

Strategic and Operational Management

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MGM 630 (part one)

Lecture 3



Lecture

03

LECTURE OUTLINE

3.1 The PESTEL Framework (- Political Factors - Economic Factors- Sociocultural Factors -Technological Factors - Ecological Factors- Legal Factors).

3.2 Industry Structure and Firm Strategy: The Five Forces Model; (- Competition in the Five Forces Model -The Threat of Entry -The Power of Suppliers -The Power of Buyers -The Threat of Substitutes -Rivalry among Existing Competitors -A Sixth Force: The Strategic Role of Complements).

3.3 Changes over Time: Industry Dynamics.

3.4 Performance Differences within the Same Industry: Strategic Groups; (-The Strategic Group Model -Mobility Barriers).

Lecture

03

LEARNING OBJECTIVES

1. Generate a PESTEL analysis to evaluate the impact of external factors on the firm.
2. Apply Porter's five competitive forces to explain the profit potential of different industries.
3. Explain how competitive industry structure shapes rivalry among competitors.
4. Describe the strategic role of complements in creating positive-sum co-opetition.
5. Appraise the role of industry dynamics and industry convergence in shaping the firm's external environment.
6. Generate a strategic group model to reveal performance differences between clusters of firms in the same industry.

Looking Outside: Understanding the Industry and Competition

3.1. The PESTEL Framework

A firm's external environment includes every factor that can affect its ability to gain and sustain a competitive advantage. By analyzing these factors, managers can mitigate threats and seize opportunities. A common way to make sense of them is to consider their source or proximity to the firm. **For example**, factors in the firm's **general environment** are ones managers have little direct control over, such as macroeconomic conditions like interest or currency exchange rates. The **PESTEL framework** organizes this general environment into six segments—Political, Economic, Sociocultural, Technological, Ecological, and Legal. Together these capture the broad external forces that shape the conditions in which every firm in an industry competes.



Lecture

03

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In contrast, factors in the firm's **task environment** are ones managers can influence, such as the composition of their **strategic groups** (a set of close rivals) or the structure of the industry, as captured by Porter's five competitive forces. The task environment sits closer to the firm than the general environment, so its factors bear more directly on day-to-day strategy and are more responsive to a firm's own actions. We will now examine each layer in detail, moving from the firm's general environment inward to its task environment. Following Exhibit 3.1, we work from the outer ring to the inner ring.



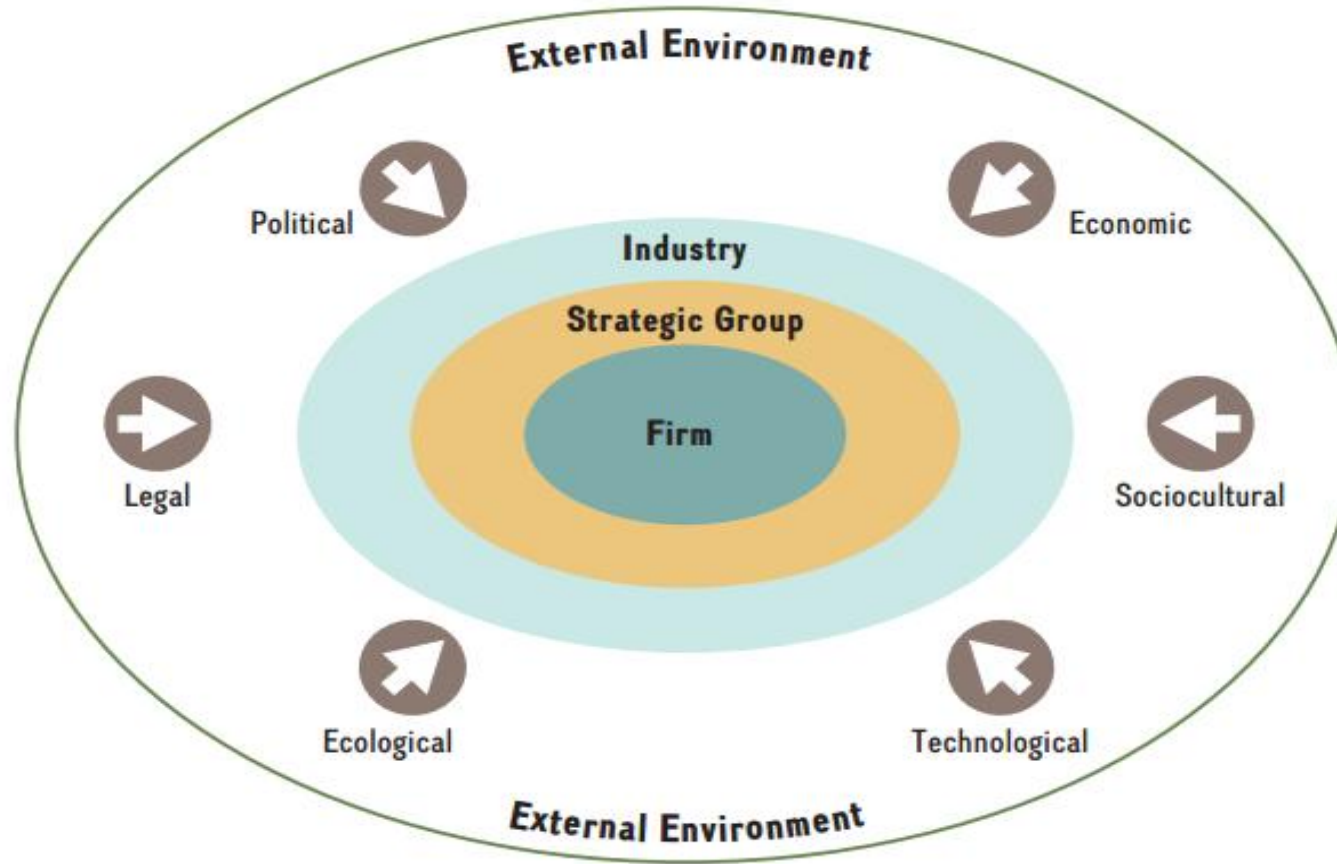


EXHIBIT 3.1 /

The Firm within Its
External Environment,
Industry, and Strategic
Group, Subject to
PESTEL Factors



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03

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The **PESTEL model** groups the factors in the firm's general environment into six segments:

- Political
- Economic
- Sociocultural
- Technological
- Ecological
- Legal



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03

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- Political Factors:

Political factors stem from the processes and actions of government bodies that can shape firms' decisions and behavior. They include tax policy, tariffs and trade restrictions, regulation and deregulation, labor and environmental laws, and overall political stability. Although these factors sit in the general environment—where firms traditionally have little sway—companies increasingly try to influence this realm through **nonmarket strategies** such as lobbying, public relations, political contributions, and litigation aimed at outcomes favorable to the firm. Firms that monitor and engage these forces early can reduce regulatory risk and turn shifting policy into a source of competitive advantage.



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- Economic Factors:

Economic factors in a firm's external environment are largely macroeconomic, affecting economy-wide phenomena. Managers need to consider how the following five macro-economic factors can affect firm strategy:

- Growth rates.
- Levels of employment.
- Interest rates.
- Price stability (inflation and deflation).
- Currency exchange rates.



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Growth rates. The overall economic growth rate is a measure of the change in the amount of goods and services produced by a nation's economy. Strategists look to the real growth rate, which adjusts for inflation. This real growth rate indicates the current business cycle of the economy—that is, whether business activity is expanding or contracting.



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levels of Employment. Growth rates directly affect the level of employment. In boom times, unemployment tends to be low, and skilled human capital becomes a scarce and more expensive resource. In economic downturns, unemployment rises. As more people search for employment, skilled human capital is more abundant and wages usually fall.



Lecture

03

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Interest rates. Another key macroeconomic variable for managers to track is real interest rates—the amount that creditors are paid for use of their money and the amount that debtors pay for that use, adjusted for inflation.

price Stability. Price stability—the lack of change in price levels of goods and services—is rare. Therefore, companies will often have to deal with changing price levels, which is a direct function of the amount of money in any economy.

Currency Exchange rates. The currency exchange rate determines how many dollars one must pay for a unit of foreign currency. It is a critical variable for any company that buys or sells products and services across national borders. 

Lecture

03

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- Sociocultural Factors:

Sociocultural factors capture a society's cultures, norms, and values. Because sociocultural factors not only are constantly in flux but also differ across groups, managers need to closely monitor such trends and consider the implications for firm strategy. **In recent years, for example**, a growing number of U.S. consumers have become more health conscious about what they eat. This trend led to a boom for businesses such as Chipotle, Subway, and Whole Foods. At the same time, traditional fast-food companies McDonald's and Burger King, along with grocery chains such as Albertsons and Kroger, have all had to scramble to provide healthier choices in their product offerings.



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- Technological Factors:

Technological factors capture the application of knowledge to create new processes and products. Major innovations in process technology include lean manufacturing, Six Sigma quality, and biotechnology. The nanotechnology revolution, which is just beginning, promises significant upheaval for a vast array of industries ranging from tiny medical devices to new-age materials for earthquake-resistant buildings. Recent product innovations include the smartphone, computer tablets, and high-performing electric cars such as the Tesla Model S. Recent service innovations include social media and online search engines that respond to voice commands.



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- Ecological Factors:

Ecological factors involve broad environmental issues such as the natural environment, global warming, and sustainable economic growth. Organizations and the natural environment coexist in an interdependent relationship. Managing these relationships in a responsible and sustainable way directly influences the continued existence of human societies and the organizations we create. Managers can no longer separate the natural and the business worlds; they are inextricably linked.



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03

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- Legal Factors:

Legal factors include the official outcomes of political processes as manifested in laws, mandates, regulations, and court decisions—all of which can have a direct bearing on a firm's profit potential. In fact, regulatory changes tend to affect entire industries at once. Many industries in the United States have been deregulated over the last few decades, including airlines, telecom, energy, and trucking, among others.



3.2. Industry Structure and Firm Strategy: The Five Forces Model

Michael Porter developed the highly influential **five forces model** to help managers understand the profit potential of different industries and how they can position their respective firms to gain and sustain competitive advantage. By combining theory from industrial organization economics with hundreds of detailed case studies, **Porter derived two key insights that form the basis of his seminal five forces model:**



Lecture

03

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1. Rather than defining competition narrowly as the firm's closest competitors to explain and predict a firm's performance, competition must be viewed more broadly, to also encompass the other forces in an industry: buyers, suppliers, potential new entry of other firms, and the threat of substitutes.
2. The profit potential of an industry is neither **random** nor entirely determined by industry-specific factors. Rather, **it is a function of the five** forces that shape competition: threat of entry, power of suppliers, power of buyers, threat of substitutes, and rivalry among existing firms.

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Competition In The Five Forces Model

Because the five forces model has especially powerful implications for strategy and competitive advantage, we will explore it in some detail. We start with the concept of competition. The first major insight this model provides is that competition involves more than just creating economic value; firms must also capture a significant share of it or they will see the economic value they create lost to suppliers, customers, or competitors. Firms create economic value by expanding as much as possible the gap between the value (V) the firm's product or service generates and the cost (C) to produce it. Economic value thus equals V minus C . To succeed, creating value is not enough. Firms must also be able to capture a significant share of the value created to gain and sustain a competitive advantage.

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03

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As Exhibit 3.2 shows, Porter's model identifies five key competitive forces that managers need to consider when analyzing the industry environment and formulating competitive strategy:

1. Threat of entry.
2. Power of suppliers.
3. Power of buyers.
4. Threat of substitutes.
5. Rivalry among existing competitors.



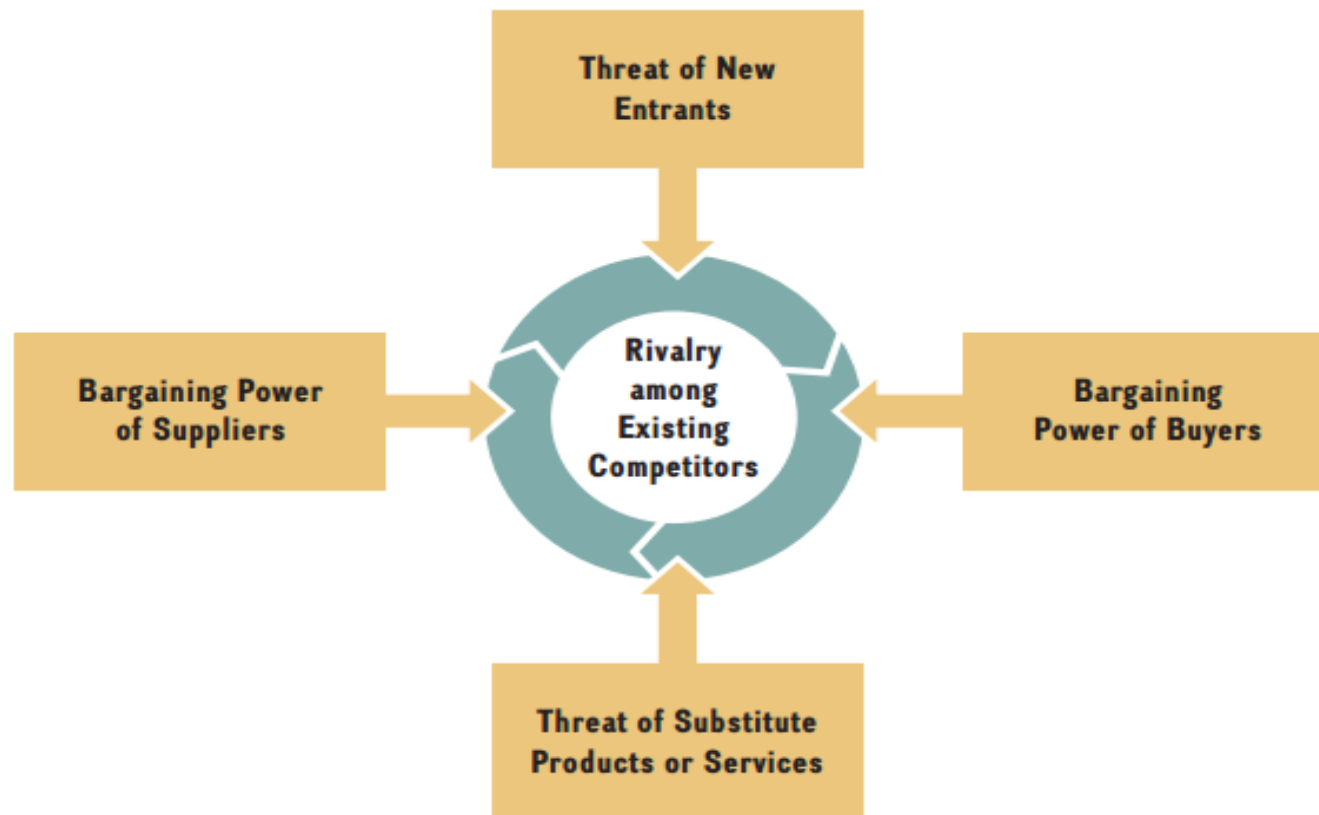


EXHIBIT 3.2 /

Porter's Five Forces Model

Source: Michael E. Porter, "The five competitive forces that shape strategy," *Harvard Business Review*, January 2008.



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1. The Threat of Entry:

The threat of entry describes the risk that potential competitors will enter the industry. Potential new entry depresses industry profit potential in two major ways:

1. With the threat of additional capacity coming into an industry, incumbent firms may lower prices to make entry appear less attractive to the potential new competitors, which would in turn reduce the overall industry's profit potential, especially in industries with slow or no overall growth in demand. 2. The threat of entry by additional competitors may force incumbent firms to spend more to satisfy their existing customers. This spending reduces an industry's profit potential, especially if firms can't raise prices.

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03

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Of course, the more profitable an industry, the more attractive it is for new competitors to enter. There are, however, a number of important barriers to entry that raise the costs for potential competitors and reduce the threat of entry. Entry barriers, which are advantageous for incumbent firms, are obstacles that determine how easily a firm can enter an industry. **Incumbent firms can benefit from several important sources of entry barriers:**



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03

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- Economies of scale.
- Network effects.
- Customer switching costs.
- Capital requirements.
- Advantages independent of size.
- Government policy.
- Credible threat of retaliation.



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2. The power of Suppliers

The bargaining power of suppliers captures pressures that industry suppliers can exert on an industry's profit potential. This force reduces a firm's ability to obtain superior performance for two reasons: **Powerful suppliers** can raise the cost of production by demanding higher prices for their inputs or by reducing the quality of the input factor or service level delivered. **Powerful suppliers** are a threat to firms because they reduce the industry's profit potential by capturing part of the economic value created.

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03

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To compete effectively, companies generally need a wide variety of inputs into the production process, including raw materials and components, labor (via individuals or labor unions, when the industry faces collective bargaining), and services. **The relative bargaining power of suppliers is high when**

- The suppliers' industry is more concentrated than the industry it sells to.
- Suppliers do not depend heavily on the industry for a large portion of their revenues.



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03

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- Incumbent firms face significant switching costs when changing suppliers.
- Suppliers offer products that are differentiated.
- There are no readily available substitutes for the products or services that the suppliers offer.
- Suppliers can credibly threaten to forward-integrate into the industry.



Lecture
03

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3. The Power of Buyers

The bargaining power of buyers is the mirror image of supplier power. **Buyers are an industry's customers**, and their power reflects the pressure they can place on producers' margins by pushing for lower prices or higher quality. Discounts squeeze revenue, while demands for better quality and service raise costs. Powerful buyers therefore capture part of the value created and reduce the industry's profit potential.

Buyers are strongest when they purchase in large volumes, when the product is undifferentiated, when switching costs are low, or when they could credibly produce the product themselves (backward integration).



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The power of buyers is high when

- There are a few buyers and each buyer purchases large quantities relative to the size of a single seller.
- The industry's products are standardized or undifferentiated commodities.
- Buyers face low or no switching costs.
- Buyers can credibly threaten to backwardly integrate into the industry.



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03

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In addition, companies need to be aware of situations when buyers are especially price sensitive. This is the case when:

- The buyer's purchase represents a significant fraction of its cost structure or procurement budget.
- Buyers earn low profits or are strapped for cash.
- The quality (cost) of the buyers' products and services is not affected much by the quality (cost) of their inputs.

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4. The Threat of substitutes

Substitutes meet the same basic customer needs as the industry's product but in a different way. **The threat of substitutes is** the idea that products or services available from outside the given industry will come close to meeting the needs of current customers.

A high threat of substitutes reduces industry profit potential by limiting the price the industry's competitors can charge for their products and services. **The threat of substitutes is high when:**

- The substitute offers an attractive price-performance trade-off.
- The buyer's cost of switching to the substitute is low.



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5. Rivalry Among Existing Competitors

This force captures how intensely firms in the same industry compete for market share and profit, ranging from genteel to cut-throat. The other four forces—threat of entry, buyer and supplier power, and the threat of substitutes—all feed into this rivalry, as shown by the arrows pointing toward the center in Exhibit 3.2. The stronger those forces, the more intense the competition, and the lower the industry's profit potential.

Rivalry tends to intensify when there are many competitors of roughly equal size, when industry growth is slow, when products are undifferentiated, when fixed costs or exit barriers are high, and when firms compete mainly on price rather than on brand, quality, or service.



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03

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The intensity of rivalry among existing competitors is determined largely by the **following factors:**

- Competitive industry structure.
- Industry growth.
- Strategic commitments.
- Exit barriers.



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Competitive Industry Structure. The competitive industry structure refers to elements and features common to all industries. The structure of an industry is largely captured by

- The number and size of its competitors.
- The firms' degree of pricing power.
- The type of product or service (commodity or differentiated product).
- The height of entry barriers.



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03

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Industry Growth. The pace of industry growth shapes how intensely rivals compete. When demand is rising quickly, price competition tends to ease: because the pie is expanding, firms focus on capturing a share of new growth rather than fighting one another for existing customers and profits. Knee replacements, for instance, are a fast-growing segment of the medical products industry.

The reverse holds in slow-growing or declining markets. When the pie is no longer expanding, the only way to grow is to take share from rivals, which fuels price wars, heavier marketing spend, and shrinking margins. This is why rivalry is typically fiercest in mature industries—such as commercial airlines or packaged foods—where firms fight over a relatively fixed pool of demand.



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Strategic Commitments. If firms make strategic commitments to compete in an industry, rivalry among competitors is likely to be more intense. We defined strategic commitments (in Chapter 2) as firm actions that are costly, long-term oriented, and difficult to reverse. Strategic commitments to a specific industry can stem from large, fixed cost requirements, but also from non-economic considerations.



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Exit Barriers. The rivalry among existing competitors is also a function of an industry's **exit barriers**, the obstacles that determine how easily a firm can leave that industry. Exit barriers comprise both economic and social factors. They include fixed costs that must be paid regardless of whether the company is operating in the industry or not.



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A Sixth Force: The Strategic Role of Complements

As valuable as the five forces model is for explaining the profit potential and attractiveness of industries, it can be enhanced by also considering the availability of **complements**. A complement is a product, service, or competency that adds value to the original offering when the two are used together. Complementors are companies that provide these goods or services.

For example, apps make a smartphone more valuable, and a strong app ecosystem can determine a platform's success. When complements are plentiful, demand for the core product rises and the whole industry's profit potential grows; when they are scarce, that potential is constrained.



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03

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A **complement** is a product, service, or competency that adds value to the original product offering when the two are used in tandem. Complements increase demand for the primary product, thereby enhancing the profit potential for the industry and the firm. A company is a complement or to your company if customers value your product or service offering more when they are able to combine it with the other company's product or service. Firms may choose to provide the complements themselves or work with another company to accomplish this.



Lecture

03

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For example, in the smartphone industry, Google complements Samsung. The Korean high-tech company's smartphones are more valuable when they come with Google's Android system installed. At the same time, Google and Samsung are increasingly becoming competitors. With Google's acquisition of Motorola Mobility, the online search company is planning to launch its own line of smartphones and Chromebooks. This development illustrates the process of co-opetition, which is cooperation by competitors to achieve a strategic objective. Samsung and Google cooperate as complementary to compete against Apple's strong position in the mobile device industry, while at the same time Samsung and Google are increasingly becoming competitive with one another.

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3.3 Changes over Time: Industry Dynamics

Although the five-forces-plus-complements model is useful in understanding an industry's profit potential, it provides only a point-in-time snapshot of a moving target. With this model (as with other static models), one cannot determine the changing speed of an industry or the rate of innovation. This drawback implies that managers must repeat their analysis over time in order to create a more accurate picture of their industry. It is therefore important that managers consider industry dynamics.



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03

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Industry structures are not **stable** over time. Rather, **they are dynamic**. Since a consolidated industry tends to be more profitable than a fragmented one firms have a tendency to change the industry structure in their favor, making it more consolidated through horizontal mergers and acquisitions. Having fewer competitors generally equates to higher industry profitability. Industry incumbents, therefore, have an incentive to reduce the number of competitors in the industry. With fewer but larger competitors, incumbent firms can mitigate the threat of strong competitive forces such as supplier or buyer power more effectively.

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3.4 Performance Differences within the Same Industry: Strategic Groups

In further analyzing the firm's external environment to explain performance differences, we now move to firms within the same industry. As noted earlier in the chapter, a firm occupies a place within a strategic group, a set of companies that pursue a similar strategy within a specific industry in their quest for competitive advantage. Strategic groups differ from one another along important dimensions such as expenditures on research and development, technology, product differentiation, product and service offerings, pricing, market segments, distribution channels, and customer service.

Lecture

03

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To explain differences in firm performance within the same industry, the **strategic group model** clusters different firms into groups based on a few key strategic dimensions. Even within the same industry, firm performances differ depending on strategic group membership. Some strategic groups tend to be more profitable than others. This difference implies that firm performance is determined not only by the industry to which the firm belongs, but also by its strategic group membership.



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- The Strategic Group Model

To understand competitive behavior and performance within an industry, we can map the industry competitors into strategic groups. We do this as shown:

- Identify the most important strategic dimensions such as expenditures on research and development, technology, product differentiation, product and service offerings, pricing, market segments, distribution channels, and customer service.



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03

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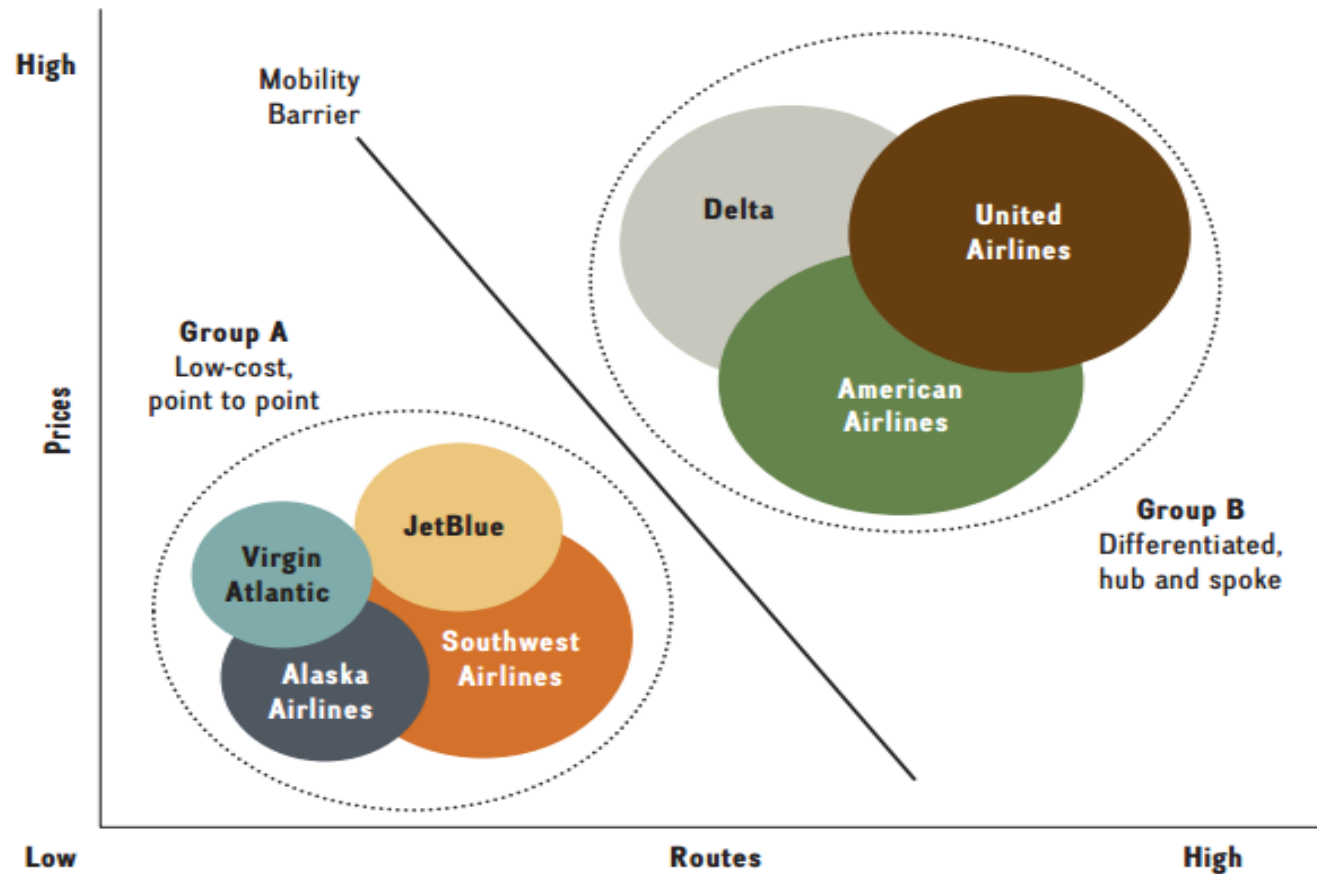
- Choose two key dimensions for the horizontal and vertical axes, which expose important differences among the competitors. The dimensions chosen for the axes should not be highly correlated.
- Graph the firms in the strategic group, indicating each firm's market share by the size of the bubble with which it is represented.

The strategic group mapping in Exhibit 3.5 provides some additional insights:



EXHIBIT 3.5 /

Strategic Groups and the Mobility Barrier in the U.S. Domestic Airline Industry



Lecture

03

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- Mobility Barriers

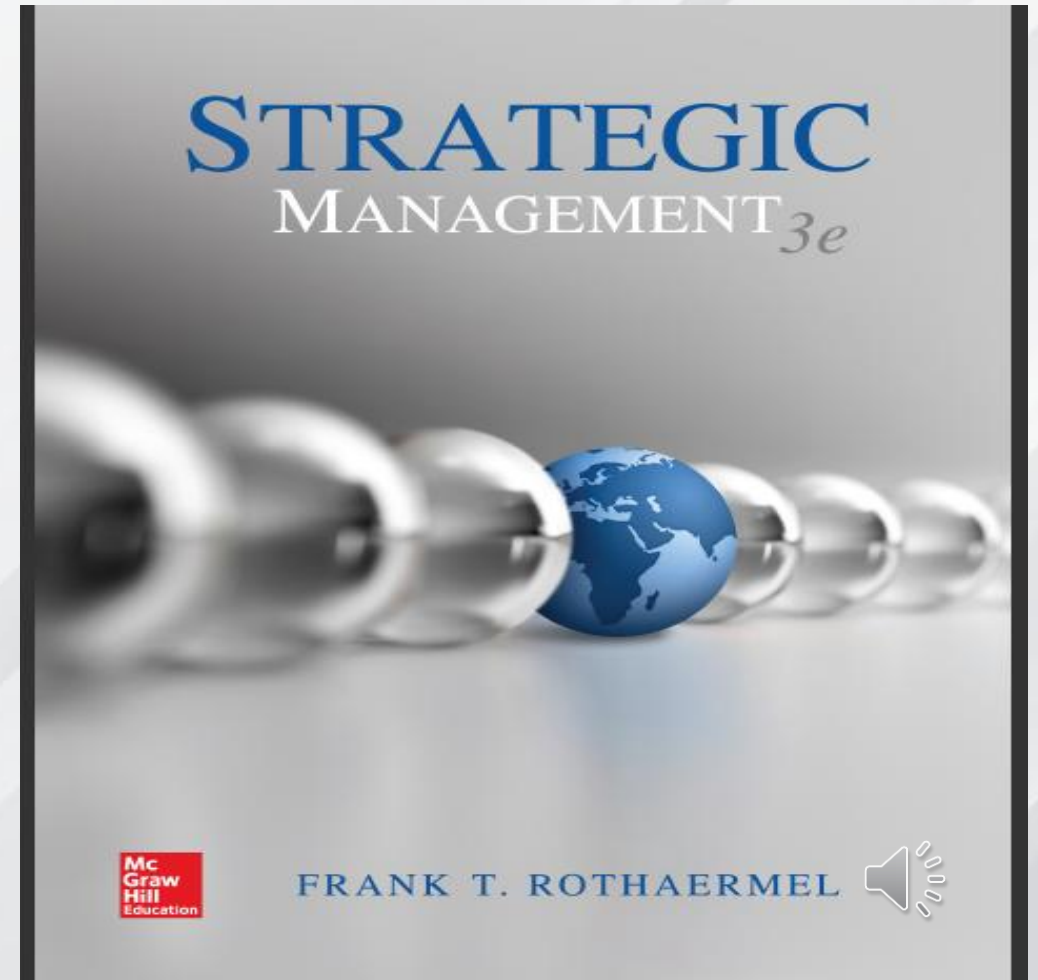
Some strategic groups are more profitable, and therefore more attractive, than others—but mobility barriers limit movement between them. These are industry-specific factors that separate one group from another. In Exhibit 3.5, the two groups are divided by the fact that international routes require a hub-and-spoke model. Such routes are often the most profitable ones left to legacy carriers, though Persian Gulf airlines—notably Emirates, Etihad, and Qatar Airways—increasingly threaten that profit sanctuary.

Typical mobility barriers include heavy capital requirements, established brand reputation, proprietary technology, control of distribution channels, and economies of scale. The higher these barriers, the harder it is for a firm in a less attractive group to migrate to a more profitable one—and the more durable the advantage of the firms already there.



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Thank You

