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.

Learning Objectives

1. Review the primary technique used to analyze competition in an industry environment: the Five Forces model.
2. Explore the concept of strategic groups and illustrate the 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 Market for Large Commercial Jet Aircraft

Just two companies, Boeing and Airbus, have long dominated the market for large commercial jet air- craft.

In early 2012, Boeing planes accounted for 50% of the world's fleet of commercial jet aircraft, and Airbus planes accounted for 31%. The reminder of the global market was split between several smaller players, including Embraer of Brazil and Bombardier of Canada, both of which had a 7% share. The overall market is large and growing. Demand for new aircraft is driven primarily by demand for air travel, which has grown at 5% per annum compounded since 1980. Looking forward, Boeing predicts that between 2011 and 2031 the world economy will grow at 3.2% per annum, and airline traffic will continue to grow at 5% per annum as more and more people from the world's emerging economies take to the air for business and pleasure trips. Clearly, the scale of future demand creates an enormous profit opportunity for the two main incumbents, Boeing and Airbus. with five producers rather than two in the market, it seems likely that competition will become more intense in the narrow-bodied segment of the industry, which could well drive prices and profits down for the big two incumbent producers.

Teaching Note:
This case illustrates how two companies, Boeing and Airbus, have dominated the market, the new entrants, and their future in the market. The case also talks about the scale of future demands and the profit opportunities. A class discussion could include the following questions:

- Are the two main incumbents, Boeing and Airbus, set to dominate the market?
- What are the opportunities for the new entrants?
- Suggest more ways in which the new entrants could compete with Boeing and Airbus.

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 the 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 industry 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—that is, products or services that satisfy the same basic customer needs. A competitor's closest competitor's—its rivals—are those that serve the same basic consumer needs. External analysis begins by identifying the industry within which a company competes. To do this, managers must start by looking at the basic customer needs their company is serving—that is, they must take a customer-oriented view of their business rather than a product-oriented view.

A. Industry and Sector

A distinction can be made between an industry and a sector. A **sector** is a group of closely related industries. For example, the computer sector comprises several related industries—the computer component industries, the computer hardware industries, and the computer software industry (Figure 2.1).

Figure 2.1: The Computer Sector: Industries and Segments

A. Industry and Market Segments

It is also important to recognize the difference between an industry and the market segments within that industry. 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.

B. Changing Industry Boundaries

Industry boundaries may change over time as customer needs evolve, or as emerging new technologies enable companies in unrelated industries to satisfy established customer needs in new ways. Industry competitive analysis begins by focusing upon the overall industry in which a firm competes before market segments or sector-level issues are considered.

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. Michael E. Porter's well-known framework, the Five Forces model, helps managers with this analysis. An extension of his model, shown in Figure 2.2, focuses on six forces that shape competition within an industry:

- The risk of entry by potential competitors
- The intensity of rivalry among established companies within an industry
- The bargaining power of buyers
- The bargaining power of suppliers
- The closeness of substitutes to an industry's products
- The power of complement providers (Porter did not recognize this sixth force)

Figure 2.2: Competitive Forces

As each of these forces grows stronger, it limits the ability of established companies to raise prices and earn greater profits. Within this framework, a strong competitive force can be regarded as a threat because it depresses profits.

A. Risk of Entry by Potential Competitors

Potential competitors are companies that are not currently competing in an 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 the barriers to entry, that is, 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 economies of scale, brand loyalty, absolute cost advantages, customer switching costs, and government regulation.

1. **Economies of scale**

   Economies of scale arise when unit costs fall as a firm expands its output. Sources of economies include:
   - Cost reductions gained through mass-producing a standardized output
   - Discounts on bulk purchases of raw material inputs and component parts
   - The advantages gained by spreading fixed production costs over a large production volume
   - The cost savings associated with distributing marketing and advertising costs over a large volume of output

2. **Brand Loyalty**

   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**

   Sometimes established companies have an **absolute cost advantage** relative to potential entrants, meaning that entrants cannot expect to match the established companies' lower cost structure. Absolute cost advantages arise from three main sources:
   - Superior production operations and processes due to accumulated experience, patents, or trade secrets
   - Control of particular inputs required for production, such as labor, materials, equipment, or management skills that are limited in their supply
   - Access to cheaper funds because existing companies represent lower risks than new entrants

4. **Customer Switching Costs**

   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**

Historically, government regulation has constituted a major entry barrier for many industries. The competitive forces model predicts that falling entry barriers due to government deregulation will result in significant new entry, an increase in the intensity of industry competition, and lower industry profit rates.

If established companies have built brand loyalty for their products, have an absolute cost advantage over potential competitors, have significant scale economies, are the beneficiaries of high switching costs, or enjoy regulatory protection, the risk of entry by potential competitors is greatly diminished; it is a weak competitive force. Consequently, established companies can charge higher prices, and industry profits are therefore higher.

2.1 Strategy in Action: 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 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

The second competitive force is the intensity of rivalry among established companies within an industry. Rivalry refers to the competitive struggle between companies within an industry to gain market share from each other. Four factors have a major impact on the intensity of rivalry among established companies within an industry:

- Industry competitive structure
- Demand conditions
- Cost conditions
- The height of exit barriers in the industry

1. Industry Competitive Structure

The competitive structure of an industry refers to the number and size distribution of companies in it, something that strategic managers determine at the beginning of an industry analysis. Industry structures vary, and different structures have different implications for the intensity of rivalry. A fragmented industry consists of a large number of small or medium-sized companies. A consolidated industry is dominated by a small number of large companies (an oligopoly) or, in extreme cases, by just one company (a monopoly), and companies often are in a position to determine industry prices.

Low-entry barriers and commodity-type products that are difficult to differentiate characterize many fragmented industries. This combination tends to result in boom-and-bust cycles as industry profits rapidly raise and fall. Low-entry barriers imply that new entrants will flood the market, hoping to profit from the boom that occurs when demand is strong and profits are high. Often the flood of new entrants into a booming, fragmented industry creates excess capacity, and companies start to cut prices in order to use their spare capacity. The difficulty companies face when trying to differentiate their products from those of competitors can exacerbate this tendency. The result is a price war, which depresses industry profits, forces some companies out of business, and deters potential new entrants.

A fragmented industry structure, then, constitutes a threat rather than an opportunity. Economic boom times in fragmented industries are often relatively short-lived because the ease of new entry can soon result in excess capacity, which in turn leads to intense price competition and the failure of less efficient enterprises.

In consolidated industries, companies are interdependent because one company's competitive actions (changes in price, quality, etc.) directly affect the market share of its rivals, and thus their profitability. When one company makes a move, this generally "forces" a response from its rivals, and the consequence of such competitive interdependence can be a dangerous competitive spiral.

Companies in consolidated industries sometimes seek to reduce this threat by following the prices set by the dominant company in the industry. However, companies must be careful, for explicit face-to-face price-fixing agreements are illegal.

2.2 Strategy in Action: 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, Kellogg's, General Mills, and Kraft Foods. Kellogg's, controlled 40% of the market share and was a price leader. It raised prices a bit each year, and the smaller companies followed suit. Then the industry structure changed. Huge discounters began to promote cheaper private brands and 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. 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.

2. Industry Demand

The level of industry demand is another determinant of the intensity of rivalry among established companies. Growing demand tends to reduce rivalry because all companies can sell more without taking market share away from other companies. Demand declines when customers exit the marketplace, or when each customer purchases less.

2. Cost Conditions

The cost structure of firms in an industry is a third determinant of rivalry. In industries where fixed costs are high, profitability tends to be highly leveraged to sales volume, and the desire to grow volume can spark intense rivalry. In situations where demand is not growing fast enough and too many companies are simultaneously engaged in the same actions, the result can be intense rivalry and lower profits.

3. Exit Barriers

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 the following:

- Investments in assets such as specific machines, equipment, or operating facilities that are of little or no value in alternative uses, or cannot be later sold.
- High fixed costs of exit, such as severance pay, health benefits, or pensions that must be paid to workers who are being made laid off when a company ceases to operate.
- Emotional attachments to an industry, such as when a company's owners or employees are unwilling to exit from an industry for sentimental reasons or because of pride.
- Economic dependence on the industry because a company relies on a single industry for its entire revenue and all profits.
- The need to maintain an expensive collection of assets at or above a minimum level in order to participate effectively in the industry.
- Bankruptcy regulations, particularly in the United States, where bankruptcy provisions allow insolvent enterprises to continue operating and to reorganize under this protection. These regulations can keep unprofitable assets in the industry, result in persistent excess capacity, and lengthen the time required to bring industry supply in line with demand.

C. The Bargaining Power of Buyers

The third competitive force is the bargaining power of buyers. 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:

- When the buyers have choice of who to buy from.
- When the buyers purchase in large quantities. In such circumstances, buyers can use their purchasing power as leverage to bargain for price reductions.

- When the supply industry depends upon buyers for a large percentage of its total orders.
- When switching costs are low and buyers can pit the supplying companies against each other to force down prices.
- When it is economically feasible for buyers to purchase an input from several companies at once so that buyers can pit one company in the industry against another.
- When buyers can threaten to enter the industry and independently produce the product, thus supplying their own needs, also a tactic for forcing down industry prices.

D. The Bargaining Power of Suppliers

The fourth competitive force is the bargaining power of suppliers—the 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. Powerful suppliers squeeze profits out of an industry by raising the costs of companies in the industry. Thus, powerful suppliers are a threat. As with buyers, 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:

- The product that suppliers sell has few substitutes and is vital to the companies in an industry.
- 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.
- Companies in an industry would experience significant switching costs if they moved to the product of a different supplier because a particular supplier’s products are unique or different.
- 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.
- Companies in the industry cannot threaten to enter their suppliers’ industry and make their own inputs as a tactic for lowering the price of inputs.

Focus On: Wal-Mart
Wal-Mart’s Bargaining Power over Suppliers

When Wal-Mart and other discount retailers began in the 1960s, they were small operations with little purchasing power. The cost savings generated by not having to pay profits to wholesalers were passed on to consumers in the form of lower prices, which helped Wal-Mart continue growing. Because 8% of all retail sales in the United States are made in a Wal-Mart store, the company has enormous bargaining power over its suppliers. Suppliers of nationally branded products, such as P&G, are no longer in a position to demand high prices. Instead, Wal-Mart is now so important to P&G that it is able to demand deep discounts from P&G. Since the early 1990s, Wal-Mart has provided suppliers with real-time information on store sales through the use of individual stock-keeping units (SKUs). These have allowed suppliers to optimize their own production processes, matching output to Wal-Mart’s demands and avoiding under- or overproduction and the need to store inventory. The efficiencies that manufacturers gain from such information are passed on to Wal-Mart in the form of lower prices, which then passes on those cost savings to consumers.

Teaching Note:

This case describes the bargaining power of Wal-Mart over its suppliers. It provides a good opportunity to quiz the students on the pros and cons of having a bargaining power over an organization’s suppliers.

E. Substitute Products

The final force in Porter’s model is the threat of substitute products—the products of different businesses or industries that can satisfy similar customer needs. 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. Complementors

Complementors are 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. Conversely, if complementors are weak, and are not producing attractive complementary products, they can become a threat, slowing industry growth and limiting profitability. It’s also possible for complementors to gain so much power that they are able to extract profit out of the industry they are providing complements to. Complementors this strong can be a competitive threat.

G. Summary: Why Industry Analysis Matters

The analysis of forces in the industry environment using the competitive forces framework is a powerful tool that helps managers to think strategically. It is important to recognize that one competitive force often affects others, and all forces need to be considered when performing industry analysis. Industry analysis inevitably leads managers to think systematically about strategic choices. An analysis of industry opportunities and threats leads directly to a change in strategy by companies within the industry. This is the crucial point—analyzing the industry environment in order to identify opportunities and threats leads logically to a discussion of what strategies should be adopted to exploit opportunities and counter threats.

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.

Figure 2.3: Strategic Groups in the Commercial Aerospace Industry

Normally, the basic differences between the strategies that companies in different strategic groups use can be captured by a relatively small number of factors.

A. **Implications of Strategic Groups**

The concept of strategic groups has a number of implications for the identification of opportunities and threats within an industry:

- Because all companies in a strategic group are pursuing a similar strategy, customers tend to view the products of such enterprises as direct substitutes for each other. Thus, a company's closest competitors are those in its strategic group.
- Different strategic groups can have different relationships to each of the competitive forces; thus, each strategic group may face a difference set of opportunities and threats.

B. The Role of Mobility Barriers

Some strategic groups are more desirable than others because competitive forces open up greater opportunities and present fewer threats for those groups. Managers, after analyzing their industry, might identify a strategic group where competitive forces are weaker and higher profits can be made. Sensing an opportunity, they might contemplate changing their strategy and move to compete in that strategic group. However, taking advantage of this opportunity may be difficult because of mobility barriers between strategic 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. Managers should be aware that companies based in another strategic group within their industry might ultimately become their direct competitors if they can overcome mobility barriers.

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 useful tool for analyzing the effects that industry evolution has on competitive forces is the industry life-cycle model. This model identifies five sequential stages in the evolution of an industry that lead to five distinct kinds of industry environment—embryonic, growth, shakeout, mature, and decline (Figure 2.4).

Figure 2.4: Stages in the Industry Life Cycle

A. Embryonic Industries

An embryonic industry refers 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. Barriers to entry tend to be based on access to key technological knowhow, rather than cost economies or brand loyalty. Rivalry in embryonic industries is based not so much on price as on educating customers, opening up distribution channels, and perfecting the design of the product.

B. Growth Industries

Once demand for the industry's product begins to increase, the industry develops the characteristics of a growth industry. In a growth industry, first-time demand is expanding rapidly as many new customers enter the market. Typically, an industry grows when customers become familiar with the product, prices fall because scale economies have been attained, and distribution channels develop.

High growth usually means that new entrants can be absorbed into an industry without a marked increase in the intensity of rivalry. Thus, rivalry tends to be relatively low. Rapid growth in demand enables companies to expand their revenues and profits without taking market share away from competitors.

C. Industry Shakeout

Explosive growth cannot be maintained indefinitely. Sooner or later, the rate of growth slows, and the industry enters the shakeout stage. In the shakeout stage, demand approaches saturation levels—more and more of the demand is limited to replacement because fewer potential first-time buyers remain.

As an industry enters the shakeout stage, rivalry between companies can become intense. Typically, companies that have become accustomed to rapid growth continue to add capacity at rates consistent with past growth. However, demand is no longer growing at historic rates, and the consequence is the emergence of excess productive capacity. This condition is illustrated in Figure 2.5, where the solid curve indicates the growth in demand over time and the broken curve indicates the growth in productive capacity over time.

Figure 2.5: Growth in Demand and Capacity

D. Mature Industries

The shakeout stage ends when the industry enters its mature stage—the market is totally saturated, demand is limited to replacement demand, growth is low or zero. Typically, 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 competitors decreases. As growth slows during the shakeout, companies can no longer maintain historic growth rates merely by holding on to their market share. As a result of the shakeout, most industries in the maturity stage consolidate and become oligopolies. In mature industries, companies tend to recognize their interdependence and try to avoid price wars.

E. Declining Industries

Eventually, most industries enter a stage of decline—growth becomes negative for a variety of reasons, including technological substitution, social changes, demographics, and international competition. Within a declining industry, the degree of rivalry among established companies usually increases. 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 effective strategies. Managers have to tailor their strategies to changing industry conditions.

VI. Limitations of Models for Industry Analysis

The competitive forces, strategic groups, and life-cycle models provide useful ways of thinking about and analyzing the nature of competition within an industry to identify opportunities and threats. However, each has its limitations, and managers must be aware of their shortcomings.

A. Life-Cycle Issues

It is important to remember that the industry life-cycle model is a generalization. In practice, industry life-cycles do not always follow the pattern illustrated in Figure 2.4. In some cases, growth is so rapid that the embryonic stage is skipped altogether. In others, industries fail to get past the embryonic stage. Industry growth can be revitalized after long periods of decline through innovation or social change.

The time span of these stages can also vary significantly from industry to industry. Some industries can stay in maturity almost indefinitely if their products are viewed as basic necessities, as is the case for the car industry. Other industries skip the mature stage and go straight into decline, as in the case of the vacuum tube industry.

B. Innovation and Change

Over any reasonable length of time, in many industries competition can be viewed as a process driven by innovation. Innovation is frequently the major factor in industry evolution and causes a company's movement through the industry life-cycle. Innovation is attractive because companies that pioneer new products, processes, or strategies can often earn enormous profits.

Successful innovation can transform the nature of industry competition. In recent decades, one frequent consequence of innovation has been to lower the fixed costs of production, thereby reducing barriers to entry and allowing new, and smaller, enterprises to compete with large established organizations.

Michael Porter, talks of innovations as "unfreezing" and "reshaping" industry structure. He argues that after a period of turbulence triggered by innovation, the structure of an industry once more settles down into a fairly stable pattern, and the five forces and strategic group concepts can once more be applied. This view of the evolution of industry structure is often referred to as "punctuated equilibrium." The punctuated equilibrium view holds that long periods of equilibrium (refreezing), when an industry's structure is stable, are punctuated by periods of rapid change (unfreezing), when industry structure is revolutionized by innovation.

Figure 2.6 shows what punctuated equilibrium might look like for one key dimension of industry structure: competitive structure. During a period of rapid change when industry structure is being revolutionized by innovation, value typically migrates to business models based on new positioning strategies.

Figure 2.6: Punctuated Equilibrium and Competitive Structure

C. Company Differences

Another criticism of industry models is that they overemphasize the importance of industry structure as a determinant of company performance, and underemphasize the importance of variations or differences among companies within an industry or a strategic group. Research by Richard Rumelt and his associates, for example, suggests that industry structure explains only about 10% of the variance in profit rates across companies. This implies that individual company differences explain much of the remainder. Other studies have estimated the explained variance at about 20%, which is still not a large figure. These studies suggest that a company's individual resources and capabilities may be more important determinants of its profitability than the industry or strategic group of which the company is a member.

Although the findings do not invalidate the competitive forces and strategic group models, they do imply that the models are imperfect predictors of enterprise profitability. A company will not be profitable just because it is based in an attractive industry or strategic group.

VII. The Macroenvironment

Just as the decisions and actions of strategic managers can often change an industry's competitive structure, so too can changing conditions or forces in the wider macroenvironment , that is, the broader economic, technological, demographic, social, and political context in which companies and industries is embedded (Figure 2.7). Changes in the forces within the macroenvironment can have a direct impact on any or all of the forces in Porter's model, thereby altering the relative strength of these forces as well as the attractiveness of an industry.

Figure 2.7: The Role of the Macroenvironment

A. Macroeconomic Forces

The four most important macroeconomic forces are the growth rate of the economy, interest rates, currency exchange rates, and inflation (or deflation) rates.

- Economic growth, because it leads to an expansion in customer expenditures, tends to ease competitive pressures within an industry. This gives companies the opportunity to expand their operations and earn higher profits.
- Interest rates can determine the demand for a company's products. Interest rates are important whenever customers routinely borrow money to finance their purchase of these products.
- Currency exchange rates define the comparative value of different national currencies. Movement in currency exchange rates has a direct impact on the competitiveness of a company's products in the global marketplace.
- Price inflation can destabilize the economy, producing slower economic growth, higher interest rates, and volatile currency movements. If inflation continues to increase, investment planning will become hazardous.
    - Price deflation also has a destabilizing effect on economic activity. If prices fall, the real price of fixed payments goes up. This is damaging for companies and individuals with a high level of debt who must make regular fixed payments on that debt. In a deflationary environment, the increase in the real value of debt consumes more household and corporate cash flows, leaving less for other purchases and depressing the overall level of economic activity.

B. Global Forces

Over the last half-century there have been enormous changes in the world's economic system. The important points to note are that barriers to international trade and investment have tumbled, and more and more countries have enjoyed sustained economic growth. Falling barriers to international trade and investment have made it much easier to enter foreign nations. By the same token, however, falling barriers to international trade and investment have made it easier for foreign enterprises to enter the domestic markets of many companies (by lowering barriers to entry), thereby increasing the intensity of competition and lowering profitability. Because of these changes, many formerly isolated domestic markets have now become part of a much larger, more competitive global marketplace, creating both threats and opportunities for companies.

C. Technological Forces

Over the last few decades the pace of technological change has accelerated.. This has unleashed a process that has been called a "perennial gale of creative destruction." Technological change can make established products obsolete overnight, and simultaneously create a host of new product possibilities. Thus technological change is both creative and destructive—both an opportunity and a threat. The impacts of technological change can affect the height of barriers to entry and therefore radically reshape industry structure.

D. Demographic Forces

Demographic forces are outcomes of changes in the characteristics of a population, such as age, gender, ethnic origin, race, sexual orientation, and social class. Like the other forces in the general environment, demographic forces present managers with opportunities and threats and can have major implications for organizations.

E. Social Forces

Social forces refer to the way in which changing social mores and values affect an industry. Like the other macroenvironmental factors, social change creates opportunities and threats.

F. Political and Legal Forces

Political and legal forces are outcomes of changes in laws and regulations, and significantly affect managers and companies. Political processes shape a society's laws, which constrain the operations of organizations and managers and thus create both opportunities and threats.

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?

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
- 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 with reference to what you know about the global market for commercial jet aircraft (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 new aircraft is driven primarily by demand for air travel worldwide and there is room for new entrants. Barriers to entry is that Embraer and Bombardier are focused primarily on regional market, and the market for aircraft with more than 100 seats has been totally dominated by Boeing and Airbus.

Rivalry among established companies:
Rivalry between Boeing, Airbus and the three new entrants is minimal. All three are building narrow-bodied jets with a seat capacity between 100 and 190. Boeing's 737 and the Airbus A320 currently dominate the narrow-bodied segment. The Commercial Aircraft Corporation of China (Comac) is building a 170- to 190-seat narrow-bodied jet, scheduled for introduction in 2016.

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

Bargaining power of suppliers:
Suppliers in the large commercial jet aircraft have little power. Suppliers are also threatened by potential and existing substitutes.

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 are 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.

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 on the likely level of enrollment at an university 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 had risen as a result of the “baby boomlet” that occurred when the children of the Baby Boomers entered their late teen years. Rising enrollments led to increased demand for higher education. 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

The students are asked to break into groups of three to five people, and discuss the following scenario. They are asked to appoint one group member as a spokesperson who will communicate their findings to the class.

> You are a group of managers and software engineers at a small start-up. You have developed a revolutionary new operating system for personal computers that offers distinct advantages over Microsoft’s Windows operating system: it takes up less memory space on the hard drive of a personal computer; it takes full advantage of the power of the personal computer’s microprocessor, and in theory can run software applications much faster than Windows; it is much easier to install and use than Windows; and it responds to voice instructions with an accuracy of 99.9%, in addition to input from a keyboard or mouse. The operating system is the only product offering that your company has produced.

They are then asked to complete the following exercise:

1. Analyze the competitive structure of the market for personal computer operating systems. On the basis of this analysis, identify what factors might inhibit adoption of your operating system by customers.
2. Can you think of a strategy that your company might pursue, either alone or in conjunction with other enterprises, in order to “beat Microsoft”? What will it take to execute that 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 and 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, etc.), 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 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 using the information they have already gathered.

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 Airline Industry

The U.S. airline industry has long struggled to make a profit. Analysts point to a number of factors that have made the industry a difficult place in which to do business. Over the years, larger carriers such as United, Delta, and American have been hurt by low-cost budget carriers entering the industry, including Southwest Airlines, Jet Blue, AirTran Airways, and Virgin America. These new entrants have used nonunion labor,

often fly just one type of aircraft (which reduces maintenance costs), have focused on the most lucrative routes, typically fly point-to-point (unlike the incumbents, which have historically routed passengers through hubs), and compete by offering very low fares. New entrants have helped to create a situation of excess capacity in the industry, and have taken share from the incumbent air- lines, which often have a much higher cost structure (primarily due to higher labor costs). The incumbents have had little choice but to respond to fare cuts, and the result has been a protracted industry price war. To complicate matters, the rise of Internet travel sites such as Expedia, Travelocity, and Orbitz has made it much easier for consumers to comparison shop, and has helped to keep fares low.
Beginning in 2001, higher oil prices also complicated matters. Fuel costs accounted for 32% of total revenues in 2011 (labor costs accounted for 26%; together they are the two biggest variable expense items). Many airlines went bankrupt in the 2000s, including Delta, Northwest, United, and US Airways. The larger airlines continued to fly, however, as they reorganized under Chapter 11 bankruptcy laws, and excess capacity persisted in the industry.

The late 2000s and early 2010s were characterized by a wave of mergers in the industry. In 2008, Delta and Northwest merged. In 2010, United and Continental merged, and Southwest Airlines announced plans to acquire AirTran. In late 2012, American Airlines put itself under Chapter 11 bankruptcy protection. US Airways subsequently pushed for a merger agreement with American Airlines, which was under negotiation in early 2013.

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. Conduct a competitive forces analysis of the U.S. airline industry. What does this analysis tell you about the causes of low profitability in this industry?

   Students' answers may vary. However, some of them may include the following points:

   - Potential competitors:
     Recent high profitability and an enormous surge in demand for new aircraft is driven primarily by demand for air travel.
   - Rivalry among established companies:
     The rivalry in U.S airline industry is heavy. Over the years, larger carriers such as United, Delta, and American have been hurt by low-cost budget carriers entering the industry, including Southwest Air- lines, Jet Blue, AirTran Airways, and Virgin America. These new entrants have

used nonunion labor, often fly just one type of aircraft (which reduces maintenance costs), have focused on the most lucrative routes, typically fly point-to-point (unlike the incumbents, which have historically routed passengers through hubs), and compete by offering very low fares. The incumbents have had little choice but to respond to fare cuts, and the result has been a protracted industry price war.

- Bargaining power of buyers:
  Consumers have little power in the U.S airline industry. However, when substitutes are available they are able to bargain down prices as was done historically in the industry.
- Bargaining power of suppliers:
  Suppliers in the U.S airline industry have little power. Suppliers are also threatened by potential and existing competitors.

2. Do you think there are any strategic groups in the U.S. airline industry? If so, what might they be? How might the nature of competition vary from group to group?

   Students answer will vary. While answering this question, they should keep in mind that within most industries, it is possible to observe groups of companies in which each company follows a strategy that is similar to that pursued by other companies in the group, but different from the strategy pursued by companies in other groups. These different groups of companies are known as strategic groups.

3. The economic performance of the airline industry seems to be very cyclical. Why do you think this is the case?

   Students' answers may vary. Some of them may point out the fact that the 2000s have not been kinder to the industry. The airline industry lost $35 billion between 2001 and 2006. It managed to earn meager profits in 2006 and 2007, but lost $24 billion in 2008 as oil and jet fuel prices surged throughout the year. In 2009, the industry lost $4.7 billion as a sharp drop in business travelers—a consequence of the deep recession that followed the global financial crisis—more than offset the beneficial effects of falling oil prices. The industry returned to profitability in 2010–2012, and in 2012 it managed to make $13 billion in net profit on revenues of $140.5 billion. The reason behind this cyclical economic performance is associated with the deep recession in the late 2000s followed by the global financial crisis.

4. Given your analysis, what strategies do you think an airline should adopt in order to improve its chances of being persistently profitable?

   Students' answer will vary. Some of them may say that an airline should try to keep its prices reasonable for all its customers. When the airline is anticipating a price hike, it should give at least 30 days prior notice to the customers. This way, the customers will be prepared for it. The airline could introduce programs, such as frequent flier miles, gift coupons, etc., that reward customer loyalty.