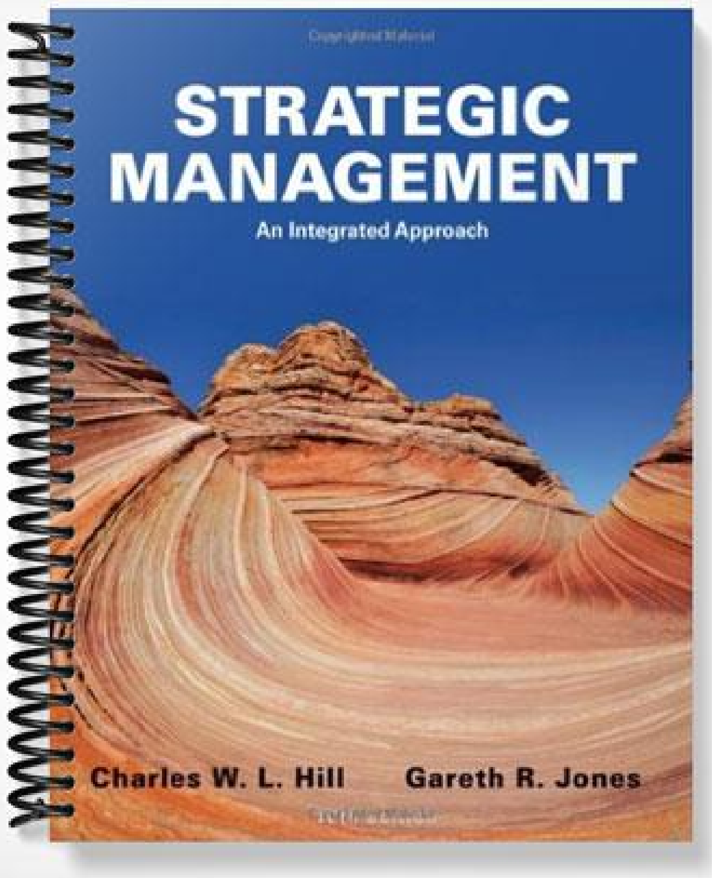
SOLUTIONS MANUAL



CHAPTER 2

External Analysis: The Identification of Opportunities and Threats

SYNOPSIS OF CHAPTER

The purpose of this chapter is to familiarize students with the forces that shape competition in a company's external environment and to discuss techniques for identifying strategic opportunities and threats. The central theme is that if a company is to survive and prosper, its management must understand the implications environmental forces have for strategic opportunities and threats.

This chapter first defines industry, sector, market segments, and changes in industry boundaries. The next section offers a detailed look at the forces that shape competition in a company's industry environment, using Porter's Five Forces Model as an overall framework. In addition, a sixth force—complementors—is introduced and discussed.

The chapter continues, exploring the concepts of strategic groups and mobility barriers. The competitive changes that take place during the evolution of an industry are examined.

Next the chapter considers some of the limitations inherent in the five forces, strategic group, and industry life cycle models. These limitations do not render the models useless, but managers need to be aware of them as they employ these models.

Finally, the chapter provides a review of the significance that changes in the macroenvironment have for strategic opportunities and threats.

TEACHING OBJECTIVES

1. Review the primary technique used to analyze competition in an industry environment:-the Competitive Forces model
2. Explore the concept of strategic groups and illustrate its implications for industry analysis
3. Discuss how industries evolve over time, with reference to the industry life-cycle model
4. Show how trends in the macroenvironment can shape the nature of competition in an industry

OPENING CASE

THE UNITED STATES AIRLINE INDUSTRY

The U.S. airline industry has long struggles to make a profit. Factors contributing to this unprofitable industry were the entry of low cost budget carriers using nonunion labor who maintain only one type of aircraft and focus on lucrative routes. While incumbent airlines have responded with price cuts, Internet travel sites have also helped keep fares low. Higher oil prices have contributed to higher variable expense items as well. With many airlines going bankrupt, others persisted with mergers to reduce excess capacity and lower costs by eliminating duplication. More stable pricing and higher profit rates still remain unseen..

Teaching Note:

This case introduces many of the themes of Chapter 2, including the impact that competitive forces have on industry behavior and profitability, concepts about market segmentation and strategic groups, and the changing nature of competition over an industry's life cycle. One of the most important lessons of this chapter and this case, and one that may be somewhat surprising to students, is the very strong influence that external environments can have on firm performance. Much of what is discussed in the popular business literature focuses on the achievements or shortcomings of individual managers and other forces internal to the firm. But it is worthwhile to remind students that external forces can have just as much impact and can even cause the demise of industries with competent managers.

LECTURE OUTLINE

I. Overview

Strategy formulation begins with an analysis of the forces that shape competition within the industry in which a company is based. The goal is to understand he opportunities and threats confronting the firm, and to use this understanding to identify strategies that will enable the company to outperform its rivals.

Opportunities arise when a company can take advantage of conditions in its environment to formulate and implement strategies that enable it to become more profitable.

Threats arise when conditions in the external environment endanger the integrity and profitability of the company's business.

II. Defining an Industry

An industry can be defined as a group of companies offering products or services that are close substitutes for each other. Close substitutes are products or services that satisfy the same basic consumer needs.

A. ***Industry and Sector*** is an important distinction that should be made. A sector is a group of closely related industries.

A. ***Industry and Market Segments*** is another important distinction to make. Market segments are distinct groups of customers within a market than can be differentiated from each other on the basis of their individual attributes and specific demands.

Figure 2.1: The Computer Sector: Industries and Segments

B. ***Changing Industry Boundaries*** may be necessary over time as customer needs evolve, or as emerging new technologies enable companies in unrelated industries to satisfy established customer needs in new ways.

III. Competitive Forces Model

Once boundaries of an industry have been identified, managers face the task of analyzing competitive forces within the industry environment in order to identify opportunities and threats. "The Five Forces Model," devised by Michael Porter, describes forces that shape competition within an industry and help to identify strategic opportunities and threats.

Figure 2.2: Porter's Five Forces Model

A. Risk of Entry by Potential Competitors is one of Porter's five forces. **Potential competitors** are companies that are currently not competing in the industry but have the capability to do so if they choose. Established companies already operating in an industry often attempt to discourage potential competitors from entering the industry because as more companies enter, it becomes more difficult for established companies to protect their share of the market and generate profits. A high risk of entry by potential competitors represents a threat to the profitability of established companies. If the risk of new entry is low, established companies can take advantage of this opportunity, raise prices, and earn greater returns. The risk of entry by potential competitors is a function of the height of barriers to entry or factors that make it costly for companies to enter an industry. The greater the costs potential competitors must bear to enter an industry, the greater the barriers to entry, and the weaker this competitive force. High entry barriers may keep potential competitors out of an industry even when industry profits are high. Important barriers to entry include:

1. **Economies of scale** arise when unit costs fall as a firm expands its output. Sources of economies include 1) cost reduction gained through mass-producing a standardized output; 2) discounts on bulk purchases of raw material inputs and component parts; 3) the advantages gained by spreading fixed production costs over a large production volume; and 4) the cost savings associated with distributing marketing and advertising costs over a large volume of output.
2. **Brand loyalty** exists when consumers have a preference for the products of established companies. A company can create brand loyalty by continuously advertising its brand-name products and company name, patent protection of its products, product innovation achieved through company research and development programs, an emphasis on high quality products, and exceptional after-sales service. Significant brand loyalty makes it difficult for new entrants to take market share away from established companies.
3. **Absolute Cost Advantages**, by established companies, means that entrants cannot expect to match the established companies' lower cost structure. Potential competitors expect to match the established companies' lower cost structure. Absolute cost advantages arise from three main sources: 1) superior production operations and processes due to accumulated experience, patents, or trade secrets; 2)control of particular inputs required for production, such as labor, materials, equipment, or management skills that are limited in their supply; and 3) access to cheaper funds because existing companies represent lower risks than new entrants.
4 **Customer Switching Costs** arise when a customer invests time, energy, and money switching from the products offered by one established company to the products offered by a new entrant. When switching costs are high, customers can be locked in to the product offerings of established companies, even if new entrants offer better products.
5. **Government regulations creating barriers to entry significantly reduce the level of competition.**

Strategy in Action 2.1 Circumventing Entry Barriers into the Soft Drink Industry

The soft drink industry has long been dominated by two companies, Coca-Cola and PepsiCo. Both companies have historically spent large sums of money on advertising and promotion, which has created significant brand loyalty and made it very difficult for prospective new competitors to enter the industry and take market share away from these two giants. When new competitors do try and enter, both companies have shown themselves capable of responding by cutting prices, forcing the new entrant to curtail expansion plans.

However, in the early 1990s the Cott Corporation, then a small Canadian bottling company, worked out a strategy for entering the soft drink market. The company used a deal with RC Cola to enter the cola segment of the soft drink market. Cott next introduced a private label brand for a Canadian retailer. Both of these offerings took share from Coke and Pepsi. Cott then decided to try and convince other retailers to carry private label cola. Cott spent almost nothing on advertising and promotion. These cost savings were passed onto retailers in the form of lower prices. For their part, the retailers found that they could significantly undercut the price of Coke and Pepsi colas, and still make better profit margins on private label brands than on branded colas.

Despite the savings, many retailers were leery of offending Coke and Pepsi and declined to offer a private label. Cott was able to establish a relationship with Walmart as it was entering the grocery market. The “President’s Label” became very popular. Cott soon added other flavors to its offering, such as a lemon lime soda that would compete with Seven Up and Sprite. Moreover, pressured by Walmart, by the late 1990s other U.S. grocers also started to introduce private label sodas, often turning to Cott to supply their needs.

By 2010, Cott had grown to become a $1.8 billion company, capturing over 6% of the U.S. soda market up from almost nothing a decade earlier, and held onto a 15% share of sodas in grocery stores, its core channel. The losers in this process were Coca-Cola and Pepsi Cola, who were now facing the steady erosion of their brand loyalty and market share as consumers increasingly came to recognize the high quality and low price of private label sodas.

Teaching Note:

As this case illustrates, entry barriers can be effective in discouraging new entrants; however, they can be circumvented. Cott was able to enter a much closed industry through a combination of its own efforts and the changes brought to the industry environment by the advent of Walmart. You can use this case in a classroom discussion to identify entry barriers in other industries. Another approach to classroom discussion is to ask students to consider the lessons that other industries might learn from Cott. What did Cott do to lower entry barriers, and how could those tactics be used in another context?

B. ***Rivalry Among Established Companies*** is the second of Porter’s five forces. is rivalry among established companies. Rivalry refers to the competitive struggle between companies within an industry in order to gain market share from each other. The intensity of rivalry among established companies within an industry is largely a function of four factors: 1) industry competitive structure, 2) demand conditions, 3) cost conditions, and 4) the height of exit barriers in the industry.

1. **Industry Competitive Structure** refers to the number and size distribution of companies in it. Industry structures vary, and different structures have different implications for the intensity of rivalry. For example, a fragmented industry consists of a large number of small or medium-sized companies.
    a) Many fragmented industries are characterized by low entry barriers and commodity-type-products that are hard to differentiate. These characteristics tend to result in boom-and-bust cycles, with a flood of new entrants, excess capacity, and price wars, leading to low industry profits and exit from the industry. The more commodity-like an industry’s product, the more vicious the price war. The “bust” part of the cycle will continue until overall industry capacity is brought into line with demand (through bankruptcies), at which point prices may stabilize again.
    b) Consolidated industries are interdependent, so that the competitive actions of one company directly affect the profitability of competitors, forcing a response from them. The consequence can be price wars like those the airline industry has experienced. Thus interdependence is a major threat. This threat can be reduced when tacit price-leadership agreements exist within the industry and when companies are successful in emphasizing nonprice competition.

2. **Industry Demand** is the second determinant of the intensity of rivalry among established companies. Conditions also determine the intensity of rivalry among established companies. Growing demand moderates competition by providing room for expansion. Declining demand results in more competition as companies fight to maintain revenues and market share.
3. **Cost Conditions** are another determinant of rivalry between firms. High fixed costs lead to a focus on volume of sales in order to cover these costs. This focus on volume can spark intense rivalry if demand is weakening and too many firms are involved in providing the same products. This situation will prompt firms in the industry to lower prices in order to capture sufficient sales to cover costs.

Strategy in Action 2.2 Price Wars in the Breakfast Cereal Industry

The breakfast cereal industry in the U.S. was one of the most profitable and desirable competitive environments, with steadily rising demand, brand loyalty, and close relationships with buyers (grocery retailers). Best of all, the industry was dominated by just three competitors, and one, Kellogg's, controlled 40% of the market share. Kellogg's was a price leader, raising prices a bit each year, and the smaller companies followed suit. Then the industry structure changed. Huge discounters began to promote cheaper private brands, just as bagels or muffins replaced cereal as the preferred breakfast food. Under pressure, the big manufacturers began a price war, ending the tacit price collusion that had kept the industry stable and profitable. Although profit margins were slashed in half, the big three continued to lose market share to private brands. What was once a desirable industry is now exactly like most others—competitive, unstable, and far less profitable.

Teaching Note:

This case illustrates the sad outcomes that result when industry competitors react to increased pressure by breaking off tacit price collusion. You should be sure to emphasize to students the difference between *tacit price collusion*, which is indirect and therefore legal, and *price fixing*, which is overt and therefore illegal. Again, the message here is that a well-run industry, with sustained high profitability and stability for all competitors, fell victim to powerful external forces. An interesting discussion question would be to ask students, "Is there any action the big three competitors can take now to undo the damage and recover their profitability?" If students suggest any action that they believe will restore the situation, ask them how the other competitors would be likely to react. For example, if students suggest a one-sided price increase, ask them if competitors would be likely to follow suit. Students may be surprised to realize how difficult it is to "put the genie back in the bottle"; once trust is destroyed, an industry may never be able to recreate stability and prosperity.

4. **Exit Barriers** are economic, strategic, and emotional factors that prevent companies from leaving an industry. If exit barriers are high, companies become locked into an unprofitable industry where overall demand is static or declining. The result is often excess productive capacity, leading to even more intense rivalry and price competition as companies cut prices attempting to obtain the customer orders needed to use their idle capacity and cover their fixed costs. Common exit barriers include:
   a) investments in specialized assets
   b) high fixed costs of exit such as severance pay
   c) emotional attachments to an industry
   d) economic dependence on a single industry
   e) the need to maintain expensive assets in order to compete effectively in that industry

f) bankruptcy relations

C. ***The Bargaining Power of Buyers*** is the third factor in Porter's five forces model. An industry's buyers may be the individual customers who consume its products (end-users) or the companies that distribute an industry's products to end-users, such as retailers and wholesalers. The bargaining power of buyers refers to the ability of buyers to bargain down prices charged by companies in the industry, or to raise the costs of companies in the industry by demanding better product quality and service. Powerful buyers, therefore, should be viewed as a threat. Buyers are most powerful in the following circumstances:

1. they are in industries where buyers are large and few in number.
2. they purchase in large quantities.
3. supply industry depends on buyers for a large percentage of its total orders.
4. buyers can easily switch to a substitute product which pits the supplying companies against each other to force down prices.
5. when it is economically feasible for buyers to purchase an input from several companies at once
6. buyers can threaten to enter the industry and independently produce the product thus supplying their own needs.

D. ***Bargaining Power of Suppliers*** is the fourth factor of Porter's five competitive forces**..** Suppliers are organizations that provide inputs into the industry, such as materials, services, and labor (which may be individuals, organizations such as labor unions, or companies that supply contract labor. The bargaining power of suppliers refers to the ability of suppliers to raise input prices, or to raise the costs of the industry in other ways—for example, by providing poor-quality inputs or poor service. Suppliers are a threat when they are able to force up the price the company must pay for inputs or to reduce the quality of goods supplied. The ability of suppliers to make demands on a company depends on their power relative to that of the company. Suppliers are most powerful in these situations:

1. the supplier's product has few substitutes and is vital to the companies in an industry.
2. the profitability of suppliers is not significantly affected by the purchases of companies in a particular industry, in other words, when the industry is not an important customer to the supplier.
3. the company has a switching cost to change suppliers.
4. suppliers can threaten to enter their customers' industry and use their inputs to produce products that would compete directly with those of companies already in the industry.
5. the company cannot threaten to enter their suppliers' industry and make their own inputs as a tactic for lowering the price of inputs.

E. ***Substitute Products*** is the fifth factor in Porter's model. The existence of close substitutes is a strong competitive threat because this limits the price that companies in one industry can charge for their product, which also limits industry profitability.

F. ***A Sixth Force: Complementors***, often ignored, refers to companies that sell products that add value to (complement) the products of companies in an industry because, when used together, the use of the combined products better satisfies customer demands When the number of complementors is increasing and producing attractive complementary products, demand increases and profits in the industry can broaden opportunities for creating value. If complementors are weak, and are not producing attractive complementary products, they can become a threat, slowing industry growth and limiting profitability.

G. ***Summary***: The systematic analysis of forces in the industry environment using the Porter framework is a powerful tool that helps managers to think strategically.

IV. Strategic Groups Within Industries

Companies in an industry often differ significantly from one another with regard to the way they strategically position their products in the market. Factors such as the distribution channels they use, the market segments they serve, the quality of their products, technological leadership, customer service, pricing policy, advertising policy, and promotions affect product position.

FOCUS ON DELL

The global computer industry is highly competitive. There are numerous competitors, indicating low barriers to entry. Key components are readily available. Assembly is easy, requiring little capital equipment or technical skills. The products are largely undifferentiated which further limits prices. Demand has been cyclical and slowing in recent years. All of this indicates that the industry is an unattractive one. This industry context makes Dell's performance even more impressive with a strong business model.

Teaching Note:

This case describes the industry environment for the personal computer industry. It provides a good opportunity to quiz the students on the five forces.

Figure 2.3: Strategic Groups in the Pharmaceutical Industry

A. ***Implications of Strategic Groups*** are numerous for the identification of opportunities and threats within an industry.

1. A company's immediate competitors are those in its strategic group. Because all companies in a strategic group are pursuing a similar business model, consumers tend to view the products of such enterprises as direct substitutes for each other.
2. Different strategic groups can have a different relationships to each of the competitive forces. Each strategic group may face a difference set of opportunities and threats.

B. ***The Role of Mobility Barriers*** follows that some strategic groups are more desirable than others because competitive forces open up greater opportunities and present fewer threats for those groups. **Mobility barriers** are within-industry factors that inhibit movement of companies between strategic groups. They include the barriers to entry into a group and the barriers to exit from a company's existing group.

V. **Industry Life-Cycle Analysis**

Changes that take place in an industry over time are an important determinant of the strength of the competitive forces in the industry(and of the nature of opportunities and threats). The similarities and differences between companies in an industry often become more pronounced over time, and its strategic group structure frequently changes. The strength and nature of each of the competitive forces also change as an industry evolves, particularly the two forces of risk of entry by potential competitors and rivalry among existing firms.

A. ***Embryonic Industries*** refer to an industry just beginning to develop. Growth at this stage is slow because of factors such as buyers unfamiliarity with the industry's product, high prices due to the inability of companies to reap any significant scale economies, and poorly developed distribution channels. An embryonic industry is one that is just beginning to develop. Growth is slow because of buyer unfamiliarity with the industry's products, poor distribution channels, and high prices stemming from the inability of companies to reap economies of scale.

Barriers to entry at this stage tend to be based on access to key technological know-how, rather than cost economies or brand loyalty. Rivalry in embryonic industries is based on educating customers, opening up distribution channels, and perfecting the design of the product.

Figure 2.4: Stages in the Industry Life Cycle

B. ***Growth Industries*** is one where demand begins to increase. Typically, demand takes off when consumers become familiar with the product, prices fall with the attainment of economies of scale, and distribution channels develop.
During an industry's growth stage, there tends to be little rivalry. Rapid growth in demand enables companies to expand their revenues and profits without taking market share away from competitors.

C. ***Industry Shakeout*** occurs when the rate of growth slows, and the industry enters the shakeout stage. In the shakeout stage, demand approaches saturation levels: most of the demand is limited to replacement because few potential first-time buyers remain.
As an industry enters the shakeout stage, rivalry between companies becomes intense, with excess productive capacity and severe price discounting. Many firms exit the industry at this point.

D. *M**ature Industries*** are where the shakeout stage ends . The market is totally saturated, growth is very low or near zero, and demand is limited to replacement demand. The growth that remains comes from population expansion, bringing new customers into the market or increasing replacement demand.
As an industry enters maturity, barriers to entry increase and the threat of entry from potential competitor's decreases. Intense competition for market share can develop, driving down prices.

Figure 2.4: Stages in the Industry Life Cycle

E. . ***Declining Industries*** occur when growth becomes negative for a variety of reasons, including technological substitution, social changes, demographics, and international competition..
The degree of rivalry among established companies usually increases and depending on the speed of the decline and the height of exit barriers, competitive pressures can become as fierce as in the shakeout stage.

F. ***Summary:*** A third task of industry analysis is to identify the opportunities and threats that are characteristic of different kinds of industry environments in order to develop an effective business model and competitive strategy.

VI. Limitations of Models for Industry Analysis

A. ***Life-Cycle Issues*** and life-cycle models constitute very useful ways of thinking about and analyzing the nature of competition within an industry. However, these models have limitations. It does not mean the models are useless. It does mean, however, that managers must be aware of the limitations as they apply these models to their firms.

One important limitation of the life cycle model is that industry life cycles vary considerably, skipping or repeating stages, moving slowly or rapidly through the stages, or remaining "stuck" at a particular stage.

B. ***Innovation and Change*** are frequent factors in industry evolution and cause a company's movement through the industry life-cycle. Over time, innovation in many industries leads to new products, processes, or strategies that can be very successful and transform the nature of competition within an industry. Innovation can fragment or consolidate an industry, create new strategic groups or market segments, speed or slow an industry's life cycle, and otherwise disrupt the orderly predictions of all three of the models for industry analysis.

Michael Porter, the originator of the five forces model, has recently shifted focus to acknowledge the role of innovations as "unfreezing" and "reshaping" industry structure. Porter describes a model of punctuated equilibrium, in which an innovation triggers a period of turbulence, followed by a period of stability. The punctuated equilibrium theory allows Porter's five forces model to continue to be somewhat useful, in spite of limitation. This theory asserts that the five forces model is not a good predictor of the changes that take place in the short time just after an important innovation, but it is useful in the longer periods of stability that follow the turbulence.

Figure 2.6: Punctuated Equilibrium and Competitive Structure

C. ***Company Differences*** are often overlooked as typical industry models overemphasize the importance of industry structure as a determinant of company performance, whereas, variations or differences among companies within an industry or a strategic group should be the emphasis. Studies point to enormous variance in the profit rates of individual companies within an industry, with industry effects accounting for only 10 to 20% of the variance. These studies suggest that the individual resources and capabilities of a company are far more important determinants of that company's profitability than the industry or the strategic group of which the company is a member.

VII. The Macroenvironment

The ***macroenvironment*** refers to the broader economic, technological, demographic, social, and political environment within which an industry is embedded. It is apparent that changes in this macroenvironment can have a direct impact on any one of the five forces in Porter's model, thereby altering the relative strength of these forces and, with it, the attractiveness of an industry.

Figure 2.7: The Role of the Macroenvironment

A. **Macroeconomic forces** include changes in the growth rate of the economy, interest rates, currency exchange rates, and inflation rates; these are all major determinants of the overall level of demand. Adverse changes in any of these can threaten profitability in an industry, whereas positive changes tend to increase profitability.

B. **Global forces** include globalization of production and markets. Industry boundaries no longer stop at national borders and competitors can come from other national markets, increasing rivalry. Globalization can also provide opportunities for new markets for national firms.

C. **Technological forces** are characterized by an accelerated pace of innovation and change. Technological change can make established products obsolete overnight, but at the same time, it can create new products and processes. Thus technological change is both an opportunity and a threat; it is creative and destructive.

D. **Demographic forces** consist of any trends related to population, such as the aging of the U.S. population and the movement of people across national boundaries. Changing demographics create both opportunities and threats, spawning new industries and products while eliminating others.

E. **Social forces** consist of changes in societal preferences and values. New social movements also create opportunities and threats. For example, the impact of the trend toward greater health consciousness has been a boon to the fitness equipment and organic foods industries, while it has hurt the beef and cigarette industries.

F. **Political and legal forces** are shaped by changing laws and regulations. Factors such as deregulation, insurance reform, and even the political party makeup of Congress can create opportunities and threats for companies in many industries.

Teaching Note: Ethical Dilemma

While discussion could enter into whether or not moral objections should influence analysis and recommendations, the real question should focus on whether or not casinos will be a complement to the industry. Will casinos bring value to the customers? Will casinos generate demand for the hotel industry?

SUMMARY OF CHAPTER

ANSWERS TO DISCUSSION QUESTIONS

1. Under what environmental conditions are price wars most likely to occur in an industry? What are the implications of price wars for a company? How should a company try to deal with the threat of a price war?

   Price wars are most likely to occur when the following conditions are present in an industry: the product is a commodity, exit barriers are substantial, excess capacity exists, the industry is consolidated, and demand is declining. A price war constitutes a strong threat. It is difficult for companies that market commodity-type products to build brand loyalty; therefore, competition tends to focus on price. High exit barriers make it hard for companies to eliminate excess capacity through plant closings. In turn, the persistence of excess capacity leads to price cuts, as companies strive to generate enough demand to utilize their ideal capacity and cover fixed costs. In a consolidated industry, interdependence implies that one company's price cuts will elicit a response from its rivals, producing a downward spiral of prices. And it is declining demand that produces excess capacity and sparks off a price war in the first place. If all these conditions are present a severe price war is likely.

   Survival depends on a company's ability to reduce operating costs and build brand loyalty so that it can retain its customers and still make profits when those of its competitors have dried up. Furthermore, the risk of a damaging price war can be reduced if the company can successfully enter into tacit price agreements with its competitors and if it can stress nonprice factors when competing. As demand declines, however, tacit price agreements can be difficult to maintain. Finally, if excess capacity is the major reason for a price war, capacity reduction agreements between competitors, or mergers between competitors followed by the elimination of excess capacity, may be suitable strategies for attacking this problem.

2. Discuss the Competitive Forces model (Figure 2.2) with reference to what you know about the U.S. airline industry. (See the Opening Case). What does the model tell you about the level of competition in this industry?

Potential competitors: Recent high profitability and an enormous surge in demand for steel worldwide, there may be room for new entrants. Barriers to entry include the high cost of plant and equipment, raw materials and labor, and the uncertainty of economic stability, the strength of the U.S. dollar, and governmental regulation. There are numerous and emerging substitutes such as aluminum, plastics, and composites. Economies of scale are available to the only the largest producers.

Rivalry among established companies: Rivalry between the existing mass market steel industry producers is intense; however, investment in infrastructure by developing countries, notably China, has driven demand to the point where price and profitability have shown strength.

Bargaining power of buyers: Consumers have little power in the steel industry. However, when substitutes are available they are able bargain down prices as was done historically in the industry.

Bargaining power of suppliers: Steel industry suppliers deal mostly in commodities and therefore, have little power in the industry. Suppliers are also threatened by potential and existing substitutes.

Threat of substitute products: Substitutes for the steel industry include aluminum, plastics, and composites. Also, a trend toward environmentally-conscious substitutes may affect this industry and the demand for steel in the future.

In sum, the five forces model suggests that the overall intensity of competition in the steel industry would remain tight while leaving little opportunity for profitable new entrants. While the steel industry appears profitable in an economic downturn, it appears to be driven mainly by governmental agendas regarding infrastructure rebuilding.

3. Identify a growth industry, a mature industry, and a declining industry. For each industry, identify the following: (a) the number and size distribution of companies; (b) the nature of barriers to entry; (c) the height of barriers to entry; and (d) the extent of product differentiation. What do these factors tell you about the nature of competition in each industry? What are the implications for the company in terms of opportunities and threats?

Students' answers will vary depending on the companies they select. For example, growth industries might include the personal computer industry, the computer software industry, and the nursing home industry. Mature industries include the auto industry, the airline industry, and the beer industry. Declining industries include the tobacco industry, the sugar industry, and the steel industry.

Growth industries tend to have many firms and be relatively fragmented. Barriers to entry may center on access to technological know-how, but overall, are low. Product differentiation also tends to be relatively low. Mature and declining industries have fewer firms and are more consolidated than growth industries. In addition, they have much higher barriers to entry, in the form of cost economies and brand loyalties. Product differentiation in mature and declining industries becomes much greater as an industry approaches maturity.

These changes reveal that the nature of competition in an industry also changes as the industry moves from growth through maturity and into decline. Specifically, a growth industry is characterized by relatively benign competitive pressures. Mature industries are characterized by an emphasis on nonprice competition as a means of avoiding damaging price wars, although price wars may break out from time to time. Competition in a declining industry depends on the speed of decline and the height of exit barriers. The faster the decline and the higher the exit barriers, the more intense is the competition within a declining industry.

In summary, the availability of opportunities decreases and the intensity of competitive threats increases as an industry passes from growth through maturity and into decline.

4. Assess the impact of macroenvironmental factors on the likely level of enrollment at your university over the next decade. What are the implications of these factors for the job security and salary level of your professors?

   The most significant macroenvironmental factor here is to be found in the demographic environment. In the 1980s and early 1990s, many universities experienced a decline in enrollments due to the declining birthrate in the 1960s and 1970s. Starting in the late 1990s, however, enrollments have risen as a result of the "baby boomlet" that occurred when the children of the Baby Boomers entered their late teen years. Rising enrollments have led to increased demand for higher education, with the resulting shortages. Universities are now able to increase their admission standards and smaller, regional schools are absorbing some of the excess demand. In addition, the economic downturn has led to an increase in older students returning to school for degrees, especially in business and other professions. On the negative side, legislative spending is lower, because state tax revenues are less. Universities are thus stuck in the position of trying to increase offerings while also reducing costs. Many colleges are responding by hiring more faculty but paying less, which they can accomplish by increasing the number of temporary, adjunct, or graduate student faculty members.

PRACTICING STRATEGIC MANAGEMENT

SMALL-GROUP EXERCISE: COMPETING WITH MICROSOFT

Students are asked to break into small groups, develop a solution, and then present their solution to the class. The exercise requires the students to assume a role as an engineer or manager at a small computer software firm that has developed an operating system that could rival Microsoft's Windows software. The students are asked to analyze the competitive structure in the market for personal computer operating systems, using Porter's five forces model and the sixth competitive force—complementors. Based on their competitive analysis, they should identify what factors might inhibit adoption of the operating system by customers. The group is also asked to identify a strategy that might be used to compete successfully against Microsoft, based on what they have learned about the competitive environment and to determine what it will take to execute the strategy successfully.

Teaching Note:

This case will serve as a powerful illustration to students that even the best product will not succeed in a severely hostile environment. Although some of the five forces are favorable in this case—low power of buyers, lack of substitutes—others are extremely negative, such as the very high barriers to entry and the intense rivalry. However, the most important factor is the lack of complementors. Students will discover that, even though the innovative operating system is superior to Microsoft's Windows, without complementing software (e.g. word processing, spreadsheet, graphics, database), the new operating system will have no chance to succeed. Software developers will have no incentive to write for this new operating system, and without sufficient software, the product will fail to gain a foothold in the industry.

Thus, the strategic goal of the start-up should be to create an as large as possible installed base of computers using its operating system. The start-up can either decide to give the operating system away for free or sell it for a nominal fee to original equipment manufacturers like Compaq in the hope that software developers will start writing software for this new operating system. On the other hand, given that Microsoft has all the necessary complementary assets in house, it might be wiser for the start-up to cooperate with Microsoft.

STRATEGY SIGN-ON

ARTICLE FILE 2

Students should find an example of an industry that has become more competitive in recent years. They should identify the reasons for the increase in competitive pressure.

Teaching Note:

Completion of this exercise will help students to see that the intensity of competition is increasing in most industries. They should have no trouble identifying industries with increasing competition.

Reasons for the increased competition are many. First, many of the factors mentioned in Porter's five forces model are changing across many industries in ways that will increase competition. For example, the U.S. and many other national governments are reducing industry regulation, lowering barriers to entry and opening up industries that were formerly monopolistic to competition. International regulation is also decreasing, raising competitive intensity for multinational firms. Another change is the consolidation that resulted from the merger-and-acquisition fever of the 1980s and 1990s. Higher consolidation has led to increased competition. Higher consolidation in the buyer and supplier industries, such as the increased power of giant discount retailers, has also put competitive pressure on many firms. Second, industries, especially in developing countries, are starting to mature, which tends to increase competitive intensity.

STRATEGIC MANAGEMENT PROJECT: MODULE 2

This module requires students to analyze the industry environment in which their companies are based, in order to reinforce the concepts about industry analysis that are presented in this chapter.

Teaching Note:

Because this is the first module of the strategic management project that requires the gathering of a great deal of information, you should ensure that students are able to access sufficient data to perform a detailed analysis of their firm's external opportunities and threats.

Students may tend to rush through this section of the strategic management project because it appears to be a fairly mechanical exercise in information gathering. However, students should be encouraged to do a thorough and careful job in this section for three reasons. First, this analysis, along with the analysis of strengths and weaknesses that will be performed in Chapter 3, serves as the foundation for all of the remaining sections of the project. A poor job in this section will make it very difficult to do well in future assignments. Second, a hurried project may not aid students in understanding the concepts of the chapter in detail. For example, there are five major components to Porter's model, and each consists of several sub-components, each of which must be analyzed individually in order to provide an accurate overall assessment. Third, you can point out to students that this section is not merely a mechanical exercise, but also involves higher-level analytical skills. The students must gather data, *and* they must interpret that data. In particular, deciding whether a specific fact conveys more of a threat or more of an opportunity can be challenging and requires some careful thought. What threatens one industry may benefit another. For example, the aging population has constituted a threat for baby food manufacturers, but it has proven to be a boon for the home nursing care industry.

It is also important in this section that students use as many different analytical tools as possible, including Porter's five forces and complementors, strategic groups, and macroenvironmental analysis. You should emphasize to students that each of these tools provides a different type of insight such as the dynamics of the industry, stage of the life cycle in the industry, global expansion initiatives, and national context to a firm's managers, and that use of every available tool will provide the most well-rounded and realistic picture of the industry.

CLOSING CASE

THE UNITED STATES STEEL INDUSTRY

The U.S. steel industry has been met with numerous problems for the last few decades. Factors contributing to its demise were falling trade barriers, competition, decreasing demand, excess capacity, and unionization. With bankruptcies and consolidation, restructured enterprises were now faced with productive workforces and new technology. With a decline in the value of the U.S. dollar after 2001, more steel exports were created resulting in competitive pricing and higher profits. With many countries spending for infrastructure rebuilding to stimulate their economies, demand for steel surged and allowed for price increases and profitability for U.S. steelmakers, even in the face of a U.S. recession. However, in the deep recession and global financial crisis, steel remains volatile.

Teaching Note:

This case introduces many of the themes of Chapter 2, including the impact that competitive forces have on industry behavior and profitability, concepts about market segmentation and strategic groups, and the changing nature of competition over an industry's life cycle. One of the most important lessons of this chapter and this case, and one that may be somewhat surprising to students, is the very strong influence that external environments can have on firm performance. Much of what is discussed in the popular business literature focuses on the achievements or shortcomings of individual managers and other forces internal to the firm. But it is worthwhile to remind students that external forces can have just as much impact and can even cause the demise of industries with competent managers.

ANSWERS TO CASE DISCUSSION QUESTIONS

1. Using the information contained in the case, conduct a five-forces analysis of the U.S. Steel industry. What conclusion can you draw from this?

   Risk of Entry: The industry tends to be dominated by a few large established enterprises that have the scale required to bear the considerable costs and risks associated with steel changes and, moreover, can afford to spend large amounts of money to promote their steel in the marketplace. New entrants face a steadily increasing minimum efficient scale of production, meaning that more and more of a niche is required to achieve any economies of scale.

   Rivalry among established companies: Rivalry is high evidenced by the small number of competitors. Demand conditions are volatile based on economic and global issues.

   Bargaining power of buyers: Where large corporations and distributors can force price concessions, this can be considered a threat in the steel industry. Consumers themselves have a high level of bargaining power as they can be particularly price-sensitive in the volatile industry.

Bargaining power of suppliers: In many cases, the steel industry is the supplier and raw materials provider to many processes. Having few suppliers, the steel industry becomes powerful in the marketplace.

Substitutes: Many substitutes are in existence for mass-market steel, such as plastic, fiberglass, and lower priced metals.

The cumulative effect of these five forces is that the mass-market steel industry can be considered in its mature stage. The stability of a mature industry like this is always threatened by further price wars and could lead an industry into decline.

2. Do you think there are any strategic groups in the U.S. Steel industry? What might they be? How might the nature of competition vary from group to group?

The steel industry would have strategic groups that would include other raw materials suppliers such as plastic, fiberglass, and other metals such as aluminum and iron. Each of these materials would serve different consumer needs than steel would but in many cases be a substitute for the higher priced metal

3. Demand for steel is very cyclical. Why do you think this is the case? What might steel makers do to better cope with the cyclical nature of demand?

The economic tied steel industry should look at innovations that might reshape the industry and would fill the cyclical gaps. Such innovations might be complements that would trigger demand for steel..

4. Given the nature of competition in the U.S. steel industry, what must a steel maker focus on in order to be profitable?

A steel maker should focus on building resources and capabilities because of their key to profitability.