries.

Why is a definition of industry boundaries important? First, it helps executives determine the arena in which their firm is competing. A firm competing in the microcomputer industry participates in an environment very different from that of the broader electronics business. The microcomputer industry comprises several related product families, including personal computers, inexpensive computers for home use, and work-

stations. The unifying characteristic of these product families is the use of a central processing unit (CPU) in a microchip. On the other hand, the electronics industry is far more extensive; it includes computers, radios, supercomputers, superconductors, and many other products.

The microcomputer and electronics industries differ in their volume of sales, their scope (some would consider microcomputers a segment of the electronics industry), their rate of growth, and their competitive makeup. The dominant issues faced by the two industries also are different. Witness, for example, the raging public debate being waged on the future of the "high-definition TV." U.S. policymakers are attempting to ensure domestic control of that segment of the electronics industry. They also are considering ways to stimulate "cutting-edge" research in superconductivity. These efforts are likely to spur innovation and stimulate progress in the electronics industry. In contrast, the same policymakers are attempting to ensure that microcomputer technology does not reach Eastern Bloc countries. These efforts will restrict the scope of international markets for microcomputer producers.

Second, a definition of industry boundaries focuses attention on the firm's competitors. Defining industry boundaries enables the firm to identify its competitors and producers of substitute products. This is critically important to the firm's design of its competitive strategy.

Third, a definition of industry boundaries helps executives determine key factors for success. Survival in the premier segment of the microcomputer industry requires skills that are considerably different from those required in the lower end of the industry. Firms that compete in the premier segment need to be on the cutting edge of technological development and to provide extensive customer support and education. On the other hand, firms that compete in the lower end need to excel in initiating the products introduced by the premier segment, to focus on customer convenience, and to maintain operational efficiency that permits them to charge the lowest market price. Defining industry boundaries enables executives to ask these questions: Do we have the skills it takes to succeed here? If not, what must we do to develop these skills?

Finally, a definition of industry boundaries gives executives another basis on which to evaluate their firm's goals. Executives use that definition to forecast demand for their firm's products and services. Armed with that forecast, they can determine whether those goals are realistic.

Problems in Defining Industry Boundaries

Defining industry boundaries requires both caution and imagination. Caution is necessary because there are no precise rules for this task and because a poor definition will lead to poor planning. Imagination is necessary because industries are dynamic—in every industry, important changes are under way in such key factors as competition, technology, and consumer demand.

Defining industry boundaries is a very difficult task. The difficulty stems from three sources:

1. The evolution of industries over time creates new opportunities and threats. Compare the financial services industry as we know it today with that of the 1970s and 1980s, and then try to imagine how different the industry will be in the year 2000.

2. Industrial evolution creates industries within industries. The electronics industry of the 1960s has been transformed into many "industries"—TV sets, transistor radios, micro- and macrocomputers, supercomputers, superconductors, and so on. Such transformation allows some firms to specialize and others to compete in different, related industries.

3. Industries are becoming global in scope. Consider the civilian aircraft manufacturing industry. For nearly three decades, U.S. firms dominated world production in that industry. But small and large competitors were challenging their dominance by 1990. At that time, Airbus Industries (a consortium of European firms) and Brazilian, Korean, and Japanese firms were actively competing in the industry.

Developing a Realistic Industry Definition

Given the difficulties outlined above, how do executives draw accurate boundaries for an industry? The starting point is a definition of the industry in global terms; that is, in terms that consider the industry's international components as well as its domestic components.

Having developed a preliminary concept of the industry (e.g., computers), executives flush out its current components. This can be done by defining its product segments, as illustrated in Figure 3-4. Executives need to select the scope of their firm's potential market from among these related but distinct areas.

To understand the makeup of the industry, executives adopt a longitudinal perspective. They examine the emergence and evolution of product families. Why did these product families arise? How and why did they change? The answers to such questions provide executives with clues about the factors that drive competition in the industry.

Executives also examine the companies that offer different product families, the overlapping or distinctiveness of customer segments, and the rate of substitutability among product families.

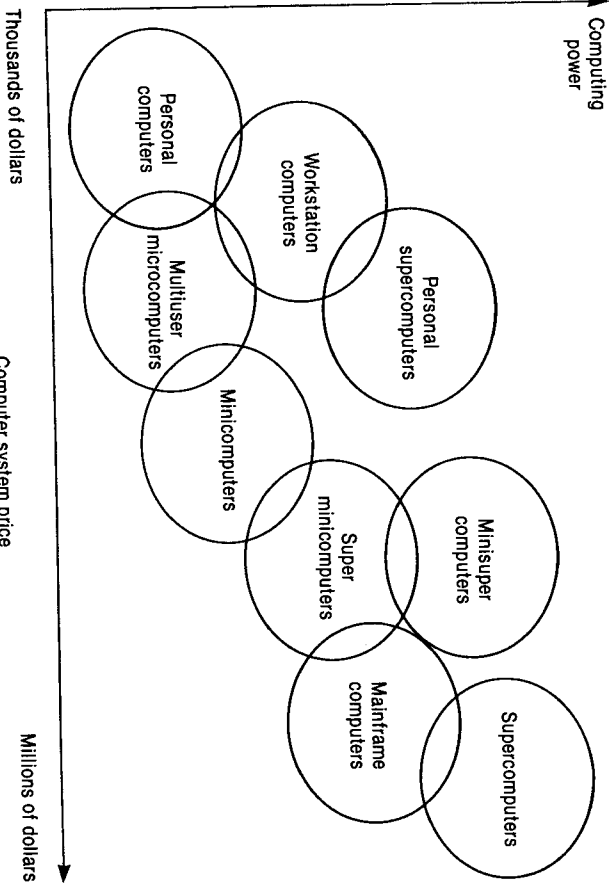
To realistically define their industry, executives need to examine five issues:

1. Which part of the industry corresponds to our firm's goals?
2. What are the key ingredients of success in that part of the industry?
3. Does our firm have the skills needed to compete in that part of the industry? If not, can we build those skills?
4. Will the skills enable us to seize emerging opportunities and deal with future threats?
5. Is our definition of the industry flexible enough to allow necessary adjustments to our business concept as the industry grows?

INDUSTRY STRUCTURE

Defining an industry's boundaries is incomplete without an understanding of its structural attributes. *Structural attributes* are the enduring characteristics that give an industry its distinctive character. Consider the cable television and financial services industries. Both industries are competitive, and both are important for our quality of life. But these industries have very different requirements for success. To succeed in the cable television industry, firms require vertical integration, which helps them lower their operating costs

FIGURE 3-4
Computer Industry Product Segments



Source: Egli Julissen and Karen Julissen, *The Computer Industry Almanac* (New York: Simon & Schuster, 1988), p. 1.11.

and ensures their access to quality programs; technological innovation, to enlarge the scope of their services and deliver them in new ways; and extensive marketing, using appropriate segmentation techniques to locate potentially viable niches. To succeed in the financial services industry, firms need to meet very different requirements, among which are extensive orientation of customers and an extensive capital base.

How can we explain such variations among industries? The answer lies in examining the four variables that industry comprises: (1) concentration, (2) economies of scale, (3) product differentiation, and (4) barriers to entry.

Concentration

This variable refers to the extent to which industry sales are dominated by only a few firms. In a highly concentrated industry (i.e., an industry whose sales are dominated by a handful of companies), the intensity of competition declines over time. High concentration serves as a barrier to entry into an industry, because it enables the firms that hold large market shares to achieve significant economies of scale (e.g., savings in production costs due to increased production quantities) and, thus, to lower their prices to stymie attempts of new firms to enter the market.

The U.S. aircraft manufacturing industry is highly concentrated. In 1988, its concentration ratio—the percent of market share held by the top four firms in the industry—was 67 percent. Competition in the industry has not been vigorous. Firms in the industry have been able to deter entry through proprietary technologies and the formation of strategic alliances (e.g., joint ventures).

Economies of Scale

This variable refers to the savings that companies within an industry achieve due to increased volume. Simply put, when the volume of production increases, the long-range average cost of a unit produced will decline.

Economies of scale result from technological and nontechnological sources. The technological sources are a higher level of mechanization or automation and a greater up-to-dateness of plant and facilities. The nontechnological sources include better managerial coordination of production functions and processes, long-term contractual agreements with suppliers, and enhanced employee performance arising from specialization.

Economies of scale are an important determinant of the intensity of competition in an industry. Firms that enjoy such economies can charge lower prices than their competitors. They also can create barriers to entry by reducing their prices temporarily or permanently to deter new firms from entering the industry.

Product Differentiation

This variable refers to the extent to which customers perceive products or services offered by firms in the industry as different.

The differentiation of products can be real or perceived. The differentiation between Apple's Macintosh and IBM's PS/2 Personal Computer is a prime example of real differentiation. These products differ significantly in their technology and performance. Similarly, the civilian aircraft models produced by Boeing differ markedly from those produced by Airbus. The differences result from the use of different design principles and different construction technologies. For example, the newer Airbus planes follow the principle of "fly by wire," whereas Boeing planes utilize the laws of hydraulics. Thus, in Boeing planes, wings are activated by mechanical handling of different parts of the plane, whereas in the Airbus planes, this is done almost automatically.

Perceived differentiation results from the way in which firms position their products and from their success in persuading customers that their products differ significantly from competing products. Marketing strategies provide the vehicles through which this is done. Witness, for example, the extensive advertising campaigns of the automakers, each of which attempts to convey an image of distinctiveness. BMW ads highlight the excellent engineering of the BMW and its symbolic value as a sign of achievement. Some automakers focus on roominess and durability, which are desirable attributes for the family segment of the automobile market.

Real and perceived differentiations often intensify competition among existing firms. On the other hand, successful differentiation poses a competitive disadvantage for firms that attempt to enter an industry.

Barriers to Entry

As Porter noted earlier in this chapter, barriers to entry are the obstacles that a firm must overcome to enter an industry. The barriers can be tangible or intangible. The tangible barriers include capital requirements, technological know-how, resources, and the laws regulating entry into an industry. The intangible barriers include the reputation of existing firms, the loyalty of consumers to existing brands, and access to the managerial skills required for successful operation in an industry.

Entry barriers both increase and reflect the level of concentration, economies of scale, and product differentiation in an industry, and such increases make it more difficult for new firms to enter the industry. Therefore, when high barrier levels exist in an industry, competition in that industry declines over time.

In summary, analysis of concentration, economies of scale, product differentiation, and barriers to entry in an industry enables a firm's executives to understand the forces that determine competition in an industry and sets the stage for identifying the firm's competitors and how they position themselves in the marketplace.

COMPETITIVE ANALYSIS

Competitive analysis usually has these objectives: (1) to identify current and potential competitors, (2) to identify potential moves by competitors, and (3) to help the firm devise effective competitive strategies.

How to Identify Competitors

In identifying their firm's current and potential competitors, executives consider several important variables:

1. How do other firms define the scope of their market? The more similar the definitions of firms, the more likely the firms will view each other as competitors.
2. How similar are the benefits the customers derive from the products and services that other firms offer? The more similar the benefits of products or services, the higher the level of substitutability between them. High substitutability levels force firms to compete fiercely for customers.
3. How committed are other firms to the industry? Although this question may appear to be far removed from the identification of competitors, it is in fact one of the most important questions that competitive analysis must address, because it sheds light on the long-term intentions and goals. To size up the commitment of potential competitors to the industry, reliable intelligence data are needed. Such data may relate to potential resource commitments (e.g., planned facility expansions).

Common Mistakes in Identifying Competitors

Identifying competitors is a milestone in the development of strategy. But it is a process laden with uncertainty and risk, a process in which executives sometimes make costly mistakes. Examples of these mistakes are:

OPERATING ENVIRONMENT

1. Overemphasizing current and known competitors while giving inadequate attention to potential entrants.
2. Overemphasizing large competitors while ignoring small competitors.
3. Overlooking potential international competitors.
4. Assuming that competitors will continue to behave in the same way they have behaved in the past.
5. Misreading signals that may indicate a shift in the focus of competitors or a refinement of their present strategies or tactics.
6. Overemphasizing competitors' financial resources, market position, and strategies while ignoring their intangible assets, such as a top-management team.
7. Assuming that all of the firms in the industry are subject to the same constraints or are open to the same opportunities.
8. Believing that the purpose of strategy is to outsmart the competition, rather than to satisfy customer needs and expectations.

The operating environment, also called the *competitive or task environment*, comprises factors in the competitive situation that affect a firm's success in acquiring needed resources or in profitably marketing its goods and services. Among the most important of these factors are the firm's competitive position, the composition of its customers, its reputation among suppliers and creditors, and its ability to attract capable employees. The operating environment is typically much more subject to the firm's influence or control than the remote environment. Thus, firms can be much more proactive (as opposed to reactive) in dealing with the operating environment than in dealing with the remote environment.

1. Competitive Position

Assessing its competitive position improves a firm's chances of designing strategies that optimize its environmental opportunities.⁸ Development of competitor profiles enables a firm to more accurately forecast both its short- and long-term growth and its profit potentials. Although the exact criteria used in constructing a competitor's profile are largely determined by situational factors, the following criteria are often included:

1. Market share
2. Breadth of product line.
3. Effectiveness of sales distribution.
4. Proprietary and key-account advantages.
5. Price competitiveness.
6. Advertising and promotion effectiveness.
7. Location and age of facility.
8. Capacity and productivity.
9. Experience.

⁸ M. Lauenstein, "The Strategy Audit," *Journal of Business Strategy*, Winter 1984, pp. 87-91.

FIGURE 3-5
Competitor Profile

Key Success Factors	Weight	Rating†	Weighted Score
Market share	0.30	4	1.20
Price competitiveness	0.20	3	0.60
Facilities location	0.20	5	1.00
Raw materials costs	0.10	3	0.30
Caliber of personnel	0.20	1	0.20
	1.00*		3.30

* The total of the weights must always equal 1.00.

† The rating scale suggested is as follows: very strong competitive position (5 points), strong (4), average (3), weak (2), very weak (1).

10. Raw materials costs.
11. Financial position.
12. Relative product quality.
13. R&D advantages-position.
14. Caliber of personnel.
15. General images.⁹

Once appropriate criteria have been selected, they are weighted to reflect their importance to a firm's success. Then the competitor being evaluated is rated on the criteria, the ratings are multiplied by the weight, and the weighted scores are summed to yield a numerical profile of the competitor, as shown in Figure 3-5.

This type of competitor profile is limited by the subjectivity of its criteria selection, weighing, and evaluation approaches. Nevertheless, the process of developing such profiles is of considerable help to a firm in defining its perception of its competitive position. Moreover, comparing the firm's profile with those of its competitors can aid its managers in identifying factors that might make the competitors vulnerable to the strategies the firm might choose to implement.

2. Customer Profiles

Perhaps the most vulnerable result of analyzing the operating environment is the understanding of a firm's customers that this provides.¹⁰ Developing a profile of a firm's present and prospective customers improves the ability of its managers to plan strategic operations,

to anticipate changes in the size of markets, and to reallocate resources so as to support forecast shifts in demand patterns. The traditional approach to segmenting customers is based on customer profiles constructed from geographic, demographic, psychographic, and buyer behavior information, as illustrated in Figure 3-6.

Geographic

It is important to define the geographic area from which customers do or could come. Almost every product or service has some quality that makes it variably attractive to buyers from different locations. Obviously, a Wisconsin manufacturer of snow skis should think twice about investing in a wholesale distribution center in South Carolina. On the other hand, advertising in the *Milwaukee Sun-Times* could significantly expand the geographically defined customer market of a major Myrtle Beach, South Carolina, hotel.

Demographic

Demographic variables most commonly are used to differentiate groups of present or potential customers. Demographic information (e.g., information on sex, age, marital status, income, and occupation) is comparatively easy to collect, quantify, and use in strategic forecasting, and such information is the minimum basis for a customer profile.

Psychographic

Personality and lifestyle variables often are better predictors of customer purchasing behavior than geographic or demographic variables. In such situations, a psychographic study is an important component of the customer profile. Recent advertising campaigns by soft-drink producers—Pepsi-Cola ("the Pepsi generation"), Coca-Cola ("catch the wave"), and 7UP ("America's turning 7UP")—reflect strategic management's attention to the psychographic characteristics of their largest customer segment—physically active, group-oriented nonprofessionals.

Buyer Behavior

Buyer behavior data also can be a component of the customer profile. Such data are used to explain or predict some aspect of customer behavior with regard to a product or service. As Figure 3-6 indicates, information on buyer behavior (e.g., usage rate, benefits sought, and brand loyalty) can provide significant aid in the design of more accurate and profitable strategies.

A second approach to identifying customer groups is by segmenting industrial markets. As shown in Figure 3-7, there is considerable overlap between the variables used to segment individual and industrial consumers, but the definition of the customer differs.

3. Suppliers

Dependable relationships between a firm and its suppliers are essential to the firm's long-term survival and growth. A firm regularly relies on its suppliers for financial support, services, materials, and equipment. In addition, it occasionally is forced to make special requests for such favors as quick delivery, liberal credit terms, or broken-lot orders.

⁹ These items were selected from a matrix for assessing competitive position proposed by C. W. Hofer and D. Schendel, *Strategy Formulation: Analytical Concepts* (St. Paul, Minn.: West Publishing, 1978), p. 76.

¹⁰ R. McGill, "Planning for Strategic Performance in Local Government," *Long Range Planning*, October 1988, pp. 77-84.

FIGURE 3-6
Major Segmentation Variables for Consumer Markets

Variable	Typical Breakdowns
Geographic	
Region	Pacific, Mountain, West North Central, West South Central, East North Central, East South Central, South Atlantic, Middle Atlantic, New England
County size	A, B, C, D
City or SMSA size	Under 5,000; 5,000–20,000; 20,000–50,000; 50,000–100,000; 100,000–250,000; 250,000–500,000; 500,000–1,000,000; 1,000,000–4,000,000; 4,000,000 or over
Density	Urban, suburban, rural
Climate	Northern, southern
Demographic	
Age	Under 6, 6–11, 12–19, 20–34, 35–49, 50–64, 65+
Sex	Male, female
Family size	1–2, 3–4, 5+
Family life cycle	Young, single; young, married, no children; young, married, youngest child under 6; young, married, youngest child 6 or over; older, married, with children; older, married, no children under 18; older, single; other
Income	Under \$10,000; \$10,000–\$15,000; \$15,000–\$20,000; \$20,000–\$25,000; \$25,000–\$30,000; \$30,000–\$50,000; \$50,000 and over
Occupation	Professional and technical; managers, officials, and proprietors; clerical, sales; craftspeople; foremen; operatives; farmers; retired; students; housewives; unemployed
Education	Grade school or less; some high school; high school graduate; some college; college graduate
Religion	Catholic; Protestant; Jewish; other
Race	White; Black; Oriental
Nationality	American; British; French; German; Scandinavian; Italian; Latin American; Middle Eastern; Japanese
Psychographic	
Social class	Lower lowers, upper lowers, working class, middle class, upper middles, lower uppers, upper uppers
Lifestyle	Straights, swingers, longhairs
Personality	Compulsive, gregarious, authoritarian, ambitious
Behavioral	
Occasions	Regular occasion, special occasion
Benefits	Quality, service, economy
User status	Nonuser, ex-user, potential user, first-time user, regular user
Usage rate	Light user, medium user, heavy user
Loyalty status	None, medium, strong, absolute
Readiness stage	Unaware, aware, informed, interested, desirous, intending to buy
Attitude toward product	Enthusiastic, positive, indifferent, negative, hostile

SMSA stands for standard metropolitan statistical area.
Source: Philip Kotler, *Marketing Management, Analysis, Planning, Implementation, and Control*, 7th ed., © 1991, p. 269. Reprinted by permission of Prentice Hall, Englewood Cliffs, New Jersey.

FIGURE 3-7
Major Segmentation Variables for Industrial Markets

Demographic	Industry: Which industries that buy this product should we focus on? Company size: What size companies should we focus on? Location: What geographical areas should we focus on?
Operating Variables	Technology: What customer technologies should we focus on? User/nonuser status: Should we focus on heavy, medium, light users or nonusers? Customer capabilities: Should we focus on customers needing many services or few services?
Purchasing Approaches	Purchasing-function organization: Should we focus on companies with highly centralized or decentralized purchasing organizations? Power structure: Should we focus on companies that are engineering dominated? financially dominated? other ways dominated? Nature of existing relationships: Should we focus on companies with which we have strong existing relationships or simply go after the most desirable companies? General purchase policies: Should we focus on companies that prefer leasing? service contracts? systems purchases? sealed bidding? Purchasing criteria: Should we focus on companies that are seeking quality? service? price?
Situational Factors	Urgency: Should we focus on companies that need quick and sudden delivery or service? Specific application: Should we focus on certain applications of our product, rather than all applications? Size of order: Should we focus on large or small orders?
Perfect Characteristics	Buyer-seller similarity: Should we focus on companies whose people and values are similar to ours? Attitudes toward risk: Should we focus on risk-taking or risk-avoiding customers? Loyalty: Should we focus on companies that show high loyalty to their suppliers?

Source: Adapted from Thomas V. Bonoma and Benson P. Shapiro, *Segmenting the Industrial Market* (Lexington, Mass.: Lexington Books, 1983).

Particularly at such times, it is essential for a firm to have had an ongoing relationship with its suppliers.

In assessing a firm's relationships with its suppliers, several factors, other than the strength of that relationship, should be considered. With regard to its competitive position with its suppliers, the firm should address the following questions:

- Are the suppliers' prices competitive? Do the suppliers offer attractive quantity discounts?
- How costly are their shipping charges? Are the suppliers competitive in terms of production standards?
- In terms of deficiency rates? Are the suppliers' abilities, reputations, and services competitive?
- Are the suppliers reciprocally dependent on the firm?

4. Creditors

Because the quantity, quality, price, and accessibility of financial, human, and material resources are rarely ideal, assessment of suppliers and creditors is critical to an accurate evaluation of a firm's operating environment. With regard to its competitive position with its creditors, among the most important questions that the firm should address are the following:

- Do the creditors fairly value and willingly accept the firm's stock as collateral?
- Do the creditors perceive the firm as having an acceptable record of past payment?
- A strong working capital position? Little or no leverage?
- Are the creditors' loan terms compatible with the firm's profitability objectives?
- Are the creditors' able to extend the necessary lines of credit?

The answers to these and related questions help a firm forecast the availability of the resources it will need to implement and sustain its competitive strategies.

5. Human Resources: Nature of the Labor Market

A firm's ability to attract and hold capable employees is essential to its success. However, a firm's personnel recruitment and selection alternatives often are influenced by the nature of its operating environment. A firm's access to needed personnel is affected primarily by three factors: the firm's reputation as an employer; local employment rates; and the ready availability of people with the needed skills.

Reputation

A firm's reputation within its operating environment is a major element of its ability to satisfy its personnel needs. A firm is more likely to attract and retain valuable employees if it is seen as permanent in the community, competitive in its compensation package, and concerned with the welfare of its employees, and if it is respected for its product or service and appreciated for its overall contribution to the general welfare.

Employment Rates

The readily available supply of skilled and experienced personnel may vary considerably with the stage of a community's growth. A new manufacturing firm would find it far more difficult to obtain skilled employees in a vigorous industrialized community than in an economically depressed community in which similar firms had recently cut back operations.

Availability

The skills of some people are so specialized that relocation may be necessary to secure the jobs and the compensation that those skills commonly command. People with such skills include oil drillers, chefs, technical specialists, and industry executives. A firm that seeks to hire such a person is said to have broad labor market boundaries; that is, the geographic area within which the firm might reasonably expect to attract qualified candidates is quite large. On the other hand, people with more common skills are less likely to relocate from

a considerable distance to achieve modest economic or career advancements. Thus, the labor market boundaries are fairly limited for such occupational groups as unskilled laborers, clerical personnel, and retail clerks.

EMPHASIS ON ENVIRONMENTAL FACTORS

This chapter has described the remote, industry, and operating environments as encompassing five components each. While that description is generally accurate, it may give the false impression that the components are easily identified, mutually exclusive, and equally applicable in all situations. In fact, the forces in the external environment are so dynamic and interactive that the impact of any single element cannot be wholly dissociated from the impact of other elements. For example, are increases in OPEC oil prices the result of economic, political, social, or technological changes? Or are a manufacturer's surprisingly good relations with suppliers a result of competitors', customers', or creditors' activities or of the supplier's own activities? The answer to both questions is probably that a number of forces in the external environment have combined to create the situation. Such is the case in most studies of the environment.

In a recent study involving more than 200 company executives, the respondents were asked to identify key planning issues in terms of their increasing importance to strategic success. As shown in Figure 3-8, domestic competitive trends, customer or end-user preferences, and technological trends were the issues they selected most often.

Strategic managers are frequently frustrated in their attempts to anticipate the environment's changing influences. Different external elements affect different strategies at different times and with varying strengths. The only certainty is that the impact of the remote and operating environment will be uncertain until a strategy is implemented. This leads many managers, particularly in less-powerful or smaller firms to minimize long-term planning, which requires a commitment of resources. Instead, they favor allowing managers to adapt to new pressures from the environment. While such a decision has considerable merit for many firms, there is an associated trade-off, namely that absence of a strong resource and psychological commitment to a proactive strategy effectively bars a firm from assuming a leadership role in its competitive environment.

There is yet another difficulty in assessing the probable impact of remote, industry, and operating environments on the effectiveness of alternative strategies. Assessment of this kind involves collecting information that can be analyzed to disclose predictable effects. Except in rare instances, however, it is virtually impossible for any single firm to anticipate the consequences of a change in the environment; for example, the precise effect on alternative strategies of a 2 percent increase in the national inflation rate, a 1 percent decrease in statewide unemployment, or the entry of a new competitor in a regional market.

Still, assessing the potential impact of changes in the external environment offers a real advantage. It enables decision makers to narrow the range of the available options and to eliminate options that are clearly inconsistent with the forecast opportunities. Environmental assessment seldom identifies the best strategy, but it generally leads to the elimination of all but the most promising options.

FIGURE 3-8
Key Planning Issues

Issue	Percent of Respondents Indicating		
	Increase	No Change	Decrease
1. Competitive (domestic) trends	83.6%	13.5%	2.9%
2. Customer or end-user preferences	69.0	29.1	2.0
3. Technological trends	71.4	25.6	3.0
4. Diversification opportunities	61.7	30.3	8.0
5. Worldwide or global competition	59.4	34.4	6.3
6. Internal capabilities	55.4	40.2	4.4
7. Joint venture opportunities	56.6	36.7	6.6
8. Qualitative data	55.9	38.1	5.9
9. General economic and business conditions	46.4	47.3	6.3
10. Regulatory issues	42.8	51.2	6.0
11. Supplier trends	26.0	69.1	5.0
12. Reasons for past failures	27.6	62.3	10.1
13. Quantitative data	36.8	40.7	22.5
14. Past performance	27.3	51.2	21.5

Source: Adapted from V. Ramaniujam, J. C. Camillus, and N. Venkatraman, "Trends in Strategic Planning," in *Strategic Planning and Management Handbook*, ed. W. R. King and D. I. Cleland (New York: Van Nostrand Reinhold, 1987), p. 615.

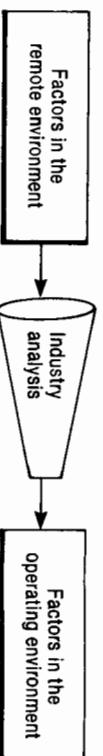
SUMMARY

A firm's external environment consists of three interrelated sets of factors that play a principal role in determining the opportunities, threats, and constraints that the firm faces. The remote environment comprises factors originating beyond, and usually irrespective of, any single firm's operating situation—economic, social, political, technological, and ecological factors. Factors that more directly influence a firm's prospects originate in the environment of its industry, including entry barriers, competitor rivalry, the availability of substitutes, and the bargaining power of buyers and suppliers. The operating environment comprises factors that influence a firm's immediate competitive situation—competitive position, customer profiles, suppliers, creditors, and the labor market. These three sets of factors provide many of the challenges that a particular firm faces in its attempts to attract or acquire needed resources and to profitably market its goods and services. Environmental assessment is more complicated for multinational corporations (MNCs) than for domestic firms because multinationals must evaluate several environments simultaneously.

Thus, the design of business strategies is based on the conviction that a firm able to anticipate future business conditions will improve its performance and profitability. Despite the uncertainty and dynamic nature of the business environment, an assessment process that narrows, even if it does not precisely define, future expectations is of substantial value to strategic managers.

QUESTIONS FOR DISCUSSION

- Briefly describe two important recent changes in the remote environment of U.S. business in each of the following areas:
 - Economic.
 - Social.
 - Political.
 - Technological.
 - Ecological.
- Describe two major environmental changes that you expect to have a major impact on the whole-sale food industry in the next 10 years.
- Develop a competitor profile for your college and of the one geographically closest to it. Next, prepare a brief strategic plan to improve the competitive position of the weaker of the two colleges.
- Assume the invention of a competitively priced synthetic fuel that could supply 25 percent of U.S. energy needs within 20 years. In what major ways might this change the external environment of U.S. business?
- With your instructor's help, identify a local firm that has enjoyed great growth in recent years. To what degree and in what ways do you think this firm's success resulted from taking advantage of favorable conditions in its remote, industry, and operating environments?
- Choose a specific industry and, relying solely on your impressions, evaluate the impact of the five forces that drive competition in that industry.
- Choose an industry in which you would like to compete. Use the five-forces method of analysis to explain why you find that industry attractive.
- Many firms neglect industry analysis. When does this hurt them? When does it not?
- The model below depicts industry analysis as a funnel that focuses on remote-factor analysis to better understand the impact of factors in the operating environment. Do you find this model satisfactory? If not, how would you improve it?
- Who in a firm should be responsible for industry analysis? Assume that the firm does not have a strategic planning department.



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