PART I

Foundation and Key Concepts

CHAPTER 2

Corporate Strategy and Investment Decisions

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INTRODUCTION

Real investment decisions are not made in a vacuum; they are embedded in a company's strategy. By determining the scope of the company, the strategy limits the set of investment projects available to managers. By identifying the company's competitive advantages, the strategy helps assess the sources of synergies in mergers and acquisitions (M&As). Understanding the nature of competition and the business landscape is also useful for forecasting sales and advertising, identifying real options, and coordinating financing and investment opportunities.

A *strategy* is the formulation and implementation of a company's key decisions. A well-designed strategy should include a statement of the company's goals, some criteria to decide which activities a company should and should not do, and a view on how the company should be organized internally and how it should deal with the external environment. Furthermore, a strategy must also contain an explanation for its logic, that is, an explanation for why the goals will be achieved by adhering to the strategy.

This chapter presents an overview of the main ideas in *strategic management*, which is a management discipline that derives most of its intellectual foundations from economics. The focus of this chapter is on the role of strategic considerations for corporate investment decisions and the valuation of projects and companies. As an introductory chapter, it emphasizes general principles and ideas and does not discuss detailed applications and examples.

The main focus of the chapter is on *corporate strategy*. Corporate strategy studies the relevant strategic issues concerning the corporation as a whole, rather than a specific business unit. A corporation may operate in a single industry or in many different ones. A common use of the term corporate strategy denotes the study of strategy for the multimarket corporation, in contrast to *business unit strategy*, which applies to single-industry corporations and narrowly defined divisions within a corporation (Porter, 2008). Because the starting point for the analysis of corporate strategy is the company's portfolio of resources, rather than the products that it sells, this chapter applies the term corporate strategy to both single and multiple industry companies. By focusing on what companies can do particularly well, the

analysis of corporate strategy can identify factors that allow these companies to create value in different markets and industries. Thus, understanding corporate strategy is useful even when a company is currently operating in a single, narrowly defined industry.

The chapter also provides a selective review of the academic literature on corporate investment and its relation to business strategy. Examples include the study of corporate behavior over the firm's life cycle, investment in conglomerate firms, the boundaries of the firm, and interactions between financing and investment decisions. These examples provide case-based and statistical evidence of the importance of strategy for investment decisions.

THE IMPORTANCE OF STRATEGY FOR INVESTMENT DECISIONS

Methods for evaluating project investment decisions are usually discussed without reference to corporate strategy issues. The typical capital budgeting method (directly or indirectly) involves three steps: (1) estimating cash flows generated by the project, (2) finding an adequate discount rate for each cash flow, and (3) estimating the initial cost of the investment (including opportunity costs). The main example of this is discounted cash flow (DCF) analysis, which is widely used in practice and occupies central stage in corporate finance and valuation textbooks.

In DCF analyses, much attention is devoted to the estimation of discount rates; not nearly as much is devoted to the estimation of cash flows (and even less to the cost of initial investment, which is usually simply assumed to be known). Explicit models of financial asset markets such as the capital asset pricing model (CAPM) commonly infer the discount rates to be used in valuation models. However, the approach to estimating cash flows is usually ad hoc and informal.

Sensitivity analyses usually reveal the importance of assumptions concerning the evolution of cash flows, especially the ones implicit in the project's terminal value. Small differences in growth rates for operating cash flows can lead to valuation differences that often dwarf those associated with changes in discount rates. So what explains the asymmetry between the treatment of discount rates and that of cash flows?

There is at least one practical reason. Financial asset markets are often modeled as markets in which the law of one price holds. In such frictionless financial markets, the price of a given asset reflects the market value of the asset's characteristics, which are summarized by its expected rate of return and its risk profile. Asset prices adjust until all assets yield the same risk-adjusted return. This is an implication of the assumption of no arbitrage opportunities. Translating these ideas into the language of project valuation, there are no financial investments with positive net present value (NPV) in frictionless assets markets.

Contrast this situation with the task of valuing corporate investment in nonfinancial projects. The main challenge in capital budgeting is the identification of positive NPV opportunities. In other words, the whole idea of corporate investment is based on the notion that the law of one price does not hold for investment in real assets. That is, a company may have an opportunity to invest in a project

that, once fully adjusted for risk, yields a return that is significantly higher than that of (virtually) riskless financial assets (such as U.S. government bonds).

When making capital budgeting decisions, the assumption of zero-NPV investments in financial assets allows simplifying the potentially very complicated task of comparing project cash flows in different periods and under different scenarios. Analysts only need to understand the risk properties of these cash flows and then look at financial markets to figure out the appropriate discount rate associated with each type of risk. As the market does not explicitly give a "price for each type of risk," models such as the CAPM are needed, as they enable extraction of the relevant discount rates from observed data. Although in practice different models and different data give different answers, the main benefit of the assumption of no arbitrage in frictionless financial markets is to allow the use of simplified models and formulas to get estimates of discount rates.

As the law of one price does not hold for real investments, simplified models such as those available for financial assets cannot be easily developed for real investments. In particular, no benchmark model exists for estimating cash flows. Instead, a long list of formal and informal theories have been developed to understand why there exist positive NPV opportunities in real investments. This chapter refers to these theories collectively as *strategy*.

Strategy is usually viewed as being outside the realm of financial economics. Thus, strategy is only briefly, if at all, discussed in corporate finance and valuation textbooks. In practice, however, an interrelation occurs among strategic, financial, and investment decisions. In academic finance, many empirical studies focus on interactions between strategic considerations and corporate investment.

The key practical idea in strategic management is simple*:* Understanding the reasons some projects have positive NPVs can help a firm find those positive-NPV projects. Thus, most of the academic writings on strategy focus on identifying the sources of positive NPV opportunities, also called the sources of value.

Understanding strategy is important not only for selecting the set of projects worth being considered in capital budgeting analyses but also for the difficult task of estimating cash flows in DCF analyses. The material covered in this chapter is not detailed enough to offer practical advice as to how to estimate cash flows. Rather, the chapter discusses general principles in business strategy that are useful for many valuation exercises. However, Chapter 10 provides a detailed discussion of estimating cash flows.

KEY CONCEPTS AND IDEAS IN STRATEGY

An example provides a useful starting point. General Electric (GE) is a *conglomerate*, that is, a company that operates in many different industries, such as jet engines, power generation, and financial services, among others. Jack Welch, GE's legendary chief executive officer (CEO), ran the company from 1981 to 2001. As part of the strategy intended for GE, he set the goal of "being number one or number two in every industry GE operates in." In fact, GE managers were told that if a division was not number one or number two, they should fix it, sell it, or shut it down. This simple strategy description is useful because it tells managers what to do and helps corporate headquarters allocate resources across divisions. According to such a strategy, GE would hardly fund even positive NPV projects if

divisions are laggards in their industries, unless the investment is aimed at "fixing" the division so that it becomes a leader.

Although such a strategy is useful as a guide for the allocation of funds across unrelated businesses, it does not explain why being number one or number two is the best way of creating value for shareholders. A strategy must always explain its underlying logic: why the stated goals will deliver shareholder value. Although many believe that GE's overall strategy under Welch was responsible for delivering huge gains for shareholders, much controversy still exists about why it did so. In fact, some statistical evidence indicates that conglomerates such as GE normally do not outperform a comparable portfolio of stand-alone (i.e., single industry) companies (see Lang and Stulz, 1994; Berger and Ofek, 1995). But before reviewing the literature on investment and performance in diversified corporations, the basic theoretical ideas that aim to explain the sources of superior performance—the *sources of value*—for companies and businesses more generally should be examined.

Competitive Advantage

One of the best known concepts in strategy is that of *competitive advantage* (Porter, 1980). Competitive advantage is a firm's attribute that may allow the firm to generate *economic profits*. The term "may" generate profits is used because the logic of the strategy must first be tested. If misused, a potential competitive advantage may not deliver superior performance.

In this definition, economic profit refers to the (risk-adjusted) present value of revenue minus all costs, including the opportunity cost of capital. For simplicity, this discussion abstracts from capital market imperfections and other frictions and considers shareholder value as being equivalent to economic profit. In practice, there are situations in which such imperfections and other frictions should be treated differently.

The attribute that gives the firm a competitive advantage in a specific market can be a number of things. It could be an asset that the firm owns, including tangible assets (e.g., plants, machines, land, mines, and oil reserves), proprietary intangible assets (e.g., patents, intellectual property, and trademarks), or nontradable intangible assets (e.g., reputation, know-how, culture, and management practices). A competitive advantage could also arise from the company's position in the industry, which generates *barriers to entry* due to government protection, first-mover advantages (e.g., brand name and reputation), control of distribution channels, market size, or technology (e.g., network effects, platforms, and standards compatibility).

Regardless of its origins, a sustainable competitive advantage must be built upon something unique. A *unique asset or position* is something that is very difficult for others to imitate or reproduce. It may be prohibitively costly for most, but a few could buy or create such assets or positions. Because these assets or positions need not be literally unique, perhaps a better term would be *scarce resources*. As long as this qualification is understood, no harm is done by sticking to the traditional terminology.

Consider the example of Apple Inc., which is a company that has successfully delivered shareholder gains over extended periods of time (although not

necessarily at every moment in its history). Some believe that one of Apple's main competitive advantages is its excellence in product design. By producing computers and other consumer electronic products with innovative designs, Apple can target a niche of consumers who value design. But excellence per se is not enough. What prevents other competitors from imitating Apple? Apple must be better at producing well-designed gadgets than other firms. In other words, Apple needs to have a unique capability in design.

The importance of asset uniqueness is easily understood by analogy to hypothetical markets in which assets are not unique. In the frictionless financial markets found in finance textbooks, financial assets are never unique; they can be easily replicated and traded with no direct costs. In such markets, no trader has a competitive advantage; all buy and sell zero-NPV securities. In the aggregate, financial markets create economic value by allowing investors to diversify optimally and by allocating capital efficiently. But the production of financial securities by itself does not generate extra rents.

Added Value

Having a unique resource, capability, or position is a necessary condition for maintaining a sustainable competitive advantage, but it is not sufficient. Continuing with the example of Apple, according to Kahney (2009), Steve Jobs (Apple's CEO) once insisted on changing the design of the original Mac's motherboard because it "looked ugly." Engineers and other managers replied that consumers did not care about how their motherboards look; motherboards are located inside computers and thus cannot be seen. But that argument did not convince Jobs. Eventually, for technical reasons, he was forced to drop the idea.

Despite the fact that Job is a brilliant strategist, his insistence on exploiting Apple's excellence in design for improving the appearance of motherboards seems difficult to justify. There is no point in using one's unique capabilities to produce something for which consumers are not willing to pay. A unique capability must be able to create value in order to be called a competitive advantage.

Brandenburger and Stuart (1996) develop a rigorous framework for the analysis of value-based strategies. They start from the fact that value creation must imply a wedge between what customers are willing to pay for a product and the supplier's opportunity cost of producing it. This wedge is the *total value* created by a (buying and selling) transaction. Brandenburger and Stuart develop the concept of a company's *added value* to a specific transaction, which is the total value created by the transaction in which the company participates minus the value of this transaction without the company.

Added value is a very simple idea. If a company is really unique and valuable, some value would be permanently lost if the company ceased to exist. Such unique and valuable companies have positive added values. Thus, a positive added value is a necessary condition for a sustainable competitive advantage.

The concept of positive added value is related but not identical to positive NPV in capital budgeting analysis. Having positive added value is a necessary condition for a project to have positive NPV. However, the NPV concept measures the total value that is captured by shareholders, which is in general just a fraction of the project's added value.

Industry Analysis

In perfectly competitive product markets with free entry, such as those found in microeconomics textbooks, producers do not own unique assets. Their added value is zero. Consequently, they all enjoy zero economic profit. In monopolistic markets, in contrast, an assumption is that competition is somehow restricted, and economic profits are positive.

Porter (1980) realized that competitive advantage is intimately linked to monopoly power, or, in other words, to the strength of competitive forces in the industry. He thus saw a firm's position within its industry as one of the key sources of competitive advantage.

The key to identifying positional advantages is to understand the industry in which a firm operates. In the strategy literature, this is called *industry analysis*. The goal of industry analysis is to facilitate the design of strategies by describing the competitive environment in which the firm operates. Firms may find themselves in a unique position in the industry, and such a position may or may not give them a competitive advantage.

Industry analysis is usually identified with Porter's (1980) five forces framework. Porter argues that the attractiveness of an industry can be assessed by carefully analyzing the relative strengths of five competitive forces: (1) the intensity of rivalry among industry incumbents, (2) the bargaining power of suppliers, (3) the bargaining power of buyers, (4) the threat of entry of new firms, and (5) the availability of substitute products.

The Industry Life Cycle

A natural complement to the static industry analysis framework is a set of empirical regularities that are jointly known as the *industry (or product) life cycle* (e.g., Keppler, 1996). The industry life-cycle view recognizes that industries evolve over time, but also that they often change in predictable ways. As the strength of each of the competitive forces varies over the different stages of the life cycle, successful firm strategies must also evolve over time and adapt themselves to the new challenges.

In its simplest form, the industry life-cycle view postulates that the life of an industry has three different stages: emergence, growth, and maturity. Some also add a fourth one, which is the stage of decline. In the emergence stage, many small firms experiment with different varieties of a product. Many firms enter the industry and sales levels and growth rates are low. The growth stage begins when a dominant product format or business model arises. When consolidation in the industry occurs, the number of firms falls and entry in the industry becomes rare. Industry sales grow at high rates. In this stage, most incumbent firms direct their innovation efforts toward improving processes rather than products. Finally, in the maturity stage, dominant firms have stable market shares and generate high profits. However, they experience low rates of sales growth and have few investment opportunities.

Applications

Industry analysis including the industry life cycle is widely used, although mostly informally, in valuation exercises. The following list provides some examples

of how industry analysis can offer insights that are valuable for investment decisions:

- Understanding the nature of competition in the industry can be useful for forecasting revenues (sales) and some of the costs such as advertising and research and development (R&D) expenditures.
- A typical approach to estimating future sales is using the average sales growth rate in the industry. This assumption may be reasonable if the sources of value from a project are cost efficiency improvements rather than gains in market share.
- In industries in which suppliers are powerful, efficiency improvements at the firm level could be partly appropriated by suppliers via contract renegotiation. Thus, one must be careful not to overestimate the cash flows generated by such efficiency improvements. For example, in an industry with a unionized workforce, not only may efficiency improvements be more difficult to achieve, but also the gains from such improvements may end up being shared with employees.
- Analysts implicitly use the industry life-cycle view in project valuation. For example, many pro forma estimates assume some higher rates of industry growth for the first few years and then a much slower growth rate implicit in the project's terminal value.

Challenges to Traditional Industry Analysis

Industry analysis, while extremely useful as a normative tool for strategic decision making, has been criticized on two fronts. First, the typical approach to industry analysis puts too much emphasis on value capture while paying little attention to value creation. In the most straightforward applications of Porter's (1980) principles, the firm's goal is to capture the largest possible share of potential industry profits. The five competitive forces, if strong, limit the ability of an incumbent firm to capture a large share of the value created in the industry. In contrast to this emphasis on value capture, Nalebuff and Brandenburger (1996) emphasize the importance of what they call "co-opetition," which is the exertion of joint efforts by competitors to increase potential profits for the industry as a whole.

The second objection to industry analysis concerns its excessive focus on differences among industries rather than on differences among companies in the same industry. The key empirical challenge to the conventional view comes from an influential paper by Rumelt (1991), who shows that most of the variation in profitability across firms comes from intra-industry heterogeneity rather than from differences among industries. Such an interpretation has been challenged empirically by McGahan and Porter (1997).

Although Porter's (1980) approach can easily accommodate such criticisms, these challenges are important because they underscore the usefulness of complementary frameworks for the analysis of strategy. Of particular importance are the analyses that place the firm, rather than the industry, at the center stage.

Theories of the Firm

To understand firm heterogeneity within industries and its relations to competitive advantage, reviewing some of the most influential theories of the firm is important.

Starting with Coase (1937), academic research in economics and management has nurtured a long tradition of trying to unveil the "essence of the firm." Some scholars believe that discovering the true nature of the firm permits understanding real-world firms.

Whether things or concepts have "essences" is questionable. From a practical standpoint, finding this essence is not essential, but having a practical definition of the firm may be needed. A good "theory of the firm" is one that helps managers identify and choose the best projects among all feasible ones. It must also provide a definition of "best."

A brief review of three theories of the firm follows. The first theory views the firm as a nexus of contracts. Most valuation and project selection frameworks implicitly assume this view. The second one views the firm as an efficient solution to the problem of economizing on transaction costs. Such a view is particularly useful for understanding acquisitions and divestitures, especially in those cases involving vertical integration or outsourcing decisions. The third theory views the firm as the locus of crucial resources. This view is particularly helpful for understanding corporate strategy and value creation.

The Firm as a Nexus of Contracts

Some argue that the firm is nothing more than a *nexus of contracts*. Under this view, most stakeholders such as employees, bondholders, and suppliers are thought to be protected by bilateral contracts with the firms' equity holders. Equity holders own the firm in the sense that they have residual cash flow rights: After all stakeholders are paid according to their contracts, equity holders are entitled to the residual profits (Alchian and Demsetz, 1972; Jensen and Meckling, 1976).

Inspired by the nexus-of-contracts view of the firm, leading strategy consulting firms teach their staff and clients to focus on value creation for equity holders. Similarly, textbooks on valuation and corporate finance usually assume that managers should aim at maximizing the market value of shareholders' equity. The reason for focusing on shareholder value alone is the presumption that other stakeholders are well protected by contracts. For example, debt holders have financial claims with priority, employees are protected by labor contracts, and regulation and taxes protect and compensate society. Shareholders are the residual claimants; they get whatever is left after the firm pays taxes, wages, and interest.

Such a view is only partially correct, considering the fact that, in the real world, contracts are incomplete. Contractual incompleteness and other market imperfections can explain why other stakeholders may also be residual claimants. However, in practice most of these subtleties are ignored and firms are assumed to be fully owned by shareholders. This view is also the dominant one in the strategy literature.

Firm Scope and the Transaction-Cost View of the Firm

Coase (1937) initiated the tradition of viewing firms and markets as substitutes. To understand what that means, consider a specific transaction such as the supply of an input that is used in the production of a final good. The classic example in this literature is the case of Fisher Body, a supplier of car bodies to General Motors (GM) in the 1920s. The key issue here is the "make or buy" decision or the vertical integration problem: Should GM produce its own car bodies in-house or should

it outsource production, buying bodies from an independent supplier (such as Fisher)?

If a transaction is conducted through the market, contracts will regulate the conditions of the deal (e.g., price, product characteristics, delivery dates, and guarantees). If a transaction is conducted within a single firm, the conditions of the deal will be regulated through management. The market can thus be seen as a system of coordination by prices (or contracts), while the firm can be seen as a system of coordination by management.

The transaction-cost view assumes that the most efficient mode of coordinating a transaction will usually be chosen. Thus, firms are chosen over markets when the former implies lower transaction costs than the latter (and vice versa). More generally, the transaction-cost view is a theory of firm scope (or firm boundaries): It aims to determine what the firm should and should not do. The determination of firm scope is an important strategic consideration. In practice, companies are continuously redefining their boundaries, mainly through mergers, acquisitions, divestitures, and spin-offs.

A key concept in the transaction-cost view of the firm is that of *asset specificity* (e.g., Williamson, 1985). When two parties meet each other and decide to write an incomplete long-term contract, the nature of their relationship changes in fundamental ways. Both parties may undertake investments that are specific to their relationship. For example, GM could design its cars to fit car bodies built by Fisher, while Fisher could modify its machines to create car bodies that fit GM's demands. Thus, after relationship-specific investments are made, the value of GM and Fisher's assets is higher inside the relationship than it is outside. That is, asset specificity creates a surplus, which is the difference between the value of assets inside and outside the relationship between the contracting parties.

If the two parties are not integrated in a single firm, they will have to bargain with each other over the division of the surplus after relationship-specific investments are made. This bargaining can be very costly. Furthermore, the possibility exists that no agreement is reached, which implies that the surplus might go to waste. To avoid such transaction costs, the theory predicts that the parties should be integrated in a single firm in those cases in which relationship-specific assets are important.

The Resource-Based View of the Firm

What is collectively known as the resource-based view of the firm is a set of different ideas that have been developed by various scholars. Wernerfelt (1984) is normally credited with introducing what is currently known as the resource-based view; the main idea, however, dates back to Penrose (1959). Wernerfelt distinguishes between the traditional product-based view of the firm, which looks at the firm from the perspective of the portfolio of products it sells, and the resource-based view, which looks at the firm from the perspective of the set of resources it owns. Resources are unique assets that can be strengths or weaknesses.

This view is particularly useful for understanding corporate strategy, as it provides a potential rationale for product-market diversification. A firm that operates in multiple, seemingly distinct product markets may be exploiting synergies created by the unique resources that it owns. These resources may create competitive advantages in different product markets. Thus, to look for synergies by analyzing

the degree of similarity among products can be misleading if the main source of economic value created by conglomerates is their ownership of unique resources. Some resources can be leveraged across different markets and thus create a competitive advantage in more than one product market.

Commitment versus Adaptation

Two important issues in the resource-based tradition are the nature of unique resources and the relative importance of commitment versus adaptation. The first issue concerns the question of whether human or nonhuman resources are the most important sources of sustainable competitive advantage. In principle, valuable unique resources can be tangible and tradable, such as physical assets; intangible and tradable, such as intellectual property; or intangible and nontradable, such as corporate culture. Because theory offers little guidance, the question about the relative importance of each type of resource must be settled empirically.

The second issue, the tension between commitment and adaptation, is more open to theoretical analysis. The strategy literature that emphasizes first-mover advantages holds a rather positive view of the commitment effect associated with irreversible investment decisions (e.g., Ghemawat, 1991). Firm-specific resources are investments that are difficult to reverse and may provide a source of competitive advantage. Irreversible investments create credible barriers to entry and are thus valuable. Thus, viewed under this light, the commitment provided by investing in firm-specific resources seems to be a more reliable source of competitive advantage than the flexibility associated with less specialized resources.

As a simple example of the value of commitment, consider the adoption of most-favored-customer contractual clauses (which here can be understood as a form of irreversible investment). Such clauses, which offer a buyer the best possible price that is given to any of a firm's customers, may a priori seem to increase buyer power and thus reduce profits. However, understanding such clauses involves taking the value of commitment into account. By binding itself to such a contractual clause, the supplier firm commits to be a tough negotiator with all customers, as any discount to one buyer must also be offered to all other buyers. By increasing the cost of making price concessions, a seller may actually improve her bargaining position and capture a larger share of industry profits.

Without totally discrediting the importance of commitment and strategic continuity, some scholars believe that strategic flexibility and the ability to adapt are at the core of strategy. For example, Montgomery (2008) argues against a static view of strategy. According to her, a firm's strategy is in constant motion, evolving not only in big steps but also in mostly smaller ones. A static view of strategy is dangerous as it may lead corporate leaders to try to defend their perceived competitive advantages long after they stopped being profitable. Montgomery sees the main goal of strategy as the search for a corporate identity, or what the company "wants to be." More concretely, she uses Brandenburger and Stuart's (1996) notion of added value to give a more precise meaning to this corporate soul-searching exercise. The company must be something distinctive in the sense that someone would miss it if the company disappeared.

In Montgomery's (2008) view, leadership is one of the crucial resources that a company has. The author sees the CEO as the steward of the company, responsible for continuously adapting to change and redefining the company's strategy. She

argues that leadership requires a continuous reassessment of strategy as well as frequent changes and reformulation.

The relative importance of commitment versus flexibility in corporate strategy is still an unsettled issue, just as are many other questions reviewed in this chapter. Ultimately, empirical evidence is necessary to provide further insights on the practical aspects of corporate strategy.

CORPORATE STRATEGY, INVESTMENT, AND PERFORMANCE: SOME EVIDENCE

With few exceptions, the empirical literature on corporate investment and performance has evolved independently from most of the theoretical work in corporate strategy. Thus, the link between theory and evidence is still tenuous. This section provides a selective review of some studies that focus on questions related to corporate strategy, investment, and performance.

As strategy influences all corporate decisions, virtually all studies of businesses are somehow related to strategy. The few examples discussed here highlight the importance of strategic considerations for corporate investment decisions.

The Evolution of Firms

Recent work by Kaplan, Sensoy, and Stromberg (2009) provides evidence that is related to many of the topics discussed in this chapter. They analyze the evolution of 50 (mostly high technology) firms from their birth to almost maturity. Their sample consists of entrepreneurial firms that were initially backed by venture capitalists and eventually became publicly traded companies. The authors of this study follow their sample firms through three different stages: (1) the business plan stage (not long after the firm is founded—on average 23 months old); (2) the initial public offering (IPO) stage (on average 34 months after the business plan); and (3) the public company stage (for which they take data from annual reports on average 34 months after the IPO).

Kaplan et al. (2009) report the following findings:

- *Firm scope is important*: Almost all firms keep the same core businesses or business ideas throughout these three stages. Firms tend to grow around these initial ideas, rather than by replacing them with new ones.
- *Resource uniqueness is key*: Almost all managers in their sample believe that the importance of a unique resource remains high during all three stages.
- *The relative importance of expertise declines over time*: Firms claim that the importance of the expertise of their managers and workers is high during the business plan stage, but it becomes less so after the company goes public.
- *Human capital changes rapidly*: Only 72 percent of the CEOs at the IPO were CEOs at the business plan; this number falls to only 42 percent at the public company stage. Founders leave the firm frequently, often relinquishing control at the IPO stage or soon afterward.
- *Nonhuman assets are key*: Proprietary intellectual property, patents, and physical assets remain important throughout the firm's life.

Kaplan et al. (2009) conclude that, more often than not, firms distinguish themselves by their critical nonhuman resources, rather than by the entrepreneurial talent of few individuals. Thus, investments in those critical nonhuman assets are the main sources of value. Their evidence provides broad support for the resource-based view of the firm. The evidence is also relevant for the debate on the relative merits of commitment versus adaptation. At least in their sample, leadership and ability to adapt seem less important than commitment to a business model.

Guedj and Scharfstein (2004) study the investment behavior of biopharmaceutical firms in drug development projects. They find that small, early-stage companies are reluctant to drop the development of unsuccessful new drugs. Large and mature companies in the industry are more efficient in their project termination decisions and thus enjoy better performance. Their evidence shows that firms' investment behavior varies over the stages of their own life cycle. Their results suggest that, unlike mature firms, new firms are more willing to take risks and to hold on to losers.

Investment in Conglomerates and the Diversification Discount

Financial economists first became interested in corporate strategy when they (implicitly) applied the added value principle to a large sample of diversified companies. Lang and Stulz (1994) and Berger and Ofek (1995) conduct the following experiment involving a conglomerate, which is a corporation that operates in many different industries. They construct a portfolio of stand-alone companies closely resembling industries in the conglomerate. That is, the stand-alone portfolio is a comparable for the conglomerate. Now, if the conglomerate did not exist, shareholders who currently invest in it could obtain similar risk exposures by investing in the stand-alone portfolio instead. Thus, would any value be lost if the conglomerate did not exist? That is the added value question. The authors compare the market value of diversified companies (scaled by their book values) to a portfolio of stand-alone companies. Perhaps surprisingly, they find that, on average, conglomerates display negative added values. This finding is known as the *diversification discount* in the corporate finance literature.

The diversification discount is the most controversial finding in the academic literature linking corporate strategy and investment decisions. There are many explanations for this finding, ranging from data issues to misclassifications, statistical problems, spurious correlations, and reverse causality. Maksimovic and Phillips (2007) provide a summary of the literature. Regardless of whether most conglomerates have negative added values, considering that possibility is important. What does it mean? A negative added value means that a conglomerate is pursuing a corporate strategy that destroys value. The optimal strategy in such a case would be to either shut down or spin off all divisions but one.

Why would conglomeration destroy value? The most widely suggested explanation is that conglomerates have inefficient internal capital markets (Scharfstein and Stein, 2000). Due to corporate politics, funds for investments are allocated across divisions for reasons that are not fully related to the quality of their investment opportunities. According to this view, the diversification discount is a symptom of bad investment decisions in conglomerates. Motivated by this idea, various papers try to test empirically for the efficiency of investment decisions in

conglomerates. The evidence is mixed (Maksimovic and Phillips, 2002; Dittmar and Shivdasani, 2003; Ahn and Denis, 2004). Although corporate politics is certainly a problem in many large and diversified companies, there is insufficient convincing, large-sample evidence that such a problem can explain the diversification discount.

The conglomerate investment literature contains other relevant findings. Perhaps the most important one concerns the mode of investment. Maksimovic and Phillips (2008) find that conglomerate divisions invest more via acquisitions relative to capital expenditures than similar stand-alone companies. This evidence has important implications for investment decisions in large corporations. For example, one of the most important tasks of division managers is to identify and value suitable targets. In contrast, managers in stand-alone companies need to worry more about organic growth and must possess skills in valuing and implementing greenfield investments, which are investment in a manufacturing, office, or other physical company-related structure or group of structures in an area where no previous facilities exist.

Growth through Acquisitions

A key question in corporate strategy is: How can firms create value by redefining firm boundaries? Any reasonable answer must mention the creation of a unique resource. In M&As, the value created by such unique resources is loosely referred to as *synergy*.

Business people are often believed to be overly optimistic about the prospect of synergies. Porter (2008, p. 154) offers a skeptical view: "If you believe the text of the countless corporate annual reports, just about anything is related to just about anything else! But imagined synergy is much more common than real synergy." However, the academic research on the stock return effects of deal announcements shows that M&A deals create shareholder value on average, although there is considerable variation (Andrade, Mitchell, and Stafford, 2001).

The key puzzle raised by the M&A literature is not related to value creation but to value capture: Acquirer returns are on average negative, while target returns are positive and large. Acquirers appear to overpay for their targets. Thus, even if acquirers competently identify and value potential synergies, the evidence suggest that they do not do as well when dividing the gains.

Notwithstanding the problem of the division of gains, the task of identifying synergies is still very important. This task requires much strategic knowledge. Consider, for example, the case of Cisco's acquisition strategy. Cisco's Internet Operating System (IOS) is a platform that became dominant in the 1990s. Dominant platforms are unique in that they are more valuable to customers exactly because they are dominant. This is the essence of network effects; ownership of a platform is a competitive advantage only insofar as a large number of customers choose to adopt the platform. Thus, Cisco's success relies on its platform being dominant. By understanding the source of its competitive advantage, Cisco's investment policy is centered at acquiring new companies developing systems that may threaten IOS's dominance. An example was its acquisition of StrataCom in 1996, a small start-up that was the developer of a cheap and efficient transmission system, the ATM (asynchronous transmission mode). Because ATM and IOS were not initially compatible, the spread of ATM in the market was a threat to the dominance of IOS.

After a few attempts to coordinate the two companies without integration, Cisco chose to acquire StrataCom. The stock market viewed that decision favorably, as evidenced by Cisco's share price increasing by 10 percent on the day of the announcement. This description follows Hart and Holmstrom (2010).

This example illustrates the importance of a broad understanding of corporate strategy for making sense of a company's investment policy. Understanding why the company creates value for shareholders helps in assessing the types of investment that it needs to undertake. Cisco knew that preserving IOS was its most important goal. An aggressive acquisition policy toward potential competitors and producers of complementary systems was then paramount. Ignoring the importance of network effects and coordination among systems would have led Cisco to undervalue such acquisitions and thus fail to create value for shareholders.

Interactions between Financing and Investment Decisions

Because firms are usually financially constrained, they must coordinate their investment strategies with their financing policies. The synchronization of investment opportunities and access to funds for investment is the key goal of modern corporate risk management (Froot, Scharfstein, and Stein, 1993). This fact implies that corporate liquidity has strategic value. Consequently, investment decisions must take into account a project's potential for generating cash flows in those states in which liquidity is most needed. Even when firms are not currently financially constrained, they may prefer to invest in projects that generate cash flows exactly when firms are likely to be financially constrained (Almeida, Campello, and Weisbach, 2010).

Financing decisions may also have direct effects on investments due to contractual arrangements. Evidence suggests that as creditors gain more control rights after debt covenant violations, corporate investment falls (Chava and Roberts, 2008). Thus, the financing mix between debt and equity may also have direct consequences for investment decisions. Campello (2006) finds that moderate levels of debt lead to superior sales growth; this growth occurs by gaining market share at the expense of industry rivals. However, he also finds that excessive debt leads to underperformance.

Fresard (2010) finds that cash-rich companies gain market share at the expense of their rivals. He argues that the evidence is consistent with the "deep pocket" effect: Financially strong firms overinvest in capacity and adopt aggressive competitive strategies to drive financially weak companies out of the market (Telser, 1966; Bolton and Scharfstein, 1990).

Zingales (1998) analyzes the interactions between industry competition and financial slack by studying the effects of deregulation in the trucking industry on the survival of firms. He finds that the increase in competition caused by deregulation forced highly levered firms to exit the industry. Zingales shows that both the most efficient firms (the "fittest") and the ones with more financial slack (the "fattest") were more likely to survive in the long run. The author also finds that, after deregulation, highly levered firms invest less than their competitors, suggesting that high leverage hinders the ability of firms to invest when competition is tough. Further, his evidence shows that the underinvestment problem

associated with high levels of debt is partially responsible for these firms exiting the market.

The evidence discussed in this section shows that a firm's competitive strategy cannot be dissociated from its financial decisions, and its financial and investment decisions are embedded in the competitive landscape. When rivalry among competitors is weak and barriers to entry are high, firms may choose to invest heavily via debt financing. However, when competition is fierce and barriers to entry are low, financial slack is important, so investment decisions that require debt financing and deliver cash flows only in the distant future leave the company exposed to predatory strategies by rivals.

SUMMARY AND CONCLUSIONS

Understanding the environment in which a firm competes and the source of its competitive strength is crucial for making investment decisions. Many investments have direct strategic consequences such as investments in capacity, R&D, and acquisitions. Even the more mundane projects can be more easily valued if their relation with the strategy of the company is explicitly spelled out.

The arguments and examples discussed in this chapter underscore the complexity of the issues related to corporate strategy and investment decisions. There is "no rule for riches," i.e., there are no general rules in strategy that are guaranteed to create value (Rumelt, Schendel, and Teece, 1991). The goal of this chapter is to highlight the importance of a careful analysis of the internal and external context in which the firm operates for making decisions that deliver superior returns.

DISCUSSION QUESTIONS

1. The industry life cycle is not a given; it is affected by the strategic decisions made by the firms in the industry. Give one or more examples of strategic decisions that can affect the dynamics of an industry. Explain how those strategic issues can be taken into account when valuing new investments.
2. The efficient internal capital markets theory such as that of Stein (1997) holds that conglomerate headquarters may add value by allocating funds for investment across divisions more efficiently than would the market in case all divisions were stand-alone units. Explain the logic of this argument.
3. Explain the differences between the "resource-based view of the firm" and the view of the firm as a "nexus of contracts." What are the practical implications of these views? Are the two views compatible?
4. How does competition among different standards or platforms affect corporate decisions?

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