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Three Rules for Making a Company Truly Great

A quest for reliable data on organizational excellence yields surprisingly simple guidelines.
by Michael E. Raynor and Mumtaz Ahmed

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MUCH OF THE STRATEGY and management advice that business leaders turn to is unreliable or impractical. That's because those who would guide us underestimate the power of chance. Gurus draw pointed lessons from companies whose outstanding results may be nothing more than random fluctuations. Executives speak proudly of corporate achievements that may be only lucky coincidences. Unfortunately, almost no one provides scientifically credible answers to every business leader's basic questions about superior performance: Which companies are worth studying? What sets them apart? How can we follow their examples?

Frustrated by the lack of rigorous research, we undertook a statistical study of thousands of companies, and eventually identified several hundred among them that have done well enough for a long enough period of time to qualify as truly exceptional. Then we discovered something startling: The many and diverse choices that made certain companies great were consistent with just three seemingly elementary rules:

1. Better before cheaper—in other words, compete on differentiators other than price.
2. Revenue before cost—that is, prioritize increasing revenue over reducing costs.
3. There are no other rules—so change anything you must to follow Rules 1 and 2.

The rules don't dictate specific behaviors; nor are they even general strategies. They're foundational concepts on which companies have built greatness over many years. How did these organizations'

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THREE RULES FOR MAKING A COMPANY TRULY GREAT

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leaders come to adopt them? We have no idea—nor do we know whether the executives even followed them consciously. Nevertheless, the rules can be used to help today's and tomorrow's leaders increase the chances that their companies, too, will deliver decades of exceptional performance.

Beyond Truisms

The impetus for our research was the increasing popularity over the past 30 years of "success study" business books and articles. Perhaps the most famous of these are Thomas Peters and Robert Waterman's *In Search of Excellence* (1982) and Jim Collins's *Good to Great* (2001), but there are many others. The problem with them is they don't give us any way to judge whether the companies they hold up as examples are indeed exceptional. Randomness can crown an average company king for a year, two years, even a decade, before performance reverts to the mean. If we can't be sure that the performance of companies mentioned in success studies was caused by more than just luck, we can't know whether to imitate their behaviors.

We tackled the randomness problem head-on. Finding what we assumed would be weak signals in noisy environments required a lot of data, so we began with the largest database we could find—the more than 25,000 companies that have traded on U.S. exchanges at any time from 1966 to 2010. We measured performance using return on assets (ROA), a metric that reflects strong, stable performance—unlike, say, total shareholder return, which may reflect the vagaries of the stock market and changes in investor expectations rather than fundamental company performance. We defined two categories of superior results: *Miracle Workers* fell in the top 10% of ROA for all 25,000 companies often enough that their performance was highly unlikely to have been a fluke; *Long Runners* fell in the top 20% to 40% and, again, did so consistently enough that luck was highly unlikely to have been the reason. We call the companies in both these categories exceptional performers. For comparison purposes, we also identified companies that were *Average Joes.* (See the sidebar "Finding the Signal in the Noise.")

A total of 174 companies qualified as Miracle Workers, and 170 qualified as Long Runners. That's the entire population of companies that separated themselves from the noise in this way. (It's probably worth mentioning that of the allegedly superior companies mentioned by 19 high-profile success studies we examined, barely 12% met our criteria, even for Long Runner status.)

Exceptional companies, it turns out, come in all shapes and sizes. 3M, with its legendary innovation and thousands of products in commercial and industrial markets, made the list, but so did WD-40—a company built on a single, unpatented product that was designed to prevent corrosion on nuclear missiles and has since become most famous as the bane of squeaky hinges. The globally ubiquitous McDonald's proved to be exceptional, but so did Luby's, a cafeteria chain, when it had only 43 locations (it has since grown to almost 100). IBM qualified, and so did Syntel, even though at the time it was only 0.5% of Big Blue's size.

To understand what was behind superior performance, we identified trios in each of nine industries; each trio consisted of one company from each of our performance categories, carefully matched for years of overlap and relative size. We searched for behavioral differences that might explain the specific performance differences we had discerned. For instance, if a Miracle Worker's ROA advantage was driven primarily by superior gross margins, we looked for behaviors that might account for that. If asset utilization was salient, we looked for the behaviors that drove asset utilization. Where the data permitted, we built financial models to estimate the impact of these behavioral differences on performance. To illustrate: Heartland Express, the Miracle Worker in our trucking-industry trio, relied entirely on gross-margin advantage for its ROA edge, and its gross margins seemed to be a function of higher prices. By recalculating the company's financials without that premium, we satisfied ourselves that Heartland's pricing was a plausible explanation for its higher gross margins and thus its better ROA.

Then things got messy. We repeatedly tried and failed to isolate measurable behaviors that were consistently relevant. For example, at first it seemed that an M&A-shunning strategy might be driving exceptional results in the trucking industry; yet during one 15-year period, top-performing Heartland was also the most acquisitive. Nor could we conclude that a propensity *toward* M&A was a consistently positive factor in other industries, because in confectionery, for example, Wrigley, the Miracle Worker, and Rocky Mountain Chocolate Factory, the Average Joe, had grown organically, whereas Tootsie Roll, the Long Runner, largely bought its growth.

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Idea in Brief

A statistical study of thousands of companies identified several hundred that have been good enough long enough to qualify as truly exceptional. It also revealed that their strategic choices over decades of success have been consistent with three elementary rules:

Better before cheaper (it's best to compete on differentiators other than price).
Revenue before cost (prioritize increasing revenue over reducing costs).
There are no other rules (change anything you must to follow the first two).

With few exceptions, the best companies behave as though these principles guide them through all their important decisions, from acquisitions to diversification to resource allocation to pricing.

The rules can serve as an antidote to leaders' all-too-fallible intuition. When income is declining, for example, it can be tempting to make the company's results look better by slashing assets and investment to reduce costs. But great companies typically accept higher costs as the price of excellence, putting significant resources, over long periods of time, into creating nonprice value and generating higher revenue.

Was customer focus the key? Nope. Innovation? Risk taking? Nope and nope. All these factors were associated with great, good, or average performance in pretty much equal measure. We found ourselves reduced to a two-word sentence of surrender: "It depends."

Maybe, we thought, the lesson was that companies could be successful only if they did the *right* deals, pursued the *right* innovations, or took the *right* risks in the *right* sorts of ways. But those are truisms, and thus as useless as the advice businesspeople so typically get from what might be called the Do the Right Thing School of Management: Get the right people on the bus! (Did anyone ever want the wrong people?) Have a clear strategy! (Does anyone ever set out to create a confusing one?) Give customers what they want! (Who deliberately gives them what they don't want?) All these are taken from well-read success studies.

So we pressed on.

A useful explanatory frame began to emerge only after we shifted our emphasis away from what these companies *did* to hypotheses about how they *thought*. That allowed us to see past what the exceptional companies were doing, which was endlessly variable, to how they apparently decided what to do, which proved highly consistent. When considering acquisitions, for example, Miracle Workers acted as though they were following our rules, going for deals that would enhance their nonprice positions and allow them to bring in disproportionately higher revenues. The same was true for all other behavioral factors, from diversifying to taking a narrow focus, from globalizing to staying at home. The only factor that seemed to matter was adherence to the rules.

And the rules are most assuredly *not* truisms. It could have turned out that price-based competition was systematically more profitable, or that cost leadership took precedence as a driver of superior performance—but it didn't.

Every company faces a choice: It can compete mainly by offering superior nonprice benefits such as a great brand, an exciting style, or excellent functionality, durability, or convenience; or it can meet some minimal acceptable standard along these dimensions and try to attract customers with lower prices. Miracle Workers overwhelmingly adopt the former position. Average Joes typically compete on price. Long Runners show no clear tendency one way or the other. (See the exhibit "Following the Rules [Mostly].")

For example, in 1980, when trucking companies had to differentiate themselves after deregulation, a host of new growth opportunities opened up. Yet Heartland, the Miracle Worker, chose to keep its geographic footprint and number of customers relatively small in order to provide reliable and on-time service, no matter how complex or unpredictable its customers' requirements. This nonprice differentiation earned Heartland the approximately 10% price premium that was key to its consistently superior profitability.

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Following the Rules (Mostly)

Competitive positions built on greater differentiation through brand, style, or reliability are more likely to drive exceptional performance than positions built on lower prices.

This table shows how the companies in our comparison study created and captured value.

Miracle Workers typically rely much more on gross margins than on lower costs for their profitability advantage, whereas Long Runners are as likely to depend on a cost advantage as on a gross-margin advantage. The drivers of gross margin can be determined only by examining detailed case studies.

Statistical analysis strongly suggests that our case-study sample of 18 Miracle Workers and Long Runners is representative of the 344 exceptional companies we identified from our population of more than 25,000.

INDUSTRY	RANK	COMPANY	VALUE CREATION	VALUE CAPTURE
Semiconductors	Miracle Worker	Linear Technology	nonprice	revenue (price)
	Long Runner	Micropac Industries	in the middle	cost
	Average Joe	International Rectifier	price	cost
Medical devices	Miracle Worker	Medtronic	nonprice	revenue (price)
	Long Runner	Stryker	in the middle	revenue (price)
	Average Joe	Invacare	price	cost
Electrical wiring	Miracle Worker	Thomas & Betts	nonprice	revenue (price)
	Long Runner	Hubbell	in the middle	revenue (price)
	Average Joe	Emrise	price	cost
Clothing retail	Miracle Worker	Abercrombie & Fitch	nonprice	revenue (price)
	Long Runner	The Finish Line	in the middle	cost
	Average Joe	Syms	price	cost
Confectionery	Miracle Worker	Wrigley	nonprice	revenue (volume)
	Long Runner	Tootsie Roll Industries	price	cost
	Average Joe	Rocky Mountain Chocolate Factory	nonprice	revenue (price)
Grocery retail	Miracle Worker	Weis Markets	price	cost
	Long Runner	Publix Super Markets	in the middle	revenue (volume)
	Average Joe	Whole Foods Market	nonprice	revenue (price)
Pharmaceuticals	Miracle Worker	Merck	nonprice	revenue (volume)
	Long Runner	Eli Lilly	nonprice	revenue (price)
	Average Joe	KV Pharmaceutical	price	cost
Trucking	Miracle Worker	Heartland Express	nonprice	revenue (price)
	Long Runner	Werner Enterprises	price	cost
	Average Joe	P.A.M. Transportation Services	price	cost
Appliances	Miracle Worker	Maytag	nonprice	revenue (price)
	Long Runner	HMI Industries	nonprice	revenue (price)
	Average Joe	Whirlpool	price	cost

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In contrast, Werner Enterprises, the Long Runner in our trucking trio, expanded in both scale—serving essentially the entire continental U.S.—and scope, providing a wide range of services. This approach imposed trade-offs. First, Werner's vast reach and diversity of markets prevented it from achieving Heartland's level of service differentiation and commanding a similar price premium. Second, its pursuit of economies of scale meant that the company occasionally had to accept less-profitable business in order to keep its vehicles rolling and thus maintain an adequate level of asset utilization. Its first-rate execution enabled Werner to achieve exceptional performance—it *is* a Long Runner, after all—but it never rose to Miracle Worker status.

P.A.M. Transportation Services (PAM), the Average Joe of the three, focused on a narrower range of customers and services than Werner did, but sought high volume through lower prices. Oddly enough, as demand outstripped supply in the industry, PAM found itself short of drivers and burdened with idle assets. To restore profitability, the company switched to contract trucking, choosing to target the auto sector. When carmakers ran into tough times, so did PAM. There was nothing inherently wrong with PAM's strategy of taking a narrow focus—after all, Heartland was narrowly focused too. But PAM took a low-price position. It didn't follow the rules.

When exceptional companies abandon nonprice positions, their performance typically falters. Maytag, for example, is one of our Miracle Workers, but only in one distinct era. From 1966 through the mid-1980s, its ROA was unfailingly in the top 10%—thanks to industry-leading products; a unique brand image built around "Ol' Lonely," the iconic Maytag repairman; and a high-touch distribution channel that relied on tens of thousands of independent dealers.

But as big-box stores came to dominate the retail landscape, Maytag responded by diversifying its product line and price points, which compromised its nonprice position and price premiums. Performance declined substantially, and the company was bought by Whirlpool in 2006. Again, there's nothing necessarily wrong with diversifying a product range in response to changes in an industry, but Maytag lost its nonprice position—and pressed on in this direction despite the negative consequences of its new strategy.

We don't mean to suggest that a company can afford to ignore its relative price position, any more than one that competes through low prices can afford to ignore product or service quality. We mean only that in most cases, outstanding performance is caused by greater value and not by lower price. Companies seeking sustained, exceptional profitability should pursue strategies that are consistent with this rule and avoid those that aren't.

> A useful explanatory frame began to emerge only after we shifted our emphasis away from what these companies *did* to how they *thought*.

Bear in mind the *before* in "better before cheaper." When the competitive landscape changes, as it did for Maytag, you can lower your prices and still adhere to the rule. What matters is not whether your prices are lower than they used to be but that they remain higher than your rivals'. Maytag could have diversified into only those segments where it could establish a superior nonprice position, even if the segments demanded lower price points than those the company had historically offered.

For all its virtues, a nonprice position isn't without danger. Typically, a company that competes on dimensions other than price must constantly battle rivals that have figured out its formula. At the very least, me-too competitors may confuse customers and blur an incumbent's hard-won differentiation. At worst, they may find even better formulas for success. (See the sidebar "The Perils and Promise of a Nonprice Position.")

Don't forget to keep an eye out for disruptive threats. Charging higher prices in pursuit of higher gross margins is what creates opportunities in less-demanding market segments and provides oxygen for would-be disruptors with cheaper, good-enough products. But disruption is now well enough understood that it's possible to determine pretty accurately when alternative solutions have disruptive potential and warrant rearguard counterattacks. And a word to would-be disruptors: The most effective and profitable among you follow the rules when launching disruptive attacks.

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Companies must not only create value but also capture it in the form of profits. By an overwhelming margin, exceptional companies garner superior profits by achieving higher revenue than their rivals, through either higher prices or greater volume. Very rarely is cost leadership a driver of superior profitability.

There's nothing startling about the notion that higher prices can lead to higher profits, but we were impressed by the range of contexts in which companies have built businesses on this idea. Take, for example, the U.S. discounter Family Dollar Stores, a Miracle Worker, which has bested the legends in discount retailing since the mid-1970s. Considering that many of the company's customers are poor, it's perhaps surprising that Family Dollar's success has resulted from higher prices, which it can charge because it offers superior convenience and selection. Its smaller stores are in locations that are easier for customers to get to, and many shoppers buy small amounts of a wide variety of goods. Running these stores is unavoidably costly—in fact, the company tolerates higher costs and lower efficiency than would many of its larger competitors. But its consistently higher prices have enabled Family Dollar to enjoy a gross-margin advantage and, consequently, superior ROA for decades.

For eight of the nine Miracle Workers in our sample, revenue was the main driver of performance. (The ninth is the Pennsylvania-based grocery chain Weis Markets, which competes on price and drives profitability through lower costs; more on this company below.) Six of these eight relied mainly on higher prices to achieve their revenue levels; the other two relied largely or entirely on volume.

One of the two volume-focused companies is Merck, which globalized earlier, more successfully, and more aggressively than the Long Runner in the pharmaceutical trio, Eli Lilly. Merck followed the better-before-cheaper rule, refusing to compete on price relative to the alternatives in global markets. But the lower price ceilings in those markets prevented the company from using gross margins as its primary source of advantage. Instead Merck drove volume by relying on the clinical effectiveness of its patent-protected medications. Higher volume allowed Merck to achieve superior profitability through better asset utilization than Eli Lilly enjoyed, which was the main reason for the company's higher ROA. (See the sidebar "Many Paths to Improvement.") Just as you can lower prices while adhering to better before cheaper, you can drive out inefficiencies and lower your costs while following the revenue-before-cost rule. But don't try to achieve a profitability advantage through cost leadership.

This rule underscores the uncomfortable (or liberating) truth that in the pursuit of exceptional profitability, everything but the first two rules should be on the table. When considering all the other determinants of company performance—operational excellence, talent development, leadership style, corporate culture, reward systems, you name it—we saw wide variation among companies of all performance types. There's no doubt that these and other factors matter to corporate performance—how could

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The Perils and Promise of a Nonprice Position

Our retail grocery trio was intriguing—first because the Miracle Worker of the bunch, Weis, was a price-based competitor that captured profits through low costs, but also because Whole Foods, a high-profile purveyor of organic products, clearly practices better before cheaper and revenue before cost, yet turns out to be an Average Joe. During its more than 20 years as a public company, its ROA has sometimes been worse than the majority of companies'.

Whole Foods may very well be en route to becoming a Long Runner or a Miracle Worker, but it might just as easily get submerged in a wave of competition. Its high costs—sourcing specialty items is expensive, and the company provides high levels of customer service ("Excuse me, how do I cook quinoa?")—have kept competitors at bay, but with supply-chain costs falling, mainstream grocers are already starting to mimic its competitive position (you can get quinoa just about everywhere these days).

This example highlights an important limitation of our work: Following our rules doesn't guarantee Miracle Worker status.

MIRACLE WORKER
WEIS

LONG RUNNER
PUBLIX

AVERAGE JOE
WHOLE FOODS

Sometimes a nonprice position isn't worth the resources a company must devote to maintaining it. The rules can only tell you which hard problem you should try to solve. They can't tell you how to solve it.

they not?—but we couldn't find consistent patterns of *how* they mattered.

More telling still, we found individual companies that had remained exceptional despite changing their approaches to a number of critical determinants of performance. The reason? The changes they made kept them aligned with the first two rules. In other words, top-performing companies are doggedly persistent in seeking a position unrelated to low prices and adopting a revenue-driven profitability formula, while everything else is up for grabs.

The absence of other rules doesn't give you permission to shut down your thinking. You are still responsible for searching actively—and flexibly—for ways to follow the rules in the face of what may be wrenching competitive change. It takes enormous creativity to remain true to the first two rules.

For example, Abercrombie & Fitch has stayed on top of a constantly changing retail clothing market by being willing to invent new images for itself and new product lines—the abercrombie kids brand is aimed at grade-schoolers, while Hollister is for 14-to-18-year-olds, and Gilly Hicks is for young women—without wavering in its dedication to a position based on brand-intensive value and a higher-price-driven profitability formula. A&F has avoided promotions and steep markdowns, and has typically sold its clothing at about 70% of full price, which is higher than the comparable figure at many apparel retailers. When the recession hit, in 2008, A&F resisted following other clothing companies down the discount path—a choice that earned it much criticism from analysts as its same-store sales dropped more than its competitors' did. But the company's persistence has preserved its brand cachet, and with the recent economic recovery, A&F is returning to a level of profitability that its competitors find hard to match, having revealed to their customers that T-shirts don't have to cost $30 after all.

In pharmaceuticals the top companies have successfully moved from in-house to joint-venture to open innovation, while in semiconductors we've seen increased capital investment and an expanding portfolio of customers, all in support of better before cheaper. In confectionery the top performers have shifted from domestic to global distribution, and in medical devices M&A has become a cornerstone of growth. When these changes have led to superior profitability, it has been because they contributed to greater volume more than to lower costs.

We should point out that there's no necessary relationship between how you create value and how you capture it. Although it would be nonsensical for companies that compete through lower prices to capture value through higher prices, every other combination of position and profitability formula is at least theoretically possible. Nonprice positions, as we've said, are typically associated with higher prices or greater volume. Conceptually, companies that don't focus on price could still drive profitability through lower costs, but we never saw this. Arithmetically, a low-price position (cheaper before better) could drive sufficient volume to keep asset utilization high enough to secure superior profitability (revenue before cost), but we never saw this, either. Our research shows that companies with lower-price positions tend to rely on lower costs to achieve profitability.

The success of the grocery chain Weis shows how a lower-price position and a lower-cost profitability formula can work. This Miracle Worker was decades ahead of its competitors in introducing house-label products, which are sold at lower prices but are much less costly to produce and thus yield higher

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Many Paths to Improvement

Don't be misled by the simplicity of the rules. Long-term success in any industry is a rare and difficult achievement, and finding a workable strategy that stays within the rules requires enormous creativity and flexibility.

Take Merck and Eli Lilly: They have long histories and are well known as leading research-based drug companies, but Merck was able to become a Miracle Worker, while Eli Lilly remained a Long Runner. Why?

Past executives have told us that the primary driver of Merck's superior performance was its research excellence, which yielded higher-value therapies. It's true that Merck was early among pharmaceutical companies to shift the focus of its research from chemistry-based screening—isolating new compounds and testing them in vivo to assess the effects—to biology-based "rational discovery." But Eli Lilly had great research too. And in any case, higher prices weren't the main reason for Merck's higher profitability: Barely a third of its ROA advantage can be attributed to superior gross margins.

We found that Merck's profitability rested on better asset utilization, which was a function of revenue growth through higher unit volumes. For example, Merck's command of the mechanisms of action for various compounds allowed scientists to develop variations on established drugs in order to attenuate side effects or mitigate interactions with other drugs, making a compound's basic therapeutic effects available to a larger population of patients. As a result, Merck was introducing three times as many products across twice as many therapeutic areas, yet enjoying economies of scope in both discovery and manufacture that stemmed from similarities among core compounds.

The company was also a leader in international expansion, which further increased unit volumes and asset utilization. Both its global expansion and its greater product diversification were driven by demand, born of the value of Merck's unique medicines. By 2010 its pharmaceutical business was more than twice the size of Eli Lilly's—up from about 8% larger in 1985.

Merck's story shows that there are various routes to better before cheaper and revenue before cost, and they should all be under consideration all the time.

margins. Its resulting 28 consecutive years in the top 10% of ROA make Weis a clear exception to our Rules 1 and 2.

But when you compete on price, a faster gun always seems to come to town eventually. Weis's advantage began to slip in the 1980s, as other grocers adopted private-label programs and discount retailers expanded into the grocery segment. Weis proved unable to adapt, and since 1996 it has not been in the top 10% even once. Unlike our Long Runner, Publix, which has enjoyed increasing profitability, Weis didn't shift aggressively enough to differentiation through in-store delis, pharmacies, organic products, or ethnic-food-focused store formats. The bottom line is that if you want to beat the odds, you should concentrate on creating value using better before cheaper and on capturing value with revenue before cost.

Choosing to Be Exceptional

The first step in making use of the rules is to get a clear picture of your company's competitive position and profitability formula. Our experience shows that many senior leaders lack that clarity, primarily because companies tend to put too much emphasis on comparing their present selves with their past selves and too often declare victory if they've improved. What they forget is that you compete only with your current rivals. Benchmarking may help, but in many instances it devolves into a comparison of single dimensions—Is our product more durable? Is our R&D higher?—rather than a sophisticated analysis of the interplay of all performance dimensions and their relationship to the sometimes subtle trade-offs among the many drivers of profitability.

Here's how to put the rules into operation: The next time you find yourself having to allocate scarce resources among competing priorities, think about which initiatives will contribute most to enhancing the nonprice elements of your position and which will allow you to charge higher prices or to sell in greater volume. Then give those the nod.

If your operational-effectiveness program is mostly about cutting costs, whereas your innovation efforts are mostly about separating you from the pack, go with innovation. But if pushing the envelope on operations is about delivering levels of customer service way above your competition's, whereas innovation seems geared to doing the same for less, then your operations folks deserve the additional care and feeding.

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Finding the Signal in the Noise

In our quest to identify top-performing companies and figure out why they were among the best, we spent almost two years developing and working through appropriate statistical methods and another three years identifying the behaviors common to the best.

We started by digging through Compustat's database of more than 25,000 companies publicly traded in U.S. markets from 1966 to 2010. With the help of Andrew D. Henderson, of the University of Texas at Austin, we used quantile regression—which allowed us to strip out extraneous factors such as survivor bias, company size, and financial leverage—to rank companies according to their relative performance on return on assets (income divided by the book value of assets), a metric that reliably reflects managerial efforts rather than simply changes in investor expectations, which are the primary driver of shareholder returns.

Then we used advanced simulation techniques to determine which companies had achieved high performance long enough that the chance their results were due to luck was less than 10%. The qualifying length of time depended on life span: For example, to be a Miracle Worker, a company with 10 years of data had to have been in the top 10% for all of them, but a firm with 45 years of data needed just 16 years in the top 10%.

To figure out what made these companies special, we selected a Miracle Worker, a Long Runner, and an Average Joe in each of nine industries and then made pairwise comparisons among the three. In each comparison, we figured out how much of the ROA difference arose from each of the components of ROA—return on sales (ROS) and total asset turnover (TAT), aka asset utilization. Then we figured out how much of the ROS difference was due to differences in gross margins and a number of expense categories, which included R&D, SG&A (selling, general, and administrative), and several others (depreciation, extraordinary items, and so on). Similarly, we figured out how much of the TAT difference was due to current asset turnover and fixed asset turnover. We sought behaviors that could plausibly explain exceptional companies' performance advantages, and where possible, we assessed the impact of those behaviors by creating financial models.

Are executives in your company justifying an acquisition in terms of economies of scale? Or are they talking about an opportunity to expand and thereby realize the growth potential of a nonprice position that your company has already earned in the markets it currently serves? If the former, the acquisition may well be a good idea—perhaps even essential to keeping the company in the game—but you're not likely to see exceptional performance unless the latter applies as well.

An understanding of the rules can be a useful antidote to intuition, whether that takes the form of a single leader's vision or the collective hunch of a top management team (which often comes with a veneer of post hoc rationalization). When circumstances are muddy and the data ambiguous, as they so often are, you need rules to help ensure that your interpretation of the data is more likely to lead to the outcomes you seek.

The rules are especially powerful when it comes to dealing with those dreaded financial ratios that govern so many lives and lead so often to pathological consequences.

The rules are especially powerful when it comes to dealing with those dreaded financial ratios that govern so many lives and lead so often to pathological consequences. In ratios such as ROA, cash flow return on investment, and economic value added, the numerator is some measure of income and the denominator is some measure of assets. When customers are no longer willing to pay for your latest innovation and income starts to decline, it's too easy to try to make those ratios go up by shrinking the denominator. Many managers have long felt that this is a mistake, but they do it anyway, misled by the equally compelling intuition that cutting costs has faster, more dramatic, more predictable consequences.

When you feel pressure to follow that path, use our research to make the case that by and large, companies don't become truly great by reducing costs or assets; they earn their way to greatness. Exceptional companies often, even typically, accept higher costs as the price of excellence. In fact, many of them have developed quite a taste for spending and investment. These organizations put significant resources, over long periods of time, into creating nonprice value and generating higher revenue. Point out that when successful companies are led astray by the seeming certainties of short-run cost cutting or disinvestment, they are more likely to destroy what they most want to enhance.

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