Monrad Lorenz's classic experiment with graylag geese captures the attention of many college freshman enrolled in an introductory psychology class. Lorenz found that geese would *imprint* on the first movable object within a *critical period* occurring 13 to 16 hours after hatching. It didn't matter whether the "parent" object was Lorenz's boots or a box placed on a toy train moving around a circular track.

Imprinting involves phase-sensitive learning whereby an animal or person establishes a pattern of attachment to another animate or inanimate object. Business ventures can also experience imprinting events during the early stages of development.

The notion that a corporation's early experiences can have lasting impact on future development has long been noted. A firm commonly experiences an inertial impulse very early in its history that persists for a significant duration. This initial organizational experience can involve corporate development activity. For example, Milanov and Fernhaber presented evidence that the initial alliance experiences of a venture affect future alliance formation patterns.

Similarly, the acquisition of Applied Semantics early in Google's history (before going public in 2004) imprinted upon the company not only a proclivity to do mergers and acquisitions (M&A), but also to favor a certain style of *M&A activity*. Indeed, over its relatively brief corporate history, Google has acquired some 200 companies. In addition, Google has enjoyed an unusual degree of achievement in its dominant style of M&A activity, in 2012 asserting success in two-thirds of purchases,⁴ significantly higher than commonly cited acquisition statistics.

However, before we examine strategies and tactics that Google has employed in its transactions, let's examine how M&A performance has traditionally been measured, as well as some of the most common reasons for M&A failure and success.

1

M&A Activities

Developing a successful M&A program is a major challenge for any organization, arguably significantly more difficult than operational functions. Nevertheless, the pace and volume at which technology firms have been buying is staggering. For example, according to Thomson Reuters, the total spent on technology M&A worldwide during the first quarter of 2014 was \$65.2 billion. This represented the largest dollar volume for any equivalent period since 2000.

Consider the breadth of activities that must be considered in doing a deal (Table 1.1).

Strategy

First of all, a compelling strategic rationale for a transaction must be developed. This may involve responding to an opportunity or shock in a market. Or it may be based on a creative vision whereby the company desires to establish new positioning in a market or even attempts to create a new market. For example, Google's cluster of eight robotics acquisitions in 2013 clearly signaled that the company saw significant market opportunity in areas that could range from robotic manufacturing to android-assisted home health care. Although to be successful such strategic thinking necessarily must involve senior executives, a company such as Google also has strategy leads engaging in analysis to support the growth of each major business division, including areas such as search, social, mobile, and YouTube.

TABLE 1.1 Deal Activities

Strategy	Economics	Organization	Deal Dynamics
Responding to opportunity or threat	Doing valuation/ NPV analysis	Establishing best practices for integration	Designing the deal, including tax strategy
Determining attractiveness of industry position	Determining synergies	Building acquisition teams	Engaging in negotiation and bidding
Establishing strategic deal system	Estimating revenues, costs and cash flows	Merging corporate cultures, as necessary	Handling legal concerns
Determining optimal type of transaction	Determining effects of deal financing		Engaging in negotiation and bidding

Strategy also involves establishing a systematic approach to M&A activity. Organizations have established systems for virtually every activity of the firm—from HR management to supply chain management—but typically lag in thinking systematically about M&A and other corporate business development activities. There are some notable exceptions, such as GE Power Systems (later renamed GE Energy), as documented by Robert Bruner. We'll later examine Google's systematic approach to M&A.

In addition, deal strategy involves determining the optimal type of transaction. This includes knowing when not to acquire a company, but instead designing an alternative form of partnership relationship. For example, in 2003, as Apple was in the process of launching its iTunes platform, the *Los Angeles Times* reported that Apple was considering the purchase of Universal Music (a global player in recorded music) owned at the time by Vivendi. Apple correctly decided against the purchase poing so, among other things, would have created supply-channel conflict with other music providers that it needed to launch iTunes into a platform with a broad music library. Instead, Apple licensed music from Universal (and other music companies) in order to build an extensive collection for users to download using iTunes. (In 2014, Apple was facing different challenges as it attempted to maintain a leadership position in digital music and, as we'll see in Chapter 3, decided to engage in a major M&A activity to do so.)

Deal Economics

Second, deal economics must be evaluated. This involves conducting a valuation analysis that is appropriate for a given M&A transaction. This may require obtaining a constellation of values using methodologies such as discounted cash flow analysis, revenue, or earnings-related multiples using public company comparables, multiples from past M&A transactions, or multiples of something-or-other in early-stage ventures, There is rarely one North Star valuation metric. The constellation approach is intended to provide an acquirer with perspective regarding an appropriate range of value.

Jaw-dropping valuations have not been uncommon for deals in technology markets, including some Google transactions. Although not as staggering as the estimated \$350 million/employee multiple that Facebook paid in its \$19 billion acquisition of WhatsApp in 2014, Google has spent \$1 billion or more for newly minted companies such as YouTube, Waze, and Nest.

Such valuations subject a company to critics who characterize the purchase as an irrational spending spree, but a deal might be later dubbed as brilliant if the target's platform proves out as a core asset in the acquirer's growth.

Synergy analysis is an essential ingredient in valuation, although *synergy* is perhaps one the most misused terms in corporate strategy. The word *synergy* has a most interesting origin as part of business jargon, according to the following account.

Professor J. Fred Weston was a giant in the field of M&A.⁷ He arrived at UCLA from the University of Chicago in 1949 and over his career wrote 32 books and 147 journal articles, many of which dealt with M&A. He mentored many outstanding graduate students, including Nobel Laureate Bill Sharpe. I worked with Fred, taking over as faculty director for UCLA Anderson's *Executive Program on Mergers & Acquisitions* from him in 2005. Fred continued to speak in the program. When I introduced him as the "John Wooden of M&A" (referring to UCLA's legendary basketball coach), it was scarcely an overstatement.

Fred told the story about how the term *synergy* came to be used in corporate deal making. The year was 1950, and Fred was at lunch in Westwood, California, with executives from a nascent industry that would later become aerospace. Fred saw a drink menu on the table that promoted *Irish coffee, The Perfect Synergy* (Irish coffee blends coffee and Irish whiskey). Not knowing what synergy meant, Fred looked up the term after he returned to his office at UCLA and saw that *synergy* equals the interaction of two or more agents so that their combined effect is greater than the sum of their individual effects. "Now that's what an M&A is supposed to do," thought Fred. He began using *synergy* in his writings to characterize successful deals, and the term became a cornerstone of academic and professional thinking.

Many of Google's deals involve estimating *revenue synergy* that is believed will occur sometime in the future. Only rarely does a Google M&A transaction center on cost savings resulting from the combination of Google and the target company. Much of this anticipated revenue synergy involves creating or accelerating new products or services—rather risky synergy goals, but we'll see how Google considers and attempts to manage such risk.

Organizational Design

Third, organizational design plays a crucial role in M&A activity. For example, it's widely understood that unless deal integration efforts succeed, the premium or even the basic consideration paid for a target can evaporate. Some executives feel that this implies that integration efforts must necessarily be concluded rapidly, certainly within a year. After all, cash flows associated with an acquisition have *time value*, so the sooner positive flows are realized, the more valuable they will be.

Although rapid assimilation is the correct path for some deals, we'll see that one size doesn't fit all with M&A integration. In fact, there are numerous

styles for successful integration, some of which require that targets be left alone for a considerable period of time after the deal closes.

Google has come to understand that there is not a holy-grail path to integration and utilizes numerous styles for its acquisitions in attempting to make a deal work. For example, consider Google's 2012 acquisition of Wildfire Interactive. Wildfire's technology enabled advertisers to serve campaigns on social websites such as Facebook, Google+, Twitter, Pinterest, YouTube, and LinkedIn. When Google acquired Wildfire, Jason Miller, a Google product manager, made this blog posting: "With Wildfire, we're looking forward to creating new opportunities for our clients to engage with people across all social services ... social presence can complement all marketing campaigns—search, display, video, mobile, offline ads and more."

As part of the deal terms, Google established a significant retention bonus in order to motivate Wildfire co-founders Victoria Ransom and Alain Chuard to continue leading the company's 400-employee team. Wildfire was left alone in an attempt to pursue key enterprise social marketing metrics that Google felt could be better achieved without immediate tight integration into a Google product group. There certainly was no guarantee that this integration approach would yield desired results, but Google apparently believed it would maximize the chances that it would.

In contrast, other acquisitions have been immediately associated with product groups within Google. For example, in 2011, Google purchased Green Parrot Pictures, a developer of tools for the manipulation of digital video and images. Almost immediately, Green Parrot's technology and team was attached to the YouTube group with the goal of helping users make flicker-free videos, particularly for videos taken with mobile phones.

Still other acquisitions become part of a collection with the goal of introducing a series of new product introductions. Consider the cluster of robotics acquisitions mentioned earlier. Google initially placed these acquisitions and its robotics initiative under Silicon Valley veteran Andy Rubin to explore greenfield opportunities based on the collective technologies from these deals.

There is much more subtlety in Google's approach to integration. Many of these efforts have been successful, but there are also notable failures. We'll devote Chapter 12 to exploring acquisition integration in detail.

Deal Dynamics

Finally, consider the deal dynamics dimension of M&A. This dimension includes designing the terms and structure of the deal. Will the consideration of the transaction involve cash, stock, or some combination? Will there be contingent consideration, payable to the target only if certain milestones are

met? How about retention or stay bonuses for key talent? Will the employees of the acquired company need to relocate, or can they stay in place?

Consider some dynamics issues relating to Google deals. When Google purchased Waze, an Israeli crowd-sourced mapping and navigation company, the consideration was \$966 million in cash. (Retention bonuses could increase this amount.) Google would use the technology to enhance its Google Maps with Waze's real-time traffic information. In closing this deal, Google allowed Waze personnel to remain in Israel. This concession was reportedly an important factor in Waze's decision to agree to the acquisition.

Google rarely uses its stock in making acquisitions, although it has done so in certain key purchases (such as Applied Semantics AdMob, and YouTube). However, going forward, Google might use stock more often in M&A transactions. After a stock split in 2014, the company has nonvoting stock to use as a potential acquisition currency.

Taking all four of these major activities (strategy, economics, organization, and deal dynamics) into consideration, the bottom line is that successful M&A activity is an intricate challenge. It is no small undertaking for a company such as Google to succeed in building an acquisition program that becomes a core strategic capability.

Evaluating Performance

M&A success rates for corporations are generally considered poor, although just how poor has been the subject of some disagreement. Some studies report the rate at which acquisitions fail to create value range to be 40 to 60 percent, while others assert a failure rate within an even higher range of 70 to 90 percent.

Abstracting from a wide range of studies, Robert Bruner concluded: "The buyer in M&A transactions must prepare to be disappointed. The distribution of announcement returns is wide and the mean close to zero. There is no free lunch." (Announcement returns involve *event studies* that examine abnormal returns to shareholders in the period of time surrounding transactions.) Bruner went on to further assert that negative performance post-merger is troubling, but suggested that more rigorous testing is necessary to draw firm conclusions about the returns after an acquisition is completed.

M&A activity performance has been studied extensively, with various schools of thought emerging. ¹⁰ First, the *financial economic* school measures value creation and stock market returns around the time of a transaction. These studies are prominent in academic thinking, but are of limited use when the acquirer is private or when the acquirer engages in a small

transaction (or series of small transactions) relative to its market capitalization. And such small acquisitions have long dominated for Google and other leading technology companies, as reflected in the practice known as *acqui-hiring*. Acqui-hiring, in general, involves the process of acquiring a company to recruit its talent, with or without being interested in the target's technology, products, and services. We'll examine various forms of the acqui-hiring phenomenon in Chapter 13.

A second school of thought involves evaluating the effects of *strate-gic relatedness* on M&A performance. Traditionally, this line of thought has argued that acquisitions enjoyed a higher likelihood of success if they were in some way related to the acquirer's current products or markets. Significant evidence has been presented that acquisitions involving unrelated diversification commonly result in lower financial returns than mondiversifying deals. Peter Lynch, well known as a mutual fund investor, went so far as to coin the term *diworsification*, implying that an organization that diversifies too widely risks destroying its original business given the management energy and firm resources that are diverted from core activities.

The concept of strategic relatedness is highly relevant to our study of Google's M&A activity. While many of the company's targets have been related to its core ad-tech activities, other deals, such as Google's \$3.2 billion acquisition of Nest Labs in 2014, offering smart home products such as smart thermostats and smoke alarmating might be considered as taking Google afield from its advertising center.

Not all companies that have used M&A to diversify have failed in this effort. For example, Berkshire Hathaway has been a notable success. We'll evaluate the likely performance impact of Google's diversification deals as we explore its expanding market footprint.

A third school of thought used to evaluate M&A effectiveness involves organizational behavior. Here, a host of questions are asked. What role do organizational variables such as acquisition experience play in M&A results? How can cultural distance between two companies be measured, and what is the impact of cultural distance on M&A success? What are the styles of post-acquisition integration, and how quickly and to what degree should the target be integrated?

As mentioned earlier, conventional wisdom argues for rapid integration. After all, the sooner positive cash flow from cost or revenue synergies is realized, the higher the present value to the acquirer. However, consider Facebook's \$2 billion acquisition of Oculus, a developer of virtual reality technology. Immediately following the announcement of the acquisition in 2014, Oculus founder Palmer Luckey was astounded at the outpouring of negativity received by the company and stunned that some employees had

even received death threats. Luckey was forced to respond to dozens of questions involving privacy concerns now that his company would be owned by Facebook. Rapid integration was not likely to work well for this deal!

As we've illustrated, Google employs a range of integration speeds and styles in its acquisition program. And the company continues to learn from integration successes and failures as it attempts to build a strategic core competency in the organizational behavior domain. In order to succeed, the organizational behavior practices of any acquirer must involve active knowledge management.

Target Financial Performance

Overall *M&A target performance* has varied across the decades. For example, average abnormal returns (above what an investor would expect to return given comparable risk level) averaged 25.1 percent during the 2000s, up from 18.5 percent during the 1990s.¹²

Furthermore, in any given period, the range of premiums paid to acquire a company has a large variance. For example, Bioomberg reported a spread of premiums paid to shareholders of target farms for a sample of deals during the second quarter of 2013. Of these, 49 deals had premiums between 0 to 10 percent, 54 had premiums between 10 and 25 percent, 52 carried premiums between 25 and 50 percent, and 19 enjoyed premiums of 50 to 100 percent. Finally, 13 had hyper-premiums of greater than 100 percent.¹³

Also, the trend for premiums paid can be increasing or decreasing. In 2013, U.S. companies were paying on average a premium of only 19 percent above their target's trading price one week before the deal was announced. This reflected the lowest takeover premium since at least 1995, according to Dealogic. Given the uncertainty of macroeconomic conditions, executives and corporate boards were being cautious.

Nevertheless as suggested earlier, wide variance across deals in premiums typically occur, especially when the premiums paid to rapidly growing private high-tech companies are included. (Private company premiums are harder to measure than those associated with public companies, but are often based on the most recent private valuation.) Using another metric, WhatsApp's \$19 billion price tag implied a multiple of approximately 100 times revenue and a huge premium over previous valuations.

It's not always possible to know the premium paid for an acquisition, For example, we'll see in Chapter 9 that Google discloses the valuation and terms for only a small number of its deals. Third parties provide estimates for a larger set of Google acquisitions.

The bottom line? M&A pays for almost all targets across industries. But in hot technology areas, the payoff can be off-the-charts.

Acquirer Financial Performance

As we've seen, classic research findings suggest that acquirers on average do not have much room for optimism, given that the distribution of announcement returns has a mean close to zero. Thus, a pressing question facing an acquirer is: How can my company do better than average?

More recent research involving large-scale samples provides a little more room for optimism. Abnormal returns to acquirer shareholders are modestly positive (about 1 percent) if large public company deals and deals involving stock-for-stock exchanges are filtered out. ¹⁵

Post-merger returns typically analyze cash flow or operating profit over a period of time (typically three-to-five years) after an acquisition. However, there's a major problem with these analyses. The longer the period of study, the greater the likelihood that confounding factors (extraneous to the deal) impact financial performance.

In addition, it is not possible to analyze how the company would have performed had it passed up the acquisition. In an attempt to address this problem, some studies compare the performance of two similar companies, only one of which made an acquisition. But here again, confounding variables swamping the M&A dimension can enter into play.

Complexity in the M&A performance analysis is taken to an even higher level when a company is a serial acquirer or focuses on smaller acquisitions that are rounding errors in its market capitalization. Google is a prime example of such a company.

The bottom line is that research studies on acquirer performance face substantial methodological hurdles. With this caveat in mind, one study of studies analyzed 26 studies of post-merger performance, 14 of which showed a decline of operating returns, 7 showed positive (but not significant) returns, and 5 showed positive (statistically significant) returns. This is hardly a confident, conclusive picture of M&A performance results.

Numerous studies show acquirers of privately owned firms realize positive returns of 1.5 to 2.6 percent.¹⁷ Such higher returns are generally attributed to factors such as a limited number of bidders and the relative illiquidity of private companies, resulting in an associated liquidity discount. But such discounts may not apply to venture-backed companies that Google attempts to acquire—ventures where other deep-pocketed bidders may also be in pursuit. For example, reportedly both Apple and Facebook were interested in Waze's crowd-sourced traffic technology.

Some evidence exists that high-tech firms realize positive value by acquiring small, but related ventures to fill in gaps in their product offerings. 18 This is one likely reason why successful high-tech companies persist in being very active deal makers. There will be more about this in our next chapter.

Several studies have shown that publicly traded acquirers using cash for transactions tend to do better long term than those that use stock. ¹⁹ One rationale for this observation is that executives tend to use stock when they believe their shares are overvalued. ²⁰ Hence, it's not surprising that the acquirer's share price drops after the acquisition. (AOL's stock-for-stock merger with Time Warner is often cited as a classic example of this phenomenon.)

On the other hand, a company may genuinely believe its stock is an attractive currency (certainly not overvalued) and use the appeal of its shares to woo a target and close a deal. Consider Google's stock-for-stock acquisition of YouTube, where Google's shares were likely to have been regarded by both acquirer and target as a very desirable currency.

Acquisitions such as the Google purchase of YouTube argue against the superior acquirer performance when doing cash deals. Herd and McManus²¹ further support this argument in stating, "Historically, acquirer may have been keen to use equity to finance a deal when they ve believed their equity was overvalued. But during the last decade, they we come to realize that equity is often more dear than cash in an era of plentiful and cheap credit."

Given all of this, we can conclude that the motives for using equity in an M&A transaction vary across acquirers. Equity can be used when the purchaser feels its currency is *Weimar-Republic* hyperinflated. However, the use of equity may also signal a deal's importance if the acquirer is demonstrating to the target a willingness to use a tender that both believe has significant potential to appreciate.

When Berkshire Hathaway uses it stock, the company signals that it views the acquisition as having special value. As Warren Buffett quipped at a shareholders meeting about issuing stock in a transaction: "Charlie [Munger] and I like using stock about as much as preparing for a colonoscopy."

Perhaps he'e's the key takeaway regarding M&A financial performance for acquirers. Average returns across all companies may not be all that exciting. But the real issue is, how does a company outperform these averages? How does a company move into the top quartile of performers? How does a company build a core strategic advantage via M&A? Throughout this book, we'll explore what we can learn about these questions from Google.

Reasons for M&A Failure

In other to provide context for understanding M&A success, let's highlight three major reasons for *M&A failure*. Not surprisingly, these reasons closely connect to the broad areas of M&A activity discussed earlier.

Flawed Strategy

The strategic rationale for an acquisition must be soundly based on a company's *core competencies*. Growth opportunities should be centered in areas where a firm has some distinctive advantage, not on areas of overt weakness. The chances that M&A will solve a company's problems have about the same likelihood of success as a marriage resolving the difficulties of two troubled people.

Consider an example. If a product or service is unable to obtain distribution by clearly providing value, acquiring distribution is unlikely to be the solution. ²² In 1987, during the early days of personal computing, Atari was struggling to convince retailers to sell its PCs. In an attempt to solve the problem, Jack Tramiel, then chairman of Atari, bought the Federated Group chain of consumer electronics stores for \$67.3 million. Transel reasoned that the network of 65 Federated stores in California, Arizona, Texas, and Kansas would successfully move his computers.

Other retailers were reluctant to carry Atari's na hines, given that customers viewed Atari as a video-game manufacturer and not a serious PC provider. But using its newly obtained captive distribution, Atari graced its computer line with prime shelf space at Federated. And yet, Atari and Federated soon faltered. As the adage goes, you won't improve buoyancy by strapping together two leaky canoes

For a corporate business development effort to succeed, it must be connected to a company's core competency and not try to solve a company's fundamental flaw.

Attempting to move too early into a market can be another source of seriously flawed strategy. When AOL and Time Warner attempted to create the world's first global digital media company, the vision was splendid. The timing was not Arrhough numerous explanations can be given for what is considered by many to be the worst business combination ever, one prominent reason is a flawed timing strategy. After all, in 2000 broadband capacity was still in its infancy in the United States.

Overpayment

Just as numerous factors can lead to flawed M&A strategy, overpayment can spring from many sources. Overestimating synergy is one of most common overpayment drivers.

Recall that the origin of the word *synergy* in M&A activity arises from Fred Weston's encounter with Irish coffee on a restaurant drink menu. So perhaps it's not surprising that corporate executives may appear somewhat inebriated in asserting the amount of synergy (particularly revenue synergy)

that will arise from transactions. It's no wonder that Wall Street believes and values cost synergies much more than revenue synergies as vehicles for wealth creation. Cost synergies are viewed to be much more in control of an acquirer. Revenue synergies can be quite fanciful.

Nevertheless, a company can build a reputation for knowing how to generate revenue synergies. Indeed, very few Google deals can be described as driven by cost-reduction synergies. Google's ability to use M&A for *semi-organic growth* derives from continuous organizational learning relating to how to create revenue synergy that blends existing with newly acquired resources.

Associated with overestimating synergy is a phenomenon known as the *winner's curse*. ²³ Simply stated, the winner's curse implies that in an auction the winner tends to overpay.

Consider the experiment I've run numerous times in an executive program at UCLA. It's called the pitcher experiment. Put a conection of currency into a water pitcher, with dollar bills, some fives, some tens, and perhaps a twenty-dollar bill visible. Then ask the participants to bid on the contents. The winning bidder will pay the amount bid and will receive, in turn, the contents of the pitcher. Only once in the many times I've run this experiment has the winning bidder benefited. All other bidders fell trap to the winner's curse, paying more for the contents of the pitcher than the value obtained.

Certainly, the winner's curse is one reason when Warren Buffett described his acquisition criteric this way in Berkshire Hathaway's annual report: "We don't participate in auctions."

Integration Pace and Style

As previously mentioned, the sooner enhanced cash flows from deal cost or revenue synergies are realized, the larger will be their present value. For some deals, this is absolutely appropriate. Furthermore, rapid integration can provide organizational clarity and minimize the uncertainty felt by company stakeholders, from employee to customer. However, for other deals, rapid absorption of the target into the mother ship will be the catalyst for the departure or suboptimal performance of key human assets acquired in the transaction.

Given the need for tight controls, especially in its defense contacting businesses, as a practice Honeywell Aerospace quickly and efficiently absorbed the people, assets, and systems of the companies it acquired into the corporate parent. But when it discovered a superb center of excellence somewhat hidden in one of its acquisitions, Honeywell realized that it would be a mistake to dismantle the creative talent and distinctive technology the unit possessed. Rightly so, the company not only preserved

the unit, but worked hard to nurture and spread its capabilities throughout the entire company.

Similarly, it would have been completely counterproductive for Walt Disney to absorb Pixar into existing Disney animation operations. Far better to let the Pixar talent, technology, and culture permeate Disney, thereby creating a new Disney animation operation in a rich amalgamation with Pixar being the primary element.

Style of integration involves identifying the key dimensions of strategy that frame how the integration should proceed. For example, we've highlighted three such styles in this section—absorption, preservation, and amalgamation. These styles and others will be more fully illustrated in Chapter 12.

Pace of integration involves designing the timing at which the execution of a given style should take place and when (if necessary) that style should modified. Pace also includes the realization that the target's talent, technology, and distinct business functions may need to be integrated using different clocks.

Semi-organic growth at its core involves a highly stylistic blend of existing internal capabilities and acquired external resources. Such growth requires artistically crafted integration design and implementation to succeed.

Semi-Organic Growth: Beginnings

Despite research findings that show M&A does not build value for most companies, Google (certainly one of the most successful companies over the past 10 years) is among the most active deal makers.

Has Google succeeded, despite its torrid M&A activity? Are Google's leaders merely engaging in Montessori-like experimentation within a company that has mounds of cash to play around with? Or are most Google transactions driven by strategic design that indeed adds value, perhaps even when a significant premium is paid for a target?

Numerous studies argue that in the high-tech arena, deal making is essential, and in order to succeed, a company must view corporate business development as fundamental as product development, marketing, or any other aspect of operations.²⁴ The planks of this argument go like this:

- The pace of change in tech is furious, implying that assets must be managed aggressively or even destructively.
- High-tech markets are often winner-take-all, with network effects that can create dominant positions lasting a decade or longer. (Consider Microsoft in office software, Google in search, Apple in consumer

electronics.) In spite of this, a company must move decisively to retain that position, and transactions take less time to bring needed talent or technology in-house. Google, for example, has made at least 10 acquisitions specifically related to improving its search technology. Microsoft has made numerous acquisitions in building the core of its Office suite, including Forethought, a \$14 million deal that brought PowerPoint into the company.

- Deal making is a necessity as important as R&D. Certainly the risk of failure is pervasive in both activities, but such risk should never be allowed to undermine what is required for a technology enterprise to progress.
- A high volume of transactions can build M&A know-how into an organization's DNA. The busiest surgeons are likely to be among the best. Likewise, subtle M&A knowledge accumulates over time in areas such as target identification, valuation, due diligence, and integration, thereby increasing the odds of deal success.

If a company is fortunate and hits a home run in one of its early deals, M&A imprinting can take place. Let's examine how this happened with Google.

An Imprint

In April 2003, Google purchased Applied Semantics for \$41.5 million in cash plus stock and stock options valued at \$60.9 million. This acquisition took place before Google went public in 2004. Applied Semantics' 45-person organization and its core technology (AdSense) is one of the best acquisitions in Google's history. AdSense technology positions text ads all over the Internet by semantically scanning the contents of a page and displaying relevant ads.

Over the next 10 years, AdSense grew to contribute over 25 percent of Google's advertising revenue, some \$13 billion. As the technology evolved, the Applied Semantics team, working with other Google engineers and related Google technology, was instrumental in helping AdSense become a cornerstone of Google's paid advertising platform. (AdSense growth rates started to slow in 2013, but the technology still remained central to Google advertising offerings.)

The infographic in Figure 1.1 is the first of many such visuals we'll use to display deal information. Companies are represented by sector icons, with Google represented by a search sector icon and Applied Semantics by an advertising sector icon. Although this representation is quite simple, we'll see how more complex infographics can provide insight into meaningful patterns that reflect past and potential future business development activity.

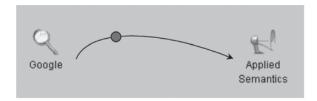


FIGURE 1.1 Google acquires Applied Semantics

In acquiring Applied Semantics, Google obtained key assets including patents, technology, and people that greatly contributed to the revenue acceleration of one of its key product offerings. But perhaps even more importantly, we'll next examine how this deal imprinted on Google a way of thinking about M&A activity that persists to this day.

Watch the Video

www.wiley.com/go/semiorganicgrow h

To view videos relating to the content of this chapter, refer (1) *Introductory Video: Semi-Organic Growth and Corporate Business Development*; and (2) *When Not To Do an Acquisition. Apple and Digital Music*, which accompany this book as a supplemental resource.

Notes

- 1. See Stinchcombe (1965).
- 2. Boeker (1989).
- 3. Milanov and Fernhaber (2009).
- 4. See, for example, Matt Lynley, "Google's M&A Boss: with Larry Page in Charge, Only a Third of Our Acquisitions Are Busts," *Business Insider* (March 6, 2012).
- 5. Bruner (2004), "Corporate Development as a Strategic Capability: The Approach of GE Power Systems," Chapter 37. This chapter provides an excellent case study of a systematic approach to M&A.
- 6. Chuck Philips, "Apple Reportedly in Talks to Buy Universal Music," *Los Angeles Times* (April 11, 2013). More likely than not, Steve Jobs feigned

acquisition interest in Universal Music and was not interested in completing the purchase of the company.

- 7. For additional details on Fred Weston and synergy, see my posting on *M&A Professor* at http://maprofessor.blogspot.com/2009/07/j-fred -weston-origin-of-synergy.html.
- 8. For a summary of research related to M&A success, see Bauer, Florian, and Matzler (2014).
- 9. Bruner (2004), p. 63.
- 10. See Bauer and Matzler (2014) for a discussion of the major threads of M&A performance research.
- 11. Akbulut and Matsusaka (2010).
- 12. Netter, Stegemoller, and Wintoki (2011).
- 13. "Global Financial Advisory Mergers & Acquisitions Rankings H1 2013," *Bloomberg* (July 2, 2013).
- 14. Vipal Monga, "Why Are Takeover Prices Plunmeting?" Wall Street Journal (November 26, 2013).
- 15. See, for example, Netter, et al. (2011)
- 16. Martynova and Renneborg (2008).
- 17. See, for example, Fuller, Netter, and Stegemoller (2002).
- 18. Frick and Torres (2002).
- 19. Fuller, Netter, and Stegembler (2002).
- 20. Akbulut (2013).
- 21. Herd and McManis (2012).
- 22. Rajendra S. Sisodia, "A Goofy Deal," Wall Street Journal (August 4, 1995).
- 23. Thaler (1988).
- 24. Frick and Torres (2002).