Chapter 2 – Analyzing the External Environment of the Firm

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Analyzing the External Environment of the Firm

SUMMARY/OBJECTIVES

The purpose of this chapter is to familiarize students with techniques for evaluating a firm's external environment. This chapter focuses on the value managers add when they have a sense of events outside the company. By focusing on external events, managers are able to stay a step ahead of competitors by accurately anticipating and promptly responding to actions that can impact the organization. The chapter is organized into three sections.

- 1. The environmentally aware organization. Emphasize that managers use scanning, monitoring, and competitive intelligence to develop forecasts. Also, the role of scenario planning is discussed.
- 2. The influence of the six broad segments (demographic, sociocultural, political/legal, technological, macroeconomic, global) of the general environment of the firm.
- 3. The role of the competitive (also called the task or industry) environment and its analysis through the application of Porter's five forces model. We also address the concept of strategic groups. Managers use strategic groups to identify who its main competitors are and how a company fits in with the overall industry in which it competes.

LECTURE/DISCUSSION OUTLINE

The introductory case discusses the successes of Canada Goose, and the implications of seeing so many counterfeits of the widely popular jackets in the market; we use the example to illustrate how management needs to recognize trends in an industry and among competitors, and to consider how failing to do so can cause business failures. Explain that scanning, monitoring, and competitive intelligence are all separate, discrete techniques that lead to business forecasts.

- What are the key points in the case?
- **Give examples of organizations that have misread their external environment. What were the consequences?**

As an aside, but as an important foundation for a good strategic analysis, we also discuss the challenges of defining the boundaries of a particular industry. This point can be made and elaborated upon, if there is time in class, by using examples from sectors that are very familiar to students, such as different categories of retail, or through exploring food purchases and various types of restaurants; at one point, you can even bring up the option of purchasing ready-made meals at the supermarket. Clearly, defining the boundaries of an industry is not as easy as it first seems. In the text, we dedicate a couple of pages to discuss the definition and the corresponding boundaries of industries and markets. We raise the issues of alternative conceptualizations of the relevant competitive environment that a firm faces and how each conceptualization highlights different facets of the competitive environment that a manager must consider in thinking strategically about the firm's future.

I. <u>CREATING THE ENVIRONMENTALLY AWARE</u> <u>ORGANIZATION</u>

We address three important processes—scanning, monitoring, and gathering competitive intelligence—which managers use to develop forecasts. EXHIBIT 2.1 depicts relationships among these activities. Also, we address scenario planning and its role in anticipating future major changes in the external environment as well as the role of SWOT analysis.

A. ENVIRONMENTAL SCANNING

Environmental scanning involves surveillance of the firm's external environment to predict environmental changes to come and detect changes that are already underway. We discuss the examples of (1) BP Amoco and (2) three of the eight "key issues" (globalization; time to market; and shifting roles and responsibilities) facing the automobile industry according to A. T. Kearney.

□ Why would an automobile executive be at a disadvantage if s/he were not aware of such trends?

EXHIBIT 2.2 provides some tips on how to spot important environmental trends by listening, paying attention and following trends online.

□ Would these "tips" be equally appropriate for all industries? Why? Why not?

STRATEGY SPOTLIGHT 2.1 discusses how Dell uses an online community to scan its environment and keep abreast of key trends.

B. ENVIRONMENTAL MONITORING

Environmental monitoring tracks the evolution of trends, events, or streams of activities in the external environment. In this section, we present some of the factors monitored by three organizations: Motel 6, Pier 1 Imports, and Johnson and Johnson Medical Products. Such factors are vital for managers in determining their firm's strategic direction and resource allocations.

The SUPPLEMENT below represents the factors that the Director of Planning of Vought Aircraft considered critical. You may initially ask the students:

□ What indicators do you believe a firm should monitor that produces both (1) weapon systems for the military, and (2) key components for the commercial aircraft industry?

Factors to Monitor—Vought Aircraft

Commercial Aircraft:

- 1. Oil prices
- 2. Age of fleet of airlines
- 3. Profitability of airlines

Defense Department:

- 1. Where weapons are in the life cycle
- 2. Mission requirements of the military

Source: Authors' interviews.

Alternatively, you can ask students: What indicators do you believe are of interest to the senior managers at Telus, Rogers, or BCE (Bell Canada)?

The SUPPLEMENT below discusses how Cisco, the \$40 billion (2010 revenues) networking giant, learned from its mistakes during the Internet bust in 2001—and now carefully monitors its inventory levels. It points out that managers must monitor key aspects of the firm's internal environment—as well as the firm's external environment.

How Cisco Learned from Its Mistakes

In April, 2001, Cisco made one of the more painful confessions of the Internet bust: It had so much networking gear piled up that it had to take a \$2.5 billion write-off for equipment that it figured nobody would ever buy. It has been working hard ever since to make sure that such a thing never happens again.

Supply chain chief Angel Mendez is grilled at monthly reviews by CEO John Chambers and other top executives. Now, Cisco has half the inventory it did in 2001—even though its revenues are twice as large. Says Mendez: "It didn't take John eight years to start asking questions (about inventory levels). He asks about every eight minutes."

Source: Burrows, P. 2009. Tech: Lean and Ready to Spring. BusinessWeek. April 27: 14-16.

C. COMPETITIVE INTELLIGENCE

Competitive intelligence helps firms define and understand their industry and identify rivals' strengths and weaknesses. Done properly, competitive intelligence helps a company to avoid surprises by effectively anticipating and responding to competitors' moves.

We briefly address the importance of competitive intelligence to firms in the banking, airline, and automobile industry.

□ What are other industries where competitive intelligence is extremely important? How might such information be collected?

We address how the Internet has accelerated the speed at which firms can find competitive intelligence.

The following SUPPLEMENT provides an interesting perspective by Tracey Scott, past president of the Society of Competitive Intelligence Professionals:

The "People Side" of Competitive Intelligence

"I distinguish between secondary information—stuff that you read on the Web or in reports—and human-source information: stuff that real people tell you. Human-source information is more interesting and more accurate than secondary information. That's why I always look for 'star talent' and think about what the comings and goings of those people mean. I also love conference proceedings. Most companies send their best people to speak at conferences. It's a great way to track talent and to track down people who might have useful information and insights."

Source: Imperato, G. 1998. Competitive intelligence: Get smart. Fast Company. April-May: 270.

Do you agree with Ms. Scott's perspective? Do you feel she overstates her case? Why? Why not?

EXHIBIT 2.3 further clarifies what competitive intelligence (CI) is all about. It provides four contrasting issues on what CI "is" and "is not."

STRATEGY SPOTLIGHT 2.2 discusses some of the ethical questions raised by certain revelations and accusations about spying and abuse of competitive intelligence principles by Canada's dominant airlines, Air Canada and WestJet.

STRATEGY SPOTLIGHT 2.3 discusses some of the ethical guidelines that United Technologies has implemented.

Are you aware of ethical guidelines that other companies have developed? Were they effective? Why? Why not?

Teaching Tip: The discussion of Competitor Intelligence provides the instructor with an opportunity to introduce the subject of ethics into the classroom. We suggest presenting scenarios that are not "black and white." For example, a firm advertises a position in order to get a chance to interview employees of a rival company with no intention to hire them. While this may not be illegal, clearly it is difficult to justify morally. The ensuing discussion will help to clarify the distinction between illegal and unethical behaviour.

D. ENVIRONMENTAL FORECASTING

Environmental scanning, monitoring, and competitive intelligence are important inputs for analyzing the external environment. However, they are of little use unless they provide raw material that is accurate enough to help managers make accurate forecasts.

We address the twin problems of either assuming that the world is certain and open to precise predictions, or the assumption that it is uncertain and totally unpredictable. We provide the example of Bombardier's reluctance to commit to develop a next generation passenger plane amidst the uncertainty in air travel and the disastrous consequences of some famous predictions in the computer industry.

□ What are some other errors in forecasting with which you are familiar?

E. SCENARIO ANALYSIS

Scenario analysis provides a set of tools that enable managers to imagine threats and opportunities the future may bring. As a general rule, scenarios should be used by businesses whose external environments are prone to fundamental or sudden change and whose anticipation of such change is of vital strategic importance.

It is important to note that scenario planning draws on a wide range of disciplines and interests, among them economics, psychology, sociology, and demographics.

□ Why must scenario analysis draw on a variety of disciplines and interests?

We provide the example of Lego, and how its position in the toy industry may become eroded if they define their industry—and its future—in a very narrow context.

STRATEGY SPOTLIGHT 2.4 includes the example of Shell Oil Company has benefited from the use of scenario analysis.

F. SWOT Analysis

We briefly address SWOT Analysis at this point. SWOT stands for strengths, weaknesses, opportunities, and threats. SWOT analysis provides a framework for analyzing these four elements of a company's internal and external environment.

It is important to note that SWOT analysis provides the "raw material", that is, a basic listing of conditions and factors inside and outside of a company. SWOT has been both used and misused extensively in business analysis of all stripes. Its strengths and limitations should be discussed in class to ensure the students become comfortable with such a powerful and common tool.

What do you consider to be some of the major advantages and disadvantages of SWOT analysis? (This issue is addressed in more detail in Chapter 3, but you should point out that frequently managers expect SWOT to essentially do all the thinking for them instead of treating it as only one more tool in the analysis. A key disadvantage is that strengths may not necessarily convert to sources of competitive advantage that are sustainable in the marketplace.)

II. THE GENERAL ENVIRONMENT

The general environment consists of factors that can have a dramatic effect on a firm's strategy. Typically, a firm has little ability to predict trends and events in the general environment, and even less ability to control them.

We divide the general environment into six segments: demographic, sociocultural, political/legal, technological, economic, and global.

EXHIBIT 2.4 provides examples of key trends and events in each of the six segments of the general environment

- **How will the factors in Exhibit 2.4 affect specific industries?**
- □ Which factors are more difficult to predict than others? (e.g., macroeconomic changes are typically more difficult to predict than demographic changes)
- □ How are these factors interrelated?
- □ What factors do you feel are important that are not listed in this exhibit?

A. THE DEMOGRAPHIC/PSYCHOGRAPHIC SEGMENT

Demographics are the most easily understood and quantifiable elements of the general environment. Demographics include elements such as the aging population, rising or declining affluence, changes in ethnic composition, geographic distribution of the population, and income level disparities.

- What are the implications of ethnic diversity for the work place?
- □ What implications does the aging of Canadians have for individual businesses?
- □ What implications does the substantial migration into Canada from different parts of the world and increasingly from Southeast Asia have for individual businesses?

Among the trends we discuss are the aging of the population and how it may differentially affect a wide variety of industries. We also discuss the increasing number of wealthy Canadians as well as shifts in the geographic population of Canada in the composition of the "typical" family.

You can also introduce the discussion about an aging workforce and its implications through some well-known statistics: for example, over the next 15 years, 80 percent of native born Canadians will be in the over age 50 cohort. Similarly, during the next decade, while the baby boomers begin their retirement, there won't be nearly enough young people entering the workforce to compensate for the exodus or to support them financially in their retirement.

B. THE SOCIOCULTURAL SEGMENT

Sociocultural forces influence the values, beliefs, and lifestyles of a society. Examples include a higher percentage of women in the workforce, dual-income families, increases in the number of temporary workers, greater concern for healthy diets and physical fitness, greater interest in the environment, and families postponing having children.

- Name two industries that have benefited from the growing awareness about health and fitness. Also name two that have been adversely affected by this trend.
- □ What must firms do to attract and retain women employees? Why are such efforts becoming increasingly important?

The section also addresses the increased educational attainment of women in the workplace. We discuss increases in both the number of degrees granted to women as well as the increased formation of businesses by women.

The SUPPLEMENT below addresses a rather interesting issue: The tendency for Japanese workers to not take their annual vacation time. In fact, it has become such an urgent issue that the government is considering legislation to force people to take their time off.

Should Japanese Workers be Forced to Take Time Off?

Does Japan have workaholic employees? That might appear to be the case. And, they may be forced to take time off. In order to get citizens to dip into their estimated \$7 trillion in savings and help revive the economy, the government is considering penalizing companies whose workers don't take their annual leave.

Similar to U.S. laws, proposed accounting reforms would treat vacations as pay and require businesses to hold cash reserves equal to their employees' stashed days. Some 92% of Japanese workers don't use up their vacation time—according to a recent glob al survey by travel site Expedia. On average, they use 7 of an allotted 15 days per year!

Prime Minister Taro Aso's administration says the vacation law could spur \$121 billion in spending and generate 1.5 million jobs. However, critics say it may hurt struggling companies—and fail to loosen up outlays for leisure. Many Japanese "live to work," says Toshihiro Nagahama, senior economist at Daiichi Life Research Institute, "and wouldn't know how to enjoy more vacations."

Source: Hall, K. 2009. Take a break, or else. *BusinessWeek*. May 11: 14.

- □ Should there be legislation such as the one proposed? Why? Why not?
- □ What other ways could the government stimulate consumer spending?

C. THE POLITICAL/LEGAL SEGMENT

Political processes and legislation influence the regulations with which industries must comply. Some important elements of the political/legal arena include deregulation of utilities and other industries, the relative deregulation of the insurance and banking sectors, or increases in the provincially mandated minimum wage, while at the same time, in response to the recent economic crisis, government has stepped up its overseeing of the financial sector, and has aggressively intervened in the automotive and forestry industries.

- □ What do you see as some of the pros/cons of the deregulation of utilities?
- **Do you think the provincially mandated minimum wage should be increased? What are the implications?**
- In response to the financial crisis, should there be further deregulation or re-regulation in the financial sector? What might be some of the implications?

In this section we address some of the implications of the Canadian attitudes toward entrepreneurship and the role of women in the corporate boardrooms and the management ranks.

You may want to pose questions about the ongoing issues emanating from the US subsequent to September 11, 2001 terrorist attacks. What are the different responses in Canada? What are some of the implications for Canadian businesses from how the US has responded to terrorism threats or the rise in Islamophobia? For example, one of the consequences has been tighter restrictions on study visas and correspondingly as substantial decline in applications and admissions of foreign students into American universities.

D. THE TECHNOLOGICAL SEGMENT

Developments in technology lead to new products and services and improve how they're produced and delivered to the end user. Innovations can create entirely new industries and alter existing industries.

Ask students to speculate on the impact of the following technologies on the Canadian industry: (1) the Internet, (2) manufacturing innovations (e.g., robotics), (3) genetic engineering/designer genes. (The last items may provoke some heated discussion regarding their ethical implications.)

We discuss the key implications that the Internet has had on industry—in particular, its impact on productivity gains. As a heads up, the opening case for Chapter 8 provides an example of the automotive

industry and Chapter 12 discusses a number of cases where technology has revolutionized industries and upset the incumbents (such as Amazon.com and ABEbooks in book retailing).

The SUPPLEMENT below illustrates how technology improves the fuel efficiency of cargo ships and results in carbon reduction. It points out that technology is now one of the important key aspects of the firm's external environment.

How Shipping Companies Use Technology to Improve Fuel Efficiency

The cargo ships that sail the world's oceans are leading contributors to global warming. Commercial vessels emitted 3 percent of the world's carbon in 2007, and that may increase to 18 percent by 2050, as global trade increases. U.N. measures to halve carbon emissions from shipping could come into effect as soon as 2012, so the industry is scrambling to clean up its act. "The marine industry is gearing up for the biggest revolution since World War II," says Lee Sokje, an analyst at Mirae Asset Securities in Seoul. "You're either ahead of the game or you're out."

Rivals, meanwhile, are exploring other routes to fuel efficiency. China Cosco Holdings is considering bringing back nuclear-powered cargo ships, introduced in the early 1960s. "We're not only looking into nuclear but also wind energy and solar energy," says Zhang Liang, president of China Cosco. Analysts warn that the costs of deploying some alternative energy technologies are prohibitive. "Ship prices are going to go through the roof if any of these ships using renewable energy are built," says Mirae's Lee Sokje.

Source: Park, K. 2010. Deconstructed: Big ships go green. Bloomberg Businessweek. May 17: 35.

We close out the section by addressing some of the "downsides" of technology. In addition to ethical issues, we discuss environmental damage, such as the emission of greenhouse gases. We discuss BP Amoco's innovative approach to this matter.

E. THE ECONOMIC SEGMENT

The economy has an impact on all industries, from suppliers of raw materials to manufacturers of finished goods and services, as well as all organizations in the service, wholesale, retail, government, and nonprofit sectors of economies. Key indicators include interest rates, unemployment rates, the consumer price index (CPI), the Gross Domestic Product (GDP), and net disposable income.

Compare the impact of rising (or declining) interest rates on the overall demand for the following industries: (1) housing (will have a significant impact), (2) automobiles (will have a significant impact), (3) fast food (will have very little effect).

We discuss another important index that is associated with equity markets—the Dow Jones Industrial Average (DJIA) or its Canadian equivalent at the Toronto Stock Exchange. Don't forget, the markets change direction; our reference to the relative performance of the TSE is already outdated. Your own updates from term to term are necessary till the next edition of the text, and even then, our updates will be instantly obsolete.

F. THE GLOBAL SEGMENT

Globalization provides both opportunities to access larger potential markets and a broad base of factors of production such as raw materials, labour, skilled managers, and technical professionals. However, such

endeavors carry many political, social, and economic risks. Examples of important elements in the global segment include currency exchange rates, increasing global trade, the economic emergence of India, China's admittance to the World Trade Organization, trade agreements among regional blocs (e.g., EU, NAFTA), and the GATT Agreement (lowering of tariffs). As a side note, one of the last major countries soon to be admitted to WTO is Russia.

Provide examples of firms that have succeeded (stumbled) in their efforts to expand into international markets. What factors can explain their success (failure)?

We discuss the globalization of the automobile industry—in particular, the attraction of developing markets. We provide the example of the Norwegian shipping industry to illustrate its global nature.

Discuss the implications of the softwood lumber dispute between Canada and the US. As a reference to the discussion, lumber represents only 3% of Canada's exports to the US and not all lumber is subject to the imposed duty, lumber from the Maritimes has been left out since stumpage fees are calculated differently. Moreover, Canadian softwood lumber still commands 34% of the market.

G. RELATIONSHIPS AMONG ELEMENTS OF THE GENERAL ENVIRONMENT

In our discussion of the general environment, we have addressed many relationships among the various elements. In this short section, we highlight the interactions of the various elements and how they have differential impact on individual firms and sectors.

EXHIBIT 2.5 provides many examples of how the impact of trends or events in the general environment can vary across industries.

III. THE COMPETITIVE ENVIRONMENT

Here, we draw upon a well-known analytic tool, Michael Porter's five-forces model of industry competition. We introduce this model and discuss examples of each force. We then address the strategic groups concept and its implications for studying rivalry and competition.

PORTER'S FIVE-FORCES MODEL OF INDUSTRY COMPETITION Α.

EXHIBIT 2.6 illustrates Porter's five forces model of industry competition

When introducing this model, it is useful to show how the model provides insight into an industry's dynamics and expected profit levels. The SUPPLEMENT below provides such an analysis on the paint and allied products industry. The analysis is restricted to the trade sales (i.e., house paint) segment of the industry. The competitive forces are very different for other segments such as the specialized high-tech automobile finishes.

Note: For our purposes of illustrating the "basics" of the "five forces", the analysis has been simplified. We assume buyers to be consumers, although there are, of course, other distinct groups such as hardware stores, and large discounters such as Wal-Mart. Obviously, firms' bargaining power vis a vis paint manufacturers vary significantly. Similarly, our analysis assumes the industry's products to be commodity products. However, there are exceptions, such as Olympic Stain, that have successfully differentiated their products on the basis of quality. Another attempt at differentiation comes from "designer" paint brands, such as Martha Steward, Disney, and Ralph Lauren.

The Paint and Allied Products (PAP) Industry

An analysis of the Paints and Allied Products industry (SIC 2851), using the five forces model, demonstrates why this industry has traditionally been caught in a price-cost squeeze and is unable to pass on rising raw material costs to its customers.

To illustrate the price-cost squeeze that this industry is facing, consider that between the years 1995 to 2000, the PPI (producer price index—the price for which it sells its output) of the PAP industry increased an average of only 2 percent. The PPI for petroleum refining and related products—a key supplier to this industry—increased at a rate of 6 percent over this same period of time. Hence the price of this key raw material was roughly twice the rate of inflation (about 3 percent); whereas, the PAP industry was lower than the rate of inflation. Thus, the PAP industry has been unable—due to unfavourable industry competitive forces—to pass on cost increases to their suppliers; thus eroding profitability.

Consider the PAP industry in terms of each of Porter's Five Forces:

Threats of Entry: Very High (minimal capital investment needed, little proprietary technology, regional firms can compete in local markets due to high transportation costs, little brand identification of existing competitors)

Buyer Power: Very High (low brand loyalty, relatively little product differentiation, relatively low switching costs)

Supplier Power: High (especially for petroleum derivative raw materials—a key input in industry)

Substitute Products: High (plastics, wood paneling, wallpaper coverings, etc.)

Rivalry: High (competition is based mostly on price competition, because of little brand loyalty and product differentiation; easy entry and exit from the industry gives rise to frequent price wars; little price leadership exhibited by larger firms)

Sources: www.bls.gov (Bureau of Labour Statistics); www.ita.doc.gov (International Trade Administration)

1. **Threat of New Entrants**

After summarizing the major barriers to entry, ask students to provide examples of industries characterized by each of these entry barriers. This may help them to understand what initially may appear to be rather complex ideas.

Teaching Tip: You may want to spend some time discussing how economies of scale and economies of experience (learning curve) erect significant entry barriers. In the auto industry, for example, manufacturers such as Ford, G.M., VW and Toyota have high economies of scale (being the biggest producers) and all the benefits of the learning curve (having been in the business for between fifty and one hundred years).

Despite these advantages, U.S. based firms are not fairing very well right now. In North America, foreign auto producers have entered the market and have increasingly gained market share over the past few decades. Ask the students why this happened? Does this prove that the concepts we discussed are wrong?

Or does it point out that additional factors have to be considered? Point out that foreign producers have had the benefits of lower labour costs and/or have developed better manufacturing technologies (such as Toyota's lean manufacturing and its even stronger emphasis on taking advantage of the learning curve and pricing its products with anticipation of the lower costs that will derive from riding down the learning curve).

2. Bargaining Power of Buyers

Briefly summarize some of the conditions under which a supplier group may become powerful. It may be interesting how things have changed (if they have) with regard to the power of buyers of talent (i.e., businesses of varying sizes and industries) and suppliers of talent (i.e., business school graduates—either undergraduate or MBA)

The section provides the example of how Loblaws and Wal-Mart exert power on their suppliers because of their substantial purchases. We also provide the example of FreeMarkets Online, which helps industrial buyers create online auctions for their purchases.

3. Bargaining Power of Suppliers

Briefly discuss some of the conditions under which a supplier group may become powerful. The bargaining power of suppliers can be presented as the mirror opposite of the bargaining power of suppliers. For example, the relative sizes and concentrations largely determine the bargaining power of the two parties involved in the transaction.

The section discusses the relative power of the providers of talent—ranging from unskilled labour (low) to highly skilled professionals (high). Especially hard hit will be several unions such as those in declining industries such as steel manufacturing.

4. The Threat of Substitute Products and Services

Emphasize that the viability of a substitute product depends largely on its relative price-performance trade-off, i.e., more value for the same price or the same value for a lower price. Examples are electronic security systems versus security guards, and the use of steel versus plastic for components in the manufacture of automobiles.

We discuss substitutes and in Strategy Spotlight 32.5, we give the example of IBM's use of teleconferencing. Clearly, this technology poses a threat to the airline industry.

The SUPPLEMENT below discusses a rather controversial substitute for conventional public and private universities – for-profit universities such as the University of Phoenix.

For-Profit Universities — A Viable Substitute?

University of Phoenix executives stand behind the quality of Phoenix's education and business practices. They say they cater to underserved constituencies, such as adults who want to attend part-time and members of the military and minority groups. And, testing of their students shows improvement in reading and math, they say, and adult grads typically earn 9% to 27% more upon receiving degrees. "There's a lot of bias against recruiting into a college," says Terri C. Bishop, Phoenix's vice president for external affairs. "We recruit properly, and we take care of students once they're here."

However, critics point out that degrees earned at for-profit schools, including Phoenix, often carry less clout in the marketplace, despite price tags comparable to those at many public universities. "I don't think a degree from the University of Phoenix adds any value at all," asserts Edward Fleischman, chief executive of Execu/Search Group, a New York recruiting firm that specializes in financial services and health care. "It means you could not get into a better school."

Graduation rates at some for-profit schools tend to lag overall levels, at least by the federal standard. The Education Department measures the percentage of first-time undergraduates who obtain a degree within six years. Phoenix has a rate of 4%--among the nation's lowest, according to the government. The national average is 57.3%. However, Phoenix criticizes the federal approach as misleading since the school serves mostly older students who began college elsewhere. Phoenix claims a 38% overall graduation rate for students seeking bachelor's degrees.

Students also tend to incur far greater levels of debt after graduating from for-profit universities. According to data from the College Entrance Examination Board, the average total debt per for-profit university graduate is \$29,900 versus \$10,500 for graduates of public four-year schools. Phoenix contends that its graduates have debt levels of \$14,200 to \$25,221—depending on the degree sought. Tuition for a two-year associate's degree from Phoenix comes to about \$19,500; a four-year degree costs about \$51,600.

Source: LeVine, S. 2009. Scooping up college stimulus. Business Week. March 23 & 30: 20-21.

5. The Intensity Among Competitors in an Industry

After discussing the factors that lead to intense rivalry in an industry, provide an example of an industry in which competition has recently been intense. For example, most students are familiar with the recurring price wars in the airline industry. Strategy Spotlight 2.6 provides some information to bring all the students up to speed on the industry. Ask them to explain the intensity of competition using the factors discussed (e.g., undifferentiated service, low switching costs, slow industry growth, numerous competitors, etc.) You might point out that this industry had reported huge losses in 2001 even before the September 11, 2001 terrorist attack; moreover, many of the established airlines in North America have gone through bankruptcy proceedings. Air Canada came out of bankruptcy in 2004. Canadian Airlines could not sustain operations and was sold to Air Canada in 2000, and Jetco folded in 2005. Currently, Westjet is profitable and Porter (the upstart airline flying out of Toronto City Island into a dozen Canadian and US c cities) claims to have broken even. US firms such as United, US Air, and others have operated under bankruptcy protection for the better part of the last five years. In 2005, skyrocketing fuel prices brought the industry to its knees, and again, the 2007-09 financial crisis resulted not only in lower fuel costs, but drastically reduced passenger volumes, further damaging the economic health of airlines around the world.

The SUPPLEMENT below is Michael Porter's response to a question as to whether or not he would add a "sixth force" if he were developing his framework today.

Should There be a "Sixth Force?": Michael Porter's Perspective

"There have been two nominees for the sixth force. One is **government**. After much further work using and teaching the framework, I have reaffirmed my original conclusion that government is not a sixth force because there is no monotonic (direct linear) relationship between the strength and influence of government and profitability of an industry. You can't say that "government is low, industry profitability is high." It all depends on exactly what government does. Also, there are many different parts of

government, each with its own distinct impacts. And, how do you assess the consequence of what government does? Well, you look at how it affects the five forces.

"The other, more recent, candidate for a sixth force involves organizations whose products and services are **complementary** to the primary organization's products and services. Again, there is no monotonic relationship between the extent of complements and profitability. Sometimes having many complements is consistent with high industry profitability, sometimes with low profitability. It has to do with how complements affect the five forces...Clearly, complements have much to do with the size of the pie, but their role in the division of the pie is independent on other factors."

Source: Argyres, N. & McGahan, A. M. 2002. An interview with Michael Porter. *Academy of Management Executive*. 16 (2): 43-52.

We present the argument on complements in the next section of the chapter as this has been introduced through Game Theory and the work of A. Brandenburger and B. J. Nalebuff.

B. HOW THE INTERNET AND DIGITAL TECHNOLOGIES ARE AFFECTING THE FIVE COMPETITIVE FORCES

The changes caused by the Internet economy have made strategizing more challenging. Strategic analysis, informed formulation, and successful implementation may be even more difficult in the Internet era because of the uncertainty surrounding the new technology. In this section we address the impact of the Internet and digital technologies in terms of Porter's five-forces model of competition. Students should be very familiar with the different dynamics of the Internet world. You can ask them questions such as:

- Do you think businesses that use the Internet will really save money on salaries? What kind of salaries? Are there other types of salaries that could be higher if firms turn to e-commerce?
- □ What are some examples of industries where there have been a lot of new entrants because of the Internet? Have these new entrants been successful? How have incumbent firms reacted?
- □ What are some other ways that end users can increase their buying power by using the Internet?
- □ What are some examples of companies that have effectively used the Internet to increase their buying power?
- Does the ability to simply "click" to a new product on the Internet really lower switching costs? What about "psychological" switching costs? Do they matter to Internet buyers?
- □ What are some examples of companies that have abandoned their traditional method of reaching customers and are using the Internet to reach customers directly? Examples of companies that are extensively use both?

C. USING INDUSTRY ANALYSIS: A FEW CAVEATS

This section is written to reinforce if not introduce the idea that business is not always a "zero-sum game"—which is an assumption that is implicit in Porter's five forces model. We discuss how companies can collaborate with each other for mutually beneficial outcomes.

The SUPPLEMENT below provides a more detailed example of "win-win" relationships in the supermarket industry.

The Benefits of Close Supplier-Buyer Relationships

Experts in the supermarket industry believe that seamless partnerships between manufacturers and supermarkets would accelerate the deployment of sophisticated systems such as just-in-time delivery, electronic data interchange, and so-called efficient-consumer-response systems that permit manufacturers to monitor sales in stores and to produce and ship their goods in response to actual customer demand. Such cooperative systems could squeeze \$30 billion in excess costs out of the industry by eliminating superfluous inventory, duplicate functions, and various middlemen. Moreover, the results witnessed when manufacturers and supermarket chains do cooperate suggest that both sides could increase sales volume by working together to customize offerings at different stores and for different end users. Cooperation between Kraft Foods and supermarket chains such as Publix Super Markets in Florida and Wegman's Food Markets in upstate New York has generated significant returns for both sides.

Source: Kumar, N. 1996. The power of trust in manufacturer-retailer relationships. *Harvard Business Review*, 74(6): 95.

The second issue we raise is that the five forces analysis has often been criticized for being a static — rather than a dynamic analysis. Brandenberger and Nalebuff introduced the concept of the value net which we include in Exhibit 2.7. In Strategy Spotlight 2.7 we discuss Apple iPod's relationship with various firms as its complementors. Firms interact and collaborate in relationships with suppliers and complementors. The concept of complementors is often considered to be the single most important contribution of value net analysis. Complements typically are products or services that have a potential impact on the value of the firms' own product and services. We provide the examples of complements (software and microprocessors) in the personal computer industry and the video game industry. (see the point earlier and Professor Michael Porter response to considering the addition of complements to the "five forces"; according to him, they don't have a *direct linear relationship* to industry profitability. However, we can see that they can clearly have an impact on an industry's profitability.)

Teaching Tip: Even when industry analysis shows that an industry is unattractive, there are a few firms that seem to be able to earn high returns. For example, WestJet in Canada and Soutwest Airlines in the US have been consistently profitable in an otherwise unattractive industry over the past several years. Does this mean that industry analysis is misleading? You may point out that industry analysis is useful to predict an industry's average profitability, but not necessarily, a single firm's profitability. This is a good opportunity to introduce the role of the strategist in outperforming industry norms.

C. STRATEGIC GROUPS WITHIN INDUSTRIES

Most of your students are probably very interested in the automobile industry. EXHIBIT 2.8 provides a strategic grouping of the worldwide automobile industry. It is rather clear from the discussion in the text that the intensity of competition within strategic groups is much more intense than competition across groups. Of course, as a consequence of the recent financial crisis and the recession, corporate realignments and possible bankruptcies within the heavily hit industry may make the map obsolete; you should be able to update it as needed.

Point out four benefits of strategic groups as an analytical tool:

- 1. Strategic groupings help a firm identify mobility barriers that protect a group from attacks by other groups.
- 2. It helps a firm to identify groups whose competitive position may be marginal or tenuous.
- 3. It helps chart the future directions of firms' strategies.
- 4. It helps in thinking through the implications of each industry trend for the strategic group as a whole.

It may be interesting to ask the students what dynamics they envision in the automobile industry, i.e., how membership in strategic groups may change and if new strategic groups may emerge.

What are some of the strategic groups in other industries with which you may be familiar? What are the implications (e.g., retailing)?

IV. SUMMARY

Managers must analyze the external environment to minimize or eliminate threats and exploit opportunities. This involves a continuous process of environmental scanning and monitoring as well as obtaining competitive intelligence on present and potential rivals. These activities provide valuable inputs for developing forecasts. In addition, many firms use scenario planning to anticipate and respond to volatile and disruptive environmental changes.

We identified two types of environment: the general environment and the competitive environment. The six segments of the general environment are demographic, sociocultural, political/legal, technological, economic, and global. Trends and events occurring in these segments, such as the aging of the population, higher percentages of women in the workplace, governmental legislation, and increasing (or decreasing) interest rates, can have a dramatic effect on your firm. A given trend may have a positive impact on some industries and a negative or neutral impact, or none at all on others.

The competitive environment consists of industry-related factors and has a more direct impact than the general environment. Porter's five-forces model of industry analysis includes the threat of new entrants, buyer power, supplier power, threat of substitutes, and rivalry among competitors. The intensity of these factors determines, in large part, the average expected level of profitability in an industry. A sound awareness of such factors, both individually and in combination, is beneficial not only for deciding what industries to enter but also for assessing how a firm can improve its competitive position. Although we discussed the general environment and competitive environment in separate sections, they are quite interdependent. A given environmental trend or event, such as changes in the ethnic composition of a population or a technological innovation, typically has a much greater impact on some industries than on others.

The concept of strategic groups is also very important to the external environment of a firm. No two organizations are completely different nor are they exactly the same. The question is how to group firms in an industry on the basis of similarities in their resources and strategies. The strategic groups concept is valuable for determining mobility barriers across groups, identifying groups with marginal competitive positions, charting the future directions of firm strategies, and assessing the implications of industry trends for the strategic group as a whole.

DISCUSSION EXERCISES

You may want to lead a discussion in class to bring home the issues and importance of industry analysis, as well as the multiple layers of such analysis.

Explain the profitability of an industry (of your choice) by applying the tools that you learned in this chapter (five-forces analysis).

TEACHING SUGGESTIONS

You can organize the discussion on this topic around the following sub-questions:

1. What are the five forces that drive the profitability in an industry?

The five forces are:

- The threat of new entrants
- The bargaining power of suppliers
- The bargaining power of buyers
- The threat of substitute products and services
- The intensity of rivalry among competitors in an industry
- 2. What are the barriers to entry into a particular industry? Are they high or low? What are the implications?

Six major sources of entry barriers as outlined in the text are:

- Product differentiation
- Capital requirements
- Switching costs (one-time costs that the buyer faces when switching from one supplier's product or service to another)
- Access to distribution channels
- Cost disadvantages independent of scale (derived from: proprietary product, favorable access to raw materials, government subsidies, and favourable government policies)
- 4. Who are the buyers in this industry? Are they powerful? What makes the buyers powerful (not powerful)? Are the buyers likely to engage in backward integration?
- 5. What are the implications of buyers bargaining power?
- 6. Who are the suppliers to your industry? Do you think the suppliers are powerful? What makes the suppliers powerful (not powerful) in your industry? Are there any 'switching costs?' What are the implications of high bargaining power of the suppliers in the industry?
- 7. If you are a firm in this industry, how would you define competition? Would you consider all firms operating in the industry as your competitors? Why or why not?

8. What are 'strategic groups?' How would you know the 'strategic groups' in your industry? What kind of dimensions should you choose when mapping the 'strategic groups?' Why is it important to understand 'strategic groups?'

If you want to delve further into the concept of 'strategic groups' you may want to stress that competition would be more intense among firms within the same strategic group as compared to competition with other firms in the industry. Some dimensions that can be used for mapping strategic groups are: breadth of product and geographic scope, price/quality, degree of vertical integration etc.

You should emphasize that for strategic group mapping to serve any meaningful purpose, the dimensions should be chosen in a manner that they reflect the variety of strategic combinations in the industry. For example, in an industry where there is severe price-base competition, price may not be the right dimension to choose. Similarly, if all firms have the same level of product differentiation, then choosing product differentiation as a dimension would not serve the purpose.

9. What are the substitutes to your products or services? How do substitutes impact the profitability of your industry?

You might want to make a point here that identifying substitutes can be quite a difficult task sometimes. Firms in seemingly unrelated industries may be providing products or services that act as substitutes to each other. The example given in the text on the substitution between airline industry and teleconferencing would help highlight this point.

Some more intriguing questions to ask would be the following:

10. If two industries have the same profitability levels, can you employ a common strategy in both the industries?

Even though two industries might have same profitability levels, the underlying industry structures can be entirely different. For example, in both the automobile industry and in the Internet-based businesses, profit margins are quite low. However, while the entry barriers into the automobile industry are very high, the barriers are very low into the Internet-based businesses. Competition is intense in both the industries whereas supplier and buyer bargaining powers are quite low. On the other hand, threat from substitutes such as the 'brick-and-mortar' stores, is very high in the Internet-based businesses whereas the threat from substitutes is low in the automobile industry (Some students might argue that airline industry is a strong substitute and you would have to deal with that objection). Thus, even if a firm operates in both these industries, it needs to formulate quite different strategies to suit the particular industry situation.

11. Why is the five force analysis important?

It is important to understand these five forces because they affect a firm's ability to compete in a given market. This analysis helps in deciding whether or not to remain in a particular industry and also in choosing industries to enter. A sound understanding of the forces operating in an industry helps in assessing how to improve the firm's competitive position with regard to each of the five forces. You can ask students to give their own ideas on what strategies they would employ in the particular industries they have chosen for analysis.

12. Is the five-force analysis 'zero sum' in perspective? Is that a disadvantage?

It would often be the case that students, in the position of a company, think about counteracting the effects of each force and blunting it. This is the essence of 'zero-sum' perspective. You can explain the

importance of thinking 'win-win' and establishing collaborative partnerships with suppliers and customers. For example, establishing long-term mutually beneficial relationships with suppliers improves a firm's ability to implement just-in-time (JIT) inventory systems, which let it manage inventories better and respond quickly to the market demands.

13. Do the competitive forces remain the same over a period of time? What impact will it have on profitability?

The key point is that in the five force analysis, we are essentially taking a point in time and trying to understand the industry situation at that point in time. This is a static approach to understanding the competitive environment. However, these external forces and the strategies of the firms within industries change over time and thus change the structure of the industry itself. In order to understand how the profitability changes over time, game theoretic approaches are being used.

14. What is 'Value Net?' Who are on the vertical and horizontal dimensions? How are those on the vertical dimension different from those on the horizontal dimension? Who are 'complementors?' How are complements different from substitutes?

The value net represents all players in the game and analyzes how their interactions affect a firm's ability to generate and appropriate value.

Suppliers and customers form the vertical dimension of the value net and the firm engages in transactions with them.

Substitutes and complements are on the horizontal dimension of the value net. These are the players with who the firm interacts but does not necessarily transact.

Substitute products or services serve the same purpose that the products and services from a chosen industry serve. Substitutes accentuate competition.

Complements are typically products or services that have a potential impact on the value of a firm's own products or services. The firms that produce complements are referred to as 'complementors.' For example, very sophisticated cameras may be useless if we do not have high quality film to produce quality pictures. Powerful hardware might prove useless without software to make it work and highly sophisticated software may be useless if there is no hardware to support its working. Thus complements in essence help to increase the performance and efficiency of products or services of a particular industry and thus improve their competitive situation vis-à-vis other products and substitutes.

REFLECTING ON CAREER IMPLICATIONS

Below, we provide some suggestions on how you can lead the discussion on the career implications for the material in Chapter 2.

1. **Creating the Environmentally Aware Organization**: In your career, what are some ways in which you can engage in scanning, monitoring, and intelligence gathering for future job opportunities? Consider, for example, subscribing to your field's professional publications and becoming actually involved in relevant professional organizations.

This would be a good opportunity to suggest to the students the need for subscribing to business/professional publications and becoming actively involved in professional organizations such as the American Marketing Association.

2. **SWOT Analysis**: From a career standpoint, periodically evaluate your strengths and weaknesses as well as potential opportunities and threats to your career. In addition, strive to seek input from trusted peers and superiors.

We have found it always rewarding to ask the students to perform a personal SWOT analysis. Although at times it is a challenge to get students to engage in serious introspection, at the end of the class they would begin to appreciate both the relevance of SWOT analysis and the need to periodically take stock of their careers and personal lives in a systematic way.

3. **General Environment**: Carefully evaluate the elements of the general environment facing your firm. Identify factors (e.g., rapid technological change) that can provide promising career opportunities as well as possibilities for you to add value for your organization. In doing this, don't focus solely on "internal factors" of your organization.

Although in most classes students perform an analysis of the general environment of one or more industries, most of them have never made the connection between general environmental developments and their own careers. This question helps the students realize that just as products and services become obsolete, their skill sets can also become outdated. Similarly, changes in the general environment may present several new career opportunities to them.

4. **Five-Forces Analysis**: Consider the five-forces affecting the industry within which your organization competes. If the "forces" are unfavorable, the long-term profit potential of the industry may be unattractive. And, there will likely be fewer resources available and—all other things being equal—fewer career opportunities.

This is similar to question 3 above. The goal here is to see that a five forces analysis can help them choose or change their careers, a connection that they seldom make.

fourth canadian edition

Strategic Management

CREATING COMPETITIVE ADVANTAGES



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Chapter 2

Analyzing the External Environment of the Firm

Learning Objectives

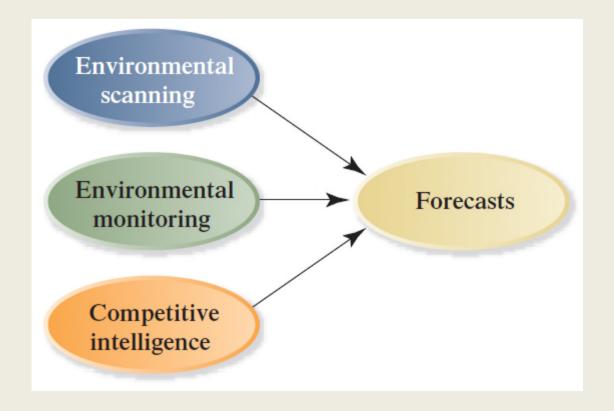
After reading this chapter, you should have a good understanding of:

- 1. The elements that constitute a firm's general environment and their impact on the firm's strategies and performance.
- 2. How to define the competitive environment and delineate industry boundaries.
- Why environmental scanning, environmental monitoring, and collecting competitive intelligence are critical inputs to developing forecasts of the business environment.

Learning Objectives

- 4. Why scenario planning is a useful technique for firms competing in industries characterized by unpredictability and change.
- How trends and events in the general environment and forces in the competitive environment are interrelated and affect performance.
- 6. How forces in the competitive environment can affect profitability and how a firm can improve its competitive position by increasing its power vis-a-vis those forces.
- 7. The concept of strategic groups and their strategy and performance implications.

Creating the Environmentally Aware Organization



Environmental Scanning

Environmental scanning

Surveillance of a firm's external environment

- Predict environmental changes to come
- Detect changes already under way
- Proactive mode

Environmental monitoring

Track evolution of

- Environmental trends
- Sequences of events
- Streams of activities

Competitive Intelligence

Competitive intelligence

- Define and understand a firm's industry
- Identify rivals' strengths and weaknesses
 - Intelligence gathering (data)
 - Interpretation of intelligence data
- Helps a firm avoid surprises

What Competitive Intelligence Is and Is Not

Competitive Intelligence Is ...

- 1. Information that has been analyzed to the point where you can make a decision.
- 2. A tool to alert management to early recognition of both threats and opportunities.
- 3. A means to deliver reasonable assessments.
- 4. A way of life, a process.

Competitive Intelligence Is Not ...

- Spying. Spying implies illegal or unethical activities. It is a rare activity.
- 2. A crystal ball. CI is good approximation of reality, it does not predict the future.
- 3. Database search. Data by itself is not good intelligence.
- 4. A job for one smart person

Environmental Forecasting

Forecasts

- Plausible projections about
 - Direction of environmental change
 - Scope of environmental change
 - Speed of environmental change
 - Intensity of environmental change

Scenario Analysis

Forecasts

- Coping with unpredictability and uncertainty
 - Considering the possible impact of major shifts in social, technological,
 demographic, and political trends on the broad environment and the re-drawing of the industry
 - Changes in the "rules of the game"

SWOT Analysis

- Managers need to analyze
 - The general environment
 - The firm's industry and competitive environment
- SWOT analysis
 - Strengths
 - Weaknesses
 - Opportunities
 - Threats

Basic technique for analyzing firm and industry conditions

The General Environment

General Environment

- General environmental trends and events
 - Little ability to predict them
 - Even less ability to control them
 - Can vary across industries

Demographic Segment

General Environment

- Aging population
- Rising affluence
- Changes in ethnic composition
- Geographic distribution of population
- Disparities in income levels

Sociocultural Segment

General Environment

- More women in the workforce
- Increase in temporary workers
- Greater concern for fitness
- Greater concern for environment
- Postponement of family formation

Political/Legal Segment

General Environment

- Protection of cultural industries
- Aboriginal land claims settlements
- Deregulation of utility and other industries
- Increases in provincially mandated minimum wages
- Taxation at provincial and federal levels
- Legislation on corporate governance reforms

Technological Segment

General Environment

- Genetic engineering
- Emergence of Internet technology
- Computer-aided design/computeraided manufacturing systems (CAD/CAM)
- Research in synthetic and exotic materials
- Pollution/global warming
- Miniaturization of computing technologies
- Wireless technology

Economic Segment

General Environment

- Interest rates
- Unemployment
- Consumer Price index
- Trends in GDP
- Changes in stock market valuations

Global Segment

General Environment

- Increasing global trade
- Currency exchange rates
- Emergence of the Indian and Chinese economies
- Trade agreements among regional blocs (NAFTA, EU, ASEAN)
- Creation of WTO (decreasing tariffs/free trade in services)

The Competitive Environment

Competitive Environment

Competitors
Customers
Suppliers

- Sometimes called the task or industry environment
- Includes
 - Competitors (existing and potential)
 - Customers
 - Suppliers
- Porter's five-forces model

Porter's Five Forces Model of Industry Competition

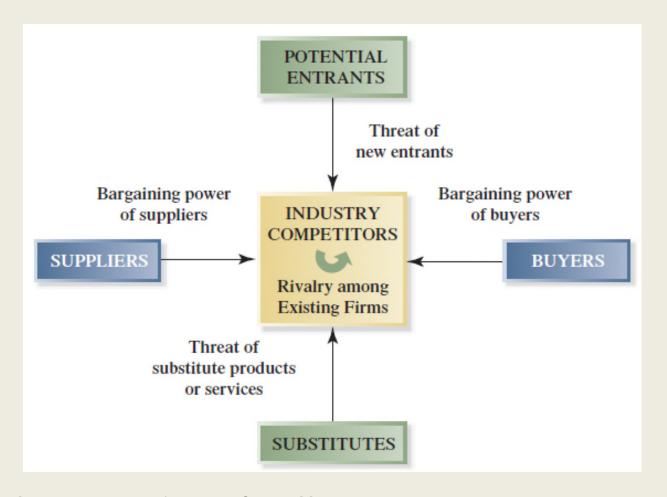
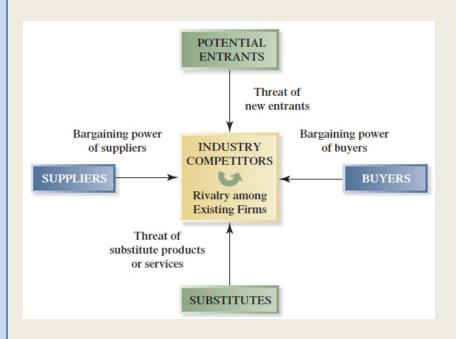


Exhibit 2.6 Porter's Five Forces Model of Industry Competition

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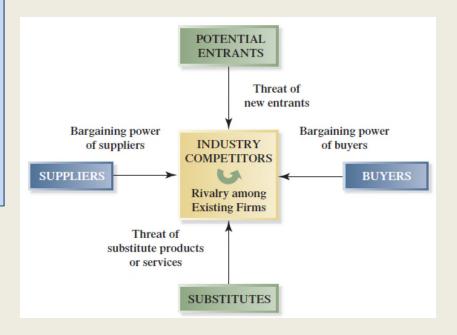
The Threat of New Entrants

- Profits of established firms in the industry may be eroded by new competitors
- High entry barriers lead to low threat of new entries
 - Economies of scale
 - Product differentiation
 - Capital requirements
 - Switching costs
 - Access to distribution channels
 - Cost disadvantages independent of scale



The Bargaining Power of Buyers

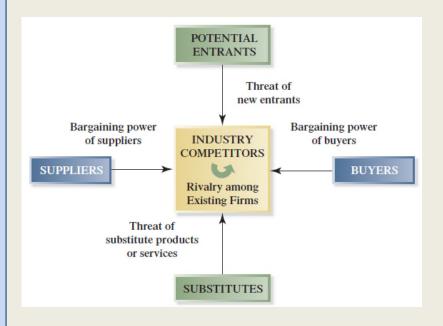
- Buyers threaten an industry
 - Force down prices
 - Bargain for higher quality or more services
 - Play competitors against each other



The Bargaining Power of Buyers

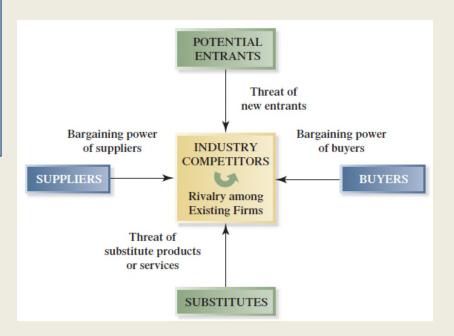
A buyer group is powerful when

- It is concentrated or purchases are large volumes relative to seller sales
- The products it purchases from the industry are standard or undifferentiated
- The buyer faces few switching costs
- It earns low profits
- The buyers pose a credible threat of backward integration
- The industry's product is unimportant to the quality of the buyer's products or services



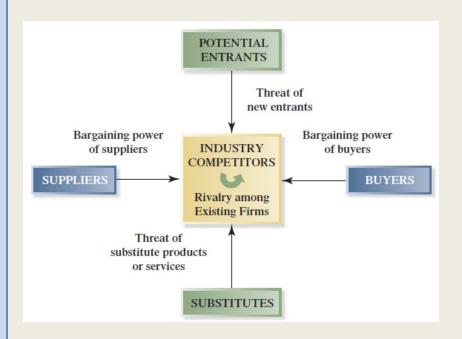
The Bargaining Power of Suppliers

 Suppliers can exert power by threatening to raise prices or reduce the quality of purchased goods and services



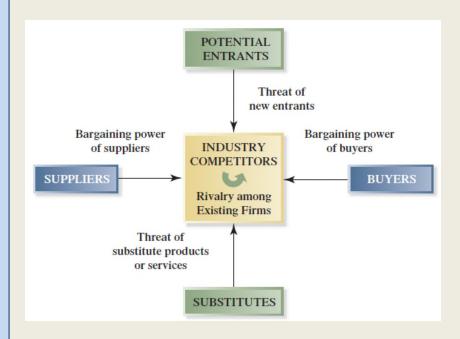
The Bargaining Power of Suppliers

- A supplier group will be powerful when
 - The supplier group is dominated by a few companies and is more concentrated than the industry it sells to
 - The supplier group is not obliged to contend with substitute products for sale to the industry
 - The industry is not an important customer of the supplier group



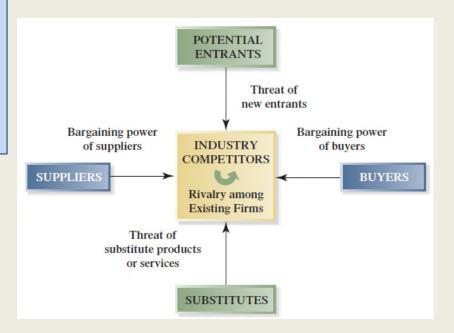
The Bargaining Power of Suppliers

- A supplier group will be powerful when
 - The supplier's product is an important input to the buyer's business
 - The supplier group's products are differentiated or it has built up switching costs for the buyer
 - The supplier group poses a credible threat of forward integration



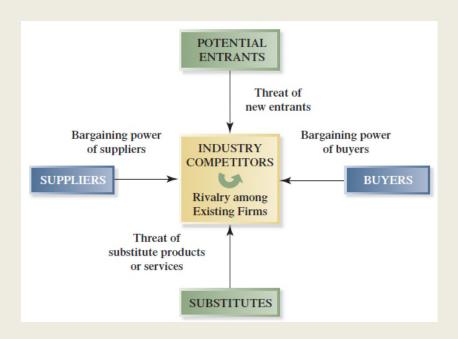
The Threat of Substitute Products and Services

- Substitutes limit the potential returns of an industry
 - Ceiling on the prices that firms in that industry can profitably charge
 - Price/performance ratio



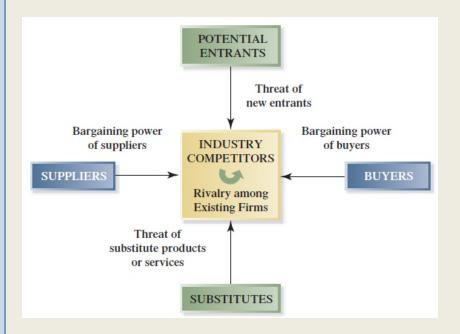
The Intensity of Rivalry among Competitors in an Industry

- Jockeying for position
- Price competition
- Advertising battles
- Product introductions
- Increased customer service or warranties



The Intensity of Rivalry among Competitors in an Industry

- Interacting factors lead to intense rivalry
 - Numerous or equally balanced competitors
 - Slow industry growth
 - High fixed or storage costs
 - Lack of differentiation or switching costs
 - Capacity augmented in large increments
 - High exit barriers



The Value Net

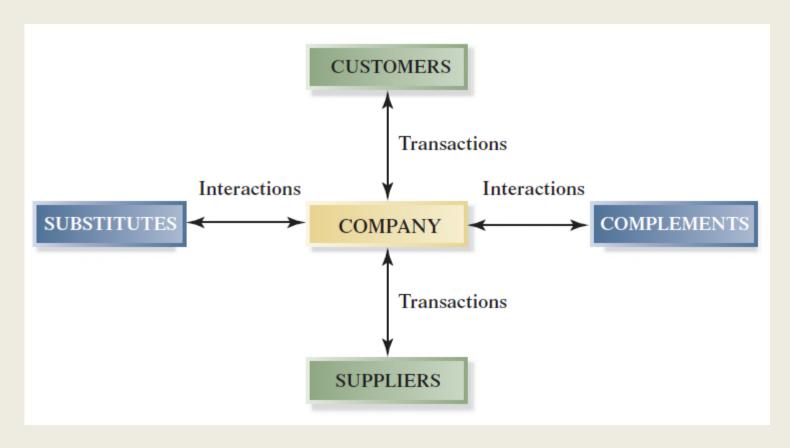


Exhibit 2.7 The Value Net

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Strategic Groups within Industries

- Two unassailable assumptions in industry analysis
 - No two firms are totally different
 - No two firms are exactly the same
- Strategic groups
 - Cluster of firms that share similar strategies
 - Breadth of product and geographic scope
 - Price/quality
 - Degree of vertical integration
 - Type of distribution system

Strategic Groups within Industries

- Value of strategic groups as an analytical tool
 - Identify barriers to mobility that protect a group from attacks by other groups
 - Identify groups whose competitive position may be marginal or tenuous
 - Chart the future direction of firms' strategies
 - Thinking through the implications of each industry trend for the strategic group as a whole