

**Disruptive Innovation**

# The Big Idea: The New M&A Playbook

by Clayton M. Christensen, Richard Alton, Curtis Rising and Andrew Waldeck

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**Summary.** Reprint: R1103B Companies spend more than \$2 trillion on acquisitions every year, yet the M&A failure rate is between 70% and 90%. Executives can dramatically increase their odds of success, the authors argue, if...

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When a CEO wants to boost corporate performance or jump-start long-term growth, the thought of acquiring another company can be extraordinarily seductive. Indeed, companies spend more than \$2 trillion on acquisitions every year. Yet study after study puts the failure rate of mergers and acquisitions somewhere between 70% and 90%. A lot of researchers have tried to explain those abysmal statistics, usually by analyzing the attributes of deals that worked and those that didn't. What's lacking, we believe, is a robust theory that identifies the causes of those successes and failures.

Here we propose such a theory. In a nutshell, it is this: So many acquisitions fall short of expectations because executives incorrectly match candidates to the strategic purpose of the deal,

failing to distinguish between deals that might improve current operations and those that could dramatically transform the company's growth prospects. As a result, companies too often pay the wrong price and integrate the acquisition in the wrong way.

To state that theory less formally, there are two reasons to acquire a company, which executives often confuse. The first, most common one is to boost your company's current performance—to help you hold on to a premium position, on the one hand, or to cut costs, on the other. An acquisition that delivers those benefits almost never changes the company's trajectory, in large part because investors anticipate and therefore discount the performance improvements. For this kind of deal, CEOs are often unrealistic about how much of a boost to expect, pay too much for the acquisition, and don't understand how to integrate it.

The second, less familiar reason to acquire a company is to reinvent your business model and thereby fundamentally redirect your company. Almost nobody understands how to identify the best targets to achieve that goal, how much to pay for them, and how or whether to integrate them. Yet they are the ones most likely to confound investors and pay off spectacularly.

**Almost nobody understands how to identify targets that could transform a company, how much to pay for them, and how to integrate them.**

In this article, we explore the implications of our theory in order to better guide executives in selecting, pricing, and integrating acquisitions and thus dramatically increase their success rate. The first step is to understand at a very basic level what it means for one company to buy another.

## **What Are We Acquiring?**

The success or failure of an acquisition lies in the nuts and bolts of integration. To foresee how integration will play out, we must be able to describe exactly what we are buying.

The best way to do that, we've found, is to think of the target in terms of its business model. As we define it, a business model consists of four interdependent elements that create and deliver value. The first is the customer value proposition: an offering that helps customers do an important job more effectively, conveniently, or affordably than the alternatives. The second element is the profit formula, made up of a revenue model and a cost structure that specify how the company generates profit and the cash required to sustain operations. The third element is the resources—such as employees, customers, technology, products, facilities, and cash—companies use to deliver the customer value proposition. The fourth is processes such as manufacturing, R&D, budgeting, and sales. (For more on this business model construct, see Mark W. Johnson, Clayton M. Christensen, and Henning Kagermann, "[Reinventing Your Business Model](#)," HBR December 2008.)

Under the right circumstances, one of those elements—resources—can be extracted from an acquired company and plugged into

the parent's business model. That's because resources exist apart from the company (the firm could disappear tomorrow, but its resources would still exist). We call such deals "leverage my business model" (LBM) acquisitions.

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A company can't, however, routinely plug other elements of an acquisition's business model into its own, or vice versa. Profit formulas and processes don't exist apart from the organization, and they rarely survive its dissolution. But a company can buy another firm's business model, operate it separately, and use it as a platform for transformative growth. We call that a "reinvent my business model" (RBM) acquisition. As we shall see, there is far more growth potential in purchasing other companies' business models than in purchasing their resources.

Executives often believe they can achieve extraordinary returns by acquiring another firm's resources and so pay far too much. Alternatively, they walk away from potentially transformative deals in the mistaken belief that the acquisition is overpriced, or they destroy the value of a high-growth business model by trying to integrate it into their own. To understand why these mistakes are so common and how to avoid them, let's explore in more detail how acquisitions can achieve the two goals mentioned earlier:

- improving current performance
- reinventing a business model.

## **Boosting Current Performance**

A general manager's first task is to deliver the short-term results investors expect through the effective operation of the business. Investors rarely reward managers for those results, but they punish stock values ruthlessly if management falls short. So companies turn to LBM acquisitions to improve the output of their profit formulas.

A successful LBM acquisition enables the parent either to command higher prices or to reduce costs. That sounds simple enough, but the conditions under which an acquisition's resources can help a company accomplish either goal are remarkably specific.

### **Acquiring resources to command premium prices.**

The surest way to command a price premium is to improve a product or service that's still developing—in other words, one whose customers are willing to pay for better functionality. Companies routinely do this by purchasing improved components that are compatible with their own products. If such components are not available, then acquiring the needed technology and talent—usually in the form of intellectual property and the scientists and engineers who are creating it—can be a faster route to product improvement than internal development.

Apple's \$278 million purchase of chip designer P.A. Semi in 2008

is an example of just such an acquisition. Apple historically had procured its microprocessors from independent suppliers. But as competition with other mobile-device makers increased the competitive importance of battery life, it became difficult to optimize power consumption unless the processors were designed specifically for Apple's products. This meant that to sustain its price premium, Apple needed to purchase the technology and talent to develop an in-house chip design capability—a move that made perfect sense.

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## A Word About Conglomeration

There is one category of deal making not addressed here: acquisitions that build or optimize the parent ...



Cisco has relied on acquisitions for similar reasons. Because its proprietary product architectures continue to push the leading edge of performance, the company has acquired small high-tech firms and plugged their technologies and engineers into its product development process. (See the sidebar “Can This Acquisition Help You Command Premium Prices?”)

### **Acquiring resources to lower costs.**

When announcing an acquisition, executives nearly always promise that it will lower costs. In reality, a resource acquisition accomplishes that in only a few scenarios—generally, when the acquiring company has high fixed costs, which allow it to scale up

profitably.

Whether they are called “roll ups,” “consolidation of shrinking industries,” or “natural resource transactions,” these deals all succeed in the same way: The parent plugs certain resources from the acquisition into its existing model, jettisoning the rest of the acquired model and shutting down, laying off, or selling redundant resources. The performance boost results from using the target’s resources in such a way that scale economics can drive down costs.

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## **Can This Acquisition Help You Command Premium Prices?**

What are the critical measures of performance that customers value in your product (speed, durability, ...



Here’s a simple example: Many New England homes are heated with oil in the winter. Oil retailers typically make monthly deliveries. If one retailer buys a competitor that operates in the same neighborhoods, the parent is essentially buying the competitor’s customers and can eliminate the duplicate fixed costs of two trucks that serve neighboring customers. Here the critical acquired resource is not the trucks or drivers, which the company does not need to serve the new customers; it is the customers themselves, and they are plug-compatible with the parent’s resources, processes, and profit formula. That’s why the

deal will lower the acquirer's costs.

But if the heating oil company purchased a similar firm in a different city, the acquisition would replicate the parent's cost position in a new geographic area, not reduce it in either one. There might be some overhead efficiencies, but costs would be lowered far less than in the previous example because the oil retailer would need the acquired company's trucks to service its new customers.

One sees scale-enhancing resource acquisitions like the same-neighborhood oil company deal when a pharmaceutical company acquires another so that it can carry the acquired products through its high-fixed-cost sales channel, or when ArcelorMittal buys competing steel companies, transfers production to utilize excess capacity in its most-efficient mills, and then shuts down redundant mills. Oil and natural gas company Anadarko's [2006 acquisition of Kerr-McGee](#) followed the same pattern. What made Kerr-McGee attractive was the adjacency of its oil fields to Anadarko's. The combined firm could operate those fields with the same network of pipelines, support ships, and other fixed operating assets. Had Kerr-McGee's fields been in the North Atlantic and Anadarko's in the Gulf of Mexico, Anadarko would have had to maintain independent fixed-cost networks to support both operations. This would have resulted only in overhead efficiencies and potentially greater managerial complexity.

To work out whether a potential resource acquisition will help lower your costs, you must determine whether the acquisition's resources are compatible with your own and with your processes (see the sidebar "Can This Acquisition Help You Lower Costs?") and then determine whether scale increases will actually have the



desired effect.

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## Can This Acquisition Help You Lower Costs?

Predicting whether the resources of a prospective acquisition will improve the output of your company's

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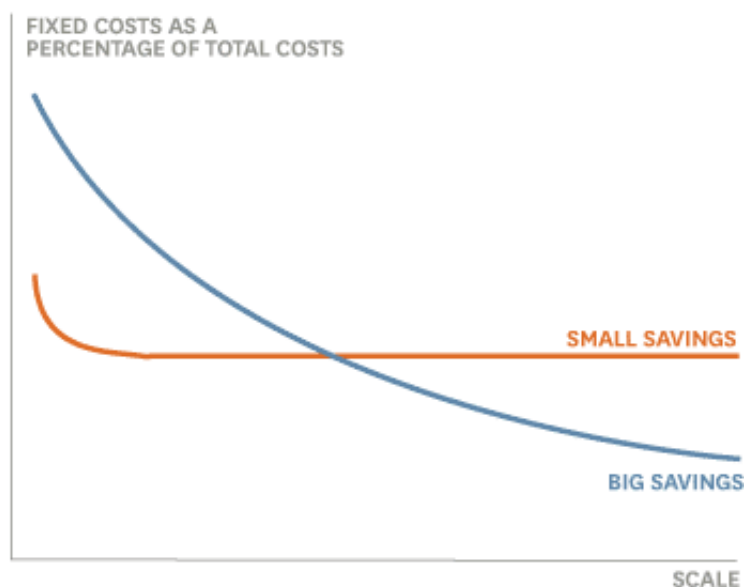
For companies in industries where fixed costs represent a large percentage of total costs, increasing scale through acquisitions results in substantial cost savings, in the same way that the oil company could lower its costs by buying a local competitor. But in industries where cost-competitiveness can be reached at relatively low levels of market share, a company growing beyond that does not reduce its cost position but replicates it, as would a heating oil company that purchased customers in a different city. (See the exhibit “When Will Increased Scale Lower Costs?”) In the polyester fabric industry, for example, once a firm is big enough to fully utilize a state-of-the-art air-jet loom, any growth in volume requires the producer to buy another loom. For companies whose cost structures are dominated by variable costs, resource acquisitions typically yield only minimal improvements to the profit formula.

Similarly, the benefits of scale are most substantial in operating categories that have a high percentage of fixed costs, such as manufacturing, distribution, and sales. Acquisitions that are justified by economies of scale in administrative costs such as

purchasing, human resources, or legal services often have disappointing effects on the profit formula. When the *New York Times* acquired the *Boston Globe*, for example, there were few operating synergies (reporters and printing were by necessity separate). The administrative overlaps in areas like HR and finance were not enough to make this a good deal.

### When Will Increased Scale Lower Costs?

If fixed costs represent a large percentage of your total costs, you can reap substantial savings by increasing scale. But if your costs are more variable than fixed, scale increases may require new overhead investments and so deliver minimal savings.



As a general rule, the impact of an LBM acquisition on the acquirer's share price will be apparent within one year, because the market understands the full potential of both businesses before the acquisition and has had enough time to assess the outcome of the integration and any synergies that may arise. Investors are often much less optimistic than CEOs about LBM deals, and history generally proves them right: The best-case result is a jump in share price to a new plateau. Some managers hold out hope that LBM acquisitions can unlock unexpected

growth, but as we will see, they are likely to be disappointed.

**Some managers hold out hope that buying another company for its resources can unlock unexpected growth, but they are likely to be disappointed.**

### **The temptation of one-stop shopping.**

A word of warning is in order for companies seeking to boost current performance through LBM deals aimed at acquiring new customers: All the successful examples we've identified involve selling "acquired" customers the products they were already buying. Acquisitions made for the purpose of cross-selling products succeed only occasionally.

Why? Let's say Clayton Christensen is a typical shopper, who buys both consumer electronics and hardware. Wouldn't Walmart, which carries both product categories, have a better chance of winning his business than Best Buy, which sells only consumer electronics, or Home Depot, which sells only hardware? In a word, no. That's because Clay needs to buy electronics just before birthdays and holidays, whereas he needs to buy hardware on Saturday mornings, when he intends to repair something at home. Because these two jobs-to-be-done arise at different times, the fact that Walmart can sell him both kinds of products does not give it an advantage over the specialists. Typical shopper Clay does, however, buy gasoline and junk food at the same time—when he's on a road trip. Hence, we have seen a convergence of

convenience stores and gas stations. In other words, an acquisition whose rationale is to sell a variety of products to new customers will succeed only if customers need to buy those products at the same time and in the same place.

More than once, ambitious executives, such as Sanford Weill of Citigroup fame, have assembled “financial supermarkets,” thinking that customers’ needs for credit cards, checking accounts, wealth management services, insurance, and stock brokerage could be furnished most efficiently and effectively by the same company. Those efforts have failed, over and over again. Each function fulfills a different job that arises at a different point in a customer’s life, so a single source for all of them holds no advantage. Cross-selling in circumstances like these will complicate and confuse, and will rarely reduce sales costs.

## **Reinventing Your Business Model**

The second fundamental task of a general manager is to lay the groundwork for long-term growth by creating new ways of doing business, since the value of existing business models fades as competition and technological progress erode their profit potential. RBM acquisitions help managers tackle that task.

Investors’ expectations give executives a strong incentive to embrace the work of reinvention. As Alfred Rappaport and Michael Mauboussin point out in their book *Expectations Investing* (Harvard Business Review Press, 2003), managers quickly learn that it is not earnings growth per se that determines growth in their company’s share price—it’s growth relative to investors’ expectations. A firm’s share price represents myriad pieces of information about its predicted performance, synthesized into a single number and discounted into its present

value. If managers grow cash flows at the rate the market expects, the firm's share price will grow only at its cost of capital, because those expectations have already been factored into its current share price. To persistently create shareholder value at a greater rate, managers must do something that investors haven't already taken into account—and they must do it again and again.

### **Acquiring a disruptive business model.**

The most reliable sources of unexpected growth in revenues and margins are disruptive products and business models. Disruptive companies are those whose initial products are simpler and more affordable than the established players' offerings. They secure their foothold in the low end of the market and then move to higher-performance, higher-margin products, market tier by market tier. Although investment analysts can see a company's potential in the market tier where it's currently positioned, they fail to foresee how a disruptor will move upmarket as its offerings improve. So they persistently underestimate the growth potential of disruptive companies.

### Why Disruptive Businesses Are Worth So Much

What produces a dramatic increase in a company's share price? Growth that investors weren't predicting. As Nucor developed revolutionary approaches to steel making, the company was able to enter increasingly larger segments of the steel market—each time prompting investors to reconsider Nucor's share price. Once there were no new markets to conquer, the company's share price leveled off.

#### AS NUCOR MOVES FROM LOW-END TO HIGH-END SEGMENTS...



To understand how that works, consider Nucor, an operator of steel minimills, which back in the 1970s developed a radically simpler and less costly way to make steel than the big integrated steel-makers of the day. Initially, Nucor made only concrete reinforcing bar (rebar), the simplest and lowest-margin of all steel products. Analysts valued Nucor according to the size of the rebar market and the profits Nucor could earn in it. But the pursuit of profit drove Nucor to develop further capabilities, and as it invaded subsequent product tiers, commanding higher and higher margins from its low-cost manufacturing technique, analysts kept having to revisit their estimates of the company's addressable market—and hence its growth.

As a result, Nucor's share price fairly exploded, as the exhibit

“Why Disruptive Businesses Are Worth So Much” demonstrates. From 1983 to 1994, Nucor’s stock appreciated at a 27% compounded annual rate, as analysts continually realized that they had underestimated the markets the company could address. By 1994, Nucor was in the top market tier, and analysts caught up with its growth potential. Even though sales continued to increase handsomely, that accurate understanding, or “discountability,” caused Nucor’s share price to level off. If executives had wanted the company’s share price to keep appreciating at rates in excess of analysts’ expectations, they would have had to continue to create or acquire disruptive businesses.

A company that acquires a disruptive business model can achieve spectacular results. Take, for example, information technology giant EMC’s acquisition of VMware, whose software enabled IT departments to run multiple “virtual servers” on a single machine, replacing server vendors’ pricey hardware solution with a lower-cost software one. Although this offering was disruptive to server vendors, it was complementary to EMC, giving the storage hardware vendor greater reach into its customers’ data rooms. When EMC acquired VMware, for \$635 million in cash, VMware’s revenues were just \$218 million. With a disruptive wind at its back, VMware’s growth exploded: Annual revenues reached \$2.6 billion in 2010. Currently, EMC’s stake in VMware is worth more than \$28 billion, a stunning 44-fold increase of its initial investment.

Johnson & Johnson’s Medical Devices & Diagnostics division provides another example of how reinventing a business model through acquisition can boost growth from average to exceptional. From 1992 through 2001, the division’s portfolio of

products performed adequately, growing revenues at an annual rate of 3%. But during the same period, the division acquired four small but disruptive business models that ignited outsize growth. Together these RBM acquisitions grew 41% annually over this period, fundamentally changing the division's growth trajectory. (See the sidebar "Can This Acquisition Change Your Company's Growth Trajectory?")

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### **Can This Acquisition Change Your Company's Growth Trajectory?**

Is the acquired company's product or service simpler and more affordable than the established players'

...



### **Acquiring to decommo**

One of the most effective ways to use RBM acquisitions is as a defense against commoditization. As we have described previously in this magazine, the dynamics of commoditization tend to follow a predictable pattern (see Clayton M. Christensen, Michael Raynor, and Matt Verlinden, "[Skate to Where the Money Will Be](#)," HBR November 2001). Over time, the most profitable point in the value chain shifts as proprietary, integrated offerings metamorphose into modular, undifferentiated ones. The innovative companies supplying the components start to capture the most attractive margins in the chain.



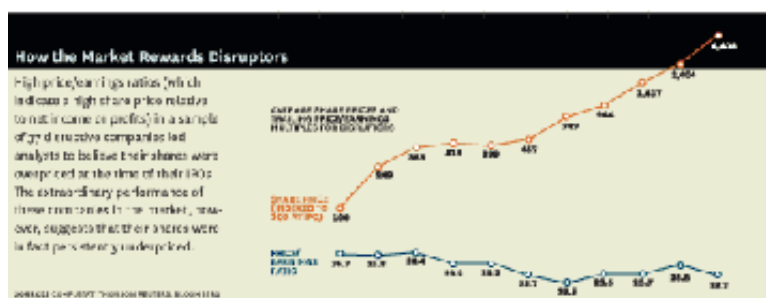
If a firm finds itself being commoditized in this way, acquisitions won't improve the output of its profit formula. In fact, nothing will. Firms in this situation should instead migrate to "where the profits will be"—the point in the value chain that will capture the best margins in the future. Right now, the business models of major pharmaceutical companies are floundering for a host of reasons, including their inability to fill new-product pipelines and the obsolescence of the direct-to-doctor sales model. Industry leaders like Pfizer, GSK, and Merck have tried to boost the output of their troubled business models by buying and integrating the products and pipeline resources of competing drugmakers. But in the wake of such acquisitions, Pfizer's share price plummeted 40%. A far better strategy would be to focus on the place in the value chain that is becoming decommoditized: the management of clinical trials, which are now an integral part of the drug research process and so a critical capability for pharmaceutical companies. Despite this, most drugmakers have been outsourcing their clinical trials to contract research organizations such as Covance and Quintiles, better positioning those companies in the value chain. Acquiring those organizations, or a disruptive drugmaker like Dr. Reddy's Laboratories, would help reinvent big pharma's collapsing business model.

## **Paying the Right Price**

Given our assertion that RBM acquisitions most effectively raise the rate of value creation for shareholders, it's ironic that acquirers typically underpay for those acquisitions and overpay for LBM ones.

The stacks of M&A literature are littered with warnings about paying too much, and for good reason. Many an executive has been caught up in deal fever and paid more for an LBM deal than

could be justified by cost synergies. For that kind of deal, it's crucial to determine the target's worth by calculating the impact on profits from the acquisition. If an acquirer pays less than that, the stock price will increase, but only to a slightly higher plateau, with a gentle upward slope representing the company's weighted-average cost of capital, which for most firms is about 8%. In contrast, consider the exhibit "How the Market Rewards Disruptors," which charts the average earnings multiple of 37 companies we've determined to be disruptive in the 10 years after they went public. Annual P/E ratios for this group are far higher than historical levels, leading analysts to believe their shares were overpriced. Yet investors who purchased at the time of the IPO and held the stock for 10 years realized an astounding 46% annual return, indicating that the shares were persistently underpriced, even at these "high" multiples.



Analysts charged with determining the right price for a company's shares work hard to find appropriate comparables. For LBM acquisitions, the correct comparables are companies that make similar products in similar industries. For RBM acquisitions, however, such comparables make disruptive companies seem overpriced, deterring companies from pursuing the very acquisitions they need for reinvention. In reality, the right comparables for disruptive companies are other disruptors, regardless of industry.

Ultimately, the “right” price for an acquisition is not something that can be set by the seller, far less by an investment banker looking to sell to the highest bidder. The right price can be determined only by the buyer, since it depends on what purpose the acquisition will serve.

## **Avoiding Integration Mistakes**

Your approach to integration should be determined almost entirely by the type of acquisition you’ve made. If you buy another company for the purpose of improving your current business model’s effectiveness, you should generally dissolve the acquired model as its resources are folded into your operations. That’s what Cisco does with the great majority of its technology acquisitions. (There are certainly exceptions: An acquired process, for instance, is sometimes so valuable or distinct that it substitutes for or is added to the acquirer’s.) But if you buy a company for its business model, it’s important to keep the model intact, most commonly by operating it separately. That’s what Best Buy did with Geek Squad, running its high-touch, higher-cost service model as a separate business alongside its low-margin, low-touch retail operation. Likewise, VMware’s server-focused business model was distinct enough from EMC’s storage model that EMC chose not to integrate VMware very closely. EMC’s original business model continued to perform well, but the addition of VMware’s disruptive business model allowed EMC to grow at an exceptional rate.

Failing to understand where the value resides in what’s been bought, and therefore integrating incorrectly, has caused some of the biggest disasters in acquisitions history. Daimler’s 1998 acquisition of Chrysler for \$36 billion is a quintessential example. Although the purchase of one car company by another looks like a

classic resource acquisition, that was a fatal way to look at it. From about 1988 to 1998, Chrysler had aggressively modularized its products, outsourcing the subsystems from which its cars could be assembled to its tier-one suppliers. This so simplified its design processes that Chrysler could cut its design cycle from five years to two (compared with about six years at Daimler) and could design a car at one-fifth the overhead cost that Daimler required. As a result, during this period Chrysler introduced a series of very popular models and gained nearly a point of market share every year.

## **When Daimler folded Chrysler's resources into its operations, the real value of the acquisition disappeared.**

When Daimler's acquisition of Chrysler was announced, analysts began the "synergies" drumbeat—and Daimler responded that integrating the companies would strip out \$8 billion in "redundant" costs. But when Daimler folded Chrysler's resources (brands, dealers, factories, and technology) into its operations, the real value of the acquisition (Chrysler's speedy processes and lean profit formula) disappeared, and with it the basis for Chrysler's success. Daimler would have done far better to preserve Chrysler's business model as a separate entity.

Companies rightly turn to acquisitions to meet goals they can't achieve internally. But there is no magic in buying another company. Companies can make acquisitions that allow them to command higher prices, but only in the same way they could have raised prices all along—by improving products that are not yet

good enough for the majority of their customers. Similarly, they can make acquisitions to cut costs by using excess capacity in their resources and processes to serve new customers—but again, only in the same way they could have by finding new customers on their own. And companies can acquire new business models to serve as platforms for transformative growth—just as they could if they developed new business models in-house. At the end of the day, the decision to acquire is a question of whether it is faster and more economical to buy something that you could, given enough time and resources, make yourself.

Every day, the wrong companies are purchased for the wrong purpose, the wrong measures of value are applied in pricing the deals, and the wrong elements are integrated into the wrong business models. Sounds like a mess—and it has been a mess. But it need not be. We hope that the next time an investment banker knocks on your door with a guaranteed fee for himself and the acquisition of a lifetime for you, you'll be able to predict with greater accuracy whether the company on offer is a dream deal or a debacle.

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**Clayton M. Christensen** was the Kim B. Clark Professor of Business Administration at Harvard Business School and a frequent contributor to *Harvard Business Review*.

# RA

**Richard Alton** is a senior researcher at the Forum for Growth and Innovation at Harvard Business School.

# CR

**Curtis Rising** is the managing director of Harvard Square Partners, a consulting practice focused on inorganic growth and leadership assessment, based in Cambridge, Massachusetts.



**Andrew Waldeck** is a senior partner at the growth strategy consulting firm Innosight, where he leads the firm's healthcare practice.



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