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THE NEW SCIENCE OF TEAMWORK

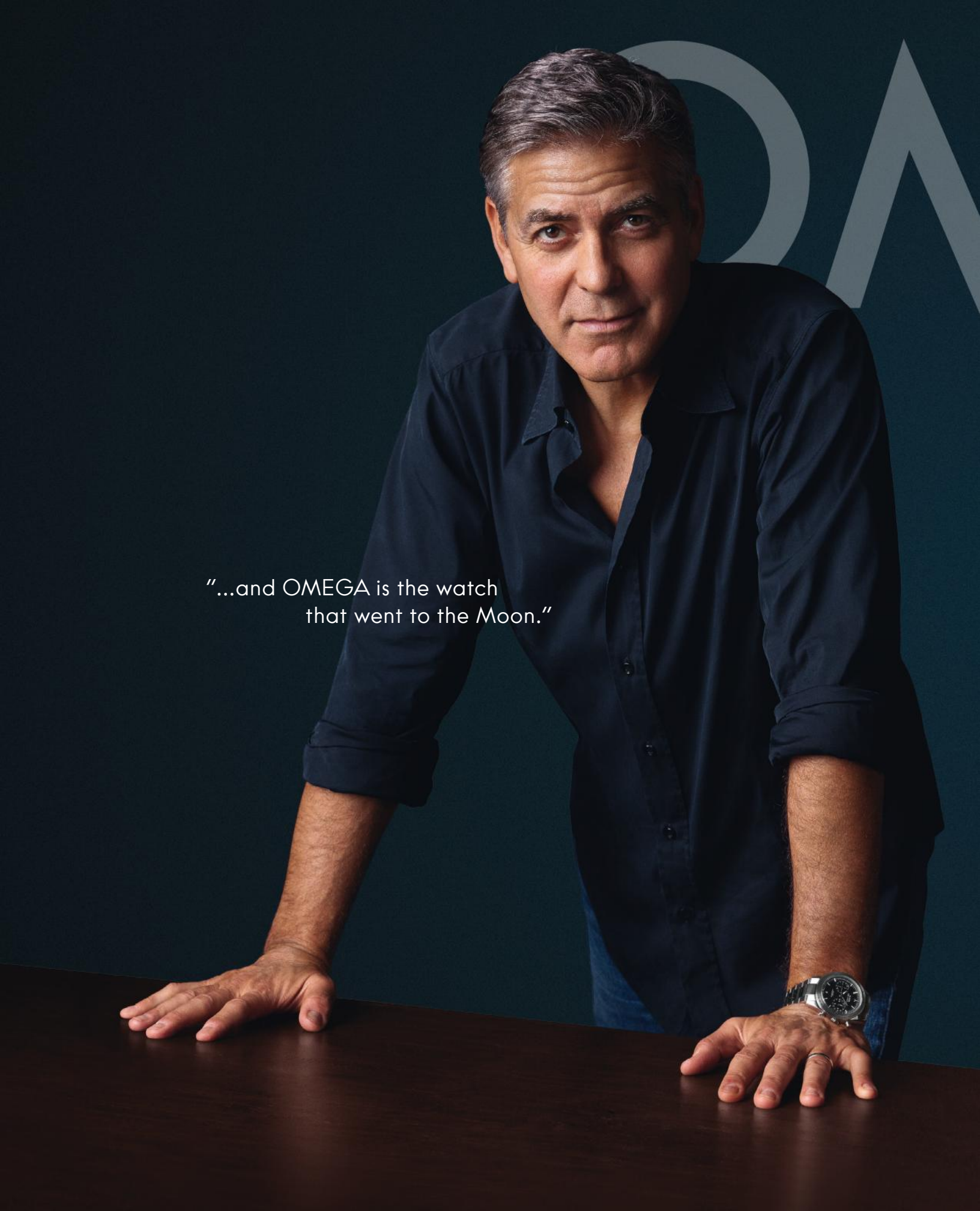
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different work styles will
help you manage your
team—and yourself—better.

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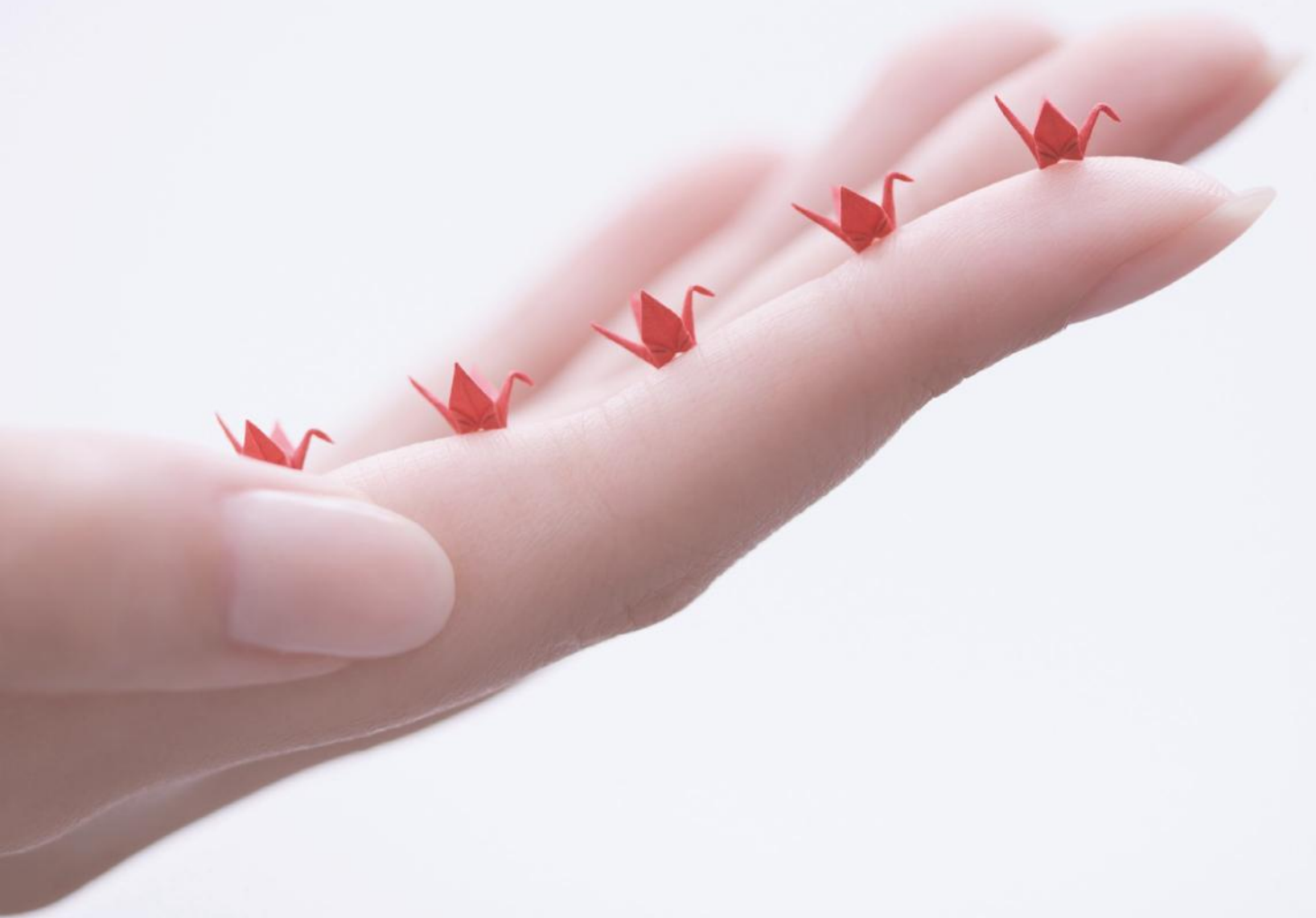
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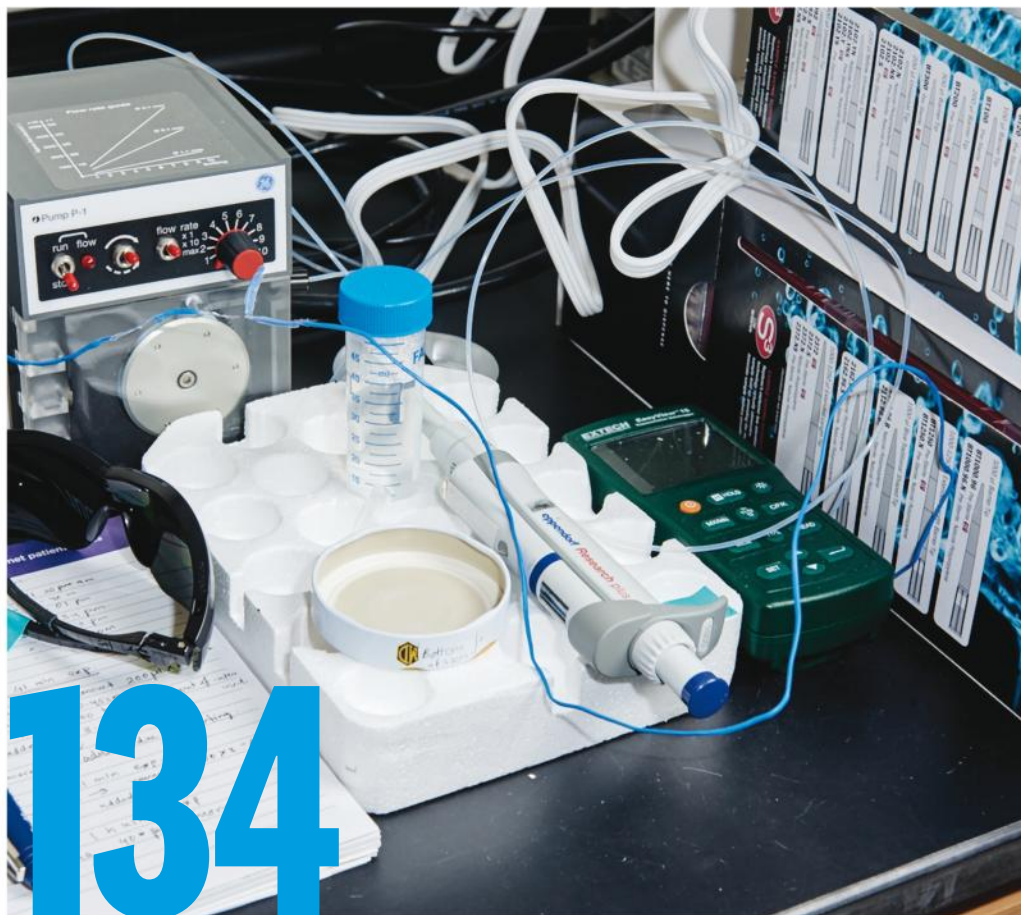
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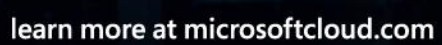
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FROM THE EDITOR

THE INSULATED LEADER



Adi Ignatius with HBR Editor Amy Bernstein

Do CEOs know less than their employees about what's really going on in the business? That's one of the provocative questions raised this month by Hal Gregersen, executive director of the MIT Leadership Center, in "Bursting the CEO Bubble" (page 76).

Gregersen, whose article is based on interviews with more than 200 senior executives, says that status and authority often insulate CEOs from critical information that might challenge their assumptions and strategies. No one wants to tell the boss bad news, so the CEO may be the last to hear it.

It's a common problem. But it's not insurmountable. Some of the world's most innovative leaders have found ways to avoid this trap—but those tactics require executives to break out of their routine.

One technique is simply to be quieter. Instead of going into broadcast mode, executives should relentlessly ask questions of their colleagues, and they should carve out space to reflect deeply on the challenges they face. Above all, they should go on "listening tours" to identify weak signals that might be early indicators of looming threats and opportunities.

How can you foster a culture in which employees feel free to speak openly? Walt Bettinger, the CEO of Schwab, requires his managers to write "brutally honest reports" that candidly address, among other things, what's "broken" in the company. He even invites employees who raise consequential issues to visit headquarters.

Yes, it's comfortable in the bubble. But comfort can be your worst enemy.

ADI IGNATIUS, EDITOR IN CHIEF

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Though she's been studying psychology for more than 25 years, **Suzanne Johnson Vickberg** never considered the impact of her own work style until team chemistry became her focus at Deloitte. As a detail-oriented introvert on a team of bold, big-picture colleagues, she initially felt like a misfit. But through efforts to understand and flex to one another, Vickberg and her teammates now recognize how the distinctive contributions they each make complement one another and ultimately make the team stronger.

50 SPOTLIGHT

Pioneers, Drivers, Integrators, and Guardians



Tim Butler, who runs a coaching program for students at Harvard Business School, noticed a significant shift about six years ago: Jobs at elite consulting or private equity firms had been the most coveted; now the hot new career trajectory was to become an entrepreneur. A clinical psychologist, Butler knew that not everyone is cut out to start a business. So he embarked on research to ascertain what separates successful entrepreneurs from top corporate managers. On the basis of his findings, he developed assessments for students to help them chart their optimal path.

84 FEATURE

Hiring an Entrepreneurial Leader



HBR senior editor **Steve Prokesch** traces his fascination with inventors back to the fourth grade, when he sent away for an illustrated biography of Thomas Edison. In "The Edison of Medicine," he writes about MIT's Bob Langer, whom he describes as "not only one of the smartest and most accomplished inventors alive but also one of the nicest people I've ever met." The notion that the Langer model for applying basic research to solve real-world problems could work in the corporate setting defies conventional wisdom about the research-to-product process. "It could be that the conventional wisdom is wrong and companies could do vastly more to improve lives—and make a lot of money doing it," Prokesch says.

134 FEATURE

The Edison of Medicine



Stéphane Girod, a professor at IMD, began studying the two types of corporate reorgs—restructuring and reconfiguration—as a doctoral student, after noticing that most researchers lumped them together instead of trying to understand the different kinds of value each could bring. When he met Northeastern's Samina Karim at a management conference, he found a kindred spirit equally keen to explore those differences. Their article, based on an analysis of dozens of reorgs and on interviews with the executives who went through them, offers practical guidelines for determining which type of reorg is best for your firm.

128 FEATURE

Restructure or Reconfigure?



"It's not often that you get to spend an hour shadowing one of the most prolific engineers in history," says **Tony Luong**, the Boston-based photographer who shot the photos of Bob Langer for "The Edison of Medicine." "Dr. Langer's schedule consisted of meetings revolving around one thing: solving problems." Most high-profile subjects are impatient with the process of being photographed, says Luong. What surprised him most was how easy the inventor was to work with.

134 FEATURE

The Edison of Medicine



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INTERACTION



CAN NEUROSCIENCE HELP US UNDERSTAND TRUST AT WORK?

HBR ARTICLE BY **PAUL J. ZAK**, JANUARY-FEBRUARY

Managers have tried various strategies and perks to boost employee engagement—all with little long-term impact. Through his research on the brain chemical oxytocin—shown to facilitate collaboration and teamwork—Zak has developed a framework for building a happier, more loyal, and more productive workforce. He has identified eight management behaviors that stimulate oxytocin production and increase trust.

I have a question about the “recognize excellence” behavior in the framework. In your research did you run into any issues with what was recognized? Was it the accomplishment or the effort? Recognition of an accomplishment rather than the hard work that achieved it is counter to enriching trust on teams, in my experience. This can be seen every year when the annual performance review cycle begins. Cooperation and collaboration turn to competition.

Michael DePaoli, CEO, FACTUAL Consulting

The author responds: *In my book Trust Factor, I argue that the best way to set expectations for excellence is to focus on outcomes, not “presenteeism.” Combining goals with constant feedback from supervisors creates a tight learning loop in the brain that reinforces excellence. Supervisors should serve*

as coaches, and the attainment of goals should be celebrated immediately, not just during annual reviews. The brain works just like a muscle: It’s best to set hard but achievable objectives, let colleagues rest for a few days after reaching them, and then start again with a new challenge.

Neuroscience studies help us understand the complexity of the brain and human nature, but often they simply validate things we already know. Trust is a complex emotion, and I didn’t actually see the author define it as the concept being researched. I’d be interested in his definition of trust. An aspect that especially interests me is the one that Charles M. Schulz illustrated in his famous cartoons of Lucy pulling the football out from under Charlie Brown. What makes Charlie Brown think that “this time it will be different”?

What about Lucy gets him to keep trying despite the fact that she can’t be trusted?

Sara Jacobovici, owner, Creative Arts Therapies Services

I can’t disagree with Zak’s conclusions about trust in business. However, his approach to getting there is unnecessarily complex. Zak quite correctly pinpoints the fundamentally reciprocal nature of trust. One party takes a risk, and the other party then reveals itself as trustworthy—or not. This is a critical observation but is common sense—it’s not something we need neuroscience to prove. If you accept that trust is reciprocal, then seven of Zak’s eight behaviors are self-evident: Recognize excellence, give people discretion in how they do work, enable job crafting, share information broadly, intentionally build relationships, and show vulnerability. Each involves either overtly taking a risk on the other person or showing vulnerability. In fact, the only strategy that isn’t obviously linked to reciprocity is “induce ‘challenge stress.’” We don’t need neuroscience to justify, explain, or deduce any of these behaviors.

Charles H. Green, founder and CEO, Trusted Advisor Associates

I’ve researched trust for eight years and developed a quantitative measurement of organizational trustworthiness in public companies, and I’m having a difficult time linking the author’s statement that oxytocin causes trust with the eight suggested strategies on how to achieve it.

Barbara Brooks Kimmel, CEO and cofounder, Trust Across America

I’ve been interested in trust in the context of cross-sector collaboration

“Often neuroscience studies simply validate things we already know.”

—SARA JACOBOVICI



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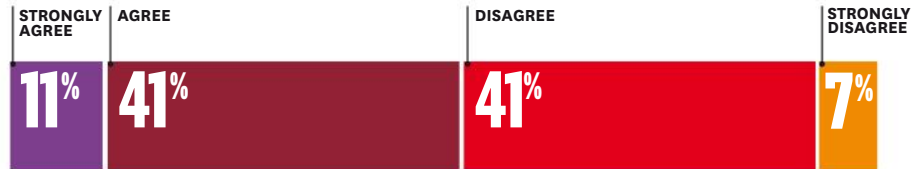
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BY KABIR SEHGAL

HBR SURVEY RESULTS

How much do you agree with the following statement?

IT IS NOT EASY FOR ME TO TRUST PEOPLE.



SOURCE: RESPONSES TO "ASSESSMENT: WHAT'S FEEDING YOUR FEAR OF PUBLIC SPEAKING?"
BY NANCY DUARTE AND TOMAS CHAMORRO-PREMUZIC

or partnerships for some time, and I've found research that categorizes it into two types: (1) affect-based trust, which develops from emotional bonds and positive feelings toward individuals based on the belief that another's intentions are good (I trust my mother); and (2) cognition-based trust, which comes from evidence of trustworthiness and is often built through interactions with or impressions of an organization. The focus of this trust is reliance on an organization's practices rather than the individuals within the organization to produce a good outcome (I trust Honda cars). So it seems that trust can be defined both by how it's created and by our proximity to the person or organization we trust.

Brad Henderson, lead corporate and foundation relations, UNHCR, The UN Refugee Agency

As an entrepreneur, I've seen a lack of trust between our investors and our executive team damage our company. I plan on following the article's suggestions for building trust with all our stakeholders.

Alex Shohet, founder, Inside Out Recovery Technology

HEALTH CARE NEEDS REAL COMPETITION

HBR ARTICLE BY **LEEMORE S. DAFNY** AND **THOMAS H. LEE**,
DECEMBER

The U.S. health care system is inefficient, unreliable, and crushingly expensive. There's no shortage of proposed solutions, but central to the best of them is the need for more competition. Yet providers and payers continue to try to stymie it. Many are pursuing consolidation, buying up market share and increasing their bargaining power. They must stop fighting the emergence of a competitive marketplace and start competing on value, say the authors.

Competition in health care won't be a panacea because of the geographic nature of the product. For most routine health care, people choose a provider convenient to where they live or work. Price will move some but not all, and I suspect that if convenient providers are not the most cost-effective, many will simply forgo routine care.

Charles Mendelson, acupuncturist, West Seattle Concierge Acupuncture

The absence of value in health care is rooted in five decades of price controls. Has not history screamed for centuries that price controls never produce value but do pervert behavior and neutralize the balancing forces of a

competitive market, leading to inflation, poor quality, surpluses, scarcity, fraud, waste, organized crime, and so on?

In a competitive market, value is constantly reshaped by innovations in an endless evolution toward perfection. When a government or third-party payer wants to reward value, it needs to define it, and to define it is to stagnate it, making it average or worse, never allowing it to be what it could be.

The buyer of the first Lexus sold paid for its value. The price was not subjectively awarded after a period of driving; it reflected an innovative workforce's actual achievements. To achieve mass

acceptance of global or bundled price controls in health care delivery, third-party payers will have to be willing to pay for value based on historical financial and patient data.

R. Daniel King, retired president and CEO, Medi-Call of St. Louis

I can't help comparing the health care system to airlines. Under the current health care payment model, it's as if you fly from JFK to LAX and then pay the airline. Price transparency will do wonders: Knowing the price up front will drive behavior.

Ali M. Tafreshi, CIO Partner, Tatum

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INTERACTION



THE BLOCKCHAIN REVOLUTION

HBR ARTICLE BY **MARCO IANSITI** AND **KARIM R. LAKHANI**, JANUARY-FEBRUARY

Blockchain, the technology behind bitcoin, records transactions safely and very efficiently. While the transfer of a share of stock can now take up to a week, with blockchain it could happen in seconds. Blockchain could slash the cost of transactions, so it has the potential to transform the economy. But the new technology's adoption will require broad coordination and will take years. In this article the authors describe the path it's likely to follow.

I believe the transformation may happen faster. The open-source community is thriving, and since blockchain technology is essentially open source, development cycles will be short. What could be major game changers in a few years are blockchain-based digital fiat currencies, or "sovereign blockchains." The benefits to society are simply too big for central banks to look the other way. And then we could invest saved transaction fees in things like cheap solar panels and build neighborhood solar panel networks to trade local electricity—all in the sovereign blockchain.

Ville Viitasaari, analyst, Finnish Tax Administration

The authors say that thanks to blockchain, "intermediaries like lawyers, brokers, and bankers might no longer be necessary." This is a massive exaggeration. The magic trick of blockchain is that it permits parties to exchange e-cash without needing to know anything about one another. But it doesn't remove the need for brokers for nonbitcoin transactions. Nonbitcoin applications

require off-chain processes. And if you want to put anything besides bitcoin "on" the blockchain, you need to agree on how things will be represented by blockchain tokens and need agents to vouch for things and their owners' blockchain keys. So blockchain will not remove many intermediaries.

Steve Wilson, principal analyst, Constellation Research

The authors respond: *We certainly agree with Steve Wilson's general sentiment. Our article in fact points out that truly transformative applications of blockchain are years away, as technological innovations await the many institutional changes required to build the new foundations of complex economic and social systems. As we point out, intermediaries like lawyers, brokers, and bankers might no longer be necessary (at least in some situations). It's much more likely their roles will change significantly over the next couple of decades, as the transformation evolves. Even today private chain implementations like the one devised by Chain.com and Nasdaq are reshaping the roles played by custodial banks and other financial intermediaries.*

CURING THE ADDICTION TO GROWTH

HBR ARTICLE BY **MARSHALL FISHER**, **VISHAL GAUR**, AND **HERB KLEINBERGER**, JANUARY-FEBRUARY

In pursuit of double-digit revenue growth, many retailers relentlessly open new stores, even when doing so destroys their profitability. This addiction is fueled by Wall Street and a capitalist culture obsessed with growth. It's hard to kick, primarily because companies don't know how to turn off the growth machine—or what to replace it with.

There is a rationale that the only way to grow is to make more stuff. This can manifest itself in four ways: (1) an increase in labor participation, (2) the discovery of new resources, (3) an increase in specialization, and (4) new technology. I think the remedy for addiction to growth is the discovery of new processes, tools, or devices that lead to a huge jump in real productivity.

Elliott R. Lowen, president and cofounder, J. Felcher & Company

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INTERACTION

AFRICA'S NEW GENERATION OF INNOVATORS

HBR ARTICLE BY **CLAYTON M. CHRISTENSEN, EFOSA OJOMO, AND DEREK VAN BEVER**,
JANUARY-FEBRUARY

With a young population, abundant natural resources, and a rising middle class, Africa seems to have all the ingredients for huge growth. Yet a number of multinationals have recently left the continent, discouraged by corruption, a lack of infrastructure and talent, and an underdeveloped consumer market. Some innovators have succeeded in Africa, however. The difference, the authors believe, lies in the choice between “push” and “pull” investments. When innovators develop products that people want to pull into their lives, they create sustainable markets.

This article captures a key to investment in any economy—a commitment to the market that goes beyond diversification. The economies that we look to as models for development (South Korea, Japan, China, and even the United States and the UK) are dominated by local champions that see those markets as their homes. As a result, they employ the pull model of investment. We need more local champions.

Olusegun Okubanjo, CEO, Obsidian

The strategy of creating a market out of nonconsumption can be used anywhere in the world, not only in Africa. We just need a sharp eye to identify the hidden needs of the masses. Pull strategy is for the needs, and push strategy is for the wants. Needs are permanent, and wants are temporary.

Ravinandan Venkatesh, assistant vice president, strategy, Vistaar Financial Services

Base-of-the-pyramid opportunities seem risky to firms from developed markets because the number of unknowns is much higher, but this article does a great job of explaining how such opportunities are actually much less risky if you follow a pull strategy, target nonconsumption, and integrate operations to mitigate institutional voids.

Austin Walters, commercial director, EchoNous

Innovation is not a convenient venture; it is a daunting endeavor to create solutions that meet a need. So it's essential to strengthen young African entrepreneurs' ability to cash in on nonconsumption opportunities and create disruptive innovations that will benefit consumers.

Ikedinachi Ogamba, doctoral researcher, Strathclyde Business School

DO YOU HATE YOUR BOSS?

HBR ARTICLE BY **MANFRED F.R. KETS DE VRIES**,
DECEMBER

At least half of all employees have quit a job at some point in their career because of their supervisor. But if you don't get along with your boss, don't despair. You can take steps to improve the situation, says Kets de Vries.

It has become too easy to make the boss a scapegoat and overlook staff behaviors that are unproductive, dysfunctional, or even illegal. For example, when a staffer often comes into the office late, making up a variety of excuses, it's the boss's responsibility to address it. If the person becomes defensive and begins spreading rumors that poison the culture, employees and boards don't always have the skill to figure out what the problem really is.

Nancy S. Sabin, president and technical training specialist, Sector Synergies



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DO SEARCH ADS REALLY WORK?

They can be surprisingly effective, but most companies use them incorrectly. Plus the myth of M&A synergies, why big firms struggle to innovate, where brain drain hits hardest, and more

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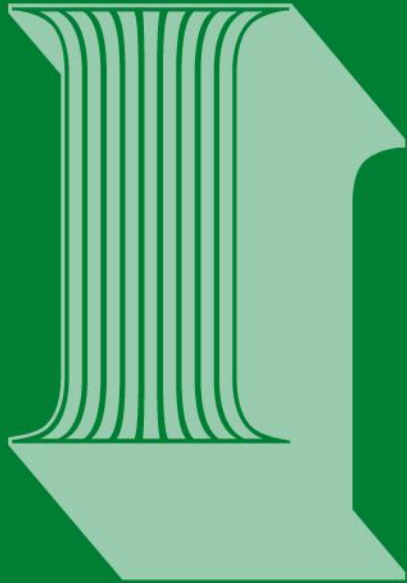
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**“PEOPLE WHO
COMPLAIN ABOUT
BEING ‘CRAZY BUSY’
ARE ACTUALLY
SIGNALING THAT
THEIR TALENT IS
IN HIGH DEMAND”**

From “‘Crazy Busy’: The New Status Symbol,” page 28



They can be surprisingly effective, but most companies use them incorrectly.

DO SEARCH ADS REALLY WORK?

More than a century ago, the department store magnate John Wanamaker famously complained about his inability to gauge the effectiveness of the money he spent on advertising. Since then, technologies such as radio, television, and the internet have given companies new

venues for self-promotion, but the age-old problem persists: How to tell whether ad dollars are really boosting sales?

That question is one factor driving firms to shift ad money to digital media. Not only are people spending more time online, but advertisers believe that companies such as Facebook and Google, which track people's online habits, can put the right ads in front of the people most likely to buy (and the companies can measure what results). According to data from Accenture, digital media now account for 41% of large companies' ad spending, and forecasters expect the amount to exceed 50% by 2018.

But the issue of effectiveness nags here, too. Although most advertisers have come to believe that ads delivered when a customer is searching specific terms are more effective than the static banner ads that once dominated the web, recent research has cast doubt on that. A 2015 study found that when eBay started and then stopped advertising on a large search engine, the company saw no difference in traffic. "That paper brought into question

whether these kinds of ads do anything or not," says Michael Luca, an assistant professor at Harvard Business School. A subsequent study found that some advertisers are decreasing their spending on search ads.

The studies piqued Luca's curiosity. Since graduate school he's been interested in how data, rankings, and reviews influence consumer behavior. Over the past five years he has published papers on the dynamics of college rankings and book reviews. He's also conducted several studies of Yelp, including a widely publicized paper concluding that 16% of the restaurant reviews he examined were fake. As Luca's research began appearing, Yelp reached out to discuss how it could work with academics on a range of research questions. As a result of those conversations, during the summer of 2015 Luca and his colleague Daisy Dai (now a professor at Lehigh University) moved into cubicles at Yelp headquarters.

The question they sought to answer goes to the core of Yelp's business model: Do the ads that Yelp sells to small businesses, which give those firms' listings prime position atop search results, deliver more customers? To answer it, the researchers designed a series of rigorous experiments and obtained Yelp's agreement to allow them to publish the findings no matter what the experiments revealed.

Luca and Dai created a randomized sample of 18,295 U.S. restaurants, selected 7,210 that had never advertised on Yelp, and designed free ad packages for each one in that group. (The restaurants weren't told about the ads or the experiment.) For the next three months they closely tracked user engagement with all the restaurants. Then they took the ads down to see what would happen.

They found that while the ads were up, the restaurants in them got more page views than the others—22% more on desktop browsers, 30% more on mobile devices, and 25% more overall. Users requested directions to them 18% more often, made 13% more calls to them, and clicked through to their websites 9% more often. The differences disappeared as soon

as the ads were taken down. "This was a big effect," Luca says. "It looks like Yelp ads are a positive investment, even for a business that doesn't ordinarily advertise. The value Yelp ads seem to provide is in surfacing brands to customers."

What if the study had shown Yelp ads to be worthless? Luca says that although those results would have been damaging to Yelp's current strategy, they would have uncovered a need for the firm to focus more on alternative revenue models. "Platforms have to decide how to make money and what they can do to help customers who are using them," he says. "If ads weren't working for Yelp, maybe it would put more emphasis on charging companies to facilitate transactions or selling analytics packages."

Luca and Dai's findings contrast with the results involving eBay, but Luca sees an important difference between the recent study and the earlier one. eBay is a well-known brand whose name people are likely to type into a search engine; it makes sense that touting something consumers are already searching for would have little effect. Many Yelp advertisers are local businesses that few people have heard of; for unfamiliar brands like these, ads that propel them to the top of a list and create awareness can pay off.

This isn't to say that big brands should never invest in search advertising, Luca adds—but they should bear in mind that search ads work best when they alert consumers to something they're not already aware of. For instance, Gap might forgo search ads that would pop up when users search the company's name or its best-known categories, such as jeans, and instead pay to appear in results for categories it isn't commonly associated with, such as shoes. "Bigger brands should use search ads to promote things about the brand that people wouldn't otherwise discover," Luca says.

HBR Reprint F1702A



ABOUT THE RESEARCH

"Effectiveness of Paid Search Advertising: Experimental Evidence," by Weijia (Daisy) Dai and Michael Luca (working paper)



MATT HALPRIN “USERS ARE REBELLING AGAINST ADS THEY FIND IRRELEVANT”

If you type “Mexican restaurant” into Yelp’s search field, the results will include the highest-rated and the closest options—but the first two listings will show restaurants that paid to appear at the top (labeled “ad”). Those are examples of search ads, which are gaining ground on other forms of digital advertising. Matt Halprin, Yelp’s senior vice president for business operations, recently spoke with HBR about the effectiveness of search and other ads. Edited excerpts follow.

Why are advertisers migrating from display ads to search ads? Display ads are a terrible user experience. Search ads are far more relevant to consumers. Even though they delivered significant revenue, we eliminated display ads from Yelp at the end of 2015.

What have you learned about search ads’ effectiveness? Not surprisingly, search ads work better the more relevant they are to the user’s query. Firms that focus relentlessly on making their ad delivery systems absolutely relevant to the searcher do best over the long run, because they put the consumer experience first.

What mistakes do companies selling search ads make? They should resist the temptation to show marginally less-relevant ads for the sake of short-term revenue—such ads can undermine user retention. Similarly, showing too many ads at the expense of natural results is a poor trade-off. Users are rebelling against ads they find irrelevant. They will tolerate a few highly relevant ads, but they come to search sites for information, not ads.

What are the takeaways for businesses from this new research on search ad effectiveness? Don’t shy away from having your product or service scrutinized by third-party research or review sites. If some of the results are poor, you’ve done your company a favor by drawing attention to a problem your team can now tackle. For companies that sell search ads, focus relentlessly on the consumer experience, deliver highly relevant ads, and the rest will follow. ■



The average gap in annual bonuses awarded to men versus women by law-firm partners who had donated only to Republican campaigns. Men also got larger bonuses than women when their managers were staunch Democrats, but the difference was minimal.

"BRINGING THE BOSS'S POLITICS IN: SUPERVISOR POLITICAL IDEOLOGY AND THE GENDER GAP IN EARNINGS," BY FORREST BRISCOE AND APARNA JOSHI

WORKPLACE "CRAZY BUSY": THE NEW STATUS SYMBOL

IT USED TO be that leisure time was a sign of social status. But in our always-on culture, that's changed: Today a *lack* of leisure time is more likely to cause one to be held in high regard. In a series of experiments, researchers showed that people who complain about being "crazy busy" are actually signaling that their talent is a scarce commodity in high demand, leading others to judge them as having high status. In one experiment, subjects were asked about their perceptions of two hypothetical friends: one whose Facebook posts mentioned long working hours and one who boasted about long lunches and short workdays. The busier friend was seen as having higher status. Another experiment demonstrated that belief in social mobility influenced this view. "Americans who perceive their society as particularly mobile and believe that work may lead to social affirmation are very likely to interpret busyness as a positive signal of status," the researchers write. A caveat: This attitude isn't found in Europe, where having ample leisure time is still regarded as signifying higher status than staying late at the office. ■

ABOUT THE RESEARCH "Conspicuous Consumption of Time: When Busyness and Lack of Leisure Time Become a Status Symbol," by Silvia Bellezza, Neeru Paharia, and Anat Keinan (*Journal of Consumer Research*, forthcoming)

FINANCE THE MYTH OF M&A SYNERGIES

U.S. REGULATORS BECAME more aggressive in recent years about blocking mergers they believed would reduce competition. Examples of nixed deals include Staples–Office Depot, Halliburton–Baker Hughes, and Comcast–Time Warner Cable. A new study examining how companies benefit from mergers suggests that the regulators' concern was warranted. Researchers analyzed data from all U.S. manufacturing plants from 1997 to 2007 to try to answer a nagging question: When two companies merge and profits rise, does the improvement stem from more-efficient operations or from greater pricing power?

The researchers found little to indicate that productivity gains came from reductions in administrative costs or closures of inefficient plants. They did document substantial price increases after deals, ranging from 15% to more than 50%. "If firms use [their] power to mark up prices, then the net effect on welfare can be negative," they write. The price increases were largest in horizontal mergers, in which competitors joined forces. (Not coincidentally, these were the kinds of mergers regulators were most likely to block.) The study did not reveal significant price markups in vertical mergers. "Our research raises doubt about the ability of mergers to drive productivity, particularly when two firms in the same industry merge," the researchers conclude. "In such cases, companies may well profit, but not necessarily in ways that improve the overall economy." ■

ABOUT THE RESEARCH "Evidence for the Effects of Mergers on Market Power and Efficiency," by Bruce A. Blonigen and Justin R. Pierce (National Bureau of Economic Research working paper)



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CEOS WITH LOW EQUITY-BASED INCENTIVES PLAY MORE GOLF THAN OTHERS, AND FIRMS WHOSE LEADERS PLAY MORE THAN 22 ROUNDS A YEAR UNDERPERFORM FINANCIALLY—A DIRECT RESULT OF CEO SHIRKING, RESEARCHERS SAY.

"FORE! AN ANALYSIS OF CEO SHIRKING," BY LEE BIGGERSTAFF, DAVID C. CICERO, AND ANDY PUCKETT

DEMOGRAPHICS THE NEW ORGANIZATION MEN (AND WOMEN)

According to conventional wisdom, Millennials are job-hoppers who think that spending short stints at companies—or better yet, founding a company themselves—is the path to success. But a survey of 1,200 U.S. adults aged 18 to 34 suggests that's not in fact what most believe. Researchers found that attitudes toward risk taking among the cohort have been heavily influenced by the Great Recession and large student debt, producing a conservative worldview when it comes to careers. Although many Millennials expressed vague aspirations to start a business, 42% said they lacked the financial means to do so. Most surprisingly, the survey revealed broad enthusiasm for latching onto a company and staying there—a strategy associated with the Organization Men who were that generation's grandparents. The researchers conclude, "They intuitively know that risk-taking and a willingness to fail are important for advancing in life, but Millennials view sticking with one company a safer bet to salary growth than switching jobs...or starting a business." ■

MILLENNIALS SAY THAT THE BEST WAY TO ADVANCE A CAREER IS TO:

move from job to
job at different
companies

25%

start a
company

22%

move up the
ladder at a
single company

44%

don't know

9%

SOURCE "THE MILLENNIAL ECONOMY," BY EY AND THE ECONOMIC INNOVATION GROUP

HARVARD BUSINESS REVIEW MAY-JUNE 1977

"Leadership is a psychodrama in which a brilliant, lonely person must gain control of himself or herself as a precondition for controlling others. Such an expectation of leadership contrasts sharply with the mundane, practical, and yet important conception that leadership is really managing work that other people do."

"MANAGERS AND LEADERS: ARE THEY DIFFERENT?" BY ABRAHAM ZALEZNIK



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STRATEGY

WHY BIG FIRMS STRUGGLE TO INNOVATE

NEW RESEARCH EXAMINING every patent filed in the U.S. from 1980 to 1997 finds a paradox: Companies that are falling behind competitors have the biggest incentive to create technical breakthroughs, but the firms most likely to succeed at large-scale innovation are those already in the lead, because they have the best scientists, engineers, product development processes, and so on. The researchers say that this “fundamental mismatch” has important implications for managers—among them, the need to proactively work against the “behavioral bias” that a company’s current competitive footing might exert. They write: “Firms that eagerly pursue path-breaking new technologies when their performance falls below expectations may be over-invested in looking for the next big thing, while firms that choose to play it safe because their performance far exceeds expectations may be under-invested in trying new things.” The phenomenon is observed most frequently at large, multitechnology firms. ■


 **ABOUT THE RESEARCH** “Motivation and Ability? A Behavioral Perspective on the Pursuit of Radical Invention in Multi-Technology Incumbents,” by J.P. Eggers and Aseem Kaul (working paper)

ORGANIZATIONS

THE PURPOSE-PROFIT CONNECTION

LOTS OF COMPANIES give lip service to having a mission—a goal beyond bottom-line results. A new study attempts to find a link between employees’ engagement with their company’s mission and firm financial performance. Researchers analyzed 450,000 survey responses collected by the Great Place to Work Institute from employees at 429 U.S. companies, probing whether people feel their work has meaning. “The actual purpose of the company can differ wildly,” the researchers write. “All that matters [for our study] is that it focuses employees on a goal beyond profit-maximization.”


Parsing the data, the researchers distinguished between “purpose camaraderie” organizations (which combine high purpose with a sense of fun and team orientation) and “purpose clarity” ones (where managers excel at communicating how employees’ work contributes to the mission). They found that purpose-clarity firms had better financial results, and that middle managers’ and professionals’ views (not those of senior executives or hourly workers) drove those results. Why? “Effective middle managers who buy into the vision of the company make daily decisions that guide the firm in the right direction,” the researchers say. ■

 **ABOUT THE RESEARCH** “Corporate Purpose and Financial Performance,” by Claudine Gartenberg, Andrea Prat, and George Serafeim (working paper)

RISK

IS YOUR COMPANY WEATHER-RESISTANT?

AROUND THE GLOBE, extreme weather events—hurricanes, blizzards, flooding—are occurring more frequently, with real costs for businesses. Which firms are hurt the most? Using data from the Federal Reserve, researchers examined how companies in New York, New Jersey, and Connecticut performed after Hurricane Sandy, in 2012. In particular, they looked at how age and size (measured by head count) correlated with firm financial performance a year after the storm. The most significant finding: Younger, smaller firms were more likely than others to experience a long-lasting hit to profits. That happened largely because they were less likely to carry insurance (in the study, more than 60% of companies under five years old carried no insurance; few companies of any size carried enough to cover the heavy losses from a hurricane). Another reason was that storm-related losses caused many businesses to seek loans, and younger, smaller firms were less likely to have sufficient access to credit. Because start-ups have fewer resources, the researchers concluded, they are “gambling that infrequent events will not occur.” ■

 **ABOUT THE RESEARCH** “Firm Age and Size and the Financial Management of Infrequent Shocks,” by Benjamin L. Collier et al. (National Bureau of Economic Research working paper)

10%

OF U.S. SCIENTISTS AND ENGINEERS HAVE JOBS UNRELATED TO THEIR FIELD OF STUDY, BUT 78% OF THIS GROUP CHOSE THEIR “EDUCATIONAL MISMATCH.” REASONS INCLUDE PAY OR PROMOTION, GEOGRAPHY, AND WORKING CONDITIONS.

“EDUCATIONAL MISMATCH, WORK OUTCOMES, AND ENTRY INTO ENTREPRENEURSHIP,” BY BRIANA SELL STENARD AND HENRY SAUERMAN



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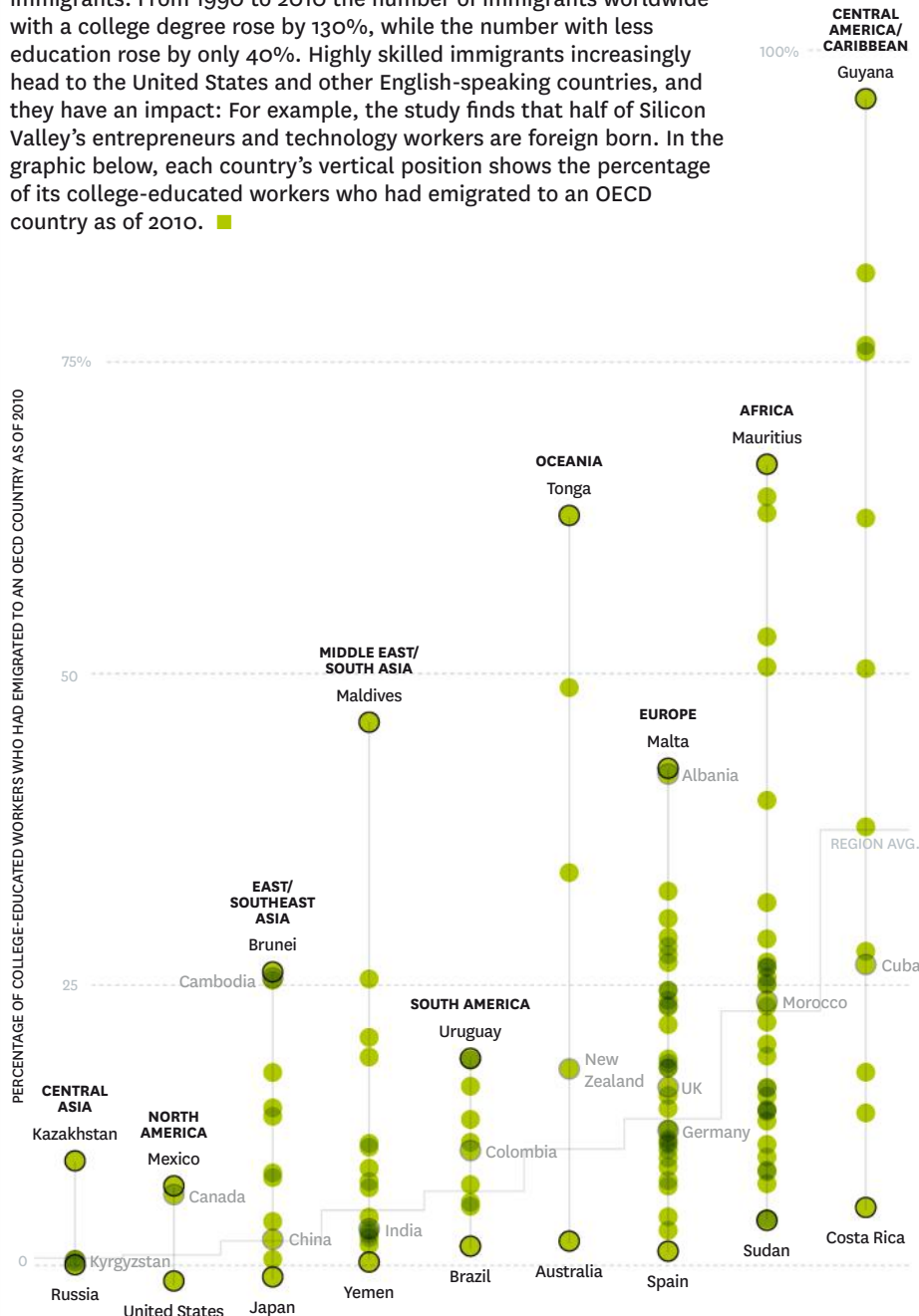
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TALENT GLOBAL BRAIN DRAIN

Despite an increasing media focus on refugees and other migrants, the share of people living outside their country of birth—about 3%—hasn't changed since 1960. What has changed are the talents and skills of immigrants. From 1990 to 2010 the number of immigrants worldwide with a college degree rose by 130%, while the number with less education rose by only 40%. Highly skilled immigrants increasingly head to the United States and other English-speaking countries, and they have an impact: For example, the study finds that half of Silicon Valley's entrepreneurs and technology workers are foreign born. In the graphic below, each country's vertical position shows the percentage of its college-educated workers who had emigrated to an OECD country as of 2010. ■



SOURCE "GLOBAL TALENT FLOWS," BY SARI PEKKALA KERR ET AL. (NATIONAL BUREAU OF ECONOMIC RESEARCH WORKING PAPER)

CONSUMER BEHAVIOR THIS ARTICLE IS FREE IF IT SNOWS ON APRIL 1

AFTER THE 2014 Super Bowl, a furniture chain returned \$7 million to customers who had bought at least \$6,000 worth of merchandise prior to the game with the promise of a refund if the Seattle Seahawks won—just one example of the gambling- and lottery-type promotions that have caught on in recent years. On the face of it, the popularity of these offers is counterintuitive; "expected utility" theory holds that consumers dislike uncertainty. So a research team decided to test "free if" promotions against traditional discounts to see which type people favor and why.

In a series of experiments involving candy, DVDs, high-end pens, and hotel rooms, subjects showed a clear preference for the risky but potentially free offer. This held over a wide range of probabilities, discounts, and prices. Compared with straight discount offers, so-called probabilistic free price promotions both encouraged more people to make purchases and increased how much each person bought. Surprisingly, the effect wasn't driven by novelty or even the allure of possibly getting something for nothing. Instead, the researchers say, it had to do with diminishing price sensitivity, or consumers' tendency to focus on the relative sizes of discounts: The participants were drawn by the potential of larger savings. "Together our experiments demonstrate that a probabilistic free price promotion can be a powerful...tool to attract more purchases," the researchers write. ■

ABOUT THE RESEARCH "When Retailing and Las Vegas Meet: Probabilistic Free Price Promotions," by Nina Mazar, Kristina Shampaner, and Dan Ariely (*Management Science*, 2016)



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PSYCHOLOGY NOSTALGIA MAKES PEOPLE MORE PATIENT

EVOKING FEELINGS OF nostalgia is a long-standing marketing technique. Think of Coca-Cola promotions featuring the company's iconic glass bottles, to cite just one example. New research suggests another way companies can make use of the emotion: Prompting customers to recall cherished memories can make them more tolerant of long waits.

In experiments with U.S. and Asian participants, researchers showed that inducing nostalgia (by, say, asking subjects to remember a happy experience that was unlikely to recur) increased people's patience while a website loaded, led them to underestimate how long they'd been waiting for a restaurant table, caused them to choose a large deferred reward over a small one in the present, and made them less likely to opt for expedited shipping. Nostalgia, the researchers write, "motivates individuals to savor their memory [of] the experience and prolong their reminiscence of it," effectively altering their sense of time.

These findings offer several practical takeaways for managers. For instance, including vintage elements in promotional campaigns could increase orders for items that aren't immediately available. And oldies background music could ease the pain of long wait times in restaurants or keep shoppers in stores longer—but should probably be avoided by fast-food eateries that depend on quick table turnover and don't want people to linger. ■



ABOUT THE RESEARCH

"Slowing Down in the Good Old Days: The Effect of Nostalgia on Consumer Patience," by Xun (Irene) Huang, Zhongqiang (Tak) Huang, and Robert S. Wyer Jr. (*Journal of Consumer Research*, 2016)

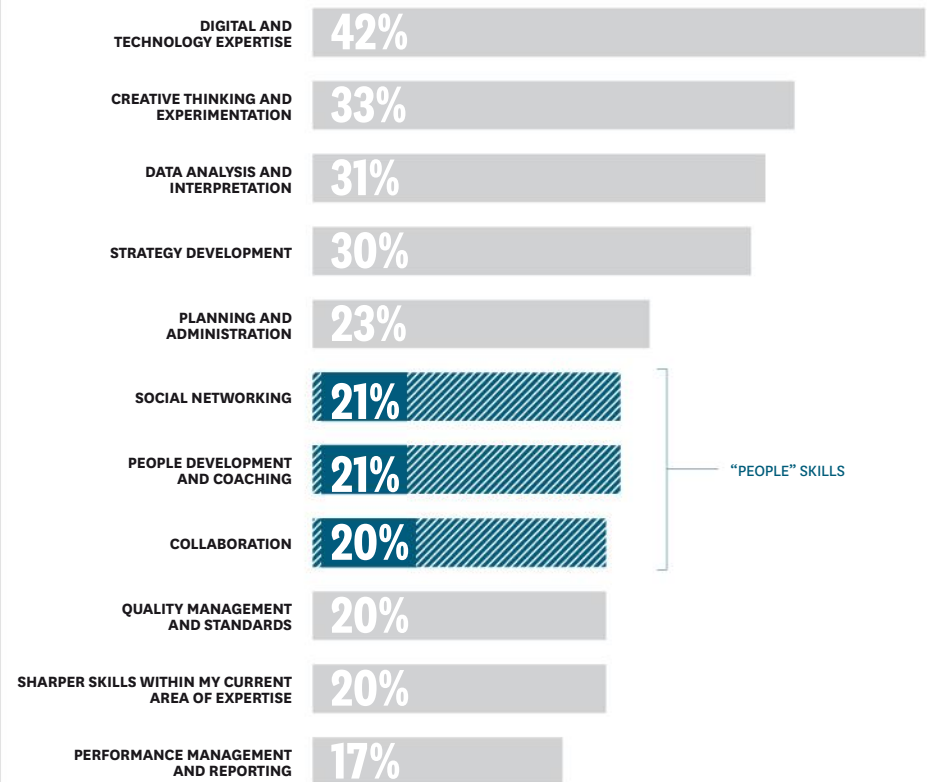


ENGLISH PROFICIENCY IS IMPORTANT FOR GLOBAL COMPETITIVENESS, YET WORKFORCE ENGLISH LEVELS VARY WIDELY, WITH THE NETHERLANDS SCORING THE HIGHEST (74 ON A 100-POINT SCALE) AND IRAQ THE LOWEST (34).

"THE EF ENGLISH PROFICIENCY INDEX FOR COMPANIES," BY EDUCATION FIRST

AUTOMATION WHAT SKILLS WILL KEEP YOU AHEAD OF AI?

As artificial intelligence and algorithms begin to automate some managerial functions, many managers are failing to prioritize the right capabilities: They underrate "people" skills, which experts say will be especially critical as AI proliferates. The chart below, based on a survey of 1,770 managers from 14 countries, shows the share of respondents who said that each skill was among the top three they will need in the next five years. ■



SOURCE ACCENTURE SURVEY OF 1,770 FRONTLINE, MIDLEVEL, AND EXECUTIVE-LEVEL MANAGERS FROM 14 COUNTRIES

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DEFEND YOUR RESEARCH

When University of Ottawa economics professor Anthony Heyes and his colleagues compared daily data from the S&P 500 index with daily air-quality data from an EPA sensor close to Wall Street, they found a connection between higher pollution and lower stock performance. Their conclusion:

AIR POLLUTION BRINGS DOWN THE STOCK MARKET

PROFESSOR HEYES, DEFEND YOUR RESEARCH

HEYES: The effect was strong. Every time air quality decreased by one standard deviation, we saw a 12% reduction in stock returns. Or to put it in other terms, if you ordered 100 trading days in New York from the cleanest-air day to the dirtiest-air day, the S&P 500 performance would be 15% worse on the 75th cleanest day than it was on the 25th cleanest day. We also replicated this analysis using data from the New York Stock Exchange and Nasdaq, and saw the same effect.

HBR: How could a few more dirty particles in the air cause such big dips in market returns? We think there are two mechanisms at work, both of which have been researched quite a bit. One,

being exposed to bad air, even for a day, affects your emotional state. It puts you in a more depressed mood. It also reduces your cognitive capability. It negatively affects how you feel and how good you are at thinking. Two, bad moods and lower cognitive capabilities tend to reduce your appetite for risk. Low risk tolerance is associated with lower returns. And that's what we saw.

But you measured only the air near traders' workplaces. Given that they work inside, how much of that air are they actually breathing? What about the air near where they live? That's part of why we chose New York City. Most traders there live in Manhattan or

nearby. And we compared the stock index performance not only with air quality at the one EPA station near Wall Street but also with the average from stations across Manhattan, and we got the same result. It's a robust result.

How do you know this correlation is the one that matters? What if it was temperature or precipitation, and the dirty air was a coincidence? Of course, we attempt to control for all the things that might be important, like temperature or weather. That's what research is about. We present findings, and people challenge us with alternative explanations that we have to test for. It's hard to control for everything; no one does it perfectly, but that's why we also do falsification checks. One of those checks focused on rain. We reran the tests only for days with no precipitation on that day or the day before. We still got a similar result.

Your colleagues must come up with some hard-to-test or unexpected variables that you should control for—but didn't. We hope they do. That's how you progress. The best answer a researcher can give on controls is that we controlled for everything we could think of. On this, we believe we've fairly convincingly eliminated other explanations, like weather. Traffic was another variable we checked.

Where did you get the idea to study this? All three of us—myself along with my colleagues Soodeh Saberian here at Ottawa and Matthew Neidell from Columbia—are interested in understanding the nonhealth outcomes of bad air. For a long time people have researched how poor air quality affects health outcomes like strokes, heart attacks, depression, suicide, and so on. Now we want to see how bad air affects things like productivity and performance at school. There's so much to examine.

What do we know about nonhealth outcomes of pollution? The research is growing. We know, for example, that animals that breathe polluted air fight more than those that breathe cleaner air. We want to see if pollution has a connection to violent crime. In general, research

FOR EVERY STANDARD DEVIATION INCREASE IN POLLUTION, THE MARKET PERFORMED 12% WORSE.



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shows that people perform less well across a variety of tasks on polluted days than on less polluted days. Peach pickers pick fewer peaches. Baseball umpires are worse at calling balls and strikes. Call center employees field fewer calls.

We want to push the boundary of understanding pollution's effects. I think we'll see that air quality affects a rich set of outcomes. Fundamentally, we already know humans are very sensitive—more sensitive than they think—to the environment they're in.

Do you know if there's some pollution threshold—some parts per million—where the effect on the stock market kicks in?

No. Our understanding of it so far is relative. We always look for nonlinear effects and try to uncover where the thresholds might be, though. When you're dealing with humans, you usually have strong nonlinear effects. For example, behavior changes dramatically once it's warmer than 85 degrees out, but less so before that. With hearing you can tolerate up to about 185 decibels, but quickly after that your eardrums will rupture. With pollution we haven't yet seen that nonlinear threshold. So far it looks mostly linear: double the pollution, double the effect.

So somewhere half as polluted as New York will have half the problem? We're not ready to generalize like that. This is a paper about New York. Each place where trading occurs is unique: How much trading is electronic? Where do people live, and how do they get to work? We did study the effects on stock performance in one other city, Toronto. We got similar results. But I can't say it will apply to all places.

So should traders be advocating for cleaner air policies to increase their returns?

Maybe there are some arbitrage opportunities here, but I'm an economist and I think about it in terms of efficient markets. I'm not interested in just saying, "Hey, let's clean the air." I'm interested in saying that if the air is cleaner, the index value of these 500 firms represents their

real value. A stock market sends signals out about the correct set of prices for investments. It's supposed to follow the market fundamentals. What we're saying is that if there are visceral, transient factors like air pollution that affect the market, that's a bad thing for the efficiency of the market. If prices are going up or down because of behavior arising from pollution, because it's really hot, or because the traders' favorite team lost a football game, that's a market inefficiency.

I would not say that cleaner air will make stock prices go up. I would say that cleaner air, particularly in New York, will make the stock market work better. Prices will reflect the reality of the market better. We're doing another project, looking at decisions by immigration judges. It's the same thing: We don't care about the numbers of positive or negative decisions. We care about more-correct decisions.

Should we expect more of this kind of research in the financial sector? To me, behavioral finance, which is what this is, is an exciting trend. In the traditional models for financial markets, especially those built more than 15 years ago, human beings didn't look like human beings. They used to call the people in those models *homo economicus*. They didn't have emotions. They didn't get upset about the Yankees' losing. They didn't have bad days or good days. Now finance models are building in real human behavior and the factors that affect it. It's a complicated task. But that's the agenda for behavioral finance—to take on this complexity. To move from a rather dry *homo economicus* model to one where we can say, "Actually, these agents act like people."

Should I go to Nova Scotia, take some big gulps of crisp Canadian air, and then write up this interview? It will turn out better. No joke. We studied the speeches of Canadian MPs, using linguists' measurements of speech quality. When air pollution was over 15 micrograms per cubic meter, which up here is a pretty dirty day, MPs' speeches scored much lower on the linguists' scales. Come to Canada, and you'll be a better writer. ☺

Interview by **Scott Berinato**
HBR Reprint F1702B

THE RESULT WAS
THE SAME NO
MATTER WHERE IN
THE CITY POLLUTION
WAS MEASURED.

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TIFFANY'S CEO ON CREATING A SUSTAINABLE SUPPLY CHAIN

The jewelry company has long led the industry in working to address environmental and human rights concerns. by Frederic Cumenal

hen I consider our competitive advantages at Tiffany, vertical integration stands out for two reasons: a deeply held business belief that great houses of luxury should craft their own designs, and an equally strong conviction that traceability is the best means of ensuring social and environmental responsibility.

Thinking back on the things that have informed my perspective as I've built my career, I realize that I've tended to focus on three passions. The first is brands. I've always been fascinated by what a fantastic vehicle a brand can be for communicating a company's culture and values. My second passion is global travel. Since my childhood in France, I've been curious about discovering new cultures, new geographies, and different ways of thinking around the world. My third passion is the realm of art and expression—the business of creating or collecting objects that are not just functional but truly beautiful. I've been very fortunate to have worked for companies that allowed me to pursue these passions.

I started my career at Procter & Gamble. P&G is a big global company that practically invented brand management, so it tapped into two of my interests. At P&G I had a chance to help market products in various industries and countries. My next job—after graduating from Harvard Business School—was with the Ferruzzi Group, an agricultural and industrial company in Italy; then I went to Mars, the U.S.-based candy company.

Before joining Tiffany, I spent 15 years at LVMH, the Paris-based luxury conglomerate. That was the first time a company connected all three of my passions. A global enterprise focused on luxury brands, LVMH makes truly beautiful and artistic products. In the early 2000s I became the CEO of Moët & Chandon, LVMH's €1.2 billion fine wine company, whose brands include Dom Pérignon champagne.

While working in that industry, I began to focus on sustainability and how the people leading businesses ought to think of themselves as stewards of natural resources. Moët & Chandon owns the largest vineyard in Champagne, and I spent a lot of time there. Leading wineries taught me to respect Mother Earth. To make spectacular champagne, you need to grow spectacular fruit—and to do it in a way that ensures the soil will remain fertile year after year.

In 2010 I received a call about a job at Tiffany. I was immediately interested. America has spawned many

great companies, but in my view, most true luxury brands are still based in Europe. Tiffany is one major exception. Because the company started in such a large market, it hadn't grown globally as much as it might have if it had launched in a smaller country. The more research I did on it, the more I recognized its potential for global growth. Tiffany has a storied history, but it was almost shy about expressing its character to consumers.

I'd been recruited with a clear path toward succeeding Mike Kowalski, then Tiffany's CEO and now its nonexecutive chairman. I joined as an executive vice president, and within three years I was president and sitting on the board. I worked closely with Mike to learn all the aspects of the business as I prepared to succeed him, and I thought about the priorities I would set when I took over, which I did in April 2015. When I began acting on those priorities, expanding a sustainable and socially responsible supply chain was near the top of the list.

AVOIDING "CONFLICT DIAMONDS"

Nobody used the word "sustainability" when Charles Lewis Tiffany cofounded this company, in 1837, in New York. But in his own way, Tiffany was ahead of his time. After opening his store in Manhattan, he began doing things in ways that continue to differentiate the company from its competitors even now.

In the 1800s most jewelers were just retailers, and that's still true. They bought products from middlemen and resold them. By 1848, however, Tiffany had hired dozens of artisans to occupy a workshop above the store, making jewelry in-house. He wanted to design and manufacture the products he sold and to express his own artistic vision and talent. That was only the first step toward vertical integration. By the late 1800s he had set up an internal operation to cut and polish diamonds, applying stringent quality and workmanship standards. That didn't necessarily make the company more environmentally friendly than competitors, but Tiffany did gain much more control over its supply chain, which became important later on.

Tiffany's focus on sustainability began about 25 years ago. The company had gone public in 1987, and over the next decade it focused on growth and overseas expansion. For that it needed more precious metals and more diamonds. At the same time, people were becoming increasingly aware of the environmental and human costs of mining—specifically, that mines often use cyanide and other toxic chemicals to extract precious metals (especially gold) from

ore, and that some diamonds originate in countries with political conflicts or human rights abuses, so sales of those diamonds may be financing violence. Awareness of “conflict diamonds” increased even more after Leonardo DiCaprio’s movie *Blood Diamond* was released, in 2006.

In the decade before I arrived, Tiffany led the industry in working to address these environmental and human rights concerns. Its leaders spoke out against proposals to create gold and copper mines in Alaska’s pristine Bristol Bay and in Yellowstone National Park. In 2003 Tiffany led the effort to seek U.S. participation in the Kimberley Process Certification Scheme (KPCS), which works to stem the flow of conflict diamonds. (Tiffany chooses to go further, declining to buy stones from Angola, the Democratic Republic of Congo, and Zimbabwe, even though they are part of the KPCS, because of concerns about human rights abuses in these countries.) In 2006 Tiffany helped establish the Initiative for Responsible Mining Assurance, which aims to be the world’s first independent certification system for responsible operations at large-scale mine sites.

Our efforts with regard to responsible sourcing aren’t limited to gold and diamonds. For instance, more than a decade ago we were among the first companies to stop using coral in jewelry, and we urged the industry to recognize that coral is not a rock or a plant but a living animal and the foundation of healthy marine ecosystems.

LOOKING OUT FOR PEOPLE

I knew a bit about these issues when I joined the company, but I quickly learned much more. I began visiting our operations all over the world. We have five diamond workshops, where we cut and polish stones, and four jewelry-making or polishing facilities. In thinking about sustainability, our inclination is to focus on the environment, because mining by its very nature disturbs the earth and is going to have an environmental impact. But how our employees and the employees of the mines from which we source are treated is also crucial. When I began visiting our workshops and the mines that supply our diamonds, I paid special attention to the social development around them. I particularly remember my first visit to our diamond workshop in Botswana. Botswana is a democratic landlocked country consisting mostly of desert. Over the past 40 years or so its government has ensured that extraction of its primary natural resource, diamonds, has been for the benefit of all its citizens.

We are proud to contribute to this effort by training local workers to cut and polish diamonds to our exacting quality standards, thus helping them build skills and knowledge that can be used even beyond diamond processing. We have since contributed more than \$51 million to the economy of Botswana, where 98% of our polishers were local in 2016.

Our vertically integrated operation enables us to trace all our rough diamonds to a known mine or to a supplier with known mines. Unlike most jewelers, we buy directly from these sources, so we know exactly which source has provided each stone. (Our size also allows us to be choosy: We accept only stones that meet our stringent quality standards—about

YOUNGER PEOPLE INCREASINGLY CARE WHERE THEIR FOOD IS HARVESTED. WE THINK THEY’LL CARE ABOUT THE PROVENANCE OF THEIR DIAMONDS, TOO.

0.04% of the world’s gem-grade diamonds.) At our diamond workshops we laser-inscribe every stone larger than 0.18 carats with a microscopic code indicating its provenance so that we can ensure our chain of diamond custody. Many other jewelers buy from middlemen who commingle diamonds from multiple suppliers. Tiffany and its customers can be proud that our diamonds are a source of positive economic and social development.

In 2014, just months before I became CEO, we decided to exert even more control over our supply chain. Diamonds that are smaller than 0.18 carats are called melee, and they’re often used in combination with other stones, such as to surround a large diamond in a ring. Traditionally, melee have been treated differently from larger diamonds; they’re more of a commodity, and we didn’t cut and polish them ourselves until just a few years ago. By 2014 we were operating diamond polishing workshops for larger stones in Belgium, Botswana, and Mauritius, along with one for melee in Vietnam. To diversify our polishing capacity in view of the increasing demand for melee diamonds, we decided to establish an operation in Cambodia.

At that time, the garment industry was beginning to leave Cambodia for lower-cost countries. When I visited the area, I was amazed by the dexterity and work ethic of the garment workers, who were losing their jobs. We trained them to handle melee diamonds in a custom-built, LEED-certified factory in Phnom Penh. We also worked with an economist to create a new methodology for calculating a fair living wage—factoring in variables such as family size, housing, and transportation costs—that was true to local realities. We instituted free lunches and maternity leave, and eliminated late-night shifts and weekend work, which is important for parents whose children are at home after school. Today our Cambodia facility employs nearly 800 people. Most of our industry still outsources this kind of work, but we’ve found that Tiffany’s internal facilities are highly efficient while offering workers a good standard of living.

EDUCATING CUSTOMERS

Soon after I became CEO, I formally created a position for the chief sustainability officer, who reports to me. Not many luxury companies have a CSO, and those that do usually have the person report to someone in the C-suite other than the CEO. But I thought it was crucial to signal both internally and to the entire industry that sustainability is of prime importance. I chose a company veteran for the role, Anisa Kamadoli Costa, who is charismatic and mission oriented. Under her guidance we set a goal of reducing our greenhouse gas emissions to net-zero by 2050 and created plans to work toward achieving that. It was a big step for Tiffany: We’d been focused on sustainability issues specific to our industry, and this made climate change part of our sustainability agenda.

In 2017 we’re taking another big step to give us more control over our supply chain. Tiffany is a U.S. company, but at its core it’s really a New York company—a product of the world’s creative capital. New York is where we were founded and where our headquarters and flagship store are located. We’re planning to open a New York-based innovation center, which will bring key individuals in our R&D, design, manufacturing, and supply chain teams under one roof. We believe that if we put our expert minds together and foster a collaborative energy among them, we’ll be able to move faster, be more innovative, and produce even greater designs, and to embed sustainability considerations throughout the process. It’s another example of the advantages of being more fully integrated than our competitors.



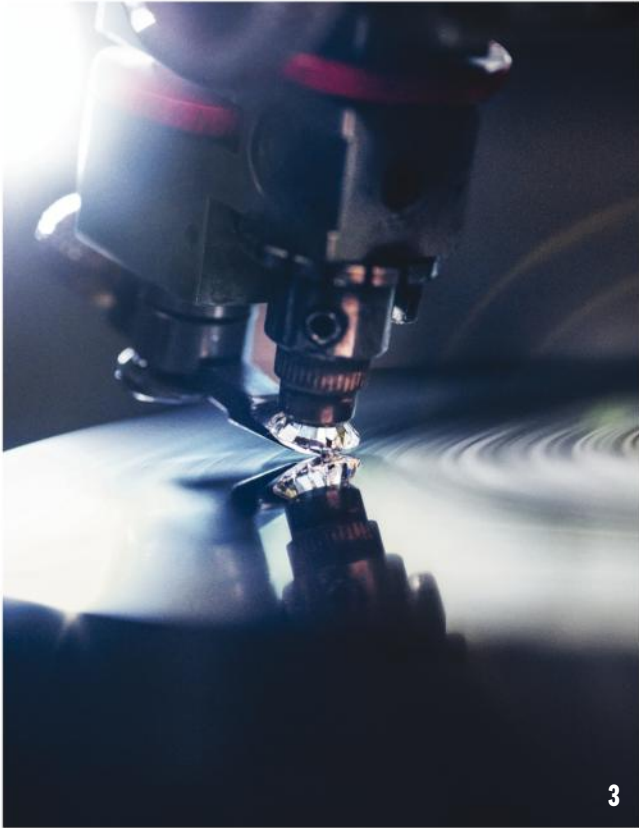
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2

FROM MINE TO RING

1. The Diavik mine in Canada’s Northwest Territories, where Tiffany sources many of its diamonds.
2. Mapping the plan for a rough diamond using 3-D imaging at a Tiffany workshop in Antwerp.
3. A diamond being polished on a wheel coated with diamond crystals.
4. Tiffany polishers at work in Antwerp.
5. A diamond being inspected under a microscope for final grading.
6. A craftsman in New York prepares a setting for mounting.

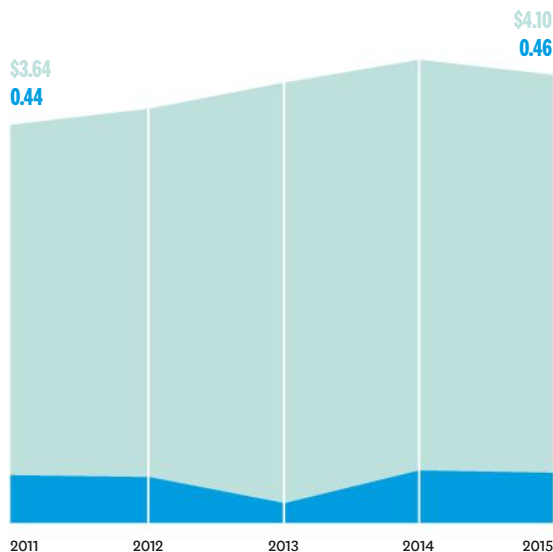


3: PARI DUKOVIC, 4 & 5: TIFFANY & CO., 6: PARI DUKOVIC

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HEADQUARTERS NEW YORK, NEW YORK
NO. OF EMPLOYEES 10,600

NET SALES (IN US\$ BILLIONS)
NET EARNINGS



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Although we care deeply about producing our products responsibly, we have some distance to go in terms of educating our customers about this benefit. We increasingly see interest in sustainability as a key consideration for our customers, particularly with engagement rings, but the extent to which socially responsible practices actually influence purchasing behavior is still difficult to measure.

We sell a lot of engagement rings to young men, who at this stage in their lives usually have only limited knowledge of jewelry. This is often their first big jewelry purchase. They already face a steep learning curve to understand cut, carat, clarity, color, and Tiffany's unique fifth dimension: presence (the precision of cut, symmetry, and polish that profoundly influence a diamond's brilliance, dispersion, scintillation, and overall appearance). Educating them about sustainable practices along with all that can be a challenge. But we train our salespeople to talk about how our sourcing methods differ from those of our competitors and we encourage customers to consider those practices when choosing where to shop. Younger people show growing concern about where their food is harvested, so we think they'll care about


the provenance of their diamonds, too. We continue to invest in CSR communications to make that happen.

ADAPTING TO DEMOGRAPHIC CHANGES

Like all other luxury brands, we've faced challenges in the market over the past couple of years. The appreciation of the U.S. dollar puts pressure on some of our costs and influences spending patterns. Many people tend to make luxury purchases while traveling, and recent events have affected (and most likely will continue to affect) how people move around the globe. For example, over the past 15 years Chinese consumers have been a major growth engine for luxury brands, both within China and when they travel. This could change during the next year, partly because of decisions in Beijing to increase import taxes. We're also living in a world that feels more uncertain, which may make people rethink their relationship with luxury.

Demographic changes are forcing us to be more innovative. For example, marriage rates are dropping slightly in the United States and Western Europe. Bridal jewelry purchases constituted 29% of our worldwide revenue in fiscal 2015, so that's a trend we watch closely. However, engagement rituals are evolving in other parts of the world, especially China, so we believe the global market for engagement and wedding rings is still growing. And we see other ways to expand sales: Same-sex marriage is now common in the West; couples are buying rings or other jewelry to signify non-marital commitments; and jewelry is frequently a sign of love—for a partner, a family member, or a friend. (At our new innovation center, designers are working on products for all these relationships.) Love will be here as long as humanity is; no matter what demographic trends we see, we're confident about that.

We're also convinced that our vertically integrated strategy continues to make sense. For me, the fact that we design and manufacture the majority of our own products isn't just a matter of image, quality, or craftsmanship. It's a practice that's especially important in the luxury market. I believe that the most successful luxury houses of the future will be the ones that are the most integrated.

When a business faces headwinds, it's natural to take a critical look at the cost structure. At some companies, CSR initiatives are the first things to be cut during a challenging financial time. But at Tiffany we don't see sustainability as a cost. We see it as a way of doing business and as a competitive advantage—one that we don't ever intend to change. 

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perspective

noun \pər-ˈspek-tiv\

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I saw things differently—the
challenges became more defined,
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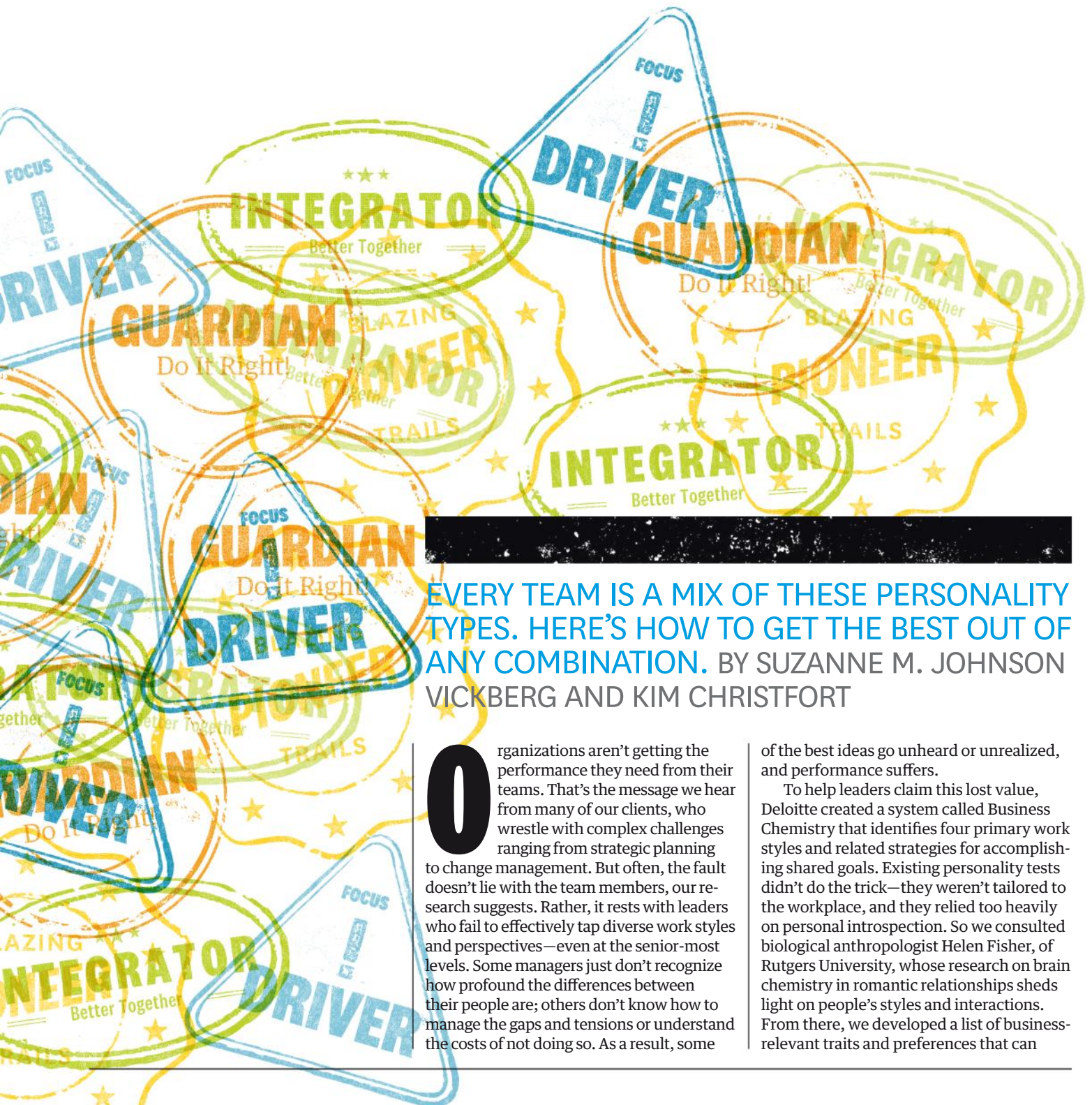
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**“THE BIGGEST
PAIN POINTS ARE
IN ONE-ON-ONE
RELATIONSHIPS
WHEN OPPOSITE
STYLES COLLIDE.”**

From “Pioneers, Drivers, Integrators, and Guardians,” page 50





EVERY TEAM IS A MIX OF THESE PERSONALITY TYPES. HERE'S HOW TO GET THE BEST OUT OF ANY COMBINATION. BY SUZANNE M. JOHNSON VICKBERG AND KIM CHRISTFORT

Organizations aren't getting the performance they need from their teams. That's the message we hear from many of our clients, who wrestle with complex challenges ranging from strategic planning to change management. But often, the fault doesn't lie with the team members, our research suggests. Rather, it rests with leaders who fail to effectively tap diverse work styles and perspectives—even at the senior-most levels. Some managers just don't recognize how profound the differences between their people are; others don't know how to manage the gaps and tensions or understand the costs of not doing so. As a result, some

of the best ideas go unheard or unrealized, and performance suffers.

To help leaders claim this lost value, Deloitte created a system called Business Chemistry that identifies four primary work styles and related strategies for accomplishing shared goals. Existing personality tests didn't do the trick—they weren't tailored to the workplace, and they relied too heavily on personal introspection. So we consulted biological anthropologist Helen Fisher, of Rutgers University, whose research on brain chemistry in romantic relationships sheds light on people's styles and interactions. From there, we developed a list of business-relevant traits and preferences that can

be observed or inferred from behavior at work. A survey development company then helped us build an assessment, which we tested and refined with three independent samples of more than 1,000 professionals each. Finally, we collaborated with molecular biologist Lee Silver, of Princeton, to adapt the statistical models he uses for genetic population analysis to look for patterns in our business population data and to mathematically derive four work styles.

Since then, more than 190,000 people have completed our assessment, and we've conducted follow-up studies to determine how each work style responds to stress, the conditions under which the various styles thrive, and other factors that can inform how to manage the styles effectively. We've also engaged leaders and teams in more than 3,000 "labs"—interactive sessions lasting 90 minutes to three days—during which we've gathered more data and explored strategies and techniques for getting the most out of diverse styles.

In this article, we'll lay out the value that each style offers, address the challenges of bringing people with different styles together, and describe how to capitalize on the cognitive diversity in your organization.

UNDERSTANDING THE STYLES

Each of us is a composite of the four work styles, though most people's behavior and thinking are closely aligned with one or two. All the styles bring useful perspectives and distinctive approaches to generating ideas, making decisions, and solving problems. Generally speaking:

Pioneers value possibilities, and they spark energy and imagination on their teams. They believe risks are worth taking and that it's fine to go with your gut. Their focus is big-picture. They're drawn to bold new ideas and creative approaches.

Guardians value stability, and they bring order and rigor. They're pragmatic, and they hesitate to embrace risk. Data and facts are baseline requirements for them, and details matter. Guardians think it makes sense to learn from the past.

Drivers value challenge and generate momentum. Getting results and winning count most. Drivers tend to view issues as black-and-white and tackle problems head on, armed with logic and data.

Integrators value connection and draw teams together. Relationships and

responsibility to the group are paramount. Integrators tend to believe that most things are relative. They're diplomatic and focused on gaining consensus.

Teams that bring these styles together should, in theory, enjoy the many benefits of cognitive diversity, ranging from increased creativity and innovation to improved decision making. Yet time and again, diverse teams fail to thrive—sometimes stagnating, sometimes buckling under the weight of conflict. A first step for leaders hoping to turn that around is to identify the differing styles of their team members and understand what makes each individual tick.

In our work, we've clustered thousands of groups by style and asked them to list the things that energize and alienate them in the workplace. The lists vary greatly—what motivates one group can suck the life out of another (see the exhibit "The Profiles at a Glance"). Some of the differences have to do with how people interact. For instance, Integrators abhor anything that feels like conflict, but Drivers love to debate. This can create tension and misunderstanding. In one of our lab sessions, a CFO and her team were talking about their executive meetings. One participant, an Integrator, confessed that she dreaded bringing topics up because "it always leads to an unpleasant argument." The CFO, a Driver, reacted with surprise, saying, "But that's just how we discuss things!"

Differences in how individuals think and contribute can also create problems. For instance, if a Guardian walks through a detailed plan line by line, that may feel like a forced march to a Pioneer, who wants to skip ahead or whiteboard a completely different idea. Conversely, the Pioneer's riffing about ideas without any agenda or structure may seem like an impractical mess to the organized Guardian.

The four styles give leaders and their teams a common language for discussing similarities and differences in how people experience things and prefer to work. Groups come to appreciate why certain times feel so challenging (that is, which perspectives and approaches are at odds), and they also begin to recognize the potential power in their differences.

One leadership team, for example, was struggling to get everyone aligned with its strategy and was experiencing a great deal of interpersonal conflict in the process.

THE FOUR STYLES GIVE LEADERS AND TEAMS A COMMON LANGUAGE FOR UNDERSTANDING HOW PEOPLE WORK.



This consumed a lot of the leader's time and energy, since members kept coming to him with complaints about others. Through discussions with the team, we uncovered some norms that were disagreeable to each style: Guardians felt that they'd been rushed through due diligence processes; Pioneers felt that innovation was being squashed by rigid interpretations of compliance guidelines; Drivers were frustrated by the team's unwillingness to commit to a decision; and Integrators were bothered by dismissive behaviors, such as eye-rolling.

Our discussions highlighted team strengths, such as an openness to sharing perspectives and voicing concerns and a commitment to generating innovative ideas and supporting the business. The team brainstormed strategies for accommodating individuals' differing styles and taking advantage of the value that each brought. A month after we met with them, members indicated they had been actively hypothesizing about one another's styles and were developing a better understanding of the team. Even more important, they reported a greater sense of shared purpose, an environment that better enabled them to contribute at their highest levels, and an improved ability to accomplish goals.

MANAGING THE STYLES

Once you've identified the work styles of your team members and have begun to consider how the differences are beneficial or problematic, you must actively manage them so that you're not left with all frustration and no upside. You can do so in three ways.

Pull your opposites closer. Often, the biggest pain points are in one-on-one relationships when opposite styles collide. Each of the styles is different from the others, but they're not different in equal measure. For example, Guardians are generally more reserved than Drivers—but both types are very focused, which can help them find common ground. Guardians and Pioneers, however, are true opposites, as are Integrators and Drivers.

As you'd expect, the interpersonal problems that tend to arise when opposite styles come together can put a damper on collaboration. Indeed, 40% of the people we surveyed on the topic said that their opposites were the most challenging to work with, and 50% said that they were the least

enjoyable to work with. Each type cited different reasons for the difficulties.

For example, one Driver explained why she doesn't enjoy working with Integrators:

"I find it exhausting to do all the small talk to make everyone feel good about working together. I just want to get things done, give honest and direct feedback, and move forward. Having to worry about sensitive feelings slows me down."

An Integrator who found Drivers challenging to work with said:

"I need to process things to get the contextual background for the big picture. Drivers often speak in code or thought fragments that we need to translate."

We were told by a Guardian:

"I'm always thinking about how I'm going to implement something...and while the Pioneers have great ideas, they typically can't be bothered with discussing how to execute them. But, if the outcome doesn't match their vision, they're frustrated!"

And a Pioneer admitted:

"I have a very difficult time adjusting to a Guardian's style. I am decisive and like to generate ideas without judgment. Guardians can come across as judgmental, and they don't allow creativity to flow."

Despite the havoc such differences can wreak on team performance, opposite styles can balance each other out. Still, that takes time and effort. We worked with one Guardian-Pioneer pair who struggled in the beginning but, by openly discussing their differences, eventually forged a stronger partnership. The Pioneer was quite comfortable speaking in front of groups and doing so on the fly. The Guardian dreaded public speaking even with thorough preparation, which she rarely saw as enough. When getting ready to present something together, the Pioneer often felt impatient, and the Guardian felt alarmed at what she saw as inadequate planning. As their relationship progressed, they began to trust and adjust to each other. The Pioneer learned that her partner's meticulousness often got them out of a tight spot and that doing a bit more preparation herself helped her to be better in the moment. The Guardian learned that her partner's more spontaneous approach was engaging and enabled them to be more flexible and responsive to their audience's needs. She found that when they were working together, she could relax a bit and take more risks herself.

IN BRIEF

THE PROBLEM

When teams fall short of their potential, it's often because leaders don't know how to manage the differences in how people approach their work.

THE RISK

The four work styles described here—Pioneers, Guardians, Drivers, and Integrators—all have something important to offer. But they can cause conflict among team members.

THE SOLUTION

To foster productive friction, leaders should pull opposite types closer, seek input from people with nondominant styles, and pay attention to sensitive introverts, who risk being drowned out but have essential contributions to make.

By pulling your opposites closer—having them collaborate on small projects and then take on bigger ones if it's working out—you can create complementary partnerships on your teams. It's also important to pull your own opposites closer to you, to balance your tendencies as a leader. This is really about generating productive friction. Think Lennon and McCartney, Serena and Venus, the Steves (Jobs and Wozniak). Differences are what make such collaborations powerful.

Elevate the “tokens” on your team.

If you've got a team of 10 people, seven of whom are Guardians, what leadership approach should you favor? Adopting one that works well for Guardians—seeking the greatest good for the greatest number—might seem like the practical thing to do. But in our experience, it's often more effective to focus on styles that are represented by just a few team members, since it's those minority perspectives you need to court to reap the benefits of diversity.

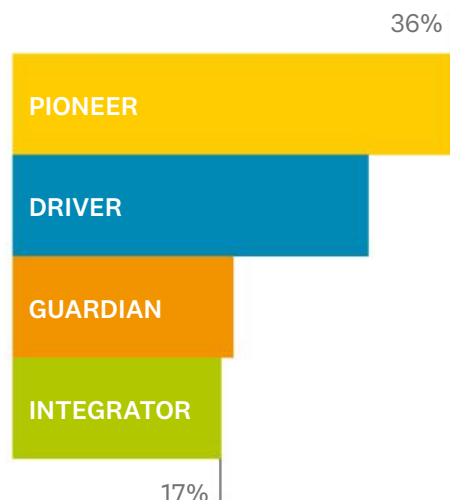
When a team's makeup is lopsided, cognitive bias can creep in, often leading to “cascades.” Imagine trying to change the direction of a big waterfall. Without a feat of engineering, it would be impossible. That's how a cascade works on a team: Once ideas, discussion, and decision making start flowing in a particular direction, momentum keeps them moving that way. Even if diverse views exist on the team, they probably won't change the flow once it's established, as people often hesitate to voice disagreement with an idea that gets early visible support.

Momentum builds for various reasons: *Reputational* cascades generally result from a fear of looking bad or of being punished for disagreeing, and *informational* cascades can occur when people assume that early speakers know something others don't. Either way, you end up with self-censoring and groupthink, which means the team doesn't benefit from its diverse perspectives.

Of the teams we work with, about half are relatively balanced, and the rest are dominated by one or two styles. We've also found that top leaders are most likely to be Pioneers, and then Drivers (see the exhibit “The Leadership Profile”). In many cases, the majority of executive team members share the leader's style, which can make the team particularly susceptible to cascades. Pioneers tend to be spontaneous and outgoing. They think quickly and speak

THE LEADERSHIP PROFILE

Most top leaders are Pioneers or Drivers, our survey of 661 C-suite executives suggests. Because these are the most vocal styles, executive teams should look out for “cascades” and evidence of groupthink.



energetically, sometimes before thinking much at all. Similarly, Drivers like to take charge in group settings, and with their competitive and direct style, they're inclined to jump right in and state their point of view rather than hang back to hear what others have to say. Especially if they're in the majority or supported by a leader with a similar style, there's a strong chance that Pioneers or Drivers will set the direction of a cascade with early comments.

We were asked by one leader to help uncover why her team, though highly productive, was repeatedly criticized by internal stakeholders for its lack of diplomacy. We analyzed the team's composition and saw that it was dominated by assertive and outspoken Drivers. When we asked whether this style might be ruffling feathers, those individuals pushed back, saying that they knew what needed to get done and didn't have time to worry about people's feelings.

The team also had a small group of Integrators—the style that typically shows the most relationship-building prowess. But those folks were marginalized, rarely spoke, and told us that they felt shut out and devalued. Although they were eager to share their thoughts and ideas with us in private, they were unwilling to stand up to the Drivers dominating the team. As a result, the group seemed to be losing out on the strengths of those who were best equipped to help them improve their relationships with stakeholders.

How can you elevate minority perspectives on your team to avoid cascading and marginalization—without turning others off? Here are some tactics that may help.

If you're trying to get Guardians to share their perspective, give them the time and the details they need to prepare for a discussion or a decision. Then allow them to contribute in ways that are comfortable for them (for instance, in writing) and that don't require them to fight for the floor—because chances are, they won't. Making advance reading and preparation an option rather than a requirement will lessen the burden for those uninterested in spending time this way, such as Pioneers.

To elicit Pioneers' ideas, allow room for discussions to get expansive. Provide white boards and encourage people to get up and grab the marker. Determining in advance how long you'll allow such discussions to go on will help those who prefer more

structure—particularly Guardians—to relax into the free-flowing exercise.

As for Integrators, dedicate some energy toward forming real relationships with them—and then ask for their thoughts. Also seek, and empower them to seek, the perspectives of other team members and stakeholders. Explore with them how the discussion or decision affects the greater good. Doing some of this work offline may prevent Drivers from getting antsy with what they may see as time-consuming niceties.

For Drivers, keep the pace of conversations brisk, and show clear connections between the discussion or decision at hand and progress toward the overall goal. Consider introducing an element of experimentation or competition—say, gamifying a training program—to keep them interested and engaged. Some styles, such as Integrators, may be less motivated by competition, so also look for ways to build or strengthen relationships—for instance, by providing opportunities for competing teams to socialize together.

Beyond these type-specific tactics, there are more-general ways to elevate minority perspectives on your team:

Encourage anyone in the minority to speak up early to give them a chance to influence the direction of the conversation before a cascade sets the course. Polish psychologist Solomon Asch's classic experiments on conformity demonstrated that when even one person goes against the majority, the likelihood that others will offer divergent perspectives increases greatly. Take advantage of this phenomenon to promote healthy dissent.

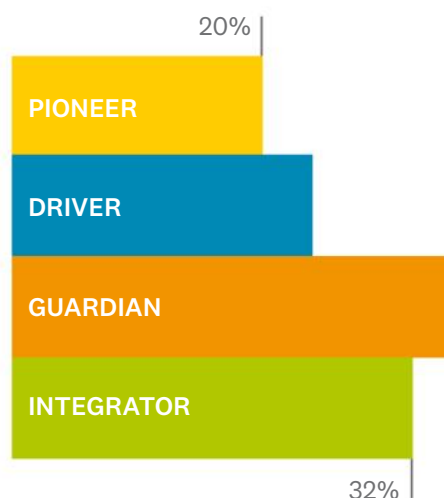
Also ask people to brainstorm on their own ahead of time and then share their ideas in round-robin fashion when the group convenes. Studies have shown that this approach is more effective than group brainstorming. Like giving minority styles the floor first, individual brainstorming can get more diverse ideas into the mix before a particular direction gains momentum. It also gives greater voice to those who prefer to process and generate ideas in a quiet atmosphere or at a more deliberate pace.

If a team is light on a particular style, try asking others to “think like” that style. Do this early in the conversation, before the majority viewpoint takes hold. Many of us are accustomed to saying, “Just playing devil’s advocate”; in this case, one might



STRESSED-OUT

In our study of more than 23,000 professionals, more Guardians and Integrators reported being stressed-out than anyone else. To benefit from their strengths on your team, look for ways to ease the pressure and help them feel psychologically safe.



say, “Just playing Guardian here...” or “If I were to view this issue through the lens of a Driver...” We’ve found that teams that have learned about the four styles are quite adept at putting themselves in the shoes of others when asked, and that doing so can enrich and round out a discussion that otherwise might be one-dimensional.

Pay close attention to your sensitive introverts. Although a cascading team may lose out on contributions from any style that’s in the minority, members who are highly introverted or sensitive are at greatest risk of being drowned out. We see the most evidence of introversion and sensitivity among Guardians but also find these traits in a subset of Integrators we’ll call Quiet Integrators. As with people who don’t share their team’s dominating style, sensitive introverts are rarely heard unless leaders deliberately reach out to them.

A Pioneer or Driver cascade can feel like Niagara Falls to Guardians, who tend to be reserved, to consider decisions carefully, and to avoid confrontation. Particularly if they’re in the minority, they may not speak up when others are clamoring to say their piece. Similarly, Quiet Integrators tend to be particularly nonconfrontational and focused on consensus—so if the team appears to be leaning in a certain direction, they’re unlikely to offer a divergent perspective. And because neither Guardians nor Quiet Integrators are inclined to embrace risk, they will probably see little reason to stick their necks out to challenge the prevailing wisdom.

Add to that the ways in which Guardians and Integrators are affected by stress. In a study of more than 20,000 professionals from inside and outside Deloitte, those styles were more likely than Pioneers and Drivers to report feeling stressed (see the exhibit “Stressed-Out”). And their stress levels were higher in response to every kind of situation we asked about—face-to-face interactions, conflicts, a sense of urgency, heavy workloads, and errors. In a second sample, this time of more than 17,000 professionals, Guardians and Integrators were also less likely to report that they work effectively under stress. These findings fit right in with author Susan Cain’s work on introverts and psychologist Elaine Aron’s work on highly sensitive people. Both suggest that today’s breakneck, open-space, highly collaborative work environment is particularly challenging for these groups.

Now consider all this in light of the fact that top leaders tend to be Pioneers or Drivers. People who are most introverted, most stressed, and least adaptable are often being led by those who are most extroverted, least stressed, and most adaptable. You can probably see how this could pose difficulties for everyone.

You might ask, Why bother catering to sensitive introverts? Shouldn't people be able to adapt and manage their stress? To speak up even when it's difficult? Maybe you simply don't want those who can't.

We think you do. Cain's and Aron's research shows that people who are more introverted or sensitive have particular strengths that can benefit teams and organizations. For example, they tend to be conscientious and thorough—good at spotting errors and potential risks. They can focus intensely for long periods of time. They're good listeners and more likely to highlight others' great ideas than to seek the spotlight for themselves. They often tackle and excel at the detail-oriented work that others can't or simply don't want to do. So while reaching out to sensitive introverts may be labor-intensive, the effort should pay off.

To get the most out of your Guardians and your Quiet Integrators, consider asking how you can help them keep their stress levels manageable. This may involve identifying ways to slow the pace, reduce information overload, provide quieter or more private work environments, or run interference for them so that they can focus without a lot of distraction.

Next, to borrow a suggestion from Susan Cain's popular TED Talk about the power of introverts: "Stop the madness for group work! Just stop it!" Engage Guardians and Quiet Integrators by giving them some alone time for more-reflective tasks. Instead of defaulting to teamwork, ask whether some tasks are actually better done in solitude.

Sensitive introverts may not take charge, or compete, or even talk much at all, but don't mistake this for lack of interest. They're almost certainly observing and processing. If you want their perspective, ask them directly, but use a light touch—cold-calling Guardians and Quiet Integrators can backfire if they haven't had a chance to reflect first. If you do give them an opportunity to prepare and then make space for them to speak in a meeting, they'll probably

be happy to offer their thoughts. One leader we worked with was particularly skilled at this. Before meetings that included introverted team members, she would tell them what the discussion would focus on, often making specific requests to facilitate their involvement: "Will you say something about X topic or comment on section Y when we get to it in the meeting?"


Guardians and Quiet Integrators spend a lot of time and energy reviewing their own mistakes, so it's important to create an environment where good faith efforts are celebrated even when they fail. Since teams that feel psychologically safe have been shown to outperform those that do not, this can benefit team members of all styles.

ENCOURAGE ANYONE IN THE MINORITY TO SPEAK UP EARLY, BEFORE A "CASCADE" SETS THE COURSE.




PRACTICING WHAT WE PREACH

We've seen the power of this approach in working with executives and teams, and we've also experienced it personally, in our own opposing-styles partnership. One of us, Kim, is a Pioneer with a good bit of Driver mixed in. She values expansive thinking and rapid advancement, and she leads a large team dominated by other extroverted, free-wheeling Pioneers. Suzanne is a Guardian and a Quiet Integrator—a double dose of introverted sensitivity—making her a bit different from many of her teammates. She processes things deeply, insists on rigor, and can't be rushed. Working with Kim and the broader team sometimes feels to Suzanne like trying to thread a needle in the midst of a hurricane. To Kim, working with Suzanne sometimes feels like running in deep water.

Early on, things didn't always go smoothly for us, but with time we've realized how much stronger we are working together. Suzanne knows that Kim's always got the big picture in mind, and Kim trusts that Suzanne has considered every detail. And as the team's leader, Kim has created a protective enclave that allows Suzanne to take cover and do what she does best. Our partnership is better for it, and so is our team. 

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 **SUZANNE M. JOHNSON VICKBERG** is a social-personality psychologist and Deloitte's lead researcher on the firm's Business Chemistry system. **KIM CHRISTFORT** is the national managing director of Deloitte Greenhouse experiences. She is one of the original architects of Business Chemistry.

THE PROFILES AT A GLANCE

WHAT'S YOUR STYLE?

Check off the traits that generally apply (keeping in mind that you probably behave differently in different groups and situations). Tally up the relevant traits in each category for a rough gauge of which styles you draw on most often.

☐ Outgoing

☐ Focused on the big picture

☐ Spontaneous

☐ Drawn to risk

☐ Adaptable

☐ Imaginative

☐ Diplomatic

☐ Empathic

☐ Traditional

☐ Relationship-oriented

☐ Intrinsically motivated

☐ Nonconfrontational

☐ Quantitative

☐ Logical

☐ Focused

☐ Competitive

☐ Experimental

☐ Deeply curious

☐ Methodical

☐ Reserved

☐ Detail-oriented

☐ Practical

☐ Structured

☐ Loyal

HOW CAN YOU GET THE MOST OUT OF EACH STYLE ON YOUR TEAM?

Know what gets them excited—and what they find off-putting.

ENERGIZED BY:

Brainstorming

Spontaneity and trying new things

Enthusiasm

Collaboration

Communication

Trust and respect

Solving problems

Directness

Winning

Organization

Predictability and consistency

A detailed plan

ALIENATED BY:

Rules and structure

The word “no”

A focus on process

Politics

Conflict

Inflexibility

Indecision

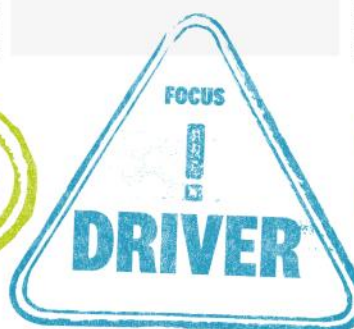
Inefficiency

Lack of focus

Disorder

Time pressure

Ambiguity and uncertainty



HOW WORK STYLES INFORM...

FIVE EXECUTIVES EXPLAIN HOW UNDERSTANDING PERSONALITY HAS HELPED THEM BECOME BETTER LEADERS.
BY ALISON BEARD

STRATEGY

ADAM MALAMUT

CHIEF CUSTOMER EXPERIENCE OFFICER, MARRIOTT

TWO YEARS AGO, when I was chief talent officer for Marriott, I was tasked with streamlining and modernizing our learning and development capabilities. I'd assembled a new team and wanted to make sure we understood one another, our roles and responsibilities, and our strategic objectives before embarking on this journey. We used the personality style framework not only to understand our own strengths and weaknesses and how to work more effectively together but also to identify where we needed to augment the team and what we could realistically accomplish in our first year, and then our second.

As one of the initial steps in the strategic planning process, everyone considered their own profiles and those of their respective teams and started to staff them more appropriately. For example, the groups working on the design and development of our learning content and delivery approaches had a strong Guardian and Driver orientation; they needed to be pushed from a creative standpoint, so we added a Pioneer to lead an arm of that team. And when I staffed the group charged with the detail-oriented and collaborative process of organizing and integrating our learning and delivery offerings, I made sure to include Guardians and Integrators. As a Pioneer and Driver, I need those types around me personally, too.

Now I'm in a new role—chief customer experience officer—and getting ready to launch a series of change initiatives following our merger with Starwood. My peers and I—a group of seven senior leaders—plan to use this approach to improve collaboration as we develop and execute on our strategic plans. ■



MANAGING UP AND DOWN

ELIZABETH BRYANT

VICE PRESIDENT, SOUTHWEST AIRLINES UNIVERSITY

WHEN I TOOK the personality style test six months ago—along with about 50 other senior Southwest executives—I had a real “aha” moment. The surprise wasn't my own results: I'm strong on both the Pioneer and Integrator scales—a strategist and a communicator. It was that I hadn't been thinking carefully enough about how to temper those tendencies for people with different styles.

For example, my boss—who leads corporate services—is more of a Driver, so I can't just talk through the vision of a particular initiative with him. I need to make it very clear that we're hitting our milestones: “Here's what we've accomplished, and here's where we're going.”

We're both paying more attention to the mix of styles on our leadership team, too. It's the two of us plus three Integrators, so we all need to put our Guardian hats on once in a while to make sure that we're gathering the data, protecting our history and culture, and moving at the right pace.

I've also had my direct reports take the assessment, and I've learned that they're mostly Integrators. That's great, but I'm conscious that we need some Driver behavior as well: A goal is just a goal until you make it happen. My husband reminded me of this the other day. We'd been house hunting, and I'd found the perfect place for us to buy, so I felt my work was done. But then he said, “You know, Elizabeth, it's great that you have this vision and go after it, but then everyone around you has to get to work. I'm the one who has to deal with the realtor, the lawyer, the inspector.” I shared this story with my team and asked that they tell me when an idea I suggest sounds challenging—or even impossible. And I'm now more conscientious when thinking out loud. Something I ask about offhandedly could, for an Integrator, Driver, or Guardian, be understood as an important to-do item. ■





HIRING AND JOB CRAFTING

GREG KEELEY

EXECUTIVE VICE PRESIDENT, AMERICAN EXPRESS

I TOOK THE assessment as part of an executive evaluation, and I expected my results to show that I'm 100% Driver, because that was my role at American Express. But I was strongest on the Pioneer scale. This showed me that although I was doing what the firm needed me to do, many of the behaviors I'd adopted didn't reflect who I really am.

I shared the findings with my boss and my team and asked my direct reports to take the test. I was pleasantly surprised by the diversity in our group and soon realized that I could dial down the Driver aspects of my job. Of course, we still had product, process, and revenue goals to hit, but I could use a scorecard to track those, delegate some duties, and spend more time on new-product development and strategy.

When I did, my job satisfaction shot way up. I'm in the same role, with the same boss and team, but I have so much more passion and energy than I did before. I've even changed the way I introduce myself to new colleagues or vendors. Before a meeting starts, I take a few minutes to say, "Here's how I tend to think and act..." and I ask them to do the same for me. It's a shortcut to better communication and engagement.

And personality now informs how I think about assignments, promotions, and hiring. When I was recently trying to fill a role, I met with a strong candidate who took the assessment and came up as a Driver/Guardian. But the job required vision and coordination with other groups. What I needed was a Pioneer/Integrator. I modified the job description and finally found the right person. The Driver/Guardian took a position in the company more suited to his personality. I'd love to see middle managers adopt this sort of thinking—they oversee an estimated 80% of the workforce—because it's fundamental leadership training. You need to know who you are before you know what you can become. ■



TEAMWORK

CHARLES DEROSA

U.S. TREASURER, NATIONAL GRID

I'VE NOW LED three teams at National Grid, ranging from about 25 people to about 200. I always talk to my staff about personality styles, because I believe it helps people work together more effectively.

I'm a Driver, one of those personalities that can push people hard. I like facts and figures, and goals and objectives. My natural instinct is to skip small talk. One of my bosses is a Pioneer; he enjoys brainstorming. One of my direct reports is an Integrator, who wants to make sure every view is expressed. Other people on my team are Guardians. They're very reliable but not always flexible, and they often play devil's advocate. To function effectively, we need to recognize and appreciate everyone's style and to have open discussions about our differences:

What does each of us like?

And what really bugs us?

This enables us to be more thoughtful in our interactions.

Since we started having these conversations, the people on my team have adapted their styles a bit: The Guardians recognize that their behavior can seem defensive, and they try to avoid ruffling feathers while still conveying important messages. The Drivers now show more patience. When dealing with me, everyone prepares more thoroughly and tries to get to the point more quickly. I have adapted as well; in the past I'd get frustrated, but now I realize how important each style is in reaching the best decision. And when the group has personality conflicts, I do my best to facilitate progress. In the end, we're all better able to work together toward our goals and those of the department.

It's human nature to gravitate toward people with work styles similar to our own. But there will always be (and we benefit from) personality diversity in the workplace. I believe in providing the right opportunity to all types. ■



DECISION MAKING

GARY PILNICK

VICE CHAIRMAN, CORPORATE DEVELOPMENT AND CHIEF LEGAL OFFICER, KELLOGG

EXECUTIVES NEED TO be thinking in all four quadrants of personality when they're making big decisions. For example, I'm a Pioneer/Integrator, which means I need to flex to Driver and Guardian mindsets sometimes. Otherwise all I'm doing is dreaming and talking to people. When I'm working with a fellow Pioneer/Integrator, I need to ask, "Where's your data?" and set firm deadlines. With a Driver, I'll say, "OK, we've clarified objectives and the schedule. What experts should you consult with now? Who needs to be informed?" With a Guardian, it's about focusing on results: "Are we pushing hard enough?"

Because my team has been through the assessment process, we can all talk this way now. In a recent meeting with one of my leaders, we started by "pioneering" together, then I was reminded "OK, it's time to 'drive' and make a decision." And we did it with smiles on our faces.

Of course, it's nice to lean into your dominant style, and most of us do when we're under stress. But we all are able to shift mindsets, or think like the others, when we're reminded to. It's not like trying to write with the wrong hand. It's more like going a little faster or slower than normal on the highway, or taking a new route to work. It feels different and maybe a little uncomfortable, but it's not awkward. I've worked for several Pioneer/Drivers over the years, and I wouldn't have survived without the ability to get things done. I have a strong Pioneer in a key compliance role, but I wouldn't want anyone else because she can flex into Guardian when necessary. And I have a Driver on my team who now recognizes that he can deliver faster results with more-lasting outcomes by slowing down and getting colleagues to collaborate.

I see this framework as one way to move all our departments toward a more agile culture that values quick yet informed decisions. It's a blueprint for touching all the bases. ■



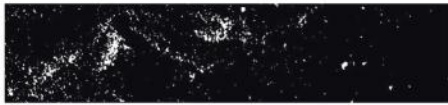
“IF YOU
UNDERSTAND
HOW THE
BRAIN WORKS,
YOU CAN
REACH ANYONE”



A CONVERSATION
WITH BIOLOGICAL
ANTHROPOLOGIST
HELEN FISHER
BY ALISON BEARD



PHOTOGRAPHY BY ETHAN HILL



The Theory

Helen Fisher's research on the brain systems that drive human personality, attraction, and love has been featured in academic journals, TED conferences, and the dating website Match.com. It is now finding business-world applications at companies such as Deloitte. Affiliated with the Kinsey Institute and Rutgers University, Fisher also coaches executives, and in 2015 she launched the corporate consultancy NeuroColor in partnership with leadership and innovation adviser David Labno.

How did you make the leap from personal relationships to professional ones?

My work on personality styles had been getting some attention, and Dave Labno, who I didn't know at the time but who would eventually become my partner, heard me in an interview on National Public Radio. He called me up and said, "You know, Helen, you don't study love. You study relationships." And instantly I could see that he was right. The questionnaire I'd developed to help people pair off romantically could be applied to understanding family, friends, colleagues, clients. Dave had worked in business for years and knew all the currently available personality tests, and he felt that mine was a disruptive technology.

Why is it better than other assessments such as Myers-Briggs and Big Five personality tests?

Because it is based on brain chemistry. I looked at neurological research to develop the questionnaire and then, with colleagues, used functional magnetic resonance imaging to validate it.

We all have two parts to our personalities that are in constant interaction: culture (which is what your upbringing teaches you to believe, do, and say) and temperament (which comes from your biology, genes, hormones, and neurotransmitters). I study

temperament. Most brain systems keep the eyes blinking, the heart beating, the metabolism running. But when Match.com asked me, "Why does someone fall in love with one person rather than another?" I tried to find a neurological answer. I spent two years studying the literature and found, over and over, that four biological systems—dopamine/norepinephrine, serotonin, testosterone, and estrogen/oxytocin—are each linked to a particular suite of personality traits. I found this in research not only on humans but also on doves, lizards, and monkeys.

What links did you find?

People who express certain genes in the dopamine system tend to be curious, creative, spontaneous, energetic, and mentally flexible. They are risk-takers and seek novelty. People who have high serotonin activity (or who take SSRI antidepressants) are more sociable, more eager to belong. They're quite traditional in their values and less inclined toward exploration. People expressive of the testosterone system are tough-minded, direct, decisive, skeptical, and assertive. They tend to be good at what we called rule-based systems—engineering, computers, mechanics, math, and music. And people who are expressive of the estrogen/oxytocin system tend to be intuitive, imaginative, trusting, empathetic, and contextual long-term thinkers. They are sensitive to people's feelings, too, and typically have good verbal and social skills.

Working with a statistician, I created a questionnaire to measure the degree to which a person expresses the traits in each of these four systems. Then we put it on Match.com and Chemistry.com and watched who was naturally drawn to whom.

How did you test its accuracy?

I did two fMRI studies—one with young couples, the other with older couples. The subjects answered my questionnaire and then went into the scanner. It turned out that people who scored high on my scale measuring the traits linked with the dopamine system showed a lot of activity in dopamine pathways of their brains. Those who scored high on my serotonin scale had increased activity in an area linked with "social norm conformity." In people with high testosterone scores, brain activity was highest in areas related to visual and mathematical perception and in areas built by fetal testosterone. Those who scored highest on

my estrogen/oxytocin scale showed more activity in the mirror neurons linked with empathy and other brain regions built by fetal estrogen. That, in itself, is different from any other questionnaire. I was able to validate that mine is measuring what I say it's measuring.

So should we throw out those other tests?

I don't have any problem with other good questionnaires that are based on psychology or linguistic studies or even intuition—but I don't think they're as accurate, because they're not drawn from hard science. Let's look at the Myers-Briggs, which is probably the best known. It's measuring four things: extroversion versus introversion, intuitive versus sensing, thinking versus feeling, and judging versus perceiving behaviors. Well, the feeling/thinking questions are really measuring the estrogen/oxytocin and testosterone system traits. The perceiving/judging scale focuses on dopamine- versus serotonin-linked traits. So in those areas, they've got it right. But the intuitive/sensing scale measures estrogen-linked traits versus serotonin-linked traits; that suggests that those traits oppose each other, which they don't in the brain.

As for extroversion/introversion, Isabel Myers, one of the creators of Myers-Briggs, once said that this scale measures where you get your energy—either from being with others or from being alone. But her questions also measure whether you're outgoing or reserved, which are totally different things. For example, I and many other people are outgoing introverts—we're comfortable chatterboxes in social settings—but we recharge when we're alone.

Another problem with this and most personality tests is that they aim to put those who take them in one category or another. But the brain doesn't work in cubbyholes. My test measures how strongly you express traits in each neural system. Some might be expressed more strongly than others. But the granularity is there.

Still, at the end of the day you, Match, and Deloitte are labeling people by dominant style. What's the benefit in that?

Here's an example from my own life. I was recently working with a man who, like me, is very high on dopamine, but unlike me, very high on serotonin, which is linked with risk aversion. A particular issue cropped up, and although I was convinced that I was

absolutely right in my appraisal of it, he was being very cautious. If I didn't know anything about brain chemistry, I would have thought he was just being stubborn as hell. But instead, I saw that it was what I call a “serotonin gap.” His hesitation had nothing to do with me or the project. It's just the way he is. This smoothed over what could have been a big misunderstanding and made us a better team. Now I want his serotonin around me because I see the value of it.

Is the idea to not just identify and understand differing personalities at work but also to adjust your behavior to better suit your colleagues?

Absolutely. You can tailor the way you present information, modify your language when responding to questions, and even adjust how you carry your body so that people with other styles are more receptive. Let me give you another example. A senior partner at Deloitte, who'd heard me talk about the styles, was about to give a presentation to an important client. His team had just finished up the slide deck, it was almost midnight, and everyone was on their way to bed. But he suddenly realized that the focus of the pitch—big on theory, few details—wasn't right for his audience of global bank executives, who he suspected were high-serotonin types. So they stayed up most of the night to redo it, and in the morning they closed a million-dollar deal. The point is: If you understand how to size up those around you, you can reach anyone—your clients, bosses, subordinates—far more effectively.

Is it possible to change your style?

We're flexible to a certain extent, but not entirely. For example, math is a skill linked to testosterone. I'm terrible at math, and I'm never going to be great at it. If I'd grown up with a physicist mother and an architect father—in a family culture that valued math—I'd be better at it, but I'd never be great. Could someone make me tough-minded? I doubt it. I might act tough when I have to, but it makes me uncomfortable. Some time ago, after I gave a speech at the Smithsonian, a female executive came up to me and said, “At work I'm decisive and authoritative, but I married a man who wanted me to be soft and sweet at home. And I could do it, but I found it exhausting.” She told me that she ultimately divorced him. So yes, we can act out of character, but it's tiring. At NeuroColor, we have people take our

questionnaire twice. The first time, they describe their thinking and behavior at work; the second time, how they are “outside work.” It's a great measure of authenticity: Where are you most yourself?

Do you see a future in which these tests inform decisions about hiring, promotions, and team building? High-serotonin people in accounting, high-dopamine in business development?

I don't think you'd want to pigeonhole people that way. But I'd certainly add this information to the mix, because it can help you build more-effective teams. The four styles of thinking and behaving evolved in hunter-gatherer societies over many millennia for a reason. Imagine a group of people in Africa, hundreds of thousands of years ago, walking together to look for a new camp. Suddenly, they find some mushrooms. You can't have only high-dopamine types, because they'd all try the mushrooms and maybe be poisoned. You need some high-serotonin types to say, “We shouldn't do this; it's not in our tradition”; some high-testosterone types to say, “Let's experiment: Feed the mushrooms to the dog and see what happens”; and some high-estrogen types to say, “Let's discuss what we know about these mushrooms.” We evolved to think differently so that we could put our heads together and come up with good solutions. Complementary styles of thinking make for a more effective team. Unfortunately, it seems that when organizations think about diversity today, they look at race or gender

or cultural background—but not diversity of mind. So you have your women and minorities represented, and that's great—but they may all share the same temperament, so the group isn't as diverse as you think.

You've assessed people in many different countries. Have you found more similarities or differences?

The president of Match asked me a few years ago if my questionnaire would work in other cultures, and I told him that if it didn't, I had failed, because I'm studying the human personality, not the American personality. That version has now been used successfully in 40 countries.

But we have found some interesting regional differences. For example, more Chinese and Japanese people score high on the serotonin scale. When I mentioned this to a geneticist, Lee Silver from Princeton, he wasn't surprised. He told me that there's a gene for social-norm conformity that occurs more frequently in China and Japan than anywhere else. He also told me that there's a gene linked with dopamine that's most common in the Amazonian basin. You could hypothesize that the exploratory, high-dopamine types walked over the prehistoric land bridge from Africa, carrying those genes with them and passing them down, or that people with those traits were the only ones who could adapt to life in the Amazon and survive. You can begin to see how entire cultures—and organizations—take on certain personality styles.

Testosterone and estrogen are sex-linked traits. Do you worry that your framework reinforces gender stereotyping?

It's true that across cultures, many more men score high on the testosterone scale, and many more women score high on the estrogen scale. At the same time, we all are made up of an array of the traits. As I said, I'm high estrogen, and in a group those traits come out: I listen carefully, I try to get along. When I'm alone, at my desk, I'm all dopamine: I'm creative, focused on my work. I'm lower on testosterone: I'm not tough-minded or good at math. But I am logical—certainly in business if not always in love. So in evaluating yourself and others, you have to think about all four biological systems. When you understand where someone lands on each scale, you begin to see the full personality. 🧠

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**WHEN FIRMS
THINK ABOUT
DIVERSITY, THEY
LOOK AT RACE
OR GENDER—BUT
NOT DIVERSITY
OF MIND.**

A BRIEF HISTORY OF PERSONALITY TESTS

BY EBEN HARRELL

First used by the U.S. Army during World War I to try to predict which soldiers would suffer from “shell shock,” personality testing today is a roughly \$500 million industry, with an annual growth rate estimated at 10% to 15%. Millions of workers take assessments each year as part of personnel selection, to improve collaboration and teamwork, and to identify satisfying career paths.

But personality screening is not without controversy. In recent lawsuits, courts have ruled that the use of certain tests discriminates against protected classes of workers, particularly those with disabilities. Research suggests that many beliefs held by HR professionals about personality screening run counter to scientific evidence. And management scholars worry that fixating on personality as the primary source of conflict at work can cause managers to overlook the crucial role they play in creating the enabling conditions for teams to succeed—whatever their composition.

The industry’s robust growth, however, suggests that managers increasingly rely on personality testing as a tool to optimize their workforces. The tests are inexpensive compared with other assessment tools, and they are easy to administer—modern tests can be taken online without an examiner present. Hundreds of assessments exist today, yet over the past century, three have had an outsize impact.

MYERS-BRIGGS TYPE INDICATOR Katharine Briggs began her research into personality in 1917 as a means to understand what she saw as an unlikely attraction between

her cherished daughter, Isabel, and fiancé, Clarence Myers. Over 20 years, the mother-daughter team worked to develop the Myers-Briggs Type Indicator, drawing heavily on the work of the Swiss psychiatrist Carl Jung. Since the 1960s, some 50 million people have taken the test, making it by far the most popular personality assessment ever created.

The MBTI holds that people have preferred modes of perception (sensing or intuition) and judgment (thinking or feeling) as well as attitudes about how they build energy (extroversion or introversion) and their orientation to the outer world (judging or perceiving). These preferences combine to form 16 personality types.

Experts argue that the categories don’t predict individual or team effectiveness. Studies have found that more than half the people who retake the test get a different result the second time. The Myers-Briggs Foundation warns against using it “for hiring or for deciding job assignments,” yet the test’s popularity persists at many blue-chip firms. Proponents find it useful for helping people understand their own and their colleagues’ styles and preferences and for reducing conflict in the workplace.

THE FIVE-FACTOR MODEL Often called the “Big Five,” the five-factor model is a set of personality traits derived from a statistical study of words commonly used to describe psychological characteristics across cultures and languages. The categories are openness to experience, conscientiousness, extroversion, agreeableness, and neuroticism.


Widely accepted by academics as the gold standard in the evolving field of personality research, the FFM has informed a host of other personality assessments,

including the NEO Personality Inventory (developed by two of the creators of the five-factor model) and the Hogan Personality Inventory (which examines how a person relates to others). Unlike the MBTI, assessments based on the Big Five can reliably predict job performance, studies show. (The correlation is stronger for other psychometric measurements, such as IQ, however.) Research also suggests that FFM-based assessments can help predict personalities that are likely to either clash or work harmoniously together.


STRENGTHSFINDER A new branch of psychology emerged in the 1990s that examines how healthy minds remain resilient and flourish. “Positive psychology” has spawned various assessments; Gallup’s StrengthsFinder 2.0, the most popular, is taken by 1.6 million employees every year in more than 400 of the *Fortune* 500 companies. Strengths-based assessments aim to increase engagement, job satisfaction, and productivity by helping companies design jobs that take advantage of their employees’ best qualities. Other assessments that harness insights from positive psychology include the VIA Survey of Character Strengths and the Birkman Method.

Some argue that focusing only on the positive is not the optimal way to spur improvement; criticism and realistic self-assessments also contribute to better performance.

WHAT’S NEXT Increasingly, companies are abandoning brand-name and open-source tools in favor of bespoke personality tests. The goal is to improve hiring practices by identifying high performers in given roles and then reverse-engineering job descriptions on the basis of their traits.

Some academics are skeptical of these products, partly because of the proprietary nature of the firms’ methodologies. But many believe that advances in neuroscience and in tools for statistical analysis will yield a reliable way to identify the traits that lead to a high-performing workforce. Given the potential payoff, companies will continue to invest in personality screening as they battle for competitive advantage in a knowledge economy. 

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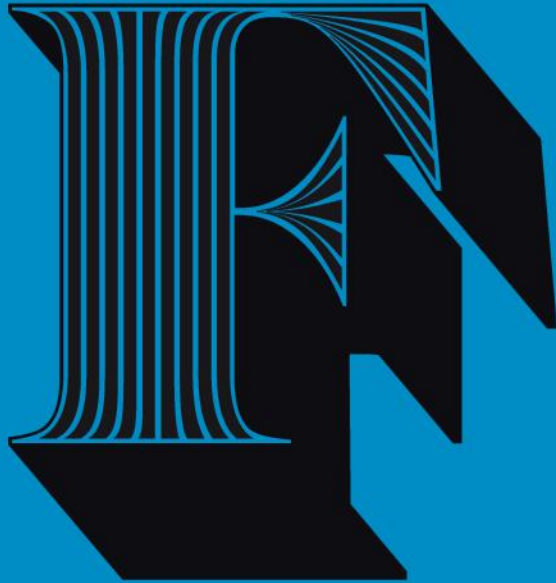
 Eben Harrell is a senior editor at HBR.



NEW LINKS TREES TO THE CLOUD.

Harvard Business Review Features

MARCH-APRIL 2017



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NEW APPLIED NOW



**“THE NEED TO
WORK ON BEING
QUIETER CAME
UP AGAIN AND
AGAIN IN MY
INTERVIEWS
WITH CEOS.”**

From “Bursting the CEO Bubble,” page 76



STRATEGY IN THE AGE OF SUPERABUNDANT CAPITAL

**MONEY IS NO LONGER A SCARCE RESOURCE.
THAT CHANGES EVERYTHING.**

**BY MICHAEL MANKINS, KAREN HARRIS,
AND DAVID HARDING**

CASPAR BUNSON/GETTY IMAGES





IN BRIEF

WHAT'S CHANGED?

For most of the past 50 years, business leaders viewed financial capital as their most precious resource. But today it is abundant and cheap.

WHAT DOES IT MEAN?

The skillful allocation of financial capital is no longer a source of sustained competitive advantage. More important is a workforce that can generate good ideas and translate them into successful new products, services, and businesses.

WHAT SHOULD FIRMS DO?

Companies should lower hurdle rates, make numerous small investments in growth opportunities, and pay more attention to managing their human capital well.

FOR

most of the past 50 years, business leaders viewed financial capital as their most precious resource. They worked hard to ensure that every penny went to funding only the most promising projects. A generation of executives was taught to apply hurdle rates that reflected the high capital costs prevalent for most of the 1980s and 1990s. And companies like General Electric and Berkshire Hathaway were lauded for the discipline with which they invested.

Today financial capital is no longer a scarce resource—it is abundant and cheap. Bain's Macro Trends Group estimates that global financial capital has more than tripled over the past three decades and now stands at roughly 10 times global GDP. As capital has grown more plentiful, its price has plummeted. For many large companies, the after-tax cost of borrowing is close to the rate of inflation, meaning that real borrowing costs hover near zero. Any reasonably

profitable large enterprise can readily obtain the capital it needs to buy new equipment, fund new product development, enter new markets, and even acquire new businesses. To be sure, leadership teams still need to manage their money carefully—after all, waste is waste. But the skillful allocation of financial capital is no longer a source of sustained competitive advantage.

The assets that are in short supply at most companies are the skills and capabilities required to translate good growth ideas into successful new products, services, and businesses—and the traditional financially driven approach to strategic investment has only compounded this paucity. Indeed, the standard method for prioritizing strategic investments strives to limit the field of potential projects and encourages companies to invest in a few “sure bets” that clear high hurdle rates. At a time when most companies are desperate for growth, this approach unnecessarily forecloses too many options. And it encourages executives to remain committed to investments long after it's clear that they're not paying off. Finally, it leaves companies with piles of cash for which executives often find no better use than to buy back stock.

Strategy in the new age of capital superabundance demands a fundamentally different approach from the traditional models anchored in long-term planning and continual improvement. Companies must lower hurdle rates and relax the other constraints that reflect a bygone era of scarce capital. They should move away from making a few big bets over the course of many years and start making numerous small and varied investments, knowing that not all will pan out. They must learn to quickly spot—and get out of—losing ventures, while aggressively supporting the winners, nurturing them into successful new businesses. This is the path already taken by firms innovating in rapidly evolving markets, but in an era of cheap capital, it will become the dominant model across the business economy. Companies that practice this strategy will have the edge so long as capital remains superabundant—and according to our analysis, that could be the case for the next 20 years or more. In this article, we outline what it takes to produce great results in this new world. We begin by taking a closer look at the data.

A WORLD AWASH IN MONEY

Many of today's business leaders cut their teeth in a period of relative capital scarcity and high borrowing costs. In the early 1980s, double-digit federal-funds rates prevailed, and corporate debt and equity securities traded at high premiums. Although the required rate of return on stocks and bonds returned to more “normal” levels by the end of the decade, capital

costs remained high. Our research suggests that for most large public companies, the weighted average cost of capital, or WACC, exceeded 10% for most of the 1980s and 1990s.

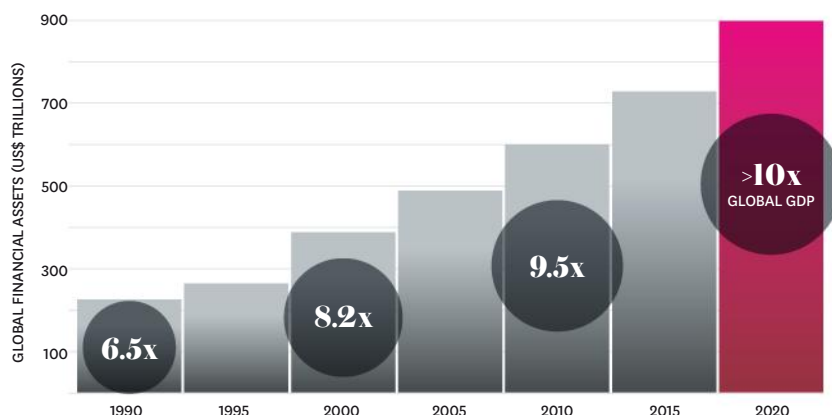
But the world changed following the financial collapse in late 2008. Central bank interventions pushed interest rates in many countries to historic lows, where they remain nearly a decade later, owing to tepid economic growth. Many executives believe that the current interest rate environment is temporary and that more-familiar capital market conditions will reassert themselves soon. Our research, however, leads to the opposite conclusion.

Using public data and proprietary economic models, Bain's Macro Trends Group examined how the quantity and scale of assets on the world balance sheet have evolved over time. We found that global financial assets (which more or less represent the supply of capital invested or available for investment in the real economy) grew at an increasingly rapid pace—from \$220 trillion in 1990 (about 6.5 times global GDP) to some \$600 trillion in 2010 (9.5 times global GDP). We project that by 2020 the number will have expanded by half again—to about \$900 trillion (measured in 2010 prices and exchange rates), or more than 10 times projected global GDP (see the exhibit “Growth in the Global Balance Sheet”). At this rate, by 2025 global financial assets could easily surpass a quadrillion dollars. We see two factors principally accounting for the continuing trend:

- **Growing financial markets in emerging economies.** Although prospects for growth in advanced economies are relatively weak, the financial markets in China, India, and other emerging economies have only started to develop. Our analysis indicates that these nations will account for more than 40% of the increase in global financial assets from 2010 to 2020. And the data suggests that emerging economies will continue fueling growth in financial capital well beyond 2020.
- **An expanding number of “peak savers.”** There are important demographic factors at work that will reinforce the superabundance of financial capital. Specifically, the population of 45- to 59-year-olds is critical in determining the level of savings (versus consumption) in the global economy. People in this age bracket have moved past their prime spending years and make a higher contribution to savings and capital formation than any other age group. These “peak savers” will represent a large and growing percentage of the global population until 2040, when their numbers will slowly begin to decline.

GROWTH IN THE GLOBAL BALANCE SHEET

Worldwide financial assets keep building up—faster than global GDP.



SOURCE BAIN MACRO TRENDS GROUP. NOTE ASSETS AND MULTIPLES OF GLOBAL GDP WERE CALCULATED USING 2010 PRICES AND EXCHANGE RATES. DATA IS ESTIMATED FOR 2015 AND PROJECTED FOR 2020.

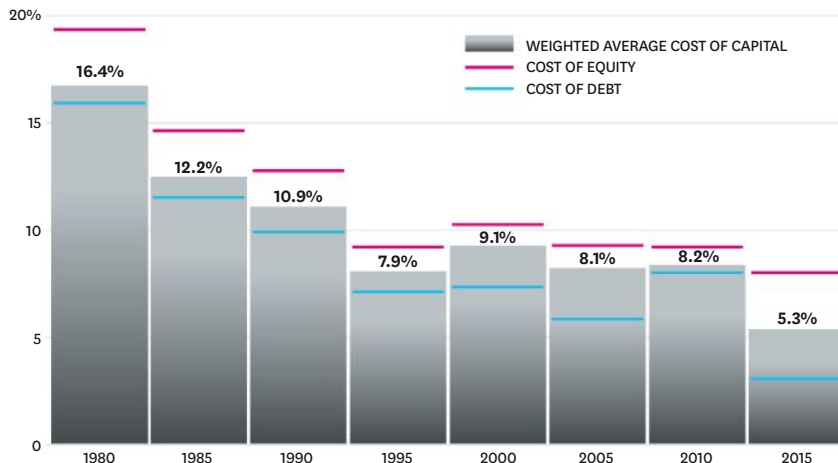
The combination of these factors leads us to conclude that through 2030 (at least), markets will continue to grapple with capital superabundance. Too much capital will be chasing too few good investment ideas for many years.

Moreover, as the supply of financial capital has increased, its price has fallen precipitously. In 2008 the cost of borrowing began to decline in response to central bank intervention. Today, facing a dearth of attractive investment opportunities, large banks have been forced to accept riskier projects as investment grade. Even high-yield “junk” bonds are trading at historic lows. All told, the marginal cost of debt for many large companies is now as low as 3%. This means that the after-tax cost of borrowing is at (or below) the rate of inflation—implying that in real terms, debt is essentially free.

Not only are interest rates low across all classes of debt, but the cost of equity is lower as well. Immediately following the global financial crisis, equity risk premiums—that is, the premium relative to risk-free assets, such as government bonds, that investors demand in order to buy stocks—shot up dramatically. We estimate that in 2007, before the crisis really hit, the equity risk premium was around 3% (versus 10-year government bonds). By 2009, following the

HOW THE COST OF CAPITAL HAS EVOLVED

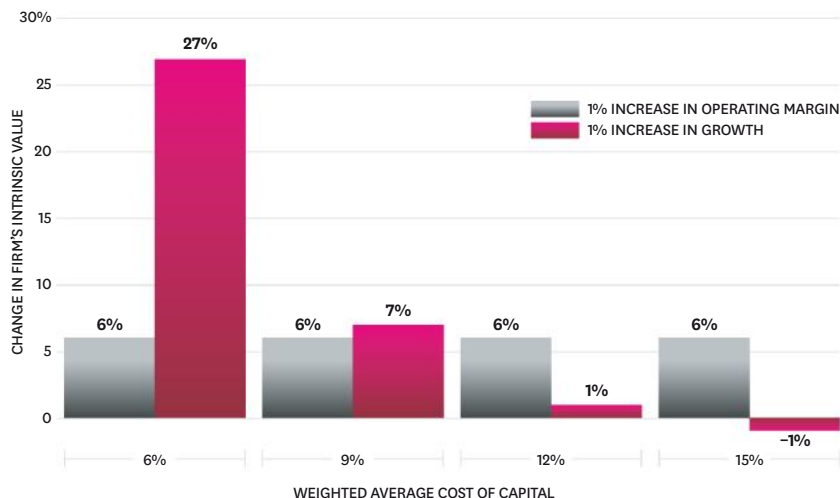
The cost of capital for most large U.S. companies is at its lowest level in decades.



SOURCE BAIN & COMPANY. NOTE DATA IS FOR COMPANIES IN THE VALUE LINE INDEX.

CHOOSING A STRATEGY: PROFITABILITY OR GROWTH?

The value of pursuing growth is highly sensitive to changes in the weighted average cost of capital (WACC), while the value of improving operating margins is stable. At a WACC of 6%, the return on growth investments is extraordinarily high: A 1% improvement in a company's long-term growth rate will increase a firm's value by a staggering 27%, whereas a sustained improvement in operating margins of 1% will boost value by only 6%.



SOURCE BAIN & COMPANY

financial collapse, investors demanded a premium of more than 7% to hold equities. As the economy rebounded, equity risk premiums dropped back to more-normal levels (averaging 4% to 5%). That decline, combined with lower rates of return on risk-free assets, reduced the cost of equity: We estimate that for U.S. corporations, the average cost is currently around 8%, compared with more than 12% during much of the 1980s and 1990s.


The combination of historically low debt and low equity costs (along with the buildup of cash on many balance sheets) has produced very low capital costs for most corporations. We estimate that for the 1,600-plus companies that constitute the Value Line Index, the weighted average cost of capital currently ranges from 5% to 6%. That compares with 10% or more in the 1980s and early 1990s (see the exhibit "How the Cost of Capital Has Evolved").

THE NEW RULES OF STRATEGY

When capital is both plentiful and cheap, many of the unspoken assumptions about what drives business success must be challenged and a new playbook developed. In our work with clients, we have seen a few companies that are already incorporating capital superabundance into the way they think about strategy and organization. The changes they are making—and deriving benefits from—accord with three new rules:

Reduce hurdle rates. Virtually every large company sets explicit or implicit hurdle rates on new capital investments. A hurdle rate is the minimal projected rate of return that a planned investment must yield. Exceed this rate and the investment is a "go"; fall short and it will be scuttled. Ideally, the hurdle rate should reflect a company's WACC (adjusted, as needed, for differential risk).

For too many companies, however, hurdle rates remain high relative to actual capital costs. Research by Iwan Meier and Vefa Tarhan pegged average hurdle rates at 14.1% in 2003. Since then, hurdle rates have changed very little. When the Manufacturers Alliance for Productivity and Innovation (MAPI) surveyed members of its CFO and Financial Councils, it found that the average rate was 13.7% in 2011 and 12.5% in 2016. And roughly half the survey respondents noted that hurdle rates at their companies had stayed constant during that five-year period. Research conducted in 2013 by the Federal Reserve found that companies are extremely reluctant to change hurdle rates even when interest rates fluctuate dramatically. This research dovetails with our own experience as consultants: Most companies that engage with us have not adjusted their hurdle rates significantly in the past two decades.



We estimate, on the basis of the MAPI survey data, that the gap between hurdle rates and the actual cost of capital for most companies is 650 to 750 basis points. The result: Too many investment opportunities are being rejected, cash is building up on corporate balance sheets, and more and more companies are choosing to buy back common stock rather than pursue investments in productivity and growth. Reuters studied 3,297 publicly traded U.S. nonfinancial companies in 2016 and found that 60% bought back shares between 2010 and 2015. And for companies with stock repurchase plans, spending on buybacks and dividends exceeded not just investments in research and development but also total capital spending.

It is important to point out that share buybacks create value for the acquirer only if a company's common stock is significantly undervalued in the market. Under those conditions, share repurchases are akin to "buying low" with the prospect of "selling high" later. However, although executives frequently maintain that their companies' shares are undervalued, our research suggests otherwise. And even when a buyback makes financial sense, the act of repurchasing shares can signal to investors that management has run out of attractive investment ideas—it's the economic equivalent of throwing up your hands and asking shareholders to find good investments on their own.


In the new era, leaders should have a strong bias toward reinvesting earnings in new products, technologies, and businesses. It is the only way for the companies that have bought back shares to grow into their new multiples and for all companies to fuel innovation and accelerate profitable growth. With expected equity returns in the single digits, it shouldn't be difficult for management to identify strategic investments with the potential to generate more-attractive returns for investors. To qualify, opportunities need only be capable of generating a return on equity higher than shareholders' cost of equity capital, which we estimate is a mere 8% for most large companies.

Focus on growth. A lingering artifact from the age of capital scarcity is a bias toward tweaking the performance of existing operations, rather than trying to build new businesses and capabilities. When capital was expensive, investments to improve profitability trumped investments to increase growth. Accordingly, over the past several decades, most companies have employed process reengineering, Six Sigma, the "spans and layers" methodology, and other tools to remove waste and increase efficiency. At the same time, however, the rate of innovation has declined, according to research conducted by the OECD, and since 2010, top-line growth

**FOR TOO MANY COMPANIES,
HURDLE RATES REMAIN
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has been flat (or negative) for nearly one-third of the nonfinancial companies in the S&P 500.

Success in the new era demands that leaders focus as much (or more) on identifying new growth opportunities as on optimizing the current business—because when capital costs are as low as they are today, the payoff from increasing growth is much higher than what can be gained by improving profitability. Take a look at the exhibit "Choosing a Strategy: Profitability or Growth?" It shows that the benefits of investing to accelerate growth (rather than improve profitability) depend a lot on the cost of capital. But at today's WACC of less than 6%, a growth approach clearly trumps an emphasis on profitability (as measured by the average pretax operating margin for the Value Line Index companies). Improving margins by 1% would increase the average company's value by only 6%. By contrast, increasing the long-term growth rate by 1% would drive up value by 27%—*four and a half times* as much bang for the buck invested.



Shifting to a growth focus requires reevaluating the organizational model, as the case of WPP, the world's largest advertising and marketing services company, illustrates. In addition to optimizing its existing business, WPP has looked for growth opportunities by making dozens of investments and acquisitions outside traditional geographic markets and capabilities. As a result, the company's revenues rose from \$16.1 billion in 2011 to \$19 billion in 2015, and operating profits rose from \$1.9 billion to \$2.5 billion.

A significant part of WPP's success has been an approach to organization that CEO Martin Sorrell calls "horizontality." In the traditional industry model, single agencies compete for a client's global business. By contrast, WPP offers clients an internal market in which they can choose from a wide range of marketing services businesses that are under the WPP umbrella. These businesses then work together in dedicated client teams. Currently there are about 50 such teams, which involve some 40,000 people and account for one-third of the company's revenues. Each team is directed by one of the firm's client leaders, which puts WPP in a position to coordinate the work. That gives clients the benefits of having a partner with a full picture of the business while also giving them the advantages of choice. This approach has allowed each agency to focus on doing what it does best, whether that's digital advertising, public relations, marketing analytics, or something else. Top managers at WPP also have room to develop bold strategies to expand in digital markets, fast-growth geographies, and new fields such as data investment management.

In addition to setting up formal structures that encourage new business ideas, companies can adopt informal processes to reward continuous expansion. 3M is the classic example. For years it has permitted its 8,000-plus researchers to devote 15% of their time to projects that require no formal approval from supervisors. The company also pursues traditional product development efforts in which business managers and researchers work together to create new offerings and improve existing ones. This multipronged innovation process has enabled 3M to generate countless new products—from

MAKING CONTINUAL EXPANSION PART OF A COMPANY'S DNA IS NOT EASY. INVESTMENT IN REAL GROWTH HAS ALWAYS BEEN RISKY, AND EXECUTIVES MUST ACCEPT AND EVEN EMBRACE FAILURE.

industrial adhesives to Post-it notes—and consistent top-line growth, year after year.

Making continual expansion part of a company's DNA is not easy, and companies have traditionally suffered from losing focus and overdiversifying. But that is not an argument for ducking the challenge. Investment in real growth has always been risky, and executives must learn to accept and even embrace failure. As Bill Harris, the former CEO of Intuit and PayPal once said: "Rewarding success is easy, but we think that rewarding intelligent failure is more important." Leaders in the new era should judge their team members not just by the home runs they hit but also by the learning that comes out of their failures. This implies the need for new performance-appraisal processes and an effort by senior managers to consider how their organizations are gaining knowledge by exploring new avenues of growth—whether those pan out or not.

Invest in experiments. When capital was scarce, companies attempted to pick winners. Executives



SCALE, SCOPE, AND THE FUTURE OF M&A

Abundant capital is rocket fuel for M&A. Low-cost capital has recently facilitated record levels of acquisitions and some of the largest transactions in corporate history. Most of the largest debt-funded transactions are scale deals—usually some form of industry consolidation. Examples are plentiful in pharmaceuticals, technology, telecommunications, and energy.

Given the low borrowing costs and the opportunity for postmerger synergies—which typically range as high as 5% of combined revenue—scale deals seem like safe bets. And the combined companies typically do hit predicted earnings targets for one, two, or three years after the deal. But over the longer term, their performance is less impressive.

Bain & Company has been tracking deal returns for more than 15 years, and the single most consistent finding is that scale consolidations underperform the market. Almost any other M&A strategy is better than these “big bet” deals, which generate only 4.4% annual total shareholder returns. In fact, doing no deals is better than doing scale ones (sticking to the status quo generates annual returns of 5.7%). So although the required capital may be sitting there available—like the chocolate fountain at the all-you-can-eat buffet—it is not necessarily a good idea to indulge.

But this does not mean M&A is doomed. There’s an alternative to scale deals: scope deals, which move companies into adjacent businesses, related services, or new markets and geographies. Our research finds that scope deals generally lead to higher returns, and the more of them a company does, the better the returns. Companies that expand via frequent, smaller deals over many years generate between 8.2% and 9.3% total annual shareholder returns.

Why do scope deals outperform scale deals in the new era? In a word: growth. A move into an adjacency is almost always a move into a higher-growth business, with greater option values. While scope deals may feel expensive and risky compared with scale deals, which quickly generate returns through synergies, scope deals create more value over time, particularly when capital is cheap. And the more deals you do, the better you get at finding and closing the best ones.



needed to be very sure that a new technology or new product was worthwhile before investing precious capital. The consequences of getting it wrong could be dire for careers as well as for strategy. With superabundant capital, leaders have the opportunity to take more chances, double down on the investments that perform well, and cut their losses on the rest. To put it another way, when the price of keys is low, it pays to unlock a lot of doors before deciding which one to walk through.

To win in the new era, executives need to get over the notion that every investment is a long-term commitment. They have to stop trying to prove to themselves (and their colleagues) that they can predict the future accurately and know how a business will perform five or 10 years out. Instead, executives should focus on whether putting money into something could be valuable as an experiment. If the experiment goes south, they can (and should) adjust. Treating investments as experiments frees companies to place more bets and allows them to move faster than competitors, particularly in rapidly changing markets.

Take Alphabet, the parent company of Google. Since 2005, Alphabet has invested in countless new ventures. Some have been highly publicized, such as YouTube, Nest, Google Glass, Motorola phones, Google Fiber, and self-driving cars. Others are less well-known (grocery delivery, photo sharing, an online car-insurance comparison service). While many of Alphabet's investments have succeeded, a few

have not. But rather than stick with those losers, CEO Larry Page and his team have shed them quickly. This has enabled the company to move on, test other investment ideas, and redouble its efforts in promising new businesses. In the past three years, Alphabet has closed the smart-home company Revolv, shut down Google Compare (the car insurance site), "paused" Google Fiber, and sold Motorola Mobility to Lenovo.

During the same period, the company has increased its stake in cloud services and various new undertakings managed by the company's X lab group—including electronic contact lenses and a network of stratospheric balloons intended to provide high-speed cellular internet access in rural areas. Not every investment will pay off, but the "noble experiments" mindset has allowed the company to explore many innovative ideas and create new platforms for profitable growth.

To be sure, Alphabet does have more money than most corporations and is operating in the "new economy," where exciting ideas constantly bubble up. But there is plenty of scope to apply the same approach in traditional sectors. Consumer foods and beverages are a case in point. Every March, aspiring entrepreneurs in the natural and organic foods industry converge on Anaheim, California, for Expo West, a giant trade show. In the past, the kind of small entrepreneur who set up a booth there might have started a business with funding from angel investors or from family and friends. If the company had some success, it might grow large enough to attract venture money or private equity. But large food companies stayed away. They knew the success rate of new products was low, and they funded innovation internally, rather than risk expensive capital on start-ups.

Today those large companies are flocking to Expo West and taking advantage of low-cost capital to form their own investment groups that build portfolios of early-stage food companies. Kellogg has Eighteen94 Capital, General Mills has 301 INC, and Campbell invests through Acre Venture Partners. The companies use these in-house units to fund small start-ups, nurture them, and then cull the flock. When a new product takes off, they buy out the founders and bring the operation in-house. In effect, superabundant capital has made "outsourced innovation" possible for food giants, allowing them to tap into the dynamics of the entrepreneurial economy to solve their biggest strategic issue: growth.

HUMAN CAPITAL: WHERE THE POWER LIES

The economist Paul Krugman famously noted, "Productivity isn't everything, but in the long run it is almost everything." Today productivity requires

working smarter rather than the traditional working harder. Companies increase output by identifying better ways to combine inputs, implementing technological innovations, and adopting new business models.

But all these productivity-enhancing measures require talented people who can bring them to life. In the new era, therefore, human capital—the time, talent, and energy of a company's people, along with the ideas they generate and execute—is the foundation of superior performance. A single great idea, after all, can put a company on top for many years. Think of Apple's iPhone, Continental Resources' introduction of horizontal drilling for oil and natural gas, and IKEA's reimagining of home goods. Lots of smaller, everyday good ideas can enable a company to pull away from competitors too.

But great ideas don't just materialize. They come from individuals and teams with the time to work productively, the skills to make a difference, and creativity and enthusiasm for their jobs. As long as companies continue to focus too much attention on managing financial capital, they will devote far too little to ensuring that the organization's truly scarce resources—time, talent, and energy—are put to their best use. In fact, most companies lose nearly a quarter of their productive power because they have structures, processes, and practices that waste time and undermine performance. Firms counteract only a small portion of this lost output by making good hires and keeping their workforces engaged.

In other words, human capital has become the fundamental source of competitive advantage, and companies that manage it as carefully and rigorously as financial capital perform far better than the rest. In their book *Time, Talent, Energy*, Michael Mankins (an author of this article) and Eric Garton find that companies that apply real discipline in their management of human capital are on average 40% more productive than the rest. These companies lose far less to organizational drag. They attract, deploy, and lead talent more effectively—taking full advantage of the unique skills and capabilities their people bring to the workplace. Finally, they unleash far more of their employees' discretionary energy through inspirational leadership and a mission-led culture. The resulting productivity difference is a huge advantage for the best companies, producing operating margins that are 30% to 50% higher than industry averages. And every year, as this difference is compounded, the gap in value between the best and the rest grows bigger.

MOST OF TODAY'S leaders were taught strategy—either in school or on the job—by the old rules, in a time when capital was scarce and expensive. Not surprisingly,



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most large companies still treat financial capital as the firm's most precious resource and seek to carefully control how it is deployed. Those practices are out of step with what is required to win in the new age. The few "old dogs" that have learned the "new tricks" of strategy—and understand that ideas and the people who bring them to life are a company's most valuable asset—are building an impressive lead. Their peers who don't learn these lessons may find themselves irrecoverably behind in the years to come. 🗑️

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BURSTING THE CEO BUBBLE

**WHY EXECUTIVES SHOULD TALK LESS
AND ASK MORE QUESTIONS**

BY HAL GREGERSEN

RULEBYART.COM



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hen you're the CEO of a large organization—or even a small one—your greatest responsibility is to recognize whether it requires a major change in direction. Indeed, no bold new course of action can be launched without

your say-so. Yet your power and privilege leave you insulated—perhaps more than anyone else in the company—from information that might challenge your assumptions and allow you to perceive a looming threat or opportunity. Ironically, to do what your exalted position demands, you must in some way escape your exalted position.



Walt Bettinger, the CEO of Charles Schwab, calls this dilemma his job's "number one challenge." As he explains, it takes two forms: "people telling you what they think you want to hear, and people being fearful to tell you things they believe you *don't* want to hear." Managers at all levels experience some form of this challenge, he points out, but "its grip is most intense in the top office."

Nandan Nilekani, a cofounder of Infosys and recently a senior Indian government official, understands the dangers of this phenomenon. "If you're a leader, you can put yourself in a cocoon—a good-news cocoon," he notes. "Everyone tells you, 'It's all right—there's no problem.' And the next day, everything's wrong." And if it's hard for word of internal troubles to penetrate the CEO bubble created by power and position, it can be nearly impossible for signals from outside the organization—especially early, weak ones—to get through. This is problematic in an era when competitive markets change quickly. When a dramatic shift is on the horizon, the first indications usually appear in ambiguous events on the fringes of the market.

In the course of conducting more than 200 research interviews with senior business executives over the past few years, I've come across hardly anyone who did not identify with this problem (including founders of fairly small firms). But more tellingly, I've also seen that at firms that are highly successful innovators, leaders are especially attuned to it and committed to overcoming it. Those executives work hard to break down the walls surrounding them. "When you're in a box in an office, you've got to invent a way out of the box," says Amazon's founder, Jeff Bezos. These leaders do just that. They deliberately seek out

strikingly different situations where they are more likely to encounter the unexpected. They venture off the beaten path and, in the process, discover challenging new questions that fuel important insights.

FRAMING THE RIGHT QUESTIONS

Persistent CEOs almost always get the information they request. It might not arrive as fast as they'd like, but eventually it gets there. Their bigger problem is getting information they *haven't* demanded because they don't know to ask for it. And unfortunately, it's not just obscure corners of underperforming operations that CEOs are oblivious to. Often, it's some brewing development that will redraw the lines of competition for the future.

One way to describe these unanticipated risks is "unknown unknowns"—a phrase former U.S. defense secretary Donald Rumsfeld made famous in 2002. As he explained: "There are *known knowns*; there are things we know we know. We also know there are *known unknowns*; that is to say we know there are some things we do not know. But there are also *unknown unknowns*—the ones we don't know we don't know. And...it is the latter category that tend to be the difficult ones."

Though Rumsfeld was talking about military threats, business threats that seem to come out of nowhere can likewise be the most dangerous. The worst casualties happen when a company is blindsided by innovations and new players its managers never even imagined. Just ask the executives of the GPS device makers that were rendered irrelevant by free navigation apps on phones and of the taxi businesses upended by ordinary car owners selling rides through Uber and Lyft.

Often the territory of unknown unknowns can be lit up by an insightful question. As innovation expert Clayton Christensen likes to observe, "Every answer has a question that retrieves it." But formulating the right questions is often difficult—something Elon Musk, the visionary behind PayPal, SpaceX, and Tesla, points out. "A lot of times the question is harder than the answer," he notes. "If you can properly phrase the question, then the answer is the easy part."

An imaginative question helped CEO Jeff Immelt find the answer to a serious challenge confronting GE. As the web began to reshape the global economy, the corporate giant's management started to wonder how GE, a century-old manufacturer in the age of digital start-ups, could achieve greater relevance. Thanks to a strong culture that encourages fundamental questions in "moments of intense introspection," as Immelt describes it, he and his team had the insight

IN BRIEF

THE PROBLEM

Power and prestige insulate most CEOs from ideas and information that might alert them to looming opportunities or threats.

THE SOLUTION

Innovative executives work hard to break down the walls surrounding them by gaining exposure to a broad range of constituents and venturing off the beaten path.

THE EMPHASIS

These CEOs actively seek out situations where they may be unexpectedly wrong, unusually uncomfortable, and uncharacteristically quiet. This helps them ask the right questions, discover previously unknown territory, and detect important but weak signals.

to ask: “What if GE were a ‘digital industrial’—and what would that mean?” That reframing opened a vast amount of unknown unknown territory to explore, because the whole notion that there could be a digital industrial hybrid had not previously been articulated. The resulting innovation, which combines physical-world expertise with big data and applied analytics to tackle the “internet of really big things,” has transformed the company.

Unfortunately, leaders can’t formulate brilliant questions at will any more than they can summon lightning bolts. But they can increase the chances that flashes of insight will occur by understanding the conditions that give rise to them and then seeking out or creating those conditions.

The starting point is getting exposure to a broad variety of constituencies and projecting an approachable attitude that inspires other people to speak up. Bettinger has a comprehensive set of tactics for doing that. First, he checks in regularly with important stakeholders—employees, owners, analysts, and clients. Whenever he meets someone from one of those groups, he asks this question: “If you were in my job, what would you be focusing on?” This query is designed to unearth opportunities and threats that haven’t occurred to him, and because it’s worded so that it’s not about him, people are much more likely to volunteer information, he says. On frequent visits to work sites away from headquarters, he makes a point of telling employees that his biggest personal challenge is isolation and asks for their help. To ensure that the people he manages aren’t withholding or sugarcoating information, Bettinger requires them to write what he calls “brutally honest reports” twice a month, offering observations in five areas, including “what’s broken?” (He also urges them to follow the same practice with the people they lead.)

And to help institutionalize a probing mindset at Schwab, each year he invites several employees who brought something potentially consequential to his attention to fly out and spend a day at headquarters in San Francisco—“not as a reward,” he says, “but as encouragement.”

Other leaders might not be so thorough but have come up with their own ways to field under-the-radar ideas and information. During the internet’s early years, Marc Benioff traveled the world seeking new insights from dozens of strikingly different people. That journey led him to a question that opened up a pivotal unknown unknown: “Why aren’t all enterprise software applications built like Amazon? Why are we still loading and upgrading software when we have

the internet?” The answer inspired him to launch Salesforce, now an \$8 billion business. No wonder he and his senior leaders now regularly go on global “listening tours,” looking for weak strategic signals. Inside Salesforce, the senior team also participates in Airing of Grievances, a companywide chat group. This group serves the same purpose as Bettinger’s brutally honest reports, delivering raw, unadulterated early-warning information 24/7 to the C-suite about what’s not working and why.

Rod Drury, who founded one of the world’s fastest-growing software-as-a-service companies, New Zealand-based Xero, uses enterprise social media to host conversations that people across the firm participate in. But he doesn’t limit himself to reviewing what others post; he also shares the firm’s strategy and market intelligence. His posts invite anyone in the organization—“even someone who’s just joined the business 10 minutes ago”—to ask questions, offer perspectives, or call out assumptions that no longer track with reality.

Though their tactics may vary, Bettinger, Benioff, and Drury all illustrate the way innovative CEOs regularly force themselves into modes of intense information intake. But it goes beyond that: Innovative executives deliberately put themselves into situations where they may be unexpectedly *wrong*, unusually *uncomfortable*, and uncharacteristically *quiet*. In so doing, they increase the chances that the right questions will surface to help them pick up on critical weak signals.

UNEXPECTEDLY WRONG

What kind of CEO gets paid for being mistaken? Boards expect senior executives to be confidently right, and for the most part organizations need that

decisive stance, too. But when leaders are determined to have all the answers, they stay within the bounds of what they know. Sometimes that’s necessary and appropriate. But if you’re going to crack open the territory of “what you don’t know you don’t know,” you’ll need to break that habit.

Bettinger certainly assumes he is wrong about many things.

“The difference between successful executives and unsuccessful ones is not the quality of their decision making,” he says. “Each one probably makes good decisions 60% of the time and bad ones 40% of the time—and maybe it’s even 55% to 45%. The difference is, the successful executive is faster to recognize the bad decisions and adjust, whereas failing executives often dig in and try to convince people that they were right.”

**“IF YOU’RE A LEADER, YOU CAN
PUT YOURSELF IN A GOOD-NEWS
COCOON.”**



If you really believe that what separates great from mediocre executives is the speed with which they spot their faulty thinking, then you'll be on the lookout for times when you're wrong. I once asked the visionary Stewart Brand, who founded *The Whole Earth Catalog* and the online community The WELL, what he felt was the key to his creative instinct. He told me, "Every day I ask myself, 'How many things am I dead wrong about?'" When in the course of this project I shared that anecdote with SAP cofounder Hasso Plattner, he leaned forward and confirmed, "That's how I wake up in the morning!"

Innovation always involves at least an implicit acknowledgment that you were wrong about something before. Robin Chase founded Zipcar after she saw car sharing in Europe and recognized how the assumption that everyone should own a car had created tremendous waste throughout U.S. society. That is the most positive kind of error recognition, because it points to opportunity. More commonly, awareness of their misguided assumptions is thrust upon businesses when a new competitor raises a threat or the inadequacy of long-held practices becomes downright painful.

The question for leaders is how to go about embracing the notion of being wrong. Ed Catmull, president of Pixar and Disney Animation Studios, makes it a practice to connect with new hires at employee orientations, where he declares very publicly that he doesn't have all the answers. "I talk about the mistakes we've made and the lessons we've learned.... We do not want people to assume that because we are successful, everything we do is right," he explained in a 2008 *Harvard Business Review* article. In Catmull's view, being mistaken is not only accepted but encouraged: "To be wrong as fast as you can is to sign up for aggressive, rapid learning," he wrote in his book, *Creativity, Inc.*

Sara Blakely, the founder and CEO of Spanx, actually celebrates failures to help people learn from being wrong. At a recent companywide meeting, she highlighted a series of "oops" moments that she'd personally had since founding Spanx. And Drury has a unique way of reminding himself to challenge what he and other veterans of his industry think. "I love the George Costanza theory of management," he told me. He's referring to a famous episode of the TV show *Seinfeld*, in which the hapless George resolves to change his life for the better by acting on a new principle: "If every instinct you have is wrong, doing the exact opposite must be right." Drury knows Xero can't beat its much bigger competitors at their own game—it has to outsmart them with a different approach. So he finds it useful to ask: "What is the exact opposite of

"EVERY DAY I ASK MYSELF,
'HOW MANY THINGS AM I DEAD
WRONG ABOUT?'"



what an incumbent would expect us to do?" Certainly that is what he did when he gambled on going all-in on the cloud back in 2005, when the software world was still deeply entrenched in desktop applications.

It's an often amusing exercise, and it points to a serious truth. For many, welcoming the state of being wrong means getting over a fear of looking clueless. Adrian Wooldridge, a columnist for *The Economist* who produces insightful copy week after week, learned how to do this by watching the legendary Bob Woodward, half of the team that exposed the Watergate break-in. Woodward asked others almost embarrassingly fundamental questions, which made him sound completely uninformed. But Wooldridge saw the effect: Because Woodward hadn't sig-

naled any clear line of inquiry, people were more likely to reveal something he didn't know he was looking for.

Narayana Murthy, another cofounder of Infosys, asks his top management team to approach questions similarly—and let go of the desire to sound "impressive" to others. "I help," he says, "by saying that our questions must be, as far as possible, framed using simple sentences." He doesn't care if they sound unsophisticated, "because complex sentences and compound questions bring a set of conditionalities"—embedded assumptions, in other words, that constrain the response before anyone has even begun to think about it.

UNUSUALLY UNCOMFORTABLE

The process of discovery almost always takes you outside the zone where you feel competent and in control. As the author Joseph Campbell once wrote, "Where you stumble, there lies your treasure. The very cave you are afraid to enter turns out to be the source of what you are looking for." Being far outside your element puts you into a heightened state of alertness, just as being wrong does. You become extra receptive, trying to pick up a scent. As you struggle to get your bearings or get on top of a disconcerting situation, fresh questions race through your mind, and you actively gather all kinds of information before making any decisive moves. Many CEOs have only a dim memory of spending time in such a state, at least at work. It takes real resolve to enter it. It is, after all, somewhat exhausting to be on high alert.

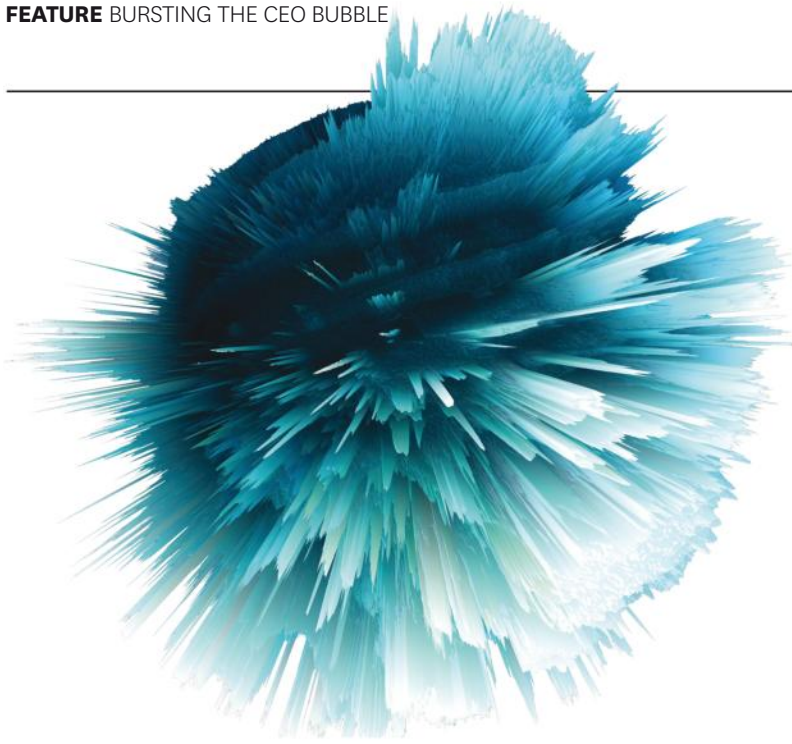
But it also can be a source of inspiration. For instance, in 1988, when social entrepreneur Andreas Heinecke was in his first job, at a radio station, he was asked to train another young journalist who had lost his eyesight in a car accident. At first Heinecke was bewildered about how to do it. He also quickly



ARE YOU TRAPPED IN A CEO BUBBLE?

Ask yourself these questions to see whether you're insulated from crucial ideas and information in your everyday work:

- 1** How many barriers do people have to cross to talk directly with you?
- 2** How much of your typical workweek is spent outside your office or headquarters?
- 3** When was the last time you were dead wrong about something at work?
- 4** How quickly did you uncover your last mistake? How fast did you change course?
- 5** How often do people ask you uncomfortable questions at work?
- 6** How often do you talk with people who make you uncomfortable? How much time do you spend in places that cause you to feel uncomfortable?
- 7** How many questions do you ask versus statements do you make in typical conversations?
- 8** How often do you wait silently (three seconds or more) for others to answer your questions?
- 9** How many times this week have you said "I don't know" in response to a question?
- 10** When was the last time your provocative questions gave rise to a catalytic story—one that radically transformed some part of your organization for the better?



realized to his mortification how many stereotypes he harbored about people with disabilities. That discomfort made him seek to understand a realm he had no knowledge of—and in that extreme questioning mode, Heinecke found the passion that would guide an entire career. It led him to build Dialogue in the Dark, an award-winning organization that employs blind guides to take 800,000 visitors a year (or more than 8 million to date) through exhibits and workshops on the sightless experience.

Fadi Ghandour, the cofounder of the Dubai-based delivery and logistics firm Aramex, is an avid proponent of leaving the executive comfort zone. One time when he arrived in Dubai at 2 AM, he chose to skip the luxury car service from the airport and had one of the company's package couriers pick him up instead. During the drive to his hotel, he asked the courier probing questions and listened closely to the answers, which revealed operational issues that were compromising the courier's ability to deliver on time. First thing that morning, Ghandour called an all-hands meeting of local management and made sure some couriers could be there, too. While the executives listened, he posed the same kinds of questions—and allowed everyone to hear of the brewing problems (such as couriers' being overloaded and managers' being out of touch).

Crucially, the tone of the gathering was one of mutual discovery. No one was called on the carpet to explain why these concerns had been overlooked. Just as important, Ghandour decided that this should be an ongoing way for the team to pick up early signals. Now it's a policy for Aramex executives to periodically get out of their ergonomic office chairs and do stints as couriers.

Perhaps what Ghandour advocates doesn't sound so unbearable. It isn't. But ask yourself when you last

made a move like the one he made at the airport. In the midst of an exhausting month of travel, knowing you would touch down on the tarmac to find a slew of fresh messages needing responses, wouldn't you have had a town car waiting? There is always an excellent excuse not to leave the seemingly efficient CEO cocoon.

Drury has followed an approach similar to Ghandour's, although with customers, not employees. In his firm's quest to take on industry leader Intuit, he made it a point to mimic Intuit's founder, Scott Cook, who habitually spends time watching QuickBooks customers do everyday work. In 2005 Drury shadowed more than 200 potential customers—owners and managers of small businesses—meeting them at their offices just as they arrived in the morning, booted up their computers, and poured that first cup of coffee. The visits inspired a fundamental insight: "That it was never about accounting software." Drury realized that though this focused solution responded to a customer need, a much greater, "once-in-a-lifetime opportunity" lay in bringing all the data a small business gathered together into one environment—and then connecting that data "to do some amazing, magical things."

Guy Laliberté, the cofounder of Cirque du Soleil, an entertainment company known for its highly creative productions, is constantly on the road and on the lookout for new trends in architecture, fashion, music, and language. Everyone in the company is encouraged to do the same; Cirque even publishes a feature called "Open Eyes" in its internal newsletter, which is filled with staffers' "by the way" observations from their travels. But perhaps Laliberté's most unusual technique for breaking himself and his team out of their comfort zone can be seen back home in Montreal. One day he told his CEO, Daniel Lamarre, "I'm afraid we're getting a little bit too corporate. So I've hired you a new employee." Shortly afterward, a clown in full costume reported to work at company headquarters. "Madame Zazou" spends a fair bit of her time staging entertainments and dispensing popcorn. But she has full license to play the role of court jester, for example by "coming into our [executive committee] meeting and doing the introductions—and making fun of us," Lamarre says.

UNCHARACTERISTICALLY QUIET

There's another way to increase your chances of encountering novel ideas and information and discerning weak signals: being quiet. This is not typical behavior for CEOs, who are generally expected to be in broadcast mode, delivering words of inspiration, explanation, and unambiguous direction. A.G. Lafley, two-time chairman and CEO of Procter & Gamble, likes to say that his job is to keep repeating for people what the mission is and to keep it "*Sesame Street* simple." That is the default setting for CEOs for sound reasons. But it will never open a window onto

things you don't know you don't know. So for some significant portion of your time, you have to stop transmitting messages and switch over to receiving them. No surprise, then, that each week Lafley asks himself, "What am I going to be curious about?" as a reminder that strategic insight demands deep listening born of equally deep curiosity.

The need to work on being quieter came up again and again in my interviews with CEOs. As Diane Greene, the cofounder and former CEO of VMware and now senior vice president and a board member at Google, puts it, "Quiet time is key to clear thinking and increases the likelihood of asking the right questions." Hal Barron, president of R&D at Calico, a life sciences company funded by Google, agrees about the power of quieting down. He commented that the longer you can gather information before you crystallize "the story in your head," the more likely you are to arrive at some truly novel hypothesis. "As long as you're truly listening, as opposed to fitting what they're saying into your story—which I call 'not listening'—then you ask good questions. Because you're really not sure what the story is yet."

One of the "most amazing qualities" of Cirque du Soleil's Laliberté, says Lamarre, is that when someone utters a crazy idea in a meeting, Laliberté urges him or her to say more—"where most people would just hit the brakes." Everyone else in the room might be highly skeptical, but Laliberté says, "OK, keep going. I'm not sure about it, but keep going."

Simon Mulcahy, one of Benioff's top executives at Salesforce, notes that it takes deliberate effort to keep others talking. In meetings, he says, he mentally has "this sort of background music playing all the time: *Don't tell. Ask questions. Don't tell. Ask questions.*"

Good listeners also try to abandon their preconceived notions. Scott Di Valerio, former CEO of Coinstar and now CFO of RetailMeNot, reminds himself constantly to "start from zero" when listening to people he has dealt with before. It's too easy for assumptions about what they probably believe or memories of how valuable (or not) their input was in the past to get in the way of understanding what they're truly trying to communicate now.

Deval Patrick, the former governor of Massachusetts and now a managing director at Bain Capital, offers another tactic. He is a huge believer in "the power of the pause." As he explains, "We all seem to feel like we have to fill up the space between our comments." Quelling that impulse has repeatedly benefited him. Especially when someone is, as he says, "having a real tough time telling the boss that something isn't going

well. If you wait a beat or two, they take a deep breath and then they go ahead." A simple pause is rewarded with "layers of valuable information."

MAKE IT HABITUAL

It takes concerted effort for a CEO to avoid isolation and stay attuned to changes in the world. Bettinger, for one, believes the effort is well worth it. "To informally hope that you will figure out ways to get that information, I think, has always been dangerous," he says. Catmull likewise worries about the "dangerous disconnect" that afflicts top managers when they consistently fail to "step up to the boundary" of what they know and what they don't know. Determined not to let Pixar down in that way, he's designed a whole set of institutions and practices to "systematically fight complacency." Catmull and Bettinger are outliers, however. After hundreds of interviews, I have to report that the majority of leaders, familiar as they may be with the built-in dilemma created by the CEO's power and position, have not yet found the will or the way to fight it coherently and consistently.

Yet the solution is not that complicated: Get out of the office today and spend more time being wrong, being uncomfortable, and being quiet.

And even if you're not a CEO, you'll benefit from cultivating deeply inquisitive leadership practices. SAP's CEO, Bill McDermott, has pointed out that as managers get pro-

moted up the ranks, they reach their limits fast if they aren't able to ask probing and insightful questions. At the top layers of the organization, the people with the most potential to succeed, he says, are the ones who can "take a difficult situation and bring it to its knees with questions."

The CEO's dilemma is really every leader's dilemma. All leadership roles are subject to the isolating bubble fueled by position and power. As soon as you put too many layers between yourself and the front lines of the business, and as soon as people start worrying about bringing you information that might trouble you, the odds quickly decline that you'll stumble upon what you didn't know you didn't know—before it's too late. Change your habits now to fix that. Reframe your old questions into new ones, and by the time you make it to the CEO's office, you might face no dilemma at all. 🧠

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"QUIET TIME IS KEY TO CLEAR THINKING AND INCREASES THE LIKELIHOOD OF ASKING THE RIGHT QUESTIONS."







HIRING AN ENTREPRENEURIAL LEADER

WHAT TO LOOK FOR **BY TIMOTHY BUTLER**

Entrepreneurs have become the new heroes of the business world. In the same way that Robert McNamara and his fellow Ford Motor Company “Whiz Kids” elevated general managers to star status, figures like Mark Zuckerberg and Steve Jobs have made entrepreneurs the latest business icons. At Harvard Business School, where I advise the career development program, even students who plan to join blue chip firms and have no intention of ever launching start-ups would be insulted if someone told them they weren’t “entrepreneurial.” I understand why: Entrepreneurialism is highly valued in today’s labor market. Companies

of all shapes and sizes aspire to be seen as highly innovative, nimble, and agile—all qualities traditionally ascribed to entrepreneurs.

Yet in their recruiting efforts, companies do not have a scientific way of separating true entrepreneurs from other talented candidates. Instead, they fall back on broad stereotypes.

In my research I’ve explored how firms can address that problem. In an effort to understand what makes entrepreneurs special, I’ve compared the psychological-testing results of more than 4,000 successful entrepreneurs from multiple countries against those of some 1,800 business leaders who described themselves as

ILLUSTRATION BY ALEX FINE

general managers but not as entrepreneurs. Unsurprisingly, the two groups had much in common. On 28 of 41 dimensions of leadership, there was little or no difference between their skills. Yet when I looked more closely, combining their skill assessments with data on their life interests and personality traits, I discovered that entrepreneurs had three distinguishing characteristics: *the ability to thrive in uncertainty*, *a passionate desire to author and own projects*, and *unique skill at persuasion*. I also found that many of the traits commonly associated with entrepreneurial leaders didn't truly apply.

For instance, entrepreneurs aren't always exceptionally creative. But they are more curious and restless. They aren't risk seekers—but they find uncertainty and novelty motivating. In this article I'll tackle some of the myths about entrepreneurs and explain the more nuanced reality. I'll also offer evidence-based, practical advice on interview questions and résumé screening that hiring managers can use to distinguish entrepreneurial candidates from other high-potential talent.

IN BRIEF

THE PROBLEM

Though entrepreneurs are the new heroes of the business world, most companies lack a scientific approach to recruiting managers with entrepreneurial qualities. Instead, they rely on stereotypes.

THE SOLUTION

An analysis of the psychological-testing results of more than 4,000 entrepreneurs and 1,800 general managers showed that three factors differentiate entrepreneurs: thriving in uncertainty, passion for ownership, and skill at persuasion.

THE UPSHOT

Entrepreneurs aren't always more creative than general managers, but they enjoy pushing boundaries. They aren't risk seekers but find novelty motivating. Much like artists, they want to author and own projects. And they're natural salespeople. Hiring managers should look for these qualities when recruiting.

KNOW YOUR REQUIREMENTS

Before looking to hire entrepreneurial leaders, managers must answer an important question: Does the

company really need one? Not all organizational challenges call for an entrepreneurial approach. In my research successful founders as a group scored extremely high on a scale that measures the desire for power and control—and notably higher than the nonentrepreneurial leaders. This quality can cause conflict in situations where the sharing of information and power is vital to organizational performance. What's more, it will often not play well in organizations that have established matrix structures, need porous boundaries between working groups, or require high levels of collaboration.

Hiring managers should carefully consider the particular leadership challenge they're recruiting for. If it's a greenfield situation, a turnaround, or any other circumstance that demands intensive initiative on a contained project, then an entrepreneurial style is likely to add value. But if the situation involves a highly interdependent matrix of working units, you might well do better looking for a different leadership profile.

If you do conclude that an entrepreneurial leader is what your organization needs, then it's important to understand the entrepreneurial character in a nuanced, sophisticated way. Let's take a look now at the popular perceptions about entrepreneurship and at what the research indicates really drives the people who are good at it.

THE STEREOTYPE: Entrepreneurs are unusually creative.

THE SUBTLER TRUTH: Entrepreneurs are curious seekers of adventure, learning, and opportunity.

One popular notion is that entrepreneurs and people who enjoy constantly changing, innovative environments are more creative than others. But there are many types of creativity in business. Some managers, for instance, are highly creative at fixing things that are broken and enjoy the challenge of returning a system to a previous state of optimal functioning. While it's certainly true that entrepreneurs excel at original thinking, so do many nonentrepreneurs. In reality, what sets entrepreneurial individuals apart is something slightly different—something both broader and deeper than what is typically evoked by the word “creativity.” It's the ability to thrive in uncertainty.

A critical aspect to this dimension is *openness to new experiences*. In my research, I've found that it is the single trait that most distinguishes leaders who are entrepreneurial from their more conventional peers.

Openness to new experiences is about having a restless need to explore and learn. It entails not just

a willingness to proceed in unpredictable environments but a heightened state of motivation that occurs at the edge of the unknown and the untried. For individuals who score high on this dimension, the unknown is a source of excitement rather than anxiety.

Consider Charlotte Yates, who brought her entrepreneurial leadership style to Sprint and IBM before eventually leaving to help found the telecommunications firm Telwares. When she was in a larger corporate setting, she saw herself as taking an approach that differed from the one used by the majority of her fellow leaders. “I didn't follow IBM's design process and their normal chain of command, because my task would have never gotten done,” she says. “I didn't see myself as having a tightly defined box; I didn't see the boundaries. I was looking at a blank piece of paper and saying to myself, ‘Now, what do I want to create here?’”

Entrepreneurs enjoy the “dreaming it up” process. Like Yates, they are less bound by convention than their corporate counterparts, and they're more likely to assume things can be done better. For this reason, they thrive in environments where there is a market opportunity but no product or service, or where there is a product but the go-to-market strategy is not clear. They relish the early stages of projects and tend to become less engaged as projects become more routinized and steady state.





THE STEREOTYPE: **Entrepreneurs enjoy and seek risk.**

THE SUBTLER TRUTH: **Entrepreneurs are more comfortable with risk.**

Another prevailing view is that entrepreneurial people love risk—that they enjoy the thrill of taking chances. This is not true; entrepreneurs are not the skydivers of the business world. Like every good businessperson, they seek to minimize risk at every opportunity. However, many studies have shown that entrepreneurs have higher comfort with risk than conventional managers. In other words, when accepting risk is necessary to reach a desired goal, entrepreneurs are better at living with it and managing the anxiety that might be disabling to others. My research likewise showed that the colleagues of entrepreneurial leaders rated them significantly higher than more-traditional executives on comfort with risk.

Entrepreneurial leaders aren't necessarily tougher and more stress-hardy than their corporate peers—in ratings of their resiliency, taken from 360 reviews, I found no significant difference between the two groups. Rather, the point that emerged was that highly unpredictable and ambiguous environments are, for entrepreneurial leaders, a source of motivation. This is a second reason they thrive in uncertainty.

ASSESSING THE ABILITY TO THRIVE IN UNCERTAINTY

Openness to new experiences and comfort with risk are the main components of the ability to perform well in unpredictable environments, although many people misperceive the essentials to be tough-mindedness, hardiness, or resilience. Those are highly desirable qualities in a leader (and your organization's situation may demand them), but they're beside the point if your hunt is for an entrepreneurial leader.

Here's what to examine instead: Has the candidate made choices that clearly favor adventure and learning over convention and minimization of risk? Examples might include choosing a less recognized college to pursue a particular passion; spending a year abroad in an unusual setting as a growth experience; opting to work for a highly innovative small company rather than a big brand-name company; vacation destinations that involve hardship but unusual experiences; living in a diverse and interesting part of a city rather than the usual professional enclaves; taking genuine risks in previous organizational roles; and taking on projects for which resources are scarce and outcomes uncertain.

When interviewed, entrepreneurial managers will ask bold questions, take the initiative in the conversation, exhibit little anxiety about fitting in or providing the desired responses, and exude sheer, almost impatient, enthusiasm. Do candidates' answers feel safe or "rule-bound"? Don't miss any opportunity that allows candidates to demonstrate their willingness and capacity to explore the unknown.

The following questions will help you identify candidates who will thrive in uncertainty. But don't look for the best answers; look for the extent to which the candidate champions the value of exploration, learning, new approaches, and willingness to take on risk to achieve an important outcome.

- Which do you fear most: anxiety or frustration?
- Are you willing to get into trouble in order to make something important happen?
- Which is more valuable: instinct or wisdom? Why?
- Which is more valuable: imagination or analysis? Why?
- A space explorer is looking for people to colonize Mars. Have a conversation between the part of you that would say yes to this mission and the part that would say no.
- We (or a competitor) decided to launch this product in this way. How could we have done it differently?
- Rapidly, choose one option from each of the following word pairs. (Do not try to score these responses, but look for a general pattern.)

CONSISTENCY or **FLEXIBILITY**

PROVEN or **POTENTIAL**

CAREFUL or **BOLD**

EXPLORE or **SETTLE**

PREDICTABLE or **POSSIBLE**

BONUS or **SALARY**

SAFETY or **OPPORTUNITY**

MEDAL or **JOY**

PUZZLE or **BLANK CANVAS**

NIMBLE or **STEADY**

CHANGE or **CONSTANT**

KNOWN or **UNKNOWN**

PATIENCE or **EXCITEMENT**

FRONTIER or **HOME**

SET or **OPEN**

WILD or **TAME**

VARIETY or **CERTAINTY**

INHERIT or **CREATE**

THE STEREOTYPE:
Entrepreneurs are more personally ambitious than other leaders.

THE SUBTLER TRUTH:
Entrepreneurs are driven by a need to own products, projects, and initiatives.

As mentioned earlier, entrepreneurial leaders, as a group, score exceptionally high on the need for power and control, and notably higher than conventional general managers (though that group scores quite high too). Intrigued by this, I interviewed entrepreneurs to learn more. I began to discern an interesting variation on the need for power often associated with entrepreneurial leaders: For them, it's less about dominance and more about ownership. It's not about having supremacy over subordinates or commanding respect or authority; it's about having control over the finished product. In this way, entrepreneurs have more in common with authors and artists than with dictators.

Entrepreneurial managers are hands-on. They want to be in the middle of the buzz and hustle as a new venture, day by day, comes into the world and starts to walk, then run. They are not ones to sit in tastefully appointed corner offices moving chess pieces for a game being played out floors below them. They want to be the artisans with their hands on the wet clay. They want to take a finished piece from the kiln and say, "This is mine"—not in an egotistical or acquisitive sense but in the sense of "I shape materials that become valuable and useful things." Long after Apple had become one of the largest companies in history, Steve Jobs still had to be part of every critical design discussion, hold prototypes in his hand, and assess every detail from gleam to heft. Power, for the entrepreneurial spirit, is about being the owner of and driving force behind an initiative.

One entrepreneurial leader I interviewed, Andrea Kimmel, CEO of Sweet Kiddles, a child-care start-up, put it this way: "I want people to see me as the person who can make ideas happen. For me, part of being the boss means that people in the organization will come to me to try to make things happen, to bring change."

This expression of power is different from positional power (which is based on your rank), charismatic power (influencing people through your personality), or expert power (when others defer to your knowledge). Entrepreneurial leaders do not see themselves as exerting power from above. They see their role as being at the center of a circle rather than the top of a pyramid. An entrepreneur may or may not be charismatic, but his method is not to inspire the masses at the annual convention and then step off the stage and retreat to the corner office. He wants to have a hand in the immediate game.

That is not to say that entrepreneurial leaders do not display aspects of authority, expertise, or charisma—many do. But the aspect that unites them is not the desire to be a decision maker. For such leaders, a venture is an expression to the world of who they are.

ASSESSING PASSION FOR OWNERSHIP

To find out who has a hunger for hands-on involvement in projects, from start to finish, try to tease out the following: Has the candidate been a founder rather than a joiner? Instead of running for class office, for instance, did she start a new club, campus initiative, or business? (Points should be awarded for a pattern of seeking out leadership of any kind, however.) Did she make early career choices that would give her creative control? Has her path been atypical or opportunistic rather than one of lockstep promotions? Has she been "in charge of her life" from an early age? Has she been an entrepreneur, successful or not, at any stage?

Then watch for these signs: Does the candidate "own" the interview by starting to sketch out a vision for how the demands of the position could be met? Does she (ideally without arrogance) participate almost right away as a mutual "owner" of any problem at hand? Does she probe for assurances that she will have the requisite autonomy to lead the new venture?

Some interview questions to consider:

- Which business leaders do you admire? Why?
- What do you take pride in?
- What causes new ventures to fail more often: a lack of leadership or a lack of collaboration?
- Which is a better attitude for a business leader: passion or professionalism?
- Psychologically, do you take work home with you?
- How much of who you are is what you do at work?
- Rapidly, choose one option from each of the following word pairs. (Again, do not try to score these responses, but look for a general pattern.)

OWN or MANAGE

SUGGEST or DIRECT

LEAD or PARTICIPATE

SHAPE or CONTROL

CAPTAIN or NAVIGATOR

OWNERSHIP or TITLE

GRACE or POWER

COMPLETE or REFLECT

ASPIRE or ACCOMPLISH

MEMBERSHIP or POSSESSION

KNOWLEDGE or POWER

PRESIDENT or MINISTER

PROFIT or EQUITY





THE STEREOTYPE: Entrepreneurs are natural salespeople.

THE TRUTH: This one is correct.

My research corroborated many earlier studies that highlighted the importance of confidence and persuasiveness among entrepreneurial leaders. When it's crucial to get somewhere or make something happen, but it's not clear how to do so, you must, first, believe that you can reach your goal and, second, convince all the people whose help you need that you can, too—and very often, with little or no evidence to back you up.

Entrepreneurs must be able to sell their vision to prospective team members before they have anything else to offer. Many have to sell their ideas to initial investors and later to venture capitalists and joint-venture partners. And all entrepreneurs must be able to sell to the customer.

The same applies to people spearheading new ventures within larger corporate entities. The renowned U.S. automobile executive Lee Iacocca was an entrepreneurial leader who spent his entire career in large corporate settings. Though he'd been trained as an engineer, he switched to a sales track early on, and it was his sales ability that made him exceptional. His persuasive skill helped him at every turn. Two of his sales feats assumed mythic status: Convincing Ford's leadership that the firm should make a large investment in the development of a lower-priced sports car (which led to the phenomenal Mustang success story) and getting Congress to pass an unprecedented act bailing out Chrysler.


ASSESSING PERSUASIVENESS


Evaluating persuasiveness is different from evaluating the ability to thrive in uncertainty and the passion for ownership. Most of the evidence will come directly from interactions with candidates. Leaders high on this dimension will exude confidence and genuinely convince you that they can get the job done. Their confidence won't feel like bluster or hype but will

seem well-founded. They'll probe the relevant issues and potential courses of action in a steady and intelligent way. They will be honest about the unknowns of the situation but, at the same time, not waver about their ability to overcome contingencies.

Here are some interview questions about past behavior that may be helpful, although the answers should be weighted less than a candidate's actual behavior and attitudes during the selection process. Essentially, you should assess this entrepreneurial leadership dimension as if you were hiring for an executive sales position.

- What experience have you had with sales?
- Could you tell me about a particularly challenging sales experience you've had?
- Could you describe a life situation when it was extremely important that you change the opinion of others?
- How does persuading a group of executive peers differ from selling to a customer?

EXCEPTIONAL LEADERS HAVE much in common, and most can adapt to the demands of whatever organizational challenges they face. Leaders who are truly entrepreneurial, however, excel when a situation demands complete ownership of a venture or problem, become more motivated as uncertainty increases, and have a remarkable ability to persuade others to follow their course of action. This profile can be problematic in complex organizations where established business units need to work intensely together, across boundaries, and leaders need to share both information and power on a daily basis. But if your organization needs someone to turn innovative ideas into full-blown, standalone enterprises—or invent and bring to life completely new models—it may be time to hire an entrepreneurial leader. And by following the advice in this article, you can make sure you actually find what you're looking for.  **Reprint** R1702E

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McMillon at a Sam's Club
in Bentonville, Arkansas



A CONVERSATION WITH
WALMART CEO DOUG MCMILLON
BY ADI IGNATIUS

For years, Walmart seemed to understand exactly what its customers wanted. It developed complicated consumer analytics and used that data, along with relentless pressure on suppliers, to become a retail powerhouse that sold practically everything at the lowest possible prices.

RICK MCFARLAND/BLOOMBERG/GETTY IMAGES



Then along came the internet. Suddenly upstart rivals figured out how to track and forecast like Walmart. And the rapid success of Amazon and other e-commerce pioneers called into question whether a brick-and-mortar giant, especially one with 4,600 stores in the United States alone, could survive, let alone thrive.

As Walmart's sales growth began to stall, the board in 2014 tapped Doug McMillon to take over as CEO. The imperative was clear: Bring Walmart into the future without blowing the franchise.

McMillon, 50, has embraced the challenge. Boyish and soft-spoken, he is pushing hard for change while also showing a clear respect for tradition. McMillon is a company lifer whose first job was unloading trucks at a neighborhood

Walmart in Tulsa, Oklahoma. He rose steadily through the ranks, eventually running Sam's Club, the company's warehouse retail chain, and then Walmart's international operations. These days his task is nothing less than leading the transformation of America's largest company.

McMillon sat down for an interview in his office at Walmart's Bentonville headquarters, in the northwest corner of Arkansas. It's the same office that legendary founder Sam Walton occupied as he built Walmart into what these days is a nearly \$500 billion business. McMillon talked with HBR about the ups and downs of Walmart's journey, its \$3 billion purchase of Jet.com, and how he plans to respond to America's shifting political winds.

HBR: When you became CEO of Walmart, what was your top priority?

McMILLON: Walmart is more than 50 years old, and it was built with a purpose. But the world is changing quickly. When I moved into this role, it seemed clear that the board wanted me to have the mindset that I might be in the job for a while. They said: “The company needs to go through quite a bit of change. So don't just run it. Don't just maintain it. Get it prepared for the future.” That's what we've been trying to do.

Does that primarily mean going digital?

E-commerce and going digital are definitely near the top of our list. But there are other imperatives: Are we positioned right geographically in the 28 global markets we're in? Culturally, do we have the behaviors

we need to deal with the future? And what has to change in our brick-and-mortar environment?

Are you certain that physical stores are part of your future?

Our goal is to be able to serve our future customers. To do that, we need to build a strong and capable e-commerce business—but also to strengthen what we're doing in stores. Customers want to save money and time and have the broadest assortment of items, and we think that by bringing e-commerce and digital capabilities together with the stores, we can do things that a pure e-commerce player can't.

Is it possible you're adapting your strategy to conform to the reality that you already maintain

thousands of stores? Or are you confident that integration is the best approach?

The reality is that customers want everything. They want to go online to see hundreds of millions of items and to find anything they're looking for. But many also want to have a delightful experience in a physical store environment.

Walmart is all about low prices. But is the convenience of online shopping becoming more critical than price?

Low prices at Walmart are a given. Customers almost take that for granted. But they also want to save time, and that goal is increasing in importance relative to just saving money. You can't build a business today that's successful purely on price. The old trade-off of service versus low prices no longer makes sense.

Walmart was late getting into e-commerce. Why did it take so long? Was it simply that the old model was so profitable that there was no urgency to change?

We wish we had been more aggressive early on, no doubt. In some ways we experienced what Clay Christensen calls the "innovator's dilemma." We hired talent, invested, and just kind of meandered along rather than hammering down, being aggressive, and making it a must-win aspect of our business. That's partly because we had a bird in hand. We knew that if we continued to open Walmart Supercenters, they would do well. Traffic in the United States is still going up. But digital conversion for us has to be about more than just serving the customer on the front end. It's about more than e-commerce. We need to introduce digitization across all our functions and jobs so that we can be faster and more efficient. There is still too much paper pushing in our business.

Walmart was always the leader in analytics and customer understanding. Now, in the big data era, that level of understanding is almost table stakes for retailers. How do you maintain a competitive advantage?

The challenge is figuring out how to get people to work together in the right ways. We have a big team in Silicon Valley now. We have a big tech team here in Bentonville and another in India. We have a Jet.com office in New Jersey. How do we design the company to create the seamless experience that customers want? When do we work together? When do we not work together? Who's responsible for what?

How do you ensure that the people leading your core business remain motivated as attention and resources go to the newer, digital operations?

The people who run the older parts of our business must also become digital. We can't have some people live in yesterday while others live in tomorrow. And


given the effects of inertia, we need people to lean into the future even more than other companies might. We're trying to move large numbers of people to change their established habits.

How do you communicate that urgency across the company?

We're in a constant educational process. We set goals, we meet face-to-face in groups and individually. We give people things to read, including HBR pieces. People learn in different ways. Some say they really get it when you show them a case study. For others, it's more conceptual.

Are you finding that some employees lack the skills and attributes to make this journey?

Yes, it's logical that as you lead change like this, you'll get different responses. You'll have some people at "hello," but others will take more time or won't want to change. We've seen some departures, and we'll see more. But we have a lot of well-educated, bright people in the company, and I'm confident that as a group we'll be able to move forward.



**CUSTOMERS WANT
EVERYTHING. YOU CAN'T
BUILD A BUSINESS THAT'S
SUCCESSFUL PURELY ON PRICE.**

Walmart faces competition from below on price and from above on quality. And then there's Amazon, the giant in online retail. What does winning mean for you in this environment?

We try to focus on the customer more than on the competition. Of course, we have competitors in our peripheral vision, and we try to learn from them. We're trying to hire great talent in the digital area. We've made acquisitions, and I'm sure we'll do more. We're also more open to partnering than we were in the past. We don't need to build everything on our own.

Let's talk more about Amazon. How does Walmart stack up against it?

Let me try to answer that question by showing you a couple of things. When I first took this job, I gave this book, *The Everything Store* [Brad Stone's in-depth look at Amazon], to all my officers. I told them to read it and understand it, and then we discussed it together in meetings.

And this book is a replica of the 1908 Sears, Roebuck catalog. Look at the assortment: They’ve got beds, plates, pianos, food. There’s a fireplace, a shotgun, and, what’s that, feathers? There are bridal hats. In other words, breadth of assortment existed in 1908. Back then people were getting deliveries over the newly established railroad system. And then this innovative company called Sears, Roebuck came up with the idea of setting up outlets and became a combined store-and-catalog business, focusing on assortment, value, and service. The stores were close to customers, who could get what they wanted immediately—and we know that humans like instant gratification.

And you think Walmart’s version of a dual model can beat Amazon’s?

As a retailer, we’ve had fun watching what Amazon has built. The site is really cool. It’s an innovative marketplace: Customers save time and get an assortment. So how do we continue what we’ve been doing yet also create these things ourselves? Our goal is to copy what we should copy, invent what we should invent, and end up winning by changing what we do and how we do it—without changing who we are. We’ve done a lot of introspection in the past few years, and we feel that our purpose, values, and culture are timeless. History shows that most retailers don’t survive disruptive change, but we’re confident that we can make it.

How is the digital transformation going so far? What’s the biggest challenge?

Speed. If you compare our e-commerce business with almost anybody else’s, you’d say it’s a pretty good business. In fiscal 2016, our global e-commerce sales increased about 12%, to \$13.7 billion. But when you look at what the leader is doing, we’re far short of where we should be. And that’s just in e-commerce; there’s a lot of other digital conversion that needs to happen. We’re thinking in the right way, and we’re moving but not fast enough. I’m frustrated by that.

What’s the ultimate value of the Jet.com purchase? Why did you pay \$3 billion for Jet instead of building that kind of platform internally?

We were making progress with Walmart.com without Jet, but it just wasn’t enough. The transparent customer experience that [CEO] Marc Lore and the rest of Jet had built was attractive. Jet’s “smart basket” experience lets customers be actively involved in what price they pay, depending on how they buy things—with a debit card instead of a credit card, giving up return privileges, and so on. When we saw Jet, we saw a strong tech platform and a team that was culturally aligned with how we think about the world.

Is the goal to merge the platforms and brands?

We’ll share a lot of back-end stuff and eventually have a common tech platform and fulfillment business.

But we’ll operate two separate brands with two separate identities.

Why keep the brands separate?

Jet has appealed to more urban, Millennial, and higher-income customers than Walmart has. And it has relationships with some brands that might not want to sell through Walmart.

Although Walmart recently raised wages, the company still faces reputational issues. How are you dealing with that?

We start with reality and try to focus on what we can do to make Walmart an even better company. And after that, we’ll talk about reputation. I’m really proud of our work in environmental and social sustainability—including the commitments we’re making on greenhouse gas. If the world knew what we’ve done for the past 10 years and what we’re doing to make things better holistically, I think our reputation would be dramatically better.

How do you respond to the lingering charges that Walmart mistreats its workers?

My first job with Walmart was unloading trucks in a warehouse. Then I worked as an assistant manager in a store, and I was lucky enough to get into our buyer-training program. I loved merchandising and had a career path that led me through Sam’s Club and Walmart International. I’ve had more opportunities in this company than I could have dreamed of. There are hundreds of thousands of people like me who have had that experience. But we haven’t been perfect. We’re trying some fairly dramatic changes to make the ladder of opportunity more real for everybody and to really create the meritocracy that we’ve aspired to have all along.

How do you do that?

You have to set the bottom rung, that place where workers get started, at the right level so that a college kid or someone who wants to build a career has an entry point. And then you have to space the rungs appropriately, with the right kind of support, so that people can climb as high as they want to go. We have invested in wages, in training, and elsewhere to create a system that can help you go as far as your capability and work ethic will take you.

Are you looking for a different kind of employee these days?

The future of retail will include more technology. We already have handheld units on the floor, and today more data is available for people to use. We need store associates and managers who can operate handheld devices, do analysis, ask questions, receive data, and basically run a store within a store. Imagine you’re trying to run a great toy department within a Walmart

store. Your success depends on forecasting. How do you think about the weather? What's going on in the community? What other variables do you look at? To attract the right kind of talent, we need to make some investments. And that will result in better stores.

Let's talk about your role as CEO. What is it that you most need to focus on?

I've worked for the company for a long time, so it's important for me to develop an outside-in view. If I were married to the things we've always done and, consciously or subconsciously, tried to protect them too much, I'd hold the company back. So I've tried to spend a lot of time outside it and to learn from other CEOs. I still visit our stores and clubs—don't get me wrong. But I go to Silicon Valley frequently, and I meet with people from start-ups as well as larger companies that in some cases we do business with. I ask questions, trying to learn what it means to be digital. I also travel the world to learn what it means to be global. And then I try to use all of that to create the right strategy and the right level of paranoia to speed up change. I'm trying to leverage the collective perspective, wisdom, and experience of everyone I've been talking to and to lead Walmart as if it were a brand-new company on day one.

How do you know if you're on the right path?

Well, first, I'm not doing this all by myself. But sure, there's a risk associated with change. It might not work. But I would rather have us take a shot and reach for the future, so we can be here in 50 years, than just make the most out of the old system.

What's your advice for other executives whose companies are going through disruptive change?

Act like a student and surround yourself with people who "get it." Digital natives need to be part of your management team as well as your board. Walmart's board has included people like [Instagram cofounder and CEO] Kevin Systrom and [Yahoo CEO] Marissa Mayer.

How do you keep learning?

I'm a curious person. You're talking to a guy who was one of the first to have a Newton and a PalmPilot. I've got a Google Home in my kitchen, and I'm playing around with AI. I like learning new things, and so do a lot of Walmart's leaders, and that gives us a shot.

Is Walmart experimenting with things like speech recognition platforms, augmented reality, and virtual reality?

We have some work going on, but we're behind in those areas. Virtual reality is going to happen. Machine learning is happening as we speak. We can't afford to get too far behind on those things. In some of those areas we need to build our own capabilities. And in others we can partner.

Do you ever feel that the pace of change is out of control?

Once upon a time a company like ours might have made big strategic choices on an annual or quarterly cycle. Today strategy is daily. I speak from time to time with [former Procter & Gamble CEO] A.G. Lafley, and we had a chuckle not long ago over the idea that strategy is hourly now. As a CEO, you need to have a framework in your mind, but strategic thinking is much more fluid.

That sounds challenging.

It can be frustrating for your team. You don't want to create an environment where they feel like they're trying to hit a moving target every day. While you're learning, you have to also be thoughtful about what you share with everyone else and how deliberate you are with the masses of people that work in your company. But, like it or not, strategy is happening on a much faster cycle time.



**ONCE, A COMPANY LIKE OURS
MADE BIG STRATEGIC CHOICES
ANNUALLY OR QUARTERLY.
TODAY STRATEGY IS DAILY.**

Can you give an example of a quick strategic shift you've had to make?

One example is our online grocery business. If you look at e-commerce penetration by category, fresh food has tended to lag. But we have a fresh-food supply chain, and we have stores near the vast majority of America. So we want to use that advantage and combine it with mobile, which means people can order groceries on their phones and pick up their order when they want in the store parking lot. We also have a test going on with Uber, Lyft, and others to handle "last mile" delivery. These are things that we launched very quickly.

Let's shift to global markets. Is Walmart's future growth likely to come primarily from the United States or from overseas?

We used to have targets for growing the share of international revenue. But we don't talk much about that these days because the United States still presents a growth opportunity. That said, we're going to get growth from a lot of places. China is in a league of its own. India is important to figure out. Sub-Saharan

Africa is exciting to us. We have businesses in Canada and the UK that remind us of the United States, with strong, capable teams. And then there's Wal-Mart, which covers Mexico and five Central American countries. That's a large and important business for us.

How would you describe the balance between taking advantage of global scale and the need to differentiate each local market?

Our philosophy is to lean local first and to look for synergies and the benefits of scale second. Speed trumps size. Our markets, I believe without exception, all sell the majority of their merchandise from local suppliers. With fresh food and even canned merchandise, you don't want to move things very far. With general merchandise and apparel, there is more of a global aspect. And in those areas we work together.

Do you worry, given what's happening around the world politically, that we may be entering a phase of deglobalization?

The world is a global marketplace. You could choose to participate less, but other countries are still going to trade with each other. And the math says that over time trade is good for the United States—in terms of total GDP growth, in terms of saving people money, in terms of people living the life they want to live. We're in favor of trade, but we realize that it has had a negative impact on isolated pockets.

What's the role of the private sector in helping people cope with global change?

We haven't done everything that we can as a country—and I'm talking about both the public and private sector—to prepare people to transition into the jobs of today and tomorrow. The world is not going to stop automating, so we have to upgrade our jobs and train people to be able to do them. Because if you have a job, you have everything. You have an opportunity to own a home, to make sure your kids get educated. All these things are related to each other.

If the United States were to slip into a trade war with China, what would that mean for Wal-Mart?

There are many dimensions to that issue. Do Americans want U.S. manufacturing to grow and be successful? Yes. Do we want to export more? Yes. Do we also want to save money on, say, bicycles? Yes. So these tensions need to be worked out by government leaders as well as the private sector. At Wal-Mart we engage in these discussions and try to make sure that people are informed.

What will the Wal-Mart experience look like 10 years from now?

It will be more seamless, it will be underpinned by both digital and physical capabilities, and it will have sustainability components woven in. Our AI and

logistics capability will make sure you have those items you always want in your pantry or refrigerator. For products that you want to explore, both digitally and physically, we'll create environments where you can find something you might not have tried before.

What is your vision for sustainability?

Our hypothesis is that transparency is only going to increase, and customers will want companies and brands to make good decisions about how products are produced and sourced. That means that when you shop with us you know that you're having a positive impact, socially and environmentally, on the world. By educating and informing our own people, we try to ensure that social and environmental sustainability thinking permeates the entire system.


Do customers care enough about that? Do these issues rise to the level of price and convenience?

Everything is a pecking order. If you have to pick between oxygen and water, you'll take oxygen first. But do you also want water? You bet. Would you also like to eat? Uh-huh. Customers are similar. Do they want low prices? Yes. But they also expect us to make decisions that are good for the planet and good for the people that make the products in our supply chain. They want all of that. And the companies that provide it better than others will win.

Sustainability doesn't seem to be a priority for the new U.S. administration. Is that a concern for you?

Sustainability is a part of who we are. It's in our culture now. We don't want to take it out and probably couldn't. Putting in LED lighting has turned out to have a better ROI than the alternative, and the next new technology probably will, too. It might be that the payback period is longer, and you have to have the right time horizon in mind. But we began our sustainability efforts under a Republican administration, carried on with them during the past eight years, and are now accelerating them further. It's good business, and our customers want us to do these things, regardless of which way the political winds may blow.

Are your shareholders patient with your efforts to pursue initiatives with longer-term payouts?

We have the benefit of having a family own half the company. In some cases that makes it easier for us to take a balanced approach. The board and the Walton family care about short-term results, but they also care about long-term results. More than anything else, they want Wal-Mart to be a well-run, quality business that does good in the world. My management team and I are in a situation where we can balance short- and long-term thinking. I'm thankful for that. 

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HOW TO GET ECC

**A TOOL KIT FOR ASSESSING THE
WAY AN INNOVATION WILL
AFFECT EACH STAKEHOLDER**

**BY MARTIN IHRIG
AND IAN C. MACMILLAN**

SYSTEM BUY-IN

In a number of industries

today—including aerospace, electronics, chemicals, software, global construction, global investment and commercial banking, and international manufacturing—even simple product or service innovations can become complicated. That's because companies so often operate in ecosystems made up of powerful and highly interconnected stakeholders.

Take mobile telephony. When, say, Samsung or Huawei launches a new phone, it must engage not just users but also the carriers that own and manage mobile networks and the major app providers, such as Google. An instant payment feature, for example, might be attractive to users and carriers but less so to app providers or retailers because of required changes to an existing payment infrastructure.

In such a tightly interwoven ecosystem, you can't focus exclusively on the customer and your company. You need value propositions that other stakeholders can buy into—which vastly complicates the process of identifying successful innovations. Of course, expanding your focus also increases your opportunity. Companies that figure out how to manage this complexity will enjoy a powerful competitive advantage in finding and selecting innovations. And the imperative is not just at the macro level: Each unit in a large company operates in its own ecosystem, with its own internal and external customers and partners—often specialized units of very different organizations.

Pharmaceutical companies have long had to work within just such a system, juggling the needs of patients, physicians, health care providers and insurers, distributors, and government agencies. Tweaking an antidepressant formula to make it more effective

IN BRIEF

THE PROBLEM

Companies struggle to win acceptance for innovations in sectors populated by many powerful and highly interconnected stakeholders.

WHY IT HAPPENS

Traditionally, executives have focused on the needs of just one stakeholder. As a result, their innovation success rate is lower than it should be.

THE SOLUTION

A six-step process helps companies figure out which innovations will create tensions among stakeholders and which have the greatest chances of success.

might look like a good idea from the perspective of patients and doctors, for example, but it might also raise medical insurance costs and increase the risk of side effects, triggering more regulation.

Nevertheless, when looking for growth opportunities, pharma companies have typically focused fairly narrowly on drug development—in which the main factors are need (How many patients suffer from a given condition?) and science (Can I create a new, patentable compound that will treat this condition?). New drugs are launched through existing channels; every partner plays a traditional, familiar role; and nothing about the consumption cycle changes. But sustaining growth and profitability in this way has become increasingly difficult, and many pharma companies are now turning to service innovations, which often require stakeholder buy-in because they typically change consumption patterns and how the ecosystem works in ways that a new drug does not.

In the following pages we describe how a major pharmaceutical company, which we'll call PharmaCo, thought through ways of innovating its service offerings using a tool-based ideation process that we developed (and which the company has now rolled out worldwide). For this project we worked with units in the United States, Brazil, South Korea, and the United Kingdom; for the purposes of this article we will focus on the greatly simplified case of a unit concerned with providing medication to treat a chronic disease. But the process can be applied in any industry in which innovations must be introduced into an ecosystem with multiple stakeholders.

The process consists of six steps and is carried out through a series of workshops. It typically involves a team of about 25 people drawn from across an organization and representing the major functions.

Here's how it works.

IDENTIFY KEY STAKEHOLDERS AND THEIR MOST PRESSING NEEDS

Participants should arrive at the first workshop with a deep understanding of the expectations and needs of the stakeholders in their units' ecosystems and of key market trends in their domain. We start by asking them to identify each unit's most important ecosystem players, which typically produces a list of four or five. For the PharmaCo unit we worked with, the list included:

- patients
- health care providers
- medical insurance payers
- commercial trade channels, such as pharmacy chains

Not all stakeholders are equally important, however, and the team must determine which of them exercises the most influence on transactions in the ecosystem—usually, but not always, the end customer. The PharmaCo unit chose patients almost immediately, because in that ecosystem they were every stakeholder's end customer, and the company's offering was aimed at maximizing value for them.

The team then identifies the most pressing need of each stakeholder, beginning with the leading one. Our unit decided that patients' primary need was to recognize and manage complications resulting from their disease and thus improve their quality of life. Diabetes patients, for example, suffer arterial damage and capillary inhibition. Chronic pulmonary disorder patients suffer airflow limitation and inhibited oxygen uptake.

OUTLINE STAKEHOLDER CONSUMPTION CHAINS

To understand how stakeholders experience and manage their most pressing need, we ask participants to create what Ian MacMillan and Rita McGrath have called a consumption chain, which identifies the key steps in the process of satisfying that need. Each stakeholder in an ecosystem will have different needs satisfied (or not) by the existing product or service.

The chronic disease team determined that for patients the key consumption chain links were:

- gaining awareness of the condition (How can I know that I'm sick and need treatment?)
- diagnosis (What's the complication? How bad is it?)
- treatment (How is the complication dealt with?)
- adherence (How will I sustain my treatment?)

In creating a consumption chain, it's important to take the perspective of stakeholders; how they experience having their need satisfied is not the same as how the company experiences satisfying it. We find that executives too often think of needs in terms of their company's functional units and processes. Consider, for example, the company that regards a customer's returning a product as a necessary evil, whereas the customer sees a reluctance to accept returns as a betrayal of trust and a reason never to buy from that company again.

Finally, the team should consider whether it can find opportunities for changing a prevailing consumption chain—perhaps eliminating some steps or adding others by applying a new technology. Such changes can often be the source of disruptive innovations, because they reconfigure relationships in the ecosystem: Some stakeholders may lose importance, and new ones may emerge. (See the sidebar “Reshaping an Ecosystem.”)



CATEGORIZE FEATURES OF THE CURRENT OFFER AND BUILD OFFER PROFILES

In this step the team assesses how stakeholders feel about key features of the company’s current offer and asks which of the following three categories each feature falls into:

Non-negotiables. These are the performance features that make an offer minimally acceptable. For the chronic disease patients they were:

- blood tests at annual physicals to increase the chances of identifying complications
- a timely and accurate diagnosis from a physician
- at least a minimal health improvement
- reliable availability of medication at pharmacies

Differentiators. These are the features that positively distinguish an offering from the competition. The chronic disease team felt that they included:

- a lack of side effects from medication for complications
- easy and infrequent dosages

Dissatisfiers. Stakeholders are not happy about these attributes but may be willing to endure them for a time if compensating differentiators exist. For the chronic disease patients they included:

- anxiety about diagnosing complications
- co-pay requirements
- the cost of treatment

Using these categorizations, the team completes an offer profile in the form of a table for each stakeholder. It’s not necessary, and often not possible, to fill in every cell in the table, but you need to work hard to identify all the product features that are important to stakeholders at every link in the consumption chain, along with plausible alternatives. PharmaCo ended up with four tables, one for each stakeholder and associated need, each with its own consumption chain, non-negotiables, differentiators, and dissatisfiers.

RESHAPING AN ECOSYSTEM

In this article we describe a moderate but very novel innovation in PharmaCo’s offer. But our approach can also help companies figure out how to deploy innovations that will disrupt the ecosystem by introducing major changes to the whole consumption chain rather than to one or more of its links.

We recently advised a medical equipment company that was trying to decide how to deploy a new treatment for a metabolic disease that traditionally might involve drastic, debilitating surgery. Important stakeholders in the existing ecosystem were patients, physicians, hospitals, health insurance payers, and surgeons. The most important links in patients’ consumption chain were consultation with the physician, treatment of progressively more debilitating symptoms, and—if debilitation could not be reversed—drastic surgery. The key differentiator for a patient engaged in this consumption chain was the ability to avoid surgery, and the big dissatisfier was having to undergo it at all.

The company’s new treatment offered the patient a different consumption chain, the most important links in which were being made aware of the treatment, transportation to and from the location for biweekly treatment, and reimbursement from the insurance company. The big new differentiator, obviously, was that surgery could be avoided, and the dissatisfier was that treatment would involve multiple clinic or hospital visits.

We mapped the new differentiator against the non-negotiables for stakeholders in the traditional consumption chain and uncovered two important tensions. First, although patients and their care providers wanted the best quality of life for patients, many hospitals had made considerable investments in the traditional treatment, and as long as the new treatment’s efficacy was still unproved, they were justifiably reluctant to render those investments obsolete by buying new equipment. Second, patients who wanted to avoid surgery were up against the interests of surgeons, who would forgo considerable income if the new treatment was adopted.

As managers discussed these tensions, they realized that if the company was prepared to underwrite a new consumption chain comprising a network of profit-sharing treatment clinics staffed by physicians, then both the surgeons and the hospitals could be taken out of the ecosystem—a disruptive move by any definition of the term, and one that is in progress at this writing.

4

USE THE OFFER PROFILES TO DESIGN GROWTH OPPORTUNITY PROFILES

Next we look at how the company can convert its offer profiles into what we call growth opportunity profiles (GOPs). Look for a differentiator to add at each link in the consumption chain and try to find at least one differentiator for each of your stakeholders. Removing a dissatisfier, which effectively creates differentiation from competitors, is also an option. The GOPs of your stakeholders provide the basis for figuring out which improvements are likely to be the most effective and what innovative growth opportunities you should pursue.

The members of the chronic disease team at PharmaCo debated what features they could add to

ENHANCING YOUR VALUE PROPOSITION

After you have created an offer profile (step 3), you can use it to plug in your proposed differentiators (step 4) wherever the team sees an opportunity. Below is the growth opportunity profile for PharmaCo’s chronic disease patients, whose most pressing need is to limit complications from their disease.

= EXISTING OFFER

= PROPOSED DIFFERENTIATOR

CONSUMPTION CHAIN LINKS	NON-NEGOTIABLE	DIFFERENTIATOR	DISSATISFIER
AWARENESS	Blood tests at annual physicals	Free blood tests at pharmacies	Anxiety about diagnosis
EVALUATION/ DIAGNOSIS	MD provides timely and accurate diagnosis		Co-pay
TREATMENT	Condition can’t worsen	No side effects Easy, infrequent dosages Discounted or free gym membership	Cost of treatment
ADHERENCE	Reliable availability at pharmacy	Text messages that remind patient to take medicine	

5

MAP STAKEHOLDER TENSIONS

This step gets to the heart of the challenge of innovating in a multistakeholder ecosystem. Once you’ve come up with new differentiators to improve how you satisfy a given need, you have to assess how they might affect other stakeholders—particularly whether they might conflict with a dominant non-negotiable. See the exhibit “Mapping Stakeholder Tensions” for an illustration of how we help teams make this judgment.

The team looks at the GOPs to see which proposed differentiator is most important for each stakeholder. The PharmaCo team identified:

- gym membership discounts for patients
- automatic prescription refills for health care providers
- pay for nonperformance for insurers
- a direct-mail purchase option for pharmacies

Next the team looks back at the results of step 3 and determines which non-negotiable is most important for each stakeholder. In PharmaCo’s case it turned out to be:

- at least a minimal health improvement for patients
- running a respected, profitable practice for health care providers
- no net increases in costs for payers
- improved margins for pharmacies

By comparing these two sets of findings, the team can discern where a proposed innovation that pleases one stakeholder might meet with resistance from others. If, for example, PharmaCo introduced gym membership discounts as part of its offering to patients—whose most important non-negotiable was a minimal health improvement—insurers, for whom cost control was a non-negotiable, might resist the addition of that feature to the insurance package.

MAPPING STAKEHOLDER TENSIONS

Begin by identifying the top differentiator you can offer each stakeholder and assess how it might affect all your stakeholders' top non-negotiables. PharmaCo's top differentiator for health care providers improves the non-negotiable status quo for the patient, the provider, and the pharmacy, but potentially worsens it for the payer.

		PROPOSED DIFFERENTIATORS			
		PATIENT DISCOUNTED OR FREE GYM MEMBERSHIP	PROVIDER AUTO REFILL OF PRESCRIPTION	PAYER PAY FOR NON- PERFORMANCE	PHARMACY PATIENT OPTION OF DIRECT MAIL
NON-NEGOTIABLES	PATIENT AT LEAST A MINIMAL HEALTH IMPROVEMENT	Healthy lifestyle benefits ✓	Fewer worries about refills ✓	More accountability ✓	No trip to the pharmacy ✓
	PROVIDER RUN A RESPECTED, PROFITABLE PRACTICE	Healthier patients ✓	Fewer adverse events to treat ✓	More scrutiny ✓	
	PAYER NO NET INCREASE IN COSTS	Extra initial cash outflow to gyms ✗	Increase in number of claims ✗	Reduction in costs ✓	
	PHARMACY IMPROVE MARGINS		More sales ✓		Reduce pharmacy staff ✓

6

CHOOSE YOUR BEST OPPORTUNITY


Once you have identified tensions, you must determine which can be overcome and how. Stakeholders may be undervaluing factors that would mitigate their concerns. For example, insurers may play down long-term benefits that could arise from short-term cost increases: If gym memberships make patients healthier, they'll need fewer reimbursements in the future. Pointing out such trade-offs might reduce the tension. And companies can take steps to reduce the impact on immediate costs. For example, PharmaCo could negotiate gym discounts for patients taking its drugs.


You are now in a position to identify which of your possible innovations will create the most value in your ecosystem. You have identified the innovative growth opportunities that will have the most impact on your stakeholders' primary needs; you know where your stakeholders' interests clash with respect to the suggested improvements and additions; and you've determined which of those conflicts is most manageable.

PharmaCo's chronic disease team decided to introduce an automatic prescription refill service for patients—the top differentiator for providers—because it actually improved the non-negotiables of three out

of four stakeholders: Patients would no longer have to worry about refills; health care providers would have fewer adverse events to treat; and pharmacies would increase sales.

To be sure, the effect on insurers, which might see more claims in the short term, was problematic, but the team developed a communication strategy to secure the support of this crucial constituency. It would demonstrate how the cost of reimbursing more for drugs up front would be substantially offset by a longer-term reduction in far more expensive claims for emergency treatment and treatment of complications that resulted when patients ran out of medication.

OUR METHODOLOGY allowed managers in the PharmaCo chronic disease unit to identify innovation growth opportunities and select insightfully among them, thereby ensuring that the company was responsive not only to the pressing needs of patients but also to the needs and concerns of the other stakeholders in its ecosystem. Although we have described incremental improvements and additions in just a small part of PharmaCo's business, the same technique can be used at the corporate level to consider innovative changes to a company's business model and value proposition. In fact, as industry ecosystems themselves evolve, executives will find it instructive to incorporate the steps in this process during strategy reviews.  **HBR Reprint R1702G**

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WHAT'S THE VALUE OF A LIKE?

BY LESLIE K. JOHN,
DANIEL MOCHON,
OLIVER EMRICH,
AND JANET SCHWARTZ

Brands spend billions of dollars a year on elaborate efforts to establish and maintain a social media presence. Think of the live-streamed video of a man setting a world record by skydiving from 128,000 feet (Red Bull) and the strange tweets sent from a supposedly hacked Twitter account that in fact originated with the company itself (Chipotle).

**SOCIAL MEDIA
ENDORSEMENTS
DON'T WORK
THE WAY YOU
MIGHT THINK.**



Facebook is the preferred platform: 80% of *Fortune* 500 companies have active Facebook pages. Each day enormous amounts of brand-generated content—articles, photos, videos, and so on—appear on those pages and on other social media platforms, all designed to entice people to follow, engage with, and buy from brands. Even the U.S. State Department seems enamored of acquiring followers, having spent \$630,000 from 2011 to 2013 to garner Facebook likes.

Marketers often justify these investments by arguing that attracting social media followers and increasing their exposure to a brand will ultimately increase sales. According to this logic, recruits who socially endorse a brand by, for example, liking it on Facebook will spend more money than they otherwise would, and their endorsements will cause their friends (and friends of friends) to shop—creating a cascade of new business. At first glance the evidence seems to support this rationale: Many brands have discovered that customers who interact with them on social media *do* spend more money than other customers. A recent influential study by comScore and Facebook found that compared with the general population, people who liked Starbucks's Facebook page or who had a Facebook friend who liked the page spent 8% more and transacted 11% more frequently over the course of a month.

But that study and others like it contain a fatal logical flaw: They confuse cause and consequence. It's possible that getting people to follow a brand on social media makes them buy more. But it's also possible that those who already have positive feelings toward a brand are more likely to follow it in the first place, and that's why they spend more than nonfollowers. In 23 experiments conducted over the past four years and involving more than 18,000 people, we used an A/B testing method to explore a crucial counterfactual: what followers would have done had they *not* followed a brand. Given the millions of dollars in marketing budgets that flow to social media at many companies, the distinction is not trivial. It has enormous implications for marketers' resource allocations and for how they manage their brands' social media presence.

In our experiments, we gradually added complexity to test four increasingly interactive ways in which Facebook might affect customers' behavior.

First, we tested whether liking a brand—that is, passively following it—makes people more likely to purchase it. Second, we examined whether people's likes affect their friends' purchasing. Third, we examined whether liking affects things other than purchasing—for example, whether it can persuade people to engage in healthful behaviors. Finally, we tested whether boosting likes by paying Facebook to display branded content in followers' news feeds

THE MERE ACT OF LIKING A BRAND ON FACEBOOK DOES NOT AFFECT A CUSTOMER'S BEHAVIOR OR INCREASE PURCHASING, NOR DOES IT SPUR PURCHASING BY FRIENDS.

IN BRIEF

THE QUESTION

Brands spend billions of dollars each year on lavish social media campaigns. But do those campaigns increase revenue?

THE PROBLEM

Marketers often confuse cause and consequence. It's possible that getting people to follow a brand on social media makes them buy more—but it's also possible that those who already have positive feelings toward a brand are more likely to follow it in the first place, and that's why they buy more.

THE OPPORTUNITY

To get the most out of social media efforts, companies must combine “push” and “pull” marketing, supporting likes with branded content.

increases the chances of meaningful behavior change. We chose to use Facebook in our experiments because it is the dominant social network, but we believe that our findings apply to other popular platforms as well.

The results were clear: Social media doesn't work the way many marketers think it does. The mere act of endorsing a brand does not affect a customer's behavior or lead to increased purchasing, nor does it spur purchasing by friends. Supporting endorsements with branded content, however, can have significant results. And given that social media pages are gathering places for loyal customers, they can offer brands a unique source of customer intelligence and feedback from a crucial cohort. Armed with this knowledge, marketers can build new, more successful social media strategies.





TESTING THE EFFECTS OF LIKES

Basic psychological principles give reason to suspect that liking a Facebook page could indeed change behavior and increase sales. Research has shown that people experience “cognitive dissonance” when their actions don’t reflect their beliefs, so it would stand to reason that a social media user who endorses a brand on Facebook would be more likely to buy it. Yet that’s not what we found.

In one of our first studies, conducted by two of us (Leslie John and Oliver Emrich) and our Harvard Business School colleagues Michael Norton and Sunil Gupta, half the participants were invited to like a new cosmetics brand on Facebook; most accepted. The other half did not receive this invitation. All participants were then given coupons for a free sample—redemption would serve as a proxy for purchasing. Members of the two groups were equally likely to redeem the coupon; it didn’t matter whether they had been invited to like the Facebook page or not. This finding held in subsequent studies, in which we increased the length of time between proffering the invitation to like and extending the coupon offer; it also held when we ran the experiment with a variety of new and existing brands. Across 16 studies, we found no evidence that following a brand on social media changes people’s purchasing behavior.

In our second set of experiments, we sought to determine whether liking a page influences the behavior of online friends. When people like a brand on Facebook, their endorsement is typically broadcast to a subset of their network. Any subsequent engagement with the brand—likes, posts, comments, and shares—also appears in some of their friends’ news feeds. In classic marketing, word-of-mouth endorsements by peers have been shown to increase sales. But the value of endorsements may be lower on social media, for a couple of reasons. First, on many platforms, including Facebook, Twitter, and Instagram, following does not guarantee brand exposure for either endorsers or their friends. Facebook’s algorithms determine what content appears in a user’s news feed, and a user’s liking of a brand is broadcast to only a very few friends (without this intervention, users would be exposed to an average of 1,500 posts daily). Second, some Facebook users appear to like brands indiscriminately or for various one-off reasons—to get a discount, say.

To test the effects of social media endorsements, we asked 728 people who had recently liked a brand for the e-mail addresses of three friends. We sent each friend a coupon for one of the brand’s products, varying the information provided about the referral. In each

MEASURING THE RETURN ON FACEBOOK LIKES

Marketers often find it hard to prove the ROI of social media investments. Here’s an easy way to quantify the value of recruiting people to like your Facebook page.

YOU’LL NEED:

A METRIC. What is your goal in acquiring likes? Is it to increase sales, change offline behavior, or accomplish something else? Your metric should reflect behavior that is measurable. For some metrics, such as sales, measurement is pretty straightforward; for others, such as brand attitudes, you may need to do extra work, such as administer a survey.

AN INVITATION METHOD. You need to invite people to like your page. One simple way is to obtain e-mail addresses of people in your target market.

THEN FOLLOW THESE STEPS:

ACQUIRE LIKES. Invite half your sample to like your page; this is your “treatment group.” The other customers form your control group. Record the group to which each customer is assigned.

CONFIRM YOUR ASSUMPTIONS. Check to see whether the liking induction worked—you need to make sure that a good chunk of people took you up on the invitation. You can approximate the number by looking at the increase in your Facebook followers at the time you issued the invitation.

ADVERTISE. Run some advertising on Facebook to expose your new recruits to your marketing messages. You can do this by paying to promote posts.

CHECK YOUR RESPONSE. Measure the behavior you defined up front. Say it’s sales: If the average spend of those in the treatment group is higher than the spend of those in the control group, the difference is the value of a like. Of course, your results will contain some “noise”; for example, you might miss the purchases of people who check out using an e-mail address that’s different from the one you have on file. To increase accuracy, aim for a large sample size and make sure that your e-mail list is as current as possible.

group, one person was told that his or her friend liked the brand in the conventional, offline sense and had sent the coupon. The second person was told that his or her friend liked the brand on Facebook and had sent the coupon. The third person was told only that his or her friend had sent the coupon; people in this category made up the control group.

We then compared coupon redemption rates among the three categories. We found that 6% of those told about an offline endorsement redeemed the coupon, whereas just 4% of those told about a Facebook like did

so. And the redemption rate among the control group was 5%; that is, liking a brand on Facebook had no enhancing effect on the purchasing habits of friends.

THE DIVIDE BETWEEN DIGITAL AND REAL-WORLD BEHAVIOR

In our final set of experiments, two of us (Daniel Mochon and Janet Schwartz) and Duke University's Dan Ariely partnered with Karen Johnson, an executive at Discovery Vitality. An insurance company based in South Africa, Vitality offers its customers a comprehensive wellness program. People earn points for engaging in healthful behaviors, such as exercising, buying nutritious groceries, going for routine physicals, and getting vaccines; the points can be redeemed for rewards. The company wanted to know whether getting customers to like its Facebook page would affect those behaviors. To find out, we invited all new Vitality customers to participate in an online survey about Vitality and Facebook, during the course of which a randomly selected group was invited to like Vitality on Facebook, with the others forming a control group. We monitored the points accumulated by customers in both groups over the next four months.

By virtue of having liked Vitality, the customers in the first group could engage with the company on its Facebook page—a space in which it invests heavily. The page has innovative branded content, including an app that lets people share their health success stories, ask questions of health experts, and participate in polls about upcoming fitness activities. But unless customers intentionally visit the page, this content is unlikely to appear in their news feeds, even if they have liked the company; Facebook's algorithms will probably filter it out. Therefore, we suspected that Vitality's investment in branded content on its page might be for naught. Indeed, when we compared the two groups of participants, we found no difference in behavior; those who had been invited to like the Facebook page accumulated no more points than the others. Once again, merely liking a page did not change behavior. Put another way, liking a company that offers flu shots does not translate into getting a flu shot.

UNLOCKING THE POWER OF LIKES

The good news is that there *is* a way to convert likes into meaningful behavior, and it's straight out of the 20th-century marketing playbook: advertising. Each

year Facebook collects more than \$22 billion in ad revenue. Most of that comes from brands seeking to circumvent the platform's algorithms by paying to guarantee that their content will be prominently displayed to large numbers of users.

A follow-up experiment with Vitality, using the liking and control groups from the first experiment, proved that this approach can be effective. Over a two-month period, Vitality paid Facebook to display two posts a week to members of the liking group. This made

THERE IS A WAY TO CONVERT LIKES INTO MEANINGFUL BEHAVIOR, AND IT'S STRAIGHT OUT OF THE 20TH-CENTURY MARKETING PLAYBOOK: ADVERTISING.

a difference: Participants in this group now earned 8% more points, on average, than people in the control group. Considering how challenging it can be to get people to go to the gym, buy healthful food, and undertake other wellness measures, that's a profound result.

What does all this mean for marketers? As social media swelled in popularity over the past 10 years, many predicted a revolution in marketing strategy. It wasn't uncommon to hear about the end of “push marketing” (in which brands promote and advertise their goods and services) and the rise of “pull marketing” (efforts to draw customers in through social media and other channels). “More judo, less karate” became a popular aphorism. But our research suggests that marketing on social media will be ineffective if it uses only pull tactics. The modern social media marketing playbook should combine new and traditional approaches.

Make likes work for you. Facebook does not currently give companies the option of paying it to highlight the posts of engaged customers, something our research suggests could provide significant value by

influencing behavior. Savvy firms could overcome this obstacle by monitoring their social media channels for eloquent endorsements and integrating those endorsements into their marketing messages. The athletic apparel brand Lululemon collects favorable customer-generated content by tracking hashtags (such as #thesweatlife) and retweets it. The fashion retailer Free People adds customers' Instagram photos to its product pages. And in a holiday promotion, Lamar Advertising's billboards displayed photos that people had tagged with #ThankfulThisHoliday. More brands could also adopt the increasingly common practice of "seeding" social endorsements by paying influencers to try the brand and send endorsements to their followers. This tactic has spawned several new platforms, such as ReadyPulse, that automatically match brands with appropriate influencers.

Make endorsements meaningful. Another reason why liking a brand does not influence online friends is that liking is a very weak endorsement; our research shows that it doesn't carry the same weight as a real-world recommendation. Yet research by MIT's Sinan Aral and colleagues has shown that endorsements, and referrals more generally, can spur action. One experiment demonstrated that people were more likely to download and use an app if a friend recommended it than if they were merely told that their friend had downloaded it. Other experiments indicate that "deeper" social media endorsements could close the effectiveness gap between real-world and digital recommendations. For example, a study found that Facebook posts indicating that a Facebook friend is using a product—not just that he or she likes it—increase the chances that a member will use the product too. The effect is pronounced when product users send their friends personal messages of recommendation. However, encouraging this level of engagement with a brand can be difficult and expensive.

Our research suggests that when it comes to highlighting customers' engagement, brands will find it fruitful to choose online postings and other user-generated content that are more creative and meaningful than simple likes. For example, TripAdvisor informs users browsing a hotel which of their Facebook friends have booked there. In the political realm, a campaign to increase voter turnout found that telling people a friend has voted makes them more likely to vote. A word of caution, though: This tactic can raise privacy issues. Facebook discontinued its social ads—ones showing the profile pictures of friends who like the product at hand—in part because of privacy concerns.

Use "pull" marketing to find your best customers, and listen to them. One reason Facebook advertising can be effective is that a brand's social media

page reaches a highly desirable audience; likes illuminate a path for targeting ads. Yet even if a brand decides not to spend money advertising, it can use its social media channels to gain intelligence from its most loyal customers. This need not entail recruiting new followers through flashy content and other lures; in fact, such tactics might backfire by attracting people who are not strongly attached to the brand. Companies pursuing this option should favor organic growth, letting customers seek out the brand. Almost by definition, the people who go to the trouble of finding a brand on social media will be its most devoted, and thus most valuable, customers. As a group, these customers are a great asset: They will enthusiastically provide feedback to improve product development, management, and delivery; defend the brand against unjustified complaints; and be early adopters of and evangelists for new offerings.

For example, Lego uses its social media channels to gather customers' ideas for new products and to tout new product lines. MyMuesli, a German maker of customizable granola, asked customers to publish images of their own granola mixes on Instagram and subsequently sold some of the customer-created products through its website. The Dutch airline KLM clearly uses its Twitter account as a customer feedback tool; in addition to responding to customers' tweets, the airline shows that it is listening by prominently posting its estimated response time in its Twitter header (and updating it every five minutes). Knowing that their voices will be heard can make customers more willing to offer information and might even cause them to be more civil when they (inevitably) have complaints.

AS SOCIAL MEDIA has grown as a marketing channel, so too has enthusiasm for its potential to drive sales. Yet a recent survey of 427 marketers at U.S. companies showed that 80% are unable to quantify the value of their social media efforts. And in a study of *Fortune* 500 companies, 87% of CMOs acknowledged that they can't document that social media creates new customers. Our research helps explain why marketers are frustrated by social media—they are using it the wrong way. Amplifying efforts with advertising can provide higher returns on investment while creating an opportunity to connect with the most-loyal customers. 

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Corporate Responsibility: Upping the Ante

For a growing number of corporations and firms, being a good citizen and creating shareholder value are no longer viewed as mutually exclusive undertakings. In fact, doing good is increasingly viewed as an integral component of doing well.



By Lynne Doughtie

Chairman and Chief Executive Officer, KPMG LLP

It's hard to find a major company that doesn't devote resources to "corporate responsibility," a catchall term for programs that seek to advance causes that positively impact society and safeguard the environment. But could businesses do more? A diverse cross section of their stakeholders—including investors, employees, vendors and customers—increasingly argues they can and should.

Refreshingly, many forward-thinking CEOs and board members agree. It was the focus of conversations among world leaders at this year's World Economic Forum, where the theme was "Responsive and Responsible Leadership." They understand that even in a world where maximizing shareholder value is their overarching responsibility, the interests and welfare of all their stakeholders and the health of the environment are inextricably linked with employee engagement and the sustainability of their businesses. They also see that contrary to conventional wisdom, doing good and doing well are not mutually exclusive—especially when companies align their responsibility initiatives with their long-term business interests.

In a study of 180 U.S. companies from 1993 through 2010, for example, researchers at Harvard Business School and the London School of Business documented that firms that explicitly considered employees, customers, the community and the environment in their strategies and business models significantly outperformed those that did not in stock market performance, return on assets and return on equity.¹ In short, business leaders see doing good moving beyond moral obligation to economic imperative.

“For 120 years, we have been fiercely committed to improving the communities in which we live and work.”

At KPMG, we enthusiastically endorse this take on corporate responsibility. For 120 years, we have been fiercely committed to improving the communities in which we live and work. We consider good corporate citizenship a core value, essential to who we are and critical to maintaining the public trust that is so important to our business. Our citizenship efforts are centered on lifelong learning, which we believe is key to unlocking the potential in our people, building economies and—above all—improving the lives of so many across our nation.

We invest resources, energy and time in a wide variety of initiatives that empower young people across the education continuum and expand the skill sets of professionals deep into their careers. These include KPMG's Family for Literacy program, which provides new books to children from low-income families; Junior Achievement USA, through which our people help cultivate financial

literacy in middle and high schools; NAF and its Academies of Finance, which aim to strengthen high school accounting education by focusing on STEM (science, technology, engineering and mathematics) and for which we provide funding, curriculum guidance and mentorship; and the KPMG Future Leaders Program, which affords top female high school seniors across the country college scholarships and leadership development programming. The power of this program was evident at a recent Future Leaders gathering I attended at Stanford University.

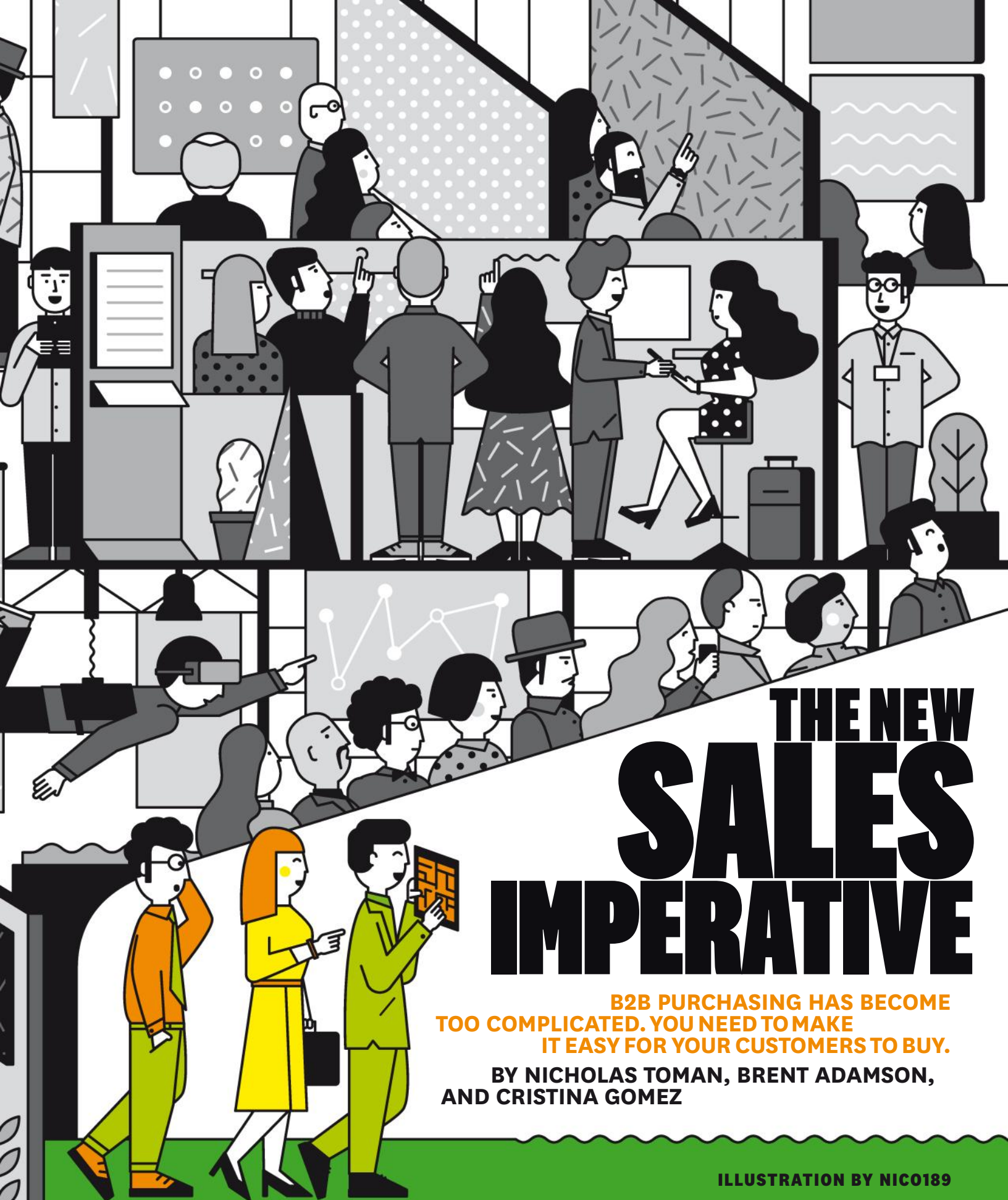
Still, I'm convinced that like many companies, KPMG can do more. That's why our firm is partnering with WE, which includes WE Day and WE Schools, programs that educate, empower and celebrate young people creating transformative social change through service. The WE movement involves not only employees but also their families. It's creating strong ties across our firm and unique opportunities for us to bond with our clients and their families. It truly is upping the ante by getting more people involved in giving back.

The fact is that businesses have acquired a remarkably influential position in the global ecosystem. The world's 500 largest companies alone employ tens of millions of people, pay hundreds of billions of dollars in taxes and commit trillions of dollars to capital investments and research and development. With that kind of reach comes great responsibility—and at KPMG, we take that responsibility very seriously. We believe doing good will create sustainable value for our firm while helping our employees and their families tap into their higher purpose. In the end, we're creating the change we need for the world we want.

Learn more at [KPMG.com/us/citizenship](https://www.kpmg.com/us/citizenship)

¹"The Impact of Corporate Sustainability on Organizational Processes and Performance," by Robert G. Eccles, Ioannis Ioannou and George Serafeim





THE NEW SALES IMPERATIVE

**B2B PURCHASING HAS BECOME
TOO COMPLICATED. YOU NEED TO MAKE
IT EASY FOR YOUR CUSTOMERS TO BUY.**

**BY NICHOLAS TOMAN, BRENT ADAMSON,
AND CRISTINA GOMEZ**

ILLUSTRATION BY NICO189

MARCH-APRIL 2017 HARVARD BUSINESS REVIEW 119

IN BRIEF

THE ASSUMPTION

B2B suppliers increasingly believe that their customers are highly empowered and need sellers only at the very end of the purchase process.

THE PROBLEM

But customers today are overwhelmed by information and choice, and they struggle to make good purchase decisions.

THE SOLUTION

To make buying easier, suppliers must create relevant tools, messaging, and guidance that help customers at every stage of the process.

Most B2B sellers think their customers are in the driver's seat—empowered, armed to the teeth with information, and so clear about their needs that they don't bother to engage with suppliers until late in the process, when their purchase decision is all but complete.

Customers don't see it that way. They may be better informed than ever, but CEB research shows that they're deeply uncertain and stressed. Buying complex solutions, such as enterprise software or

manufacturing equipment, has never been easy. But with a wealth of data on any solution, a raft of stakeholders involved in each purchase, and an ever-expanding array of options, more and more deals bog down or even halt altogether. Customers are increasingly overwhelmed and often more paralyzed than empowered.

In our work with companies around the world, we've seen decision makers pushed into unproductive, open-ended learning loops by the deluge of information. With each iteration they work harder to ensure that they fully understand the requirements and the alternatives. More information begets more questions, with the result that customers take longer and longer to make a purchase decision—if they ever do.

At the same time, the number of people involved in B2B solutions purchases has climbed from an average of 5.4 two years ago to 6.8 today, and these stakeholders come from a lengthening roster of roles, functions, and geographies. The resulting divergence in personal and organizational priorities makes it difficult for buying groups to agree to anything more than “move cautiously,” “avoid risk,” and “save money.” One CMO has memorably referred to this as “lowest common denominator purchasing.”

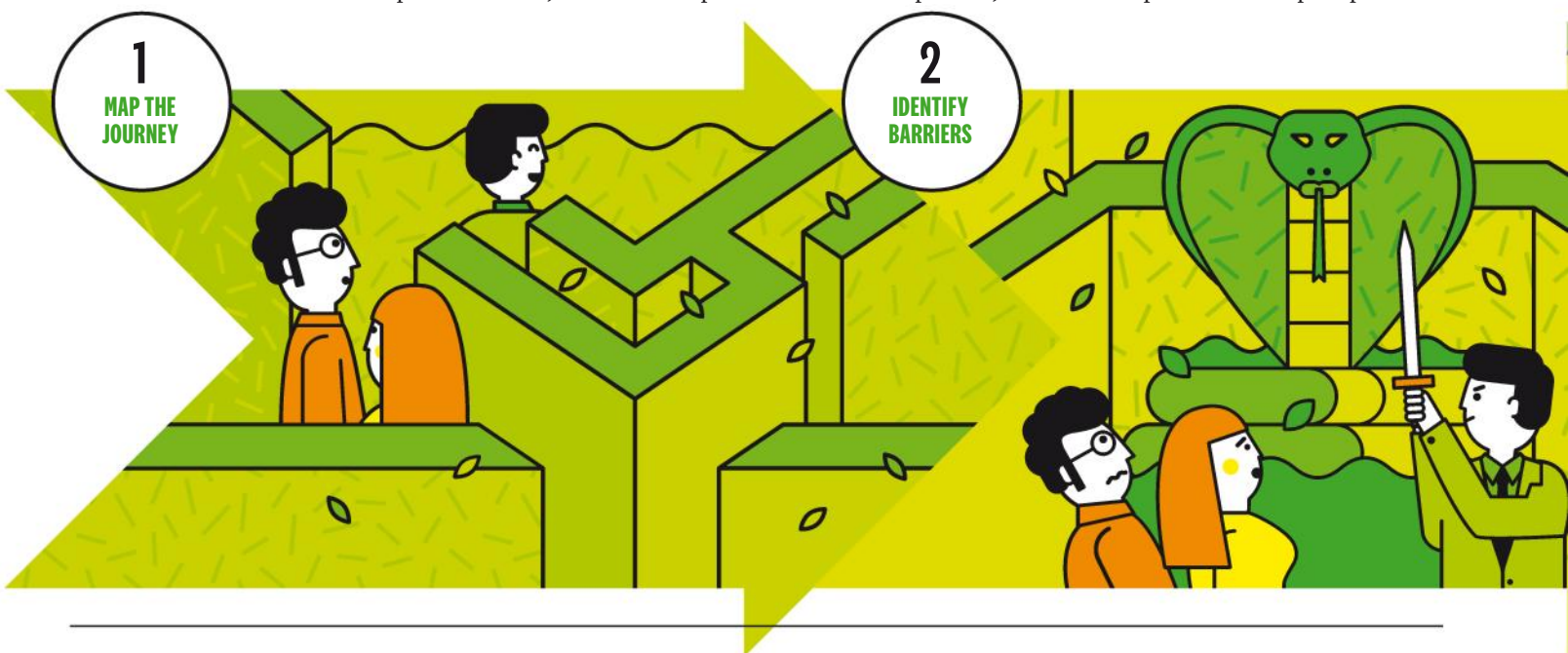
Finally, the expanding range of options that B2B customers face requires increasing amounts of time for evaluation as stakeholders deliberate over the trade-offs. Research shows that for individual consumers, greater choice isn't necessarily a good thing (see “More Isn't Always Better,” by Barry Schwartz, HBR, June 2006); the same principle applies to big B2B purchases. No matter the choice, some stakeholders will always find aspects of an alternative more appealing. In addition to slowing the purchase process, an excess of options leads to post-purchase

1

MAP THE JOURNEY

2

IDENTIFY BARRIERS



anxiety: “Did we do the right thing? Would another choice have been better?” Our research shows that such second-guessing occurs in more than 40% of completed B2B purchases.

That customers struggle to buy comes as a surprise to many suppliers. At CEB we’ve asked thousands of senior executives at companies around the world to describe the complex-solutions purchase process in one word. Among their responses are “hard,” “awful,” “painful,” “frustrating,” and “minefield.” We find that a typical solutions purchase takes twice as long as customers expect it will. What’s more, 65% of customers tell us that they spent as much time as they’d expected to need for the *entire* purchase just getting ready to speak with a sales rep. Clearly, much of what makes the process so hard has nothing at all to do with suppliers and everything to do with customers themselves.

The solution? Make buying easier.

Suppliers have of course been working on simplifying sales since the dawn of selling—and the majority in our surveys assume they’re succeeding. Unfortunately, the very tactics they think will increase ease of purchase often do the opposite. Our research finds that the vast majority of sales professionals believe that giving customers more information helps them make better decisions; that they must flexibly respond to a customer’s direction (even when they disagree with it); and that it’s “extremely important” to help customers consider all possible alternatives. Sellers are striving to be more responsive than ever—taking the customer’s lead and providing whatever support is requested. They ensure that customers have all the data, cases, and testimonials they might need to guide their decision making, and they lay out a suite of options, continually adjusting the offering as customer demand evolves. This approach seems like

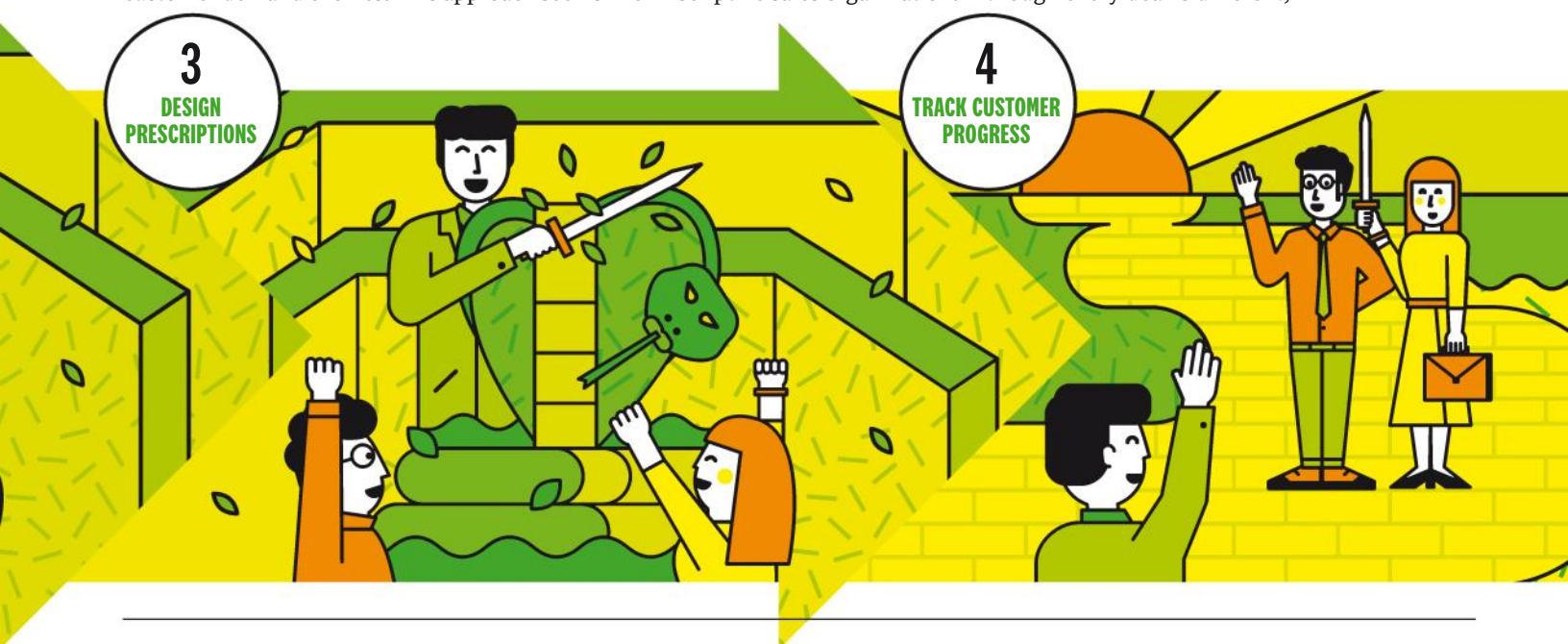
the right one, and it’s in keeping with suppliers’ desire to be more customer-centric. Yet it drives an 18% *decrease* in purchase ease, according to our survey of more than 600 B2B buyers. Piling on more information and options just makes things harder.

A POWERFUL PRESCRIPTION

We evaluated the impact of dozens of selling tactics on the purchase process and saw a clear pattern: Whereas the responsive approach typically depressed purchase ease, a proactive, *prescriptive* approach *increased* purchase ease by 86%. Prescriptive suppliers give a clear recommendation for action backed by a specific rationale; they present a concise offering and a stable view of their capabilities; and they explain complex aspects of the purchase process clearly. A simple prescription might sound like this: “One of the things we’ve learned from working with customers like you is that purchasing folks are going to get involved, and probably late in the process. And when they come in late, things tend to blow up. So you’ll want to bring them in earlier. When you do that, they will have two main questions: X and Y. Here’s how to answer them.”

Not surprisingly, customers perceive prescriptive salespeople as being one step ahead, anticipating and eliminating obstacles. That translates directly into business results: Suppliers that make buying easy are 62% likelier than other suppliers to win a high-quality sale (one in which the customer buys a premium offering). In fact, purchase ease is by far the biggest driver of deal quality we’ve found across three large studies. What’s more, customers who complete a prescriptive, easy sales process are dramatically less likely to regret their purchase or to speak negatively of the supplier, and are more likely to repurchase, than customers in conventional sales interactions. (See the exhibit “The Peril of Responsiveness.”)

At CEB we’ve worked with hundreds of sales organizations globally and have run frequent workshops on how to be a prescriptive sales organization. Although every deal is different,



all deals are typically more similar than not—especially within a particular industry, across a specific customer segment, or for a given offering. The most effective prescriptive sellers learn from the purchase processes and challenges of a handful of customers to effectively prescribe to a wide range of similar customers, scaling their capability. Selling prescriptively is less an individual rep skill than an organizational aptitude that can be deployed across channels, from sales conversations to marketing content to customer diagnostic exercises.

Prescription may take many forms, but the companies that have mastered it employ the same practices: They work to deeply understand the customer's purchase journey; identify the most significant customer challenge at each buying stage; arm their salespeople with tools to help overcome each challenge; and trace the customer's progress so that they can intervene at any moment to keep the process on track.

Let's look at each step in detail.

1 MAP THE JOURNEY

Most B2B marketing executives will tell you that they already map customers' buying journeys. But the mapping they commonly do is insufficient to support a prescriptive sales strategy. Conventional journey maps typically include four main steps—awareness, consideration, preference, and purchase—often depicted as a funnel narrowing to the sale of the supplier's solution. At CEB we call this the customer *purchase-from-us* journey, because of its focus on the supplier's process and offering. In this model, if we were to ask, "Awareness of whom?" the answer would be "Of us, the supplier." "Consideration of whom?" "Of us, the supplier." And so on.

But recall that the obstacles customers face often have nothing to do with the supplier, because they lie early in the purchase journey, long before the supplier has entered the picture. Thus a supplier-oriented perspective fails to expose many of those obstacles and is of relatively little help in determining what steps sellers should take. That's why we advise companies to construct supplier-agnostic journey maps for their customers.

At the outset, think of the typical purchase journey as spanning three phases: early, middle, and late. In the first phase, customers are simply identifying whether they have a problem that merits attention—for example, whether their CRM system needs upgrading or replacing. This first phase might involve identifying, sizing, and prioritizing competing business challenges. In the middle phase, customers assess various approaches to

addressing their highest-priority problems. They might explore build-versus-buy options, technology-versus-people solutions, and the implications of integrating various solutions with existing systems. In the late phase, having agreed on a suitable solution, the customer considers suppliers and engages, often for the first time, with a sales rep.

Across these three phases—each broken into discrete steps—customers study a wide range of information, explore numerous options, and work to align diverse internal stakeholders. Each step may contain land mines. A detailed understanding of customers' activities during these steps, regardless of who ultimately lands the contract, is therefore essential. (A word of caution: Although precision is important in fleshing out a journey map, we find that five to about 10 steps is ideal; beyond 10, the map may be too cumbersome to use effectively, especially by individual reps.)

The task of creating journey maps has typically fallen to marketing. But that function tends to approach the job from the supplier's perspective. Many of the supplier-agnostic maps we've helped design are developed by sales operations or sales enablement. That said, the most effective commercial teams work collaboratively across functions and with customers to create a comprehensive map couched in language that is readily understood throughout the organization. High-performing sales reps are instrumental in refining the maps, because they often have superior insight into their customers' processes. Additionally, a supplier's established customers are often willing to collaborate in the exercise, since they stand to benefit from the supplier's improved understanding of their processes. Gathering customer information needn't be complicated: Suppliers can conduct interviews, focus groups, or surveys to ask straightforward questions about a past purchase, such as "What sources of information did you consult?" "What information was most or least helpful?" "Who was involved in the purchase, and when did they become involved?"

Beyond following the framework outlined here—work across functions, tap star reps' expertise, involve customers—there's no rigid blueprint. We have seen many variations on the theme as companies tailor the process to their circumstances.

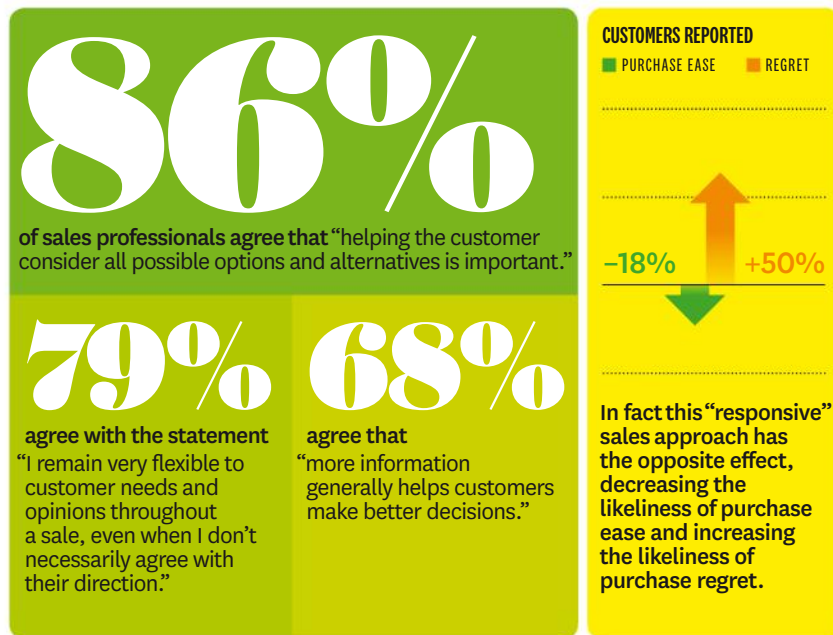
One provider of workforce management solutions we worked with was relying heavily on its top reps to identify the key steps in customers' journeys. Its leaders assumed that because deals are so different, a common buying map would be too general to be helpful. But after weeks of debate, the team converged on a nine-stage map that worked for a broad range of customers. The more they used the map, the more clearly they saw its applicability to virtually any purchase of their complex solution.

Another CEB client, a global logistics company, used this same map as a starting point and found that it described much of the company's own customers'

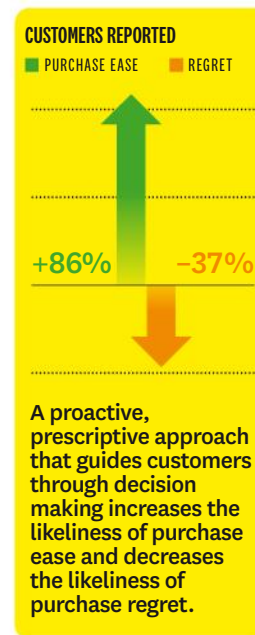
YOUR GOAL IS TO UNCOVER STRUGGLES THAT CUSTOMERS WOULD HAVE WITH ANY SUPPLIER.

THE PERIL OF RESPONSIVENESS

Most supplier sales reps wrongly believe that satisfying customers' every request for information and support makes buying easier.



THE POWER OF PRESCRIPTION



SOURCE CEB

buying process, despite the very different industry. The sales enablement team held a daylong workshop to customize the map to the needs of sales leaders, creating a pilot version in a matter of hours. To achieve this, the team members identified similarities in buying behavior across diverse deals—an approach that allowed them to build a map with wide application.

The marketing department at an e-learning and training provider took a different approach to map development. That team focused less on the details of specific buying stages and more on understanding the concerns of individual customer stakeholders. Starting with a rudimentary map of three buying stages—early, middle, and late—the team interviewed the stakeholders, teasing out what information they sought, where they looked, and what challenges arose at each step in the process.

2 IDENTIFY BARRIERS

We've treated mapping as distinct from identifying obstacles to purchase. But as the example of the e-learning firm suggests, the two often overlap. Particularly when customer interviews are part of the journey mapping, questions about pain points in the process can be integrated.

Customer surveys or in-person interviews should explore questions such as: "What specific challenges did you encounter in the process and at what stages?" "What information would have helped you make faster progress or a better decision?"

"Was there anyone who was not involved, or involved late, who should have participated or have been brought in sooner?" "If you were starting over, what would you do differently?" and "What advice would you give others embarking on a similar purchase?" Remember that the goal is not to learn about the problems customers encounter in dealing with you (such as your complex contracting process or hard-to-navigate website) but, rather, to uncover the struggles they would have with any supplier.

As suppliers gather data, they may be tempted to act on input from a single customer. But it's smart to consider answers from many and to look for patterns that reveal the few higher-order obstacles that give rise to a disproportionate amount of buying difficulty. For example, stakeholders at one company might have trouble making an effective business case for change; those at another might struggle with getting internal buy-in for a course of action; and those at a third might have difficulty dislodging a particular function, such as finance, from an alternative point of view. In aggregate these challenges might speak to a broader problem buyers have in assembling clear, quantifiable evidence. Or they might indicate a very specific category of purchase requirements that the supplier failed to consider—something, perhaps, that seemed only tangentially related to its solution but proved to

be essential to the purchase. In addition to helping the supplier focus its prescription efforts on high-ROI targets, attacking a small number of big problems reduces the burden for reps who are already inundated with new tools, systems, and rules.

We have identified common themes among the challenges customers most often encounter. In the early stages, as they engage in learning and research, they are likely to struggle with information-based challenges—for example, drawing clear conclusions from often conflicting data or recommendations. In the middle stages, as more stakeholders find their way to the table, communication breakdown tends to be a major obstacle. This may include failing to uncover all stakeholder concerns—perhaps by overlooking a compliance team’s focus on data vulnerability or IT’s interest in system integration when selling a new app to the head of sales. Other challenges include aligning decision makers’ competing priorities—such as operations’ focus on efficiency with safety’s concerns about injury—and reconciling conflicting interpretations of business needs or leadership directives. Finally, in the late purchase stages, customers often bog down when considering options and selecting a course of action. Challenges here might include an inability to agree on a specific plan for implementation (such as a pilot versus a large-scale rollout) or a disagreement about the ROI of various product options or configurations, such as on-premises versus cloud-based CRM. (See the exhibit “What Slows Customers Down.”)

Consider how one mobile-technology solutions provider mapped customers’ single greatest challenge at each of six buying stages. The provider, which sells radio-frequency identification, wireless networking, and other products and services for real-time collaboration across dispersed systems and staffs, encountered a host of obstacles. For example, it found that customers sometimes get derailed in the first stage of

the journey as they simply seek to understand and prioritize the value of connecting a widely dispersed workforce. Until they have a clear grasp of the technology’s benefits, they won’t move to the next buying stage. The provider also discovered that in the second stage, various customer stakeholders across IT, operations, and finance often had differing ideas about the solution’s uses and its value to their function and to the company. Without a common understanding, no deal with any supplier is likely to proceed. That’s not because the provider fails to meet customer expectations but because the customer stalls on the journey before a specific solution is even on the table.

By clearly identifying the principal obstacles to purchase, this provider was able to devise an effective prescription sales strategy, as we’ll discuss in the next section.

3 DESIGN PRESCRIPTIONS

Prescriptive approaches vary widely and are delivered through a range of channels: content produced and distributed by marketing; live customer conversations; workshops led by reps, specialists, or executives; customer diagnostics; and self-assessment exercises. For example, customers might complete a benchmarking survey that shows their performance is falling short relative to that of similar companies with comparable goals.

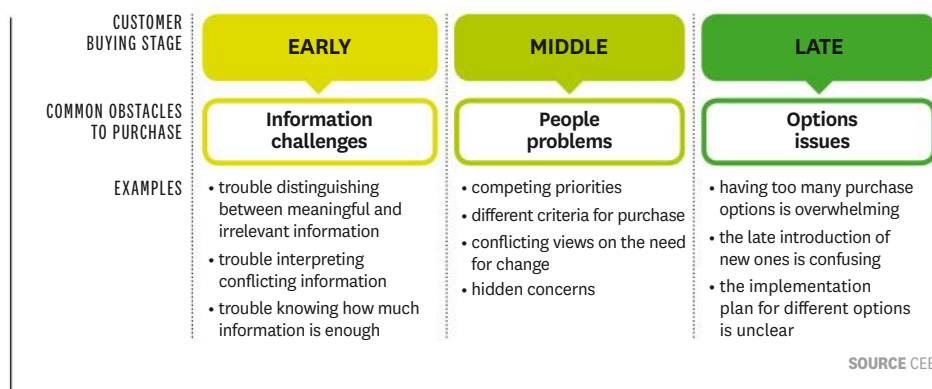
However they’re delivered, prescriptive efforts must meet three requirements. First, they must be unbiased and credible. If they’re principally promotional, they’ll not only fail to help customers buy but will be regarded with suspicion. A customer’s natural reaction to effective prescription is never “I see what you’re trying to do there...” but, rather, “Wow, you just made my life so much easier!” Second, they must reduce indecision and compel action. Therefore, an effort should systematically focus customers on a manageable set of considerations and make concrete, evidence-based recommendations. And third, without explicitly promoting the supplier’s solutions, prescriptions should facilitate progress along a purchase path leading to a solution that the supplier is uniquely able to provide.

Let’s return to the mobile-technology solutions provider. After identifying half a dozen key customer roadblocks, sales and marketing collaborated to develop targeted interventions for each. These included a diagnostic tool to help customers evaluate shortcomings in their current collaboration systems, workshops to help align internal stakeholders on the need for change, and a “rollout readiness assessment” to help customers identify the step-by-step path they would need to follow.

National Instruments, a producer of testing and measurement systems used in production and research facilities, faced a similar challenge. The company found that potential deals often stalled early on because a typically diverse array of customer stakeholders, from CTOs to

WHAT SLOWS CUSTOMERS DOWN

Customers encounter predictable impediments at each buying stage. Suppliers should anticipate and remove these to simplify the purchase process.



SOURCE CEB

R&D leaders to design and production managers—all with differing or even conflicting priorities—disagreed on the urgency of upgrading outdated equipment.

Rather than directly pitch the company's solution, National Instruments' sales enablement team built an assessment tool to help customers establish a data-driven view of their own "business and technical maturity," diagnosing areas of underperformance, revealing risks, and identifying the potential business impact of various improvements. The tool serves to simplify purchasing, regardless of which supplier the customer ultimately selects, while also laying out a decision-making framework designed to maximize National Instruments' ability to help. It objectively gauges competency across 15 parameters in three areas—people, process, and technology—and produces a maturity score that can be compared with the scores of National Instruments' global client base. The assessment's impartial nature cuts through customers' opinions and personal biases, reducing sources of contention and allowing stakeholders to zero in on the company's true challenges and opportunities.

Meanwhile, data-backed "what if" scenarios help customers quickly reach consensus by modeling the financial impact they might expect from taking specific actions (or no action) across a range of scenarios—from completely upgrading their measurement and evaluation systems with the latest technology to making various piecemeal improvements to making no changes at all.

4

TRACK CUSTOMER PROGRESS

To eliminate obstacles to purchase, you must know exactly where your customers are on their purchase journey. With this information, suppliers can spot problems before customers encounter them and determine which interventions will maintain momentum and maximize purchase ease.

To this end, suppliers rely on "customer verifiers"—clear indicators that a customer has advanced from one purchase stage to the next. Good verifiers share three attributes: (1) They require active participation—customers must take clear steps confirming that they've committed to advancing the purchase process. (2) They are binary and objective, minimizing the potential for misinterpretation—the customer either did or didn't engage in a diagnostic, commit resources, or approve next steps in writing. (3) They signal at each step a customer's deepening commitment to moving away from the status quo. Verifiers range from the fairly general, such as acknowledging the need for change, to the explicit, such as signing a contract.

Below are two approaches to designing customer verifiers. The first uses a diagnostic tool as both a prescriptive device and a verifier. The second relies on a written commitment to progress through defined steps toward purchase.

National Instruments' assessment tool, in addition to aligning stakeholders and suggesting paths forward, pinpoints two early positions on the customer's journey map: acknowledgment of the need for change and degree of stakeholder alignment. For this verifier to be both binary and objective, customers must engage with the diagnostic on a specified date and provide formal executive-level signoff up front. That serves as

PRESCRIPTIVE EFFORTS MUST BE UNBIASED AND CREDIBLE. THEY MUST REDUCE INDECISION AND COMPEL ACTION.

a clear go/no-go signal. Simply expressing interest in taking the diagnostic is not a strong verifier.

A more structured approach, often used by IT suppliers in the mid to late stages of a purchase, involves creating a staged plan of required supplier and customer actions. This document is developed in close collaboration with customer stakeholders and identifies each step necessary to advance the buying process, with dates and owners indicated for each item and opportunities for the customer to exit the agreement at predetermined points. Steps might include "agree on preliminary success criteria," "present cost estimate," "begin legal review," "review draft proposal," and so on. The document is a highly detailed and customer-specific expansion of the journey map.

Once the plan is set, the customer commits to it in writing, establishing a precise position midway in the buying journey. The completion of each subsequent step serves as a robust verifier of progress.

TODAY'S BEST SUPPLIERS help customers consider not just what to buy but how. Here we've described the key tactics they use: mapping the journey, identifying barriers, designing prescriptions, and tracking progress. But they also share two overarching organizational characteristics: First, they avoid focusing on getting customers to buy from *them* and instead concentrate on how customers make purchase decisions. This may seem like a minor distinction, but in fact it's a profound one, and fundamental to the best practitioners' success. Second, they tightly align their sales and marketing teams to support the customer journey from start to finish—breaking down the historical barriers between those functions in the process. As a result, these companies create consistent and relevant tools, messaging, and guidance to shape and simplify the purchase journey, drive sales, and ultimately increase customer loyalty. 

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NICHOLAS TOMAN is the practice leader, and **BRENT ADAMSON** is the principal executive adviser, of CEB's sales and service practice. They are coauthors (with Matthew Dixon and Pat Spenner) of *The Challenger Customer: Selling to the Hidden Influencer Who Can Multiply Your Results*. **CRISTINA GOMEZ** is the research director of CEB's sales practice.



Digital Health and the Transformation of Health Care



The health care industry is undergoing a dramatic transformation, driven by changing reimbursement models and characterized by innovation. This includes:

- Scientific innovation with new drugs, devices and personalized therapies;
- Delivery system innovation resulting in focused, collaborative approaches to care and expanding use of technologies like telemedicine; and
- Business model innovation that focuses on providing measurable value as opposed to greater volume.

These innovations are underpinned by digital health tools and technologies that use data and sophisticated predictive analytics to identify the most appropriate patients for targeted interventions. At a recent conference held by Harvard Business School Health Care Alumni Association, sponsored in part by Optum, these digital solutions were highlighted as the intelligent tools that will create a more effective,

efficient health care system that delivers improved health at lower cost.

From Sick Care to Health

In the United States and around the globe, what is thought of as the health care system is more accurately a system that treats people once they are sick. Preventing illness is among the first strategies to achieve better care at lower cost.

Research shows that the health care system only accounts for 10% of what determines health, with individual behavior, genetics, and social and environmental determinants accounting for the other 90% of health and well-being.

While accounting for just 10% of the factors that affect human health, the current health care system in the United States generates annual costs of about \$3 trillion, representing almost 18% of GDP.¹ Improving the health of individuals and populations requires making the current

health care system work far more effectively, allocating resources more efficiently, and focusing more broadly on health, not just on the health care system.

Improving Health and Lowering Costs through Data

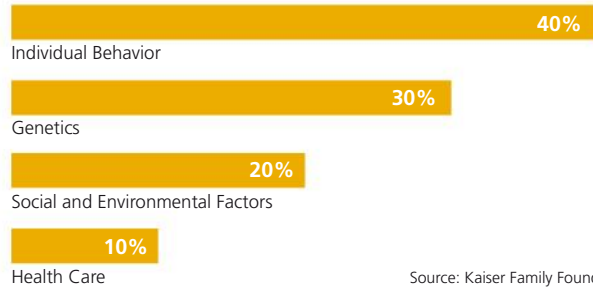
Health care is a data-intensive industry. As A.G. Breitenstein, chief product officer of Optum Analytics, said during a panel discussion, "Everything short of molecules and surgery is data and information in health care." Diagnosis, treatment, research, billing and managing health all involve the movement of data. And with artificial intelligence, machine learning, and other innovative analytical methods, risks can be better understood and uncertainty diminished. The current health care system and managing human health can be dramatically improved.

"Think about a new system, based on data."

A.G. Breitenstein, JD, MPH,
Chief Product Officer, Optum Analytics

Already, Optum Analytics has the ability to predict, with a high degree of accuracy, which patients will be hospitalized in the next six months. Furthermore, studies show there is roughly \$350 billion spent in avoidable acute and post-acute inpatient care. With relatively simple, targeted interventions for five major disease states, many hospitalizations can be prevented. The data and innovative analytical capabilities to identify these patients already exist, as do proven interventions for multiple disease states. Taking action and putting these practices into broad use require

Impact of Factors That Contribute to Well-Being



Source: Kaiser Family Foundation²

changing providers' incentives by modifying the payment system from a system focused on paying based on volume to one that rewards value.

"Most of what impacts health takes place outside of a doctor's office."

A.G. Breitenstein, JD, MPH,
Chief Product Officer, Optum Analytics

Beyond improving the effectiveness and efficiency of the existing health care system, thinking more broadly about improving human health requires aggregating data from multiple disparate sources. This includes sources with data on individual behavior, and social and environmental factors. Today, most of the data used in health care is clinical data from electronic health records (EHRs) or claims data. This data is important and informative, but is narrow and episodic; it might be gathered during a patient's once-per-year, seven-minute visit with a physician, when the patient shows up with a specific illness. But EHR data tells only a small part of a

person's overall health story. Other data sources, such as data from wearables, can be aggregated to develop a more complete and accurate picture of health, and used to guide actions to improve health.

This greater use of data and analytics from organizations such as Optum will be used to better engage patients in improving and managing their own health, used by physicians to best allocate their time toward patients with complex situations where a physician's impact is greatest, and used by health systems and payers to improve the health of populations, at a lower cost.

Success in this increasingly complex environment will depend on a well-connected health system. Delivering on the promise of data and analytics requires partners with the capabilities and focus to translate data into actions that improve population health.

This future is now. These capabilities exist and are being used to make a meaningful difference in improving the health of individuals and populations, while bending the cost curve.

Optum is a health services and innovation company.

Transformation in health care takes more than just data. It requires integrating disparate sources and translating data into actions that improve the health of individuals and populations.

Optum is modernizing care by leveraging proven analytic models to stratify risk, identify gaps, and deliver the right care where it is needed most, at lower cost.

Steps in Using Data and Analytics to Improve Health

These steps use data and analytics to decrease risk, improve health and lower costs.

Aggregate

Bring data together from multiple disparate sources.

Test & Learn

Quantify what is working, for whom and when. View data and analytics as part of a platform for constant testing and learning in a real-world environment.

Identify

Use analytics to predict and identify those at the greatest risk for having a health-related event or utilizing the health care system.

Intervene

Based on evidence of what works, implement targeted interventions aimed at specific segments and individuals.

Engage

Data will be used to determine whom to engage, when and where to engage, and how best to engage them. Digital connections that are simple and convenient for consumers to engage with make for better outcomes.


Measure

A data-driven health care system measures relentlessly to identify and close gaps in care. (Optum Analytics has over 700 quality metrics.)


1 National Health Expenditure Fact Sheet, 2014, Centers for Medicare & Medicaid Services, web page updated August 10, 2016.

2 Beyond Health Care: The Role of Social Determinants in Promoting Health and Health Equity, Harry J. Heinan and Samantha Artiga, The Henry J. Kaiser Family Foundation, November 4, 2015; Figure from Schroeder, SA (2007). We Can Do Better – Improving the Health of the American People. *NEJM*. 357:1221-8.

RESTRUCTURE OR RECONFIGURE?



DESIGNING THE REORG
THAT WORKS FOR YOU
BY STÉPHANE J.G. GIROD
AND SAMINA KARIM





To cope with ever-changing market conditions, companies often have to reorganize. But leaders tend to get conflicting advice about when and how to do so. Does the company need a new structure, or should it tweak the existing one? Will the benefits of a reorg outweigh the costs? Can the work be accomplished before conditions change again? How far should the changes go?



IN BRIEF

THE PROBLEM

Companies must reorganize periodically to keep pace with changes in market conditions. But executives grapple with conflicting advice about whether, when, and how to do so.

THE RESEARCH

The term “reorganization” encompasses two distinct change processes: *restructuring* and *reconfiguration*. Each delivers value if pursued in the right way. Over the past three decades, the authors have examined how each type affects organizational processes and performance.

THE RECOMMENDATION

To choose the right reorganization at the right time, follow these guidelines: Tailor the reorg to your circumstances, change at the right pace, play to your strengths, and determine what other systems need to change, too.

Over the past three decades, we’ve endeavored to help executives answer those questions with qualitative and quantitative research on the two main types of reorganization. *Restructuring* involves changing the structural archetype around which resources and activities are grouped and coordinated. Companies commonly organize around function, business line, customer segment, technology platform, geography, or a matrixed combination of these. Microsoft’s shift, in 2013, from a business-line-focused org chart to one that revolves around functions, including Engineering, Marketing, Business Development and Evangelism, and Advanced Strategy and Research, is a good example. *Reconfiguration* involves adding, splitting, transferring, combining, or dissolving business units without modifying the company’s underlying structure. Novartis reconfigured four global businesses into five in 2016 by splitting the Pharmaceuticals division into Oncology and Pharmaceuticals.

The goals for both types of reorg tend to be the same: to boost innovation and, ultimately, financial performance. But our research shows that success is almost always situational. Companies need to periodically shake up their structures to reduce “organizational cholesterol”—that is, the inertia, sticky routines, and fiefdoms that progressively

undermine growth—or to change strategic direction in the face of major industry transformation. And in an era of transitory competitive advantage, they must also continually adapt to market changes with smaller-scale reconfigurations. Executives shouldn’t choose between evolution and revolution. They should do both—in the right way, at the right time.

How can executives use each type of reorganization more effectively? Based on our analysis of the antecedents, processes, and performance outcomes of hundreds of restructurings and reconfigurations, we have developed a four-part framework.

CONSIDER YOUR CIRCUMSTANCES

In determining whether you need to scrap your existing organizational structure or modify it, two factors matter: the level of dynamism or turbulence of your industry and the urgency of your need for a strategic reorientation.

Our research indicates that in fast-moving markets—that is, those that fluctuate in size and are open to new and diverse entrants—reconfigurations involving quick, smaller-scale changes better position companies

to seize fleeting opportunities; restructurings are too slow and cumbersome in such environments. Our research across a range of small firms, large European companies, and the U.S. *Fortune* 50 firms bears this out: Restructurings decreased profits by 2.6%, on average (a \$57.1 million dent for the largest firms we studied), while reconfigurations yielded a small profit increase of 0.4%, on average (\$9.6 million for the largest firms). In dynamic industries such as retail, banking, and technology, companies tend to reconfigure more than those in stable ones and develop effective routines to manage this type of change.

When your company is facing major industry disruption, however, piecemeal reconfigurations are not sufficient, and restructuring is necessary. As John Chambers, the executive chairman of Cisco, has said, true transformation can’t happen without radical, holistic change. IBM followed this principle for many years, lost sight of it for a while, and recently returned to it. In 1995, when the company was struggling to adjust to the end of the mainframe era, then-CEO Lou Gerstner and his team responded with a new service-and-solutions strategy bolstered by a “front-back” matrix. In this new structure, the back end of the organization (Technology, Personal Systems, Server, and Software Technology Platforms) would develop solutions that the front, customer-facing part of the company (a new Worldwide Sales and Services group) would market. The goal was to break down silos and better meet customer needs, and the reorg was a huge success.

Throughout the 2000s, however, IBM tried to navigate the dynamism of its industry by relying on reconfigurations. It downscaled its lower-margin hardware business through a wave of unit closures and divestitures and ramped up its digital efforts by adding new units such as commerce, security, analytics, Watson, cloud, and health care. Though the company still aspired to be a cutting-edge technology icon, its strategy of modest changes caused it to fall short of that goal, and its performance languished. Today, CEO Ginni Rometty is pursuing a major restructuring to support a strategic reorientation toward cognitive computing technologies that enable the “internet of things.” The company has begun to dismantle technology platforms and replace them with integrated business units focused on specific industries.

PACE YOURSELF

Given the turmoil and tension that major restructurings cause, they shouldn’t happen too often. Moreover, restructurings take time to bear fruit: Our research indicates that even the most successful ones take three to four years to have a

positive impact on profits. We recommend waiting at least five years between them—or longer if your strategy needs only tweaking, not radical transformation. When organizations try out too many structures too fast or continually bounce back and forth between old archetypes and new ones, confusion reigns and engagement, innovation, and performance falter.

When it comes to reconfigurations, the rhythm is more of a balancing act. Engage in too few, and you won't get enough practice to do them well. Undertake

EVEN THE MOST SUCCESSFUL RESTRUCTURINGS TAKE THREE TO FOUR YEARS TO BEAR FRUIT.

too many, and you'll end up with hasty or flawed measurement of outcomes, a dangerously inward focus, and change fatigue. In some cases, multiple reconfigurations can snowball into an unintended restructuring that hurts performance. We found that when firms suddenly double the amount of reconfigurations they pursue in a given year, the result is a dip in profits of 1%, on average (a decline of about \$22 million for our largest firms). Some companies engaged in such elongated, persistent change cycles that they reconfigured themselves out of existence. Think Texaco, Digital Equipment Corporation, and McDonnell Douglas.

One organization that seems to have found the right balance and pace of restructurings and reconfigurations over the years is Dow Chemical. Following successful restructurings in 1985, 1995, and 2000, the company embarked on another in 2009 to reflect a new strategic direction following its acquisition of specialty chemicals manufacturer Rohm and Haas.

It adopted a matrix structure, with five business divisions and geographic regions supported by a common Business Services Group and stronger central functions (such as Engineering and Manufacturing). The company has meanwhile executed a variety of reconfigurations. Since 2009, it has dissolved at least two units per year to focus on specialty and advanced chemicals. And at least once a year, it has split businesses to form market-focused stand-alone units (such as the new Infrastructure Solutions group) and combined units (for example, merging the Chemicals and Energy divisions into one group). By 2013, Dow's profits had nearly doubled.

PLAY TO YOUR STRENGTHS AND DIFFERENTIATE

Whether you are restructuring or reconfiguring, the way you group and allocate activities and resources must play to your strengths and differentiate your company from competitors. That might seem obvious, but not all firms have the discipline to follow this guideline—or even understand which practices are most suited to their situation.

Structural change works best when it reinforces a company's unique points of differentiation rather than attempts to mimic competitors' strategies. Consider Citi and HSBC, the only two universal and global banks. Whereas Citi organizes its activities by business lines, HSBC relies on a three-dimensional (business-geography-functional shared services) matrix. HSBC's structure, rolled out in 2011, is more complicated and expensive to maintain, but because the bank's strategy is to offer customers seamless cross-border financial services—and to charge a premium for doing so—management believes the benefits outweigh the costs.

Consider also the professional services firm Accenture. Instead of grouping countries by region, as many consultancies do, Accenture is organized around more-strategic geographic distinctions. Its "core market" structure focuses on developed economies, promoting cross-border efficiencies and standardization, and its "growth markets" structure focuses on emerging economies, allowing more local adaptation and autonomy. Procter & Gamble used its "Organization 2005" restructuring to set itself apart from competitors in a different way, centralizing its resources and activities to a much greater extent than industry observers thought possible.

Reconfigurations also deliver better outcomes when they're explicitly designed to build on a company's strategic strengths and leverage interdependencies. Consider Johnson & Johnson's decision to merge two of its units, Arbrook, Inc. and Jelco Laboratories, in the 1970s. Both were already market leaders in their segments of bandages, sterilizing equipment, syringes, needles, and blood collection equipment. But when combined, the group became even more innovative (and profitable), developing the first fluid-injection systems for surgical sterilization.

Another reconfiguration best practice is to put organically developed units together with acquired ones—ensuring that the combined unit has both institutional DNA and new blood. J&J had less success in the eight years it spent buying, combining, and splitting various acquired heart-valve businesses, because they were always managed separately from the existing organization, and it ultimately exited the field in 1986.

Companies undertaking either type of reorganization must remember that when activities are reassigned, the resources needed to support them must follow. At J&J, executives determine in advance which physical assets (for example, manufacturing plants and R&D facilities) and people (particularly executives with reorg experience) should move when units do. We found that firms that buttressed newly created or merged units with the facilities and support services they needed were more innovative (that is, they had 17% more patent citations) than firms that failed to do so.

DETERMINE WHAT OTHER SYSTEMS NEED TO CHANGE

When a company restructures, many other aspects of the organization must change too. These include management processes, IT systems, the culture, incentives and rewards, and leadership styles. This has to happen quickly, if not simultaneously—especially in fast-moving markets. Restructurings that are conducted in isolation often result in misalignment that can paralyze the company.

HSBC sought to avoid this pitfall when executives introduced the matrix structure tied to its new global account management strategy. They not only broke down existing country-based silos but also trained managers in how to stimulate a more collaborative culture. They introduced employees to two new core values—being open and connected—on which they would be evaluated, and realigned rewards, tying bonuses to cross-selling objectives and the company's overall performance rather than just division profits. The executives clarified roles and responsibilities

under the new structure; for instance, global business units would set pricing guidelines, but local teams were empowered to adapt prices within those boundaries. And they moved quickly to integrate HSBC's multiple IT systems and to invest in digital tools that would promote information sharing. Perhaps most important, they communicated openly and transparently about the changes, explaining their thinking, laying out plans, and celebrating successful milestones along the way.

Reconfigurations, by contrast, are more likely to be successful when executives make sure that changes affect only the targeted units, maintaining continuity in other areas of the organization. That's because organization-wide practices and processes to which everyone has already become accustomed can create common ground when units are merged or transferred.

Consider again Accenture. In 2014 it reconfigured its three growth platforms into four (Strategy, Digital, Operations, and Technology) under its existing matrix structure. The changes were relatively seamless thanks to a host of established practices and processes: the standardized model that all consultants use to approach customers and deliver value; the firm's common performance appraisal, career development, knowledge management, intranet, and IT systems; and a similar office culture and environment around the world.

"REORGANIZATION" IS A catchall term that encompasses two distinct change processes—restructuring and reconfiguration. Each delivers value if pursued in the right way. To determine the best approach, first consider your company's circumstances: In dynamic industries, reconfiguration is best—unless industry disruption calls for a big strategy shift and a new structure to see it through. Remember to space your reorgs out: Restructure sparingly, and reconfigure more frequently but not so often that chaos reigns. Use your reorg as a means to build on your strengths and differentiate your businesses from the competition. And clearly define the scope of change. In restructurings, new culture, practices, processes, and systems are often needed; in reconfigurations, continuity and commonalities are preferable. These guidelines won't ensure a smooth reorganization. But they should improve your chances of a successful outcome.

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TRANSFORM THE WAY YOU THINK ABOUT YOUR CUSTOMER EXPERIENCE

FOR OVER 60 YEARS, Walt Disney Parks & Resorts has worked to perfect the business of making people happy. And when it comes to understanding our unique customer experience approach, we offer one of the most amazing classrooms in the world.

Through *Disney Institute* courses, you can discover ways to positively impact your organization and the customers you serve as you're immersed in leadership, service and employee engagement. In a way only *Disney Institute* can provide, our parks and resorts "living laboratory" integrates your in-class exploration of Disney methodology with firsthand observation of how our business operates. These field experiences bring our approach to life and inspire practical application back in your own environment, no matter what industry or geography.

Disney Institute's professional development courses are intended for individuals or organizations and can help deliver sustained business results. The course topics focus on:

LEADERSHIP EXCELLENCE: A leader is more than a label—leadership is about taking actions that can lead to sustained, positive transformations within an organization. We know that leaders who intentionally create and nurture an environment of mutual trust and respect find that they can strengthen employee performance, deliver exceptional customer

service and continually drive business results. *Disney Institute* offers leadership development through a time-tested approach that illustrates the importance of a leader's personal values and behaviors to help establish, operationalize, and sustain the values and vision by which they and their organization can thrive.

EMPLOYEE ENGAGEMENT: With a rich tradition and heritage built upon creating memorable experiences, Walt Disney Parks & Resorts has consistently worked to attract, develop, and retain employees dedicated to upholding Walt's original vision. To ensure employees are able to consistently deliver exceptional experiences, we know that an organization must intentionally design its internal processes to reinforce their desired culture. *Disney Institute* can help you reimagine your own workplace culture by sharing insights about how strategically focusing on selection, training, communication and *genuine* care can lead to sustained levels of employee engagement.

QUALITY SERVICE: Excellent service does not simply come from a friendly transaction or helpful technology—it is the result of truly understanding your customers' expectations and putting the right framework in place to exceed them. With a common purpose and quality standards,

your employees can be empowered to perform because they are equipped with the right tools and clear service expectations. And when your team members' behaviors are reinforced through positive feedback, they tend to feel *valued and appreciated* and will make sure their customers do as well. Why is all this important? At Disney, we have seen that the power of service lies in its ability to create an emotional connection in addition to a rational connection—which can impact economic outcomes.

Professional development courses at *Disney Institute* provide a robust learning experience in a small group setting, with individual or group options in locations to fit your schedule. If you are looking for an introduction into the Disney approach to Leadership, Service or Employee Engagement, our one-day courses are designed for you. If you are looking for a more comprehensive immersion that can help you begin to make actionable adaptations, our multiday courses are the ideal experience.

To learn more about *Disney Institute* and our professional development courses, visit us at DisneyInstitute.com.



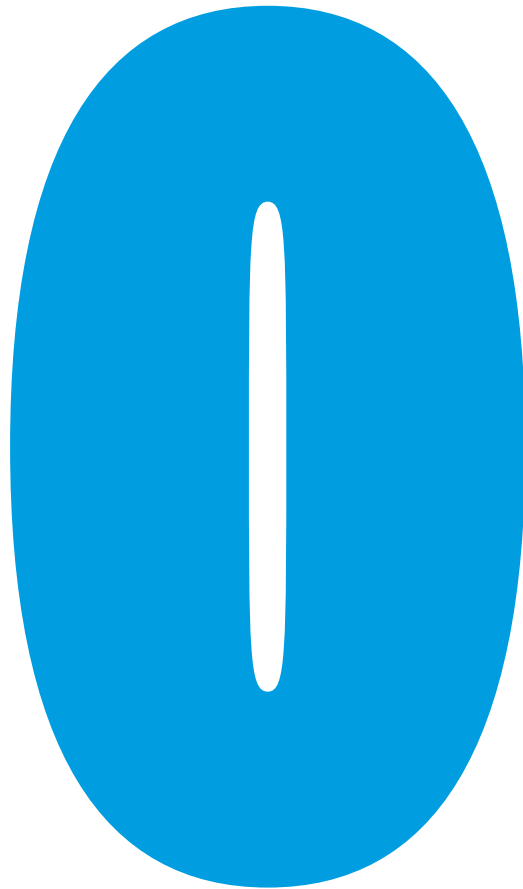


THE EDISON OF MEDICINE

LESSONS FROM ONE OF THE
WORLD'S MOST PRODUCTIVE AND
PROFITABLE RESEARCH FACILITIES
BY STEVEN PROKESCH

PHOTOGRAPHY BY TONY LUONG





IN BRIEF

THE PROBLEM

Early-stage research is expensive, risky, and unpredictable—so corporations shy away from it, leaving many opportunities unexplored.

THE SOLUTION

By pursuing research aimed at solving society's major problems, companies can make the world a better place *and* make lots of money.

THE MODEL

MIT's Bob Langer has a proven formula for accelerating the pace of discoveries and getting them into the world as products—and it's one that any organization can draw on.

One morning last year, James Dahlman came to Bob Langer's office at MIT's Koch Institute for Integrative Cancer Research to say good-bye. He was meeting with Langer and Dan Anderson—his doctoral advisers. The 29-year-old was about to take up his first faculty position, in the biomedical engineering department at Georgia Tech, and he wanted their advice.

"Do something that's big," Langer told him. "Do something that really can change the world rather than something incremental."

These were not just inspirational words for a former student. They are the watchcry that has guided Langer, a chemical engineer and a pioneer in the fields of controlled-release drug delivery and tissue engineering, throughout his four-decade career at MIT. And they are part of the formula that has made Langer Lab one of the most productive research facilities in the world.

Academic, corporate, and government labs—indeed, anyone leading a group of highly talented people from disparate fields—could learn much from Langer's model. He has a five-pronged approach to accelerating the pace of discoveries and ensuring that they make it out of academia and into the real world as products. It includes a focus on high-impact ideas, a process for crossing the proverbial "valley of death" between research and commercial development, methods for

facilitating multidisciplinary collaboration, ways to make the constant turnover of researchers and the limited duration of project funding a plus, and a leadership style that balances freedom and support.

The United States alone spends roughly \$500 billion a year on research, but "much of that is mundane," says H. Kent Bowen, an emeritus professor at Harvard Business School who has spent years studying academic and corporate labs. "If there were more highly collaborative, Langer-like labs that focused on high-impact research, the United States would realize its enormous potential for creating wealth."

Langer's achievements are remarkable on several counts. His h-index score, a measure of the number of a scholar's published papers and how often they have been cited, is 230—the highest of any engineer ever. His more than 1,100 current and pending patents have been licensed or sublicensed to some 300 pharmaceutical, chemical, biotechnology, and medical device companies, earning him the nickname "the Edison of medicine." Alone or in collaboration, his lab has given rise to 40 companies, all but one of which are still in existence, either as independent entities or as part of acquiring companies. Collectively, they have an estimated market value of more than \$23 billion—excluding Living Proof, a hair products company that Unilever is acquiring for an undisclosed sum.

A final "product" of the lab is people: Scores of the roughly 900 researchers who have earned graduate degrees or worked as postdocs at the lab have gone on to distinguished careers in academia, business, and venture capital. Fourteen have been inducted into the National Academy of Engineering, 12 into the National Academy of Medicine.

The multidisciplinary approach is still a work in progress in academia, but it has been gathering steam there over the past decade or so, reflecting universities' growing interest in tackling real-world problems and spawning new businesses and a recognition that doing so often takes diverse expertise. Although it has long been common in the business world, companies too could improve their results by applying elements of Langer's research-to-product process, thereby creating brand-new offerings and refreshing or reinventing their businesses again and again.

FOCUS ON HIGH-IMPACT PROBLEMS

One of Langer's mantras when choosing projects is: Consider the potential impact on society, not the money. The idea is that if you create something that makes a major difference, the customers and the money will come. It's a profound departure from the approach of many big companies: If an idea for a product is so radically new that discounted cash flow can't be calculated, they often won't pursue it, or they give up when the research hits an obstacle—as ambitious research almost always does.

To Langer, “impact” means the number of people an invention could help. The life sciences enterprises that have emerged from his lab have the potential to touch nearly 4.7 billion lives, according to Polaris Partners, a venture capital firm that has financed many of them. For example, one of the lab’s products, on the market since 1996, is a wafer that can be implanted in the brain to deliver chemotherapy directly to the site of a glioblastoma. Another, recently handed over to a new company—Sigilon, based in Cambridge, Massachusetts—is a potential cure for type 1 diabetes, developed in concert with researchers at other universities: Encasing beta cells in a polymer, the researchers have shown, can protect them from the body’s immune system yet allow them to detect the level of sugar in the blood and release the appropriate amounts of insulin.

With such concrete, ambitious projects on the lab’s docket, the customers have indeed come: foundations, companies, scientists in other labs, and government agencies including the National Institutes of Health. Foundations and companies currently fund 63% of the lab’s \$17.3 million annual budget; they range from the Bill & Melinda Gates Foundation and the Prostate Cancer Foundation to Novo Nordisk and Hoffmann-La Roche. “A key reason we decided to work with Bob was his lab’s track record in controlled delivery,” says Dan Hartman, the director of integrated development and malaria at the Gates Foundation and the chief liaison between the foundation and the lab. “Bob and his team’s creativity and technical expertise cannot be overemphasized.”

A second criterion for project selection is fit with the lab’s core areas: drug delivery, drug development,

tissue engineering, and biomaterials. “Most of what we do is at the interface of materials, biology, and medicine,” Langer says.

Third, he asks whether it’s realistic to believe that the medical and scientific challenges can be met by applying or expanding existing science, either at his lab alone or in collaboration with others.

This approach defies a long-prevailing view about the research-to-product process—that it is linear and looks like this: *Basic research* (endeavors aimed at expanding knowledge of nature, without thought of practical use) leads to *applied*, or *translational, research* (efforts to solve practical problems), which in turn leads to *commercial development* (turning discoveries into actual processes and products)—all culminating in a *scale-up* to mass production. The paradigm can be traced to Vannevar Bush, the head of the National Defense Research Committee and the U.S. Office of Scientific Research and Development during World War II and a leading proponent of strong government support for basic scientific research.

Since the war, universities have conducted the lion’s share of basic research, but corporations have participated too: Think of AT&T, Corning, DuPont, and IBM, to name just a few. In recent decades, though, big companies have come to see it as too expensive and risky: Results are slow and unpredictable, and capturing their value can be difficult. So they have increasingly turned to academia, sometimes buying or licensing discoveries or investing in or acquiring start-ups that develop them, other times funding academic research or having their scientists in academic labs.

Langer’s office at MIT’s Koch Institute; a bulletin board in the lab’s break room



HOW TO INNOVATE LIKE LANGER

Corporations typically shy away from early-stage research because it is expensive, risky, and unpredictable, making it difficult for the organization conducting it to capture the benefits. They could revitalize their research operations by taking an alternative approach and adopting some or all of the following principles from Langer Lab.

Pursue use-inspired research.

Companies could direct their research efforts toward concrete problems whose solutions may hold enormous long-term payoffs in terms of the impact on humanity and the ROI. (Bob Langer estimates that venture capitalists have reaped at least a 50% internal rate of return on their investments in the companies he has helped launch.) Those efforts should be a good fit with the company's deep competencies.

Nurture deep scientific and engineering expertise in a handful of areas.

This could bring customers flocking for solutions to their most pressing problems.

Manage intellectual property much more aggressively.

Companies could benefit from seeking extremely broad, strong patents. And they could license discoveries they don't want to pursue themselves, both to generate income and to ensure that someone pursues them.

Treat the central research organization as a separate entity, liberated from the incremental demands of established business units.

In addition, companies could improve their research efforts if they constrained research projects by time, not by creativity.

Staff labs with great—not merely good—scientists and engineers, with an emphasis on making a difference rather than on job stability.

Although a number of companies, including Corning, Genentech, Google, IBM, and Novartis, have postdoc positions and sabbatical programs for professors, the vast majority of researchers even at those firms are long-term employees. Companies could instead give highly talented people two- to five-year contracts, and perhaps a piece of the action if their work succeeds. They should insist on team players with the communication skills, patience, and curiosity to excel in a multidisciplinary context. This approach would give them more flexibility in attracting the range of talent they might need to tackle complex problems.

Establish consistency over time in the funding of, organizational approach to, and independence of advanced research units.

This is no easy task; at GE, for example, R&D funding has yo-yoed from one CEO to the next. Success may require a board with a deep understanding of the R&D function and the willingness to push back against an emphasis on quarterly profits.

Ensure robust leadership.

This means finding and supporting research directors who are highly respected in their fields and who explicitly see their role as liberating and nurturing the talent around them. Such leaders will have strong networks that can be tapped for recruitment and collaborations; a vision of how the company's expertise can be applied to create major new businesses that are in keeping with corporate strategy; the ability to communicate that vision to secure internal funding and external support; and the goal of making the research organization's value blatantly apparent—ensuring that the unit is seen as the engine of renewal.

However, the linear paradigm was never universally true. From the mid 19th century onward, great researchers have pushed the frontiers of basic science precisely to solve pressing societal problems. The Princeton political scientist Donald E. Stokes coined a term for the space in which they work: *Pasteur's quadrant*, reflecting Louis Pasteur's pursuit of a fundamental understanding of microbiology in order to combat disease and food spoilage. Other examples include Bell Labs, whose scientists made basic discoveries while improving and extending communications systems, and the U.S. Defense Advanced Research Projects Agency, or DARPA—one of the most successful innovation organizations ever.

Langer Lab resides in Pasteur's quadrant too. Although its researchers devote the bulk of their efforts to applied science and engineering that could solve critical problems, in the process they often push the boundaries of basic science. For example, one of Langer's most important discoveries was a way to release large-molecule drugs in the body via porous polymers at designated doses and times over several years. This involved expanding an area of physics and math known as percolation theory.

With some notable exceptions—Corning's efforts in quantum communications and materials for capturing carbon dioxide, IBM's in cognitive computing and smart cities, Alphabet's in health care and self-driving vehicles—firms today aren't striving to connect early-stage research with major real-world applications. "It's very rare, but I don't think it needs to be," says Gary P. Pisano, a professor at Harvard Business School. "If you solve some of society's big problems, you'll actually make a lot of money."

Susan Hockfield, a professor of neuroscience at the Koch Institute and a former president of MIT, agrees. "There's a lot of appropriate concern and skepticism about the state of corporate R&D," she says. "For example, pharma corporate R&D invests significantly in very early stage, exploratory research. Couldn't they be doing better if they partnered more effectively with nonindustry biologists and engineers? And I just finished service on a commission to review the national labs. I'm astonished by what a brilliant idea they are and by the high quality of their research, but could they be turning more of their discoveries into products for the marketplace?"

BUILD A BRIDGE OVER THE VALLEY OF DEATH

Choosing the right projects to pursue is just the first step, of course; the path to realization can be long and treacherous. Langer has a formula for getting discoveries through the valley of death separating early-stage research and commercial development.

Focus mostly on "platform technologies"—those with multiple applications. Many corporate and academic labs look to solve specific problems



without necessarily thinking beyond them. Langer Lab takes a broader view. In addition to creating a wider market, this strategy allows companies to pursue unanticipated applications, says Terry McGuire, a founding partner of Polaris. For example, Momena, a company launched in 2001 to exploit new methods for understanding and manipulating the structures of sugar molecules, initially set out to sequence heparins in order to treat diseases such as cancer and acute coronary syndrome. However, it realized early on that it could also use the emerging technology to determine the complex structures in Lovenox, an existing multi-billion-dollar drug. That work resulted in a biogeneric product for preventing and treating deep vein thrombosis, which generated more than \$1 billion in sales during its first year.

Although the lab's researchers often have a use in mind, sometimes they envision a variety of applications. For example, Langer got the idea for an implantable microchip that could release drugs for years and could be controlled outside the body while watching a television show on semiconductors; he imagined that chips could not only be used to deliver drugs but also put into TVs to release scents that would enhance the viewing experience.

Obtain a broad patent. MIT has been a pioneer in patenting and licensing academic discoveries. But Langer has been exceptional in his pursuit of especially strong patents. His goal is to limit, sometimes even block, others from claiming rights to the territory so that companies will be willing to expend the money needed

to commercialize a discovery—an investment that must typically cover expensive clinical trials and that greatly exceeds the cost of the research. (Some of Langer's secrets: Use “great lawyers” and have them challenge one another's recommendations; eliminate unnecessary words that could restrict a claim; and clearly describe all the terms and supporting experimental tests to prevent ambiguity if the patent is litigated.)

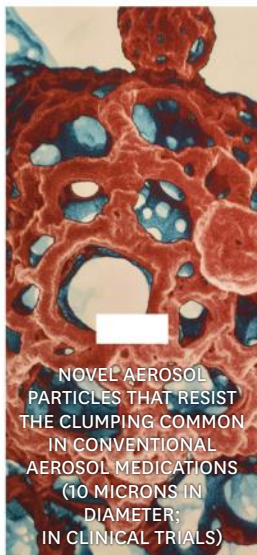
Publish a seminal article in a prestigious journal.

Appearing in a journal such as *Nature* or *Science* validates—and advertises—the soundness and importance of the discovery not just to other academics but also to potential business investors.

Prove the concept in animal studies, and don't push the discovery out of the lab too quickly. The reason is twofold: to boost the odds that the discovery will work and to minimize the chances that commercialization efforts will flounder—a common occurrence in universities and even the corporate world.

One recent example of a project that benefited from a measured timetable involved the use of ultrasound to rapidly deliver a broad class of therapeutics, including small molecules, macromolecule biologics, and nucleic acids, directly to the gastrointestinal tract (they previously had to be injected). Despite promising initial results and the eagerness of one of the lab's scientists to start a company to commercialize the discovery, Langer resisted taking that step just yet. He wanted to keep the lab team intact and to continue to work on the technology—for instance, demonstrating its safety through “chronic treatment” studies in large

Liquid nitrogen, used to flash-freeze cells, polymers, and other substances; Langer trying out TAP, a push-button blood-collection device developed by Seventh Sense Biosystems, which he cofounded



animals (giving them the treatment, say, daily for a month) and developing new formulations that could further enhance the delivery of the drugs.

This extra research, unfettered by commercial timetables, paid off. Over the next 18 months or so, the lab demonstrated that the technology could deliver a whole new class of drugs (unencapsulated nucleic acids), broadening its potential applications. The team also published more articles on the research in peer-reviewed journals, providing proof that the original data was reliable and replicable. Only then did Langer agree to help raise funds for a new company, Suono Bio, to take over development.

Reward the researchers. MIT awards inventors one-third of royalty income after expenses and fees. (The rest goes to the researchers' departments or centers, MIT's technology-licensing office, and the university's general fund.) In recent decades a growing number of universities have instituted similar policies, but the approach is still highly unusual in the corporate world.

Involve the researchers in commercial development. Over the years many members of the lab have left for positions at companies that took on their projects, where their passion for getting the technology to market has proved as important as their expertise. "One of the reasons a lot of the companies have done well is that the champions have been our students who've gone to them," Langer says. "They really believed in what they did in the lab and wanted to make it a reality." Other researchers have advised companies while remaining at the lab or after moving on to other universities. Langer himself serves on the boards of 10 Boston-area start-ups that have emerged from his work. While a growing number of universities have relaxed restrictions on professors' involving themselves in commercial ventures and have even encouraged commercialization by launching incubators and accelerators, there are still mixed feelings about such activities at many places that lack MIT's established entrepreneurial culture. And in the corporate world, it's highly unusual for scientists to become deeply involved in commercialization.

Make licenses contingent on using the technology. If a firm doesn't make use of technology it has licensed from the lab, it can be made to relinquish the license. And consider how the wafer for treating brain tumors came to market: A company uninterested in the treatment happened to buy the firm that had licensed the technology. MIT got it to agree to launch a start-up to develop the wafer in return for a lower licensing fee. Few universities—or companies—manage their patents as aggressively as MIT does. Consequently, many of their potentially useful discoveries aren't exploited.

FORGE A COLLABORATIVE MULTIDISCIPLINARY TEAM

A team working on an oral drug-delivery device that could sit in the stomach gradually releasing medicine

for weeks or months came up with a star-shaped design. Then a mechanical engineer with modeling experience joined the effort and began to ask questions. Why had the team chosen a star? Why not other shapes? The team evaluated several possibilities, including hexagons and a variety of stars, and found that a six-pointed star performed best in terms of its ability to fit inside a capsule and stay in the stomach. The new team member also raised considerations about the stiffness of the arms and center, the strength of the elastomer at the interface, and the size of the unfolded device. This turned the conversation to materials that might enable the device to last longer.

"That's what happens when you bring together folks with different backgrounds," says Giovanni Traverso, a Harvard gastroenterologist, biomedical engineer, and MIT research affiliate who heads the team. "It leads to new insights and new ways of thinking about the problem." The teams at Langer Lab include chemical, mechanical, and electrical engineers; molecular biologists; medical clinicians; veterinarians; materials scientists; physicists; and pharmaceutical chemists. Members from different disciplines sit side by side in the labs and offices that honeycomb the sixth floor of the Koch Institute.

Multidisciplinary labs are sprouting up as academia recognizes their value in tackling challenges ranging from cancer to global warming. (One of the hallmarks of the Stand Up to Cancer campaign is its funding of such teams.) But the revolution is still in early days. The 2016 MIT report "Convergence: The Future of Health," coauthored by Susan Hockfield, highlights the importance of bringing together engineering, physical, computational, mathematical, and biomedical sciences "to help solve many of the world's grand challenges." It calls for ambitious reforms in education, industry, and government, including the creation of a "culture of convergence" in academia and industry and changes to government research-funding practices.

Langer's reputation, the challenges his lab takes on, and the career opportunities afforded, including the chance to participate in start-ups, attract lots of applicants. The lab has 119 researchers from all over the world, plus 30 to 40 undergraduates each semester. It receives 4,000 to 5,000 applications for the 10 to 20 postdoc positions that open up each year and conducts global searches when specialized skills are needed for particular projects.

It's a given that applicants must have outstanding academic credentials and be highly motivated. Beyond that, the leadership team of Langer, Traverso, and Ana Jaklenec, a biomedical engineer and MIT staff scientist, looks for people who "are nice, get along well with others, and are good communicators"—vital qualities given that the lab's researchers must constantly explain their fields to coworkers and find ways to conduct experiments that work for everyone. Differences in technical languages, work practices, values, and

even ways of defining problems constitute one of the most formidable challenges of a multidisciplinary lab, says Hockfield, a champion of convergence during her eight years at MIT's helm.

Jaklenec showed me a whiteboard filled with equations. It was from a meeting of two postdocs—a biologist and a biomedical engineer who were collaborating on a single-injection polio vaccine that could stay in the body and be released in pulses over time. The biologist was exploring the mechanism that degrades the strain of virus used in the vaccine, while the biomedical engineer was working on thermostabilization. The two encountered a problem: Their data sets didn't make sense together. It turned out that they had run their experiments with different concentrations of the vaccine: The engineer's were those used clinically, while the biologist's were those called for by the analytical methods of her field. The researchers had to align their experiments so that they could compare results. Such issues are not uncommon. "The challenge is to get people to talk the same language and also recognize that for certain things, there's no single expert," Traverso says.

Even if there is no obvious need or fit for them, Langer often brings in "superstars" who have unusual credentials. "You take a chance on people," he says. "Gio is a good example." Traverso had earned a PhD in molecular biology under Bert Vogelstein, a renowned cancer biologist at Johns Hopkins; his doctoral research involved novel molecular tests for the early detection of colon cancer. When he contacted Langer, he was finishing an internal medicine residency at Boston's Brigham and Women's Hospital and trying to figure out what to do with a gastroenterology fellowship he had landed at Massachusetts General Hospital. He told Langer that although he was interested in developing systems for delivering drugs in the GI tract, he was not an engineer. Langer hired him anyway.

The bet paid off. Traverso demonstrated the concept of several different approaches to delivering drugs through devices in the GI tract. The Gates Foundation saw that the work might solve problems it wanted to address in poor countries and provided significant funding. Grants also came in from Novo Nordisk (to develop microneedles for internal injections), the Charles Stark Draper Lab (for new ingestible systems), and Hoffmann-La Roche (for the delivery of a new class of drugs).

EMBRACE TURNOVER

Like all academic labs, Langer's sees a constant flow of people joining or leaving. Doctoral students typically stay four or five years, postdocs two or three, and undergraduates participate for as little as a semester and as much as four years. Newcomers are perpetually being trained, and people may leave at the peak of their productivity. But Langer and many colleagues think


AN UNUSUAL ROAD TO HIGH-IMPACT RESEARCH

In the early 1970s, as Bob Langer was completing a PhD in chemical engineering at MIT, the United States was rocked by the OPEC embargo and the resulting oil crisis—making him a hot commodity in the eyes of oil and chemical companies (he received 20 job offers in the field). An interview at an Exxon operation in Baton Rouge prompted a seminal insight. "One of the engineers said to me, 'If you could just increase the yield of this one chemical by point-one percent, that would be wonderful—that's worth billions of dollars,'" Langer recalls. "I remember flying back to Boston that night thinking, 'Do I really want to spend my life doing this?'"

He applied to colleges for jobs developing chemistry curricula. When none replied—"probably because as a chemical engineer, I wasn't in the right box"—he wrote to hospitals, "because I wanted to help people." Again he received no offers.

Then a colleague suggested that he contact Judah Folkman, a surgeon at Boston Children's Hospital who had a reputation for hiring unusual people. Folkman had a controversial idea: that cancerous tumors emit chemical signals that stimulate angiogenesis, or the formation of new blood vessels. If the signals could be blocked, Folkman theorized, tumors' growth could be halted. He hired Langer to isolate the first angiogenesis inhibitors. This involved identifying candidates from cartilage, which has no blood supply (Langer got cow bones from a slaughterhouse) and inventing polymer systems that could deliver large molecules over time. Angiogenesis inhibitors ultimately became instrumental in treating a number of cancers, and polymers have become an important way to deliver drugs and vaccines and to help grow new body tissue, including skin, cartilage, and spinal cord.

Langer returned to MIT in 1977 as an assistant professor, initially in the Department of Nutrition and Food Science (because no chemical engineering department at a university would hire him). It gave him tremendous freedom, and he continued working on drug delivery, angiogenesis inhibitors, and tissue engineering, obtaining funding from companies when his ideas proved too radical for government grants. Many senior faculty members of the department didn't believe in his ideas and suggested that he look for a new job. However, by the mid-1980s his discoveries, publications, and start-ups began winning recognition. One of MIT's 13 Institute Professors, Langer is a member of the National Academies of Sciences, Engineering, and Medicine, and a recipient of the National Medal of Technology and Innovation, the National Medal of Science, the Charles Stark Draper Prize, and the Queen Elizabeth Prize for Engineering.



A POROUS SCAFFOLD FOR GROWING NEURAL CELLS TO REPAIR DAMAGED SPINAL CORDS (IN CLINICAL TRIALS)



the turnover has positives that vastly outweigh these downsides. Problems are viewed with fresh eyes—he calls it “constant stimulation.” The turnover is fairly predictable and tied to the length of projects; even huge grants are structured so that the lab can gradually scale up. The finite tenure of most of the researchers, combined with the limited duration of grants (typically three to five years, with renewals dependent on meeting goals), imposes pressure to get results.

“A lot of cynicism has been thrown on the academic research lab model. We are told it is inefficient,” Hockfield says. “But it’s brilliant. To bring together people from different generations and levels of experience—it’s fantastic. The faculty member has a wealth of experience and understanding and knows the literature and the history of the field. Students and postdocs have a lot of energy and ambition and crazy ideas. The faculty member helps get those crazy ideas channeled. Undergraduates, wonderfully, often don’t know that something’s impossible. They don’t know enough not to ask unsophisticated questions. There are very few things that make you step back and wonder about your foundational assumptions more than a really smart undergraduate asking, ‘Whoa, how does that work?’”

A highly motivated superstar team with limited tenure; an accomplished scientist leader; time-limited projects; intense pressure to get results—it all sounds like the DARPA formula, proof that the model has application far beyond academic settings.

LEAD WITHOUT MICROMANAGING

One rainy day at their home on Cape Cod, Langer and his wife, Laura, talked about how his management of the lab differs from the norm. “In my discussions with a range of graduate students at other places, they often describe their research advisers as control freaks—which is understandable, because their lab is their baby,” said Laura, who has a PhD in neuroscience from MIT. “They may want to manage every part of the research. It’s very hard for them to let their students explore and make mistakes. But not giving people the room to figure things out themselves can stifle them or train them to not take potentially innovative risks.”

Langer nodded in agreement. Under his leadership, everyone is involved in offering ideas for projects and choosing which ones to pursue. “It’s a team effort,” he said. “It’s empowering people; it’s letting everybody feel they are valued and that it’s OK to suggest things.” This stands in contrast to most academic and corporate labs, where the director selects the projects.

Current and former lab members told me that Langer exposes people to possibilities and lets them decide what to work on. Gordana Vunjak-Novakovic, a professor of biomedical engineering and medical sciences at Columbia who worked at the lab in the 1980s and 1990s, says she took that lesson to heart and runs her 40-person lab the same way: “I never tell people

what to do but, rather, help them see the possibilities, let them really get excited about one of them, and let them work on their own ideas.” Many if not most of Langer’s postdocs and research scientists and at least some of the doctoral students are working on several projects. (For a fuller picture of life in Langer Lab, see the profile of two postdocs in the online version of this article, at HBR.org.)

Langer treats Jaklenec and Traverso as coprincipal investigators—another departure from the norm. Power is distributed throughout the lab, accumulated on the basis of people’s ideas and initiative and the funding that their research attracts. Langer gives researchers—especially graduate students—lots of guidance in the beginning, to make sure that they get off to a good start and that projects are optimally structured. He also helps decide which options are considered. For example, at the outset of the project to develop the drug-delivery device that would stay in the stomach for a long period, he and Traverso decided to explore two possibilities: one that would float in the stomach and one that would adhere to the stomach wall. After conducting a feasibility study, they chose to pursue the floating option and figured out what major issues would need to be solved—and then Langer largely bowed out. “After that, I don’t tell people what to do,” he says. “From grade school to high school and college and even to a certain extent graduate school, you’re judged by how well you answer somebody else’s questions. That gives you a grade on a test. But if you think about the way you’re judged in life, I don’t think it is by how good your answers are; it’s by how good your questions are. I want to help people make that transition from giving good answers to asking good questions.”

Gary Pisano sees this philosophy as key to the lab’s success. “The tendency would be to say, ‘I’m going to tell you what to do so that you can do better and the lab will do better,’” he explains. “But if you do that, you create a different place—people are going to say, ‘OK, Bob, you tell me what to do.’ He doesn’t want that kind of lab. His lab is one where people solve their own problems, and that’s why they wind up being great professors and scientists in the business world.”

At the same time, Langer makes sure that researchers know they can count on him and on the people in his network if they run into trouble—an approach that Aimee L. Hamilton, an assistant professor of management at the University of Denver who has studied Langer Lab, calls “guided autonomy.” His responsiveness is legendary. His iPad seems glued to him, and he uses it to answer e-mails within minutes. Cato T. Laurencin, a University Professor at the University of Connecticut who earned his PhD under Langer in the 1980s, recalls that a student of his once dug up Langer’s cell phone number and called him with a question about a paper Langer had written. “He called her back from Finland 10 minutes later.”

FURTHER READING

For more on revitalizing your research operations, see these articles on HBR.org.

“Getting Your Stars to Collaborate”

Heidi K. Gardner
(January–February 2017)

“You Need an Innovation Strategy”

Gary P. Pisano (June 2015)

“Special Forces’ Innovation: How DARPA Attacks Problems”

Regina E. Dugan and Kaigham J. Gabriel (October 2013)

“Rebuilding the R&D Engine in Big Pharma”


Jean-Pierre Garnier
(May 2008)

Langer also goes out of his way to help people leaving his lab get good jobs, and he stays in touch with hundreds of alumni, providing assistance if needed. (In his farewell meeting with James Dahlman, he offered to go over Dahlman's grant applications.) He is deeply connected to those in his network. For instance, he refers to many of the venture capitalists who have financed his start-ups—a group including Terry McGuire, of Polaris; Noubar Afeyan, of Flagship; and Mark Levin, of Third Rock—as friends, and means it. (Langer, McGuire, and their two daughters vacationed together last year in Bordeaux, and Langer's daughter was in the wedding of McGuire's.)

The investment in his network pays valuable dividends in the form of productive research collaborations, referrals of extraordinary students to his lab, and manpower for the start-ups. Langer not only paves the way for lab members to launch start-ups but also taps his network if a need at one emerges down the road. “Bob often has a great idea of somebody who would be a great fit,” says Amy Schulman, the CEO or executive chair of three companies that grew out of Langer Lab. “And people often reach out to Bob when they're thinking of changing jobs, because he is incredibly discreet and knows a lot of opportunities. So it goes both ways.”

WHEN PEOPLE WHO have worked with Bob Langer talk about him, one hears a common refrain: He is an integral part of his research-to-product model and a brilliant individual who can't be replicated. But this doesn't mean that his model, including his “Mr. Nice Guy” leadership style, can't be replicated. What if corporations structured their labs like his? What if they nurtured deep expertise in a handful of areas so that customers would come to them with their most pressing problems? What if they enticed superstar researchers by offering opportunities to work on issues that could change the world?

“Maybe companies could set up a research operation where the best of the best are flowing through, trying to do something audacious in a few years rather than spending 30 years there worrying about their next promotion,” Gary Pisano says. His Harvard colleague Willy Shih adds that such an approach would not only allow companies to tackle more-ambitious projects but also help them kill mediocre or poor projects faster. “The flow of people through the lab would have the natural consequence of sunseting ideas that don't stand the test of a fresh look,” he points out.

Bob Langer says, “I want to address problems that can change the world and make it a better place. That's the thread throughout the science I've done my whole life. The companies I've helped found seem like a natural extension. I wanted to see what I did get out to the world; that made a difference to me.” By drawing on the Langer Lab values and model, companies could make the world a better place and make lots of money in the process. 

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REAL-WORLD RESULTS

Since 1987 Bob Langer and his researchers have helped found 40 companies, often in collaboration with scientists in other labs at MIT and at other institutions. To date all but one have made it. A sampling is below.

COMPANY: Enzytech (acquired by Alkermes)

YEAR LAUNCHED: 1987

PRODUCTS/TECHNOLOGY: Microspheres for delivering drugs

EXISTING OR POTENTIAL APPLICATIONS: Schizophrenia, narcotic addiction, type 2 diabetes

MARKET CAPITALIZATION: \$7.2 billion (Alkermes)

COMPANY: Moderna

YEAR LAUNCHED: 2011

PRODUCTS/TECHNOLOGY: Messenger-RNA-based drugs

EXISTING OR POTENTIAL APPLICATIONS: Cancer, heart disease, vaccines, infectious diseases, pulmonary disease

MARKET CAPITALIZATION: \$5 billion

COMPANY: Momena

YEAR LAUNCHED: 2001

PRODUCTS/TECHNOLOGY: Sequencing complex sugar-based therapeutics

EXISTING OR POTENTIAL APPLICATIONS: Multiple sclerosis and other autoimmune diseases, cardiovascular diseases, cancer

MARKET CAPITALIZATION: \$840 million

COMPANY: Advanced Inhalation Research (acquired by Acorda)

YEAR LAUNCHED: 1997

PRODUCTS/TECHNOLOGY: Drug-delivering aerosols that rely on large particles, which resist clumping

EXISTING OR POTENTIAL APPLICATIONS: Diabetes, asthma, Parkinson's disease

MARKET CAPITALIZATION: \$525 million

COMPANY: Selecta

YEAR LAUNCHED: 2007

PRODUCTS/TECHNOLOGY: Targeted nanoparticle-based immunotherapies and vaccines

EXISTING OR POTENTIAL APPLICATIONS: Gout, genetic disorders, allergies, autoimmune diseases, HPV-associated cancers, nicotine addiction, malaria

MARKET CAPITALIZATION: \$228 million

SOURCES ROBERT LANGER, POLARIS PARTNERS, PUBLIC INFORMATION. **NOTE** MARKET CAPITALIZATIONS ARE AS OF MID-SEPTEMBER 2016 OR ACQUISITION DATE. THE VALUE OF PRIVATE COMPANIES IS BASED ON VC FINANCING.



AN IMPLANTABLE MICROCHIP
THAT CAN DELIVER DRUGS
FOR UP TO 17 YEARS
AND IS CONTROLLED FROM
OUTSIDE THE BODY
(IN CLINICAL TRIALS)



**NEW
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Harvard Business Review Experience

MARCH-APRIL 2017



MANAGING YOURSELF Surviving M&A

CASE STUDY Is Holacracy for Us?

SYNTHESIS An Uneasy Codependence

LIFE'S WORK Mike Krzyzewski



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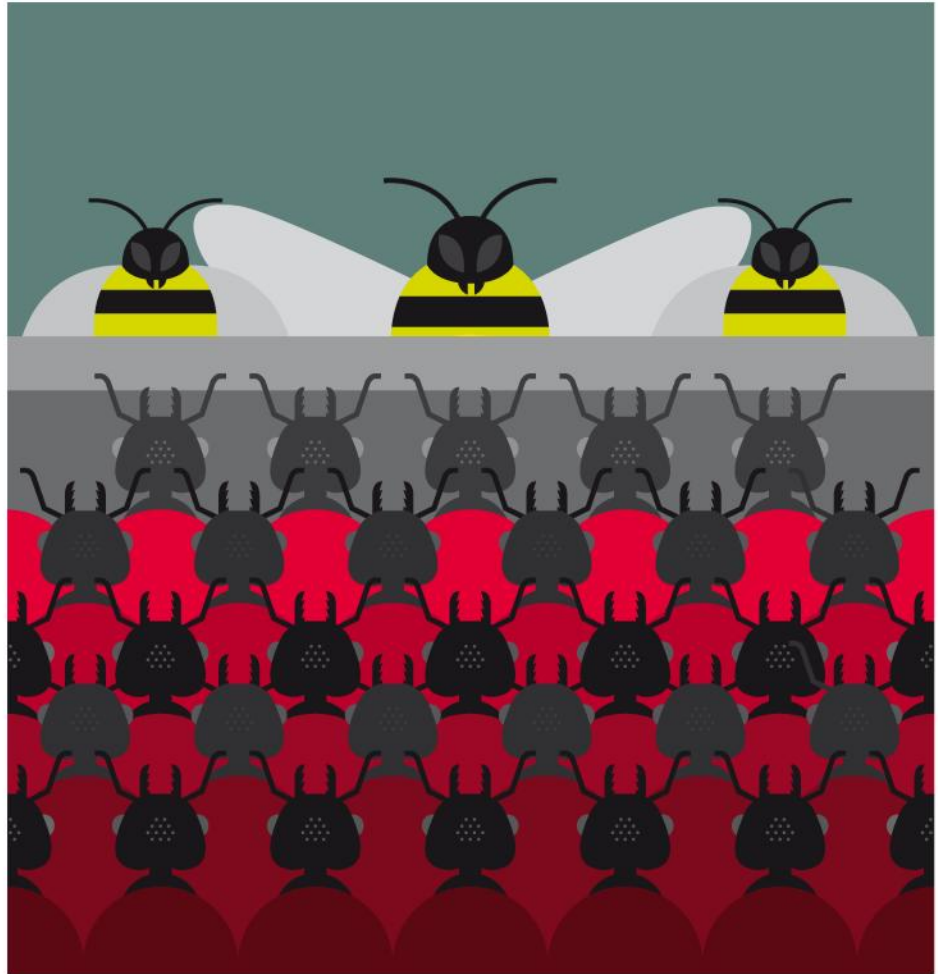
NEW APPLIED NOW



SURVIVING M&A

HOW TO THRIVE AMID
THE TURMOIL **BY MITCHELL
LEE MARKS, PHILIP MIRVIS,
AND RON ASHKENAS**





FOR INDIVIDUAL managers and employees, a merger or acquisition is not just a corporate strategy; it's a personally disruptive—often traumatic—event. What C-suite executives and consultants euphemistically call “postmerger integration” is typically a period of tension, uncertainty, and even chaos. Workloads ramp up, as do pressure and stress. You may have to quickly adapt to unfamiliar policies, practices, and politics; work with strangers from different corporate or even national cultures; or report to new bosses who know nothing about your track record or ambitions. Meanwhile, there is no guarantee of a job with the resulting organization, let alone a long-term career. On average, roughly 30% of employees are deemed redundant after a merger or acquisition in the same industry.

In such situations, most people tend to fixate on what they can't control: decisions about who is let go, promoted, reassigned, or relocated. But in our studies and consulting practices, we've found

that individuals faced with organizational upheaval have much more power over what happens to them than they realize.

If your company is involved in one of the tens of thousands of M&A deals struck annually around the world, you can respond in a few ways. The first option is to keep your head down, focus on the tasks at hand, and hope that everything turns out OK. A second tack is to polish your résumé, reconnect to your outside peer network, and start looking for alternative employment. But we recommend a third and perhaps more constructive choice: Embrace the dynamic, intense integration process and use it as an opportunity for introspection and growth.

We've met and worked with hundreds of professionals who've taken this approach and say that as a result, their M&A experiences were exhilarating—maybe even “the best thing that ever happened” to them. Not all individuals were able to shape every decision in their favor or get

their desired jobs; indeed, some had to retool themselves to succeed at their new organizations, and a few were ultimately forced to move on to different employers. But nearly all felt that they emerged from the process as “winners,” equipped with greater self-knowledge, heightened visibility, and new skills.

To achieve the same, you must first assess your strengths and weaknesses and the opportunities and threats presented by the deal. The next step is to make yourself a more valuable employee by taking on deal-related assignments that will help you hone and highlight your abilities in three categories: project execution, innovation, and collaboration. In this article we outline both parts of the process and describe how four managers went through it.

ASSESSING THE SITUATION

Upon learning that your company is joining with another, you might feel some anxiety. The first step in overcoming that is to take stock of the situation. Some mergers have little or no practical impact on employees—for example, when one company buys another primarily as a financial investment and keeps the target’s operations fairly independent. More often, however, change is inevitable, and you’ll need to figure out where you stand before you can plan where to go. We recommend a tried-and-true framework: the SWOT analysis. That involves considering the following:

- **Strengths.** What in your personal makeup and career background could be an asset in your new situation: your technical expertise, your interpersonal skills, or maybe your unique knowledge about a particular business line? What is the value of your network within your company and industry, with suppliers or customers, and with those on the other side of the merger or acquisition? What makes you a “keeper”?
- **Weaknesses.** What aspects of your personal situation could be a deficit for moving forward in the integrated firm? Are you uncomfortable dealing with uncertainty? Do you worry about getting along with new colleagues or having to learn new ways of doing business? Is your boss too fixated on his or her own survival to support you and your fellow team members?

WHEN YOUR COMPANY IS JOINING WITH ANOTHER, YOU MIGHT FEEL SOME ANXIETY. THE FIRST STEP IN OVERCOMING THAT IS TO TAKE STOCK OF THE SITUATION. YOU’LL NEED TO FIGURE OUT WHERE YOU STAND BEFORE YOU CAN PLAN WHERE TO GO.

- **Opportunities.** Where are the potential landing spots for you in the combined entity—in product areas, marketing and sales, business development, operations? How much do they interest you? Do you see a path to advancement? How will the consolidation affect your firm’s position in the industry, its reputation, and its financial standing? Will it create a stronger company with new pathways for growth?
- **Threats.** Where are there apt to be staff reductions? Are you in a corporate function that may be duplicative (such as legal, communications, or human resources) or a business line in which the other company is dominant? Will the combined organization be a place you still want to work?

Tom Hall, a senior finance director at pharmaceutical company Schering-Plough, conducted this sort of analysis when he learned that his company would be acquired by a rival, Merck. One strength was Hall’s previous experience managing during a merger: He’d been in the tax department of Warner-Lambert when it was acquired by Pfizer. In addition, he was a solid performer whose star was rising at Schering, and after nine years at the company, he knew all its financial ins and outs. Yet his back-office function would surely be merged with Merck’s, so redundancies were a threat. And since his bosses and most top Schering executives were moving on, he would have few supporters left at the combined

organization. New opportunities for him were unclear.

“Mary Holt,” a logistics manager at a labeling and packaging supplier, also did a SWOT assessment when her company was purchased by a larger competitor. (We’re using a pseudonym to protect her confidentiality.) At first Holt saw only weaknesses and threats in the situation. She assumed that managers from the buying firm, many of whom had international experience, would have an inside track on jobs after the merger. But she soon realized that she was far more knowledgeable than her new peers about the logistical nuts and bolts, so she was in a position to improve the combined firm’s practices. She now had a strength and an opportunity to focus on.

“Jason Richards,” an up-and-coming executive at a large professional services firm, provides another example. Richards (again we’re using a pseudonym) had his sights set on leading the company’s South America region—until top managers announced the acquisition of another big player in the industry. Suddenly there were other high potentials and senior executives competing for the position he coveted, and the only “promotion” being offered to him was as an integration manager, a role he didn’t fully understand. He had to quickly evaluate whether it was an opportunity that would play to his strengths or a threat that would further weaken his prospects for getting ahead.

Finally, consider Rob Michalak, who led the public relations function at ice cream maker Ben & Jerry's prior to its acquisition by Unilever. Shortly after his company went up for sale, Michalak conducted his personal SWOT analysis and concluded (rightly) that new owners would want to steer the PR function and reduce its ranks. Accordingly, he left Ben & Jerry's to learn more about how different companies link social responsibility to their business goals.

SEIZING GROWTH OPPORTUNITIES

The second key to making the most of an M&A experience is to insert yourself into the integration process in a way that highlights your strengths or allows you to develop new ones. Most merging companies set up a "transition structure"—a temporary but formal organization made up of dozens of committees, task forces, and teams charged with realizing the expected merger synergies. If you participate in this work, you will have a chance to show and build your project execution, innovation, and collaboration skills.

Execution. Those involved in integration must be able to craft an effective plan and get it rolling, distinguish between critical and "nice to have" activities, overcome unforeseen obstacles, measure results, and display a host of other execution capabilities. If you have—or you're eager to develop—expertise in those areas, you should volunteer for the transition team.

Tom Hall did just that, agreeing to serve as the right-hand man to the Schering integration leader. Thanks to his deep knowledge of the company's costs, staffing models, forecast systems, and balance sheet, as well as his relationships with people throughout Schering, Hall soon became the go-to person when Merck's senior executives needed help with plans for putting the two entities together. He assumed that once the integration process was over, he would lose his job. But one of his new colleagues supported him in applying for and securing a role leading the strategy realization office. Although Hall no longer had a clear career path, he was able to get to know Merck and its senior managers. A year later he was tapped to become one of the chiefs of staff to the newly appointed CEO, while retaining his

strategy role. Eventually he was promoted to associate vice president of strategy and then associate vice president of financial planning and analysis.

Innovation. The change brought on by M&A often opens the door to all kinds of innovation. Teams and individuals who might ordinarily have no chance to present ideas to senior leadership suddenly find themselves with access to a receptive audience, and those who are willing to speak up get noticed.

Mary Holt recalls rallying people on both sides of her company's merger to step up to the plate with in-depth proposals for creating a world-class logistics capability in the combined organization. She made an impression on top executives when she bluntly characterized procedures at both firms as "half-assed" and doggedly used the deal as a catalyst for improvement. Once the integration was complete, the logistics unit was divided geographically, and Holt's reward was being named head of Atlantic operations—a role that meant working with suppliers and distributors in Europe and participating in top-level strategy meetings.

Rob Michalak, the PR executive who left Ben & Jerry's when it went up for sale, also stood out as an innovator. When he moved on from the ice cream maker, he used his time to increase his expertise in cause-related marketing and to advise organizations on being more socially responsible. A few years after the deal with Unilever closed, he was asked by the new CEO of Ben & Jerry's to "come home" and serve as the director of social mission. The position included reconsidering some of Unilever's integration decisions that were, as Michalak put it, "sucking the life out of our brand." Armed with fresh ideas and experiences, he helped move Ben & Jerry's (and other Unilever subsidiaries) toward a more activist social agenda.

Collaboration. A merger forces you to quickly learn how to work productively with people who may have different perspectives and processes, come from different corporate and national cultures, and even speak different languages—and who may not want to work with you. It's a great laboratory for showcasing and sharpening your collaboration skills.

Take Jason Richards, the rising star set on a regional leadership role. After his company acquired a competitor and he was asked to be one of two full-time integration

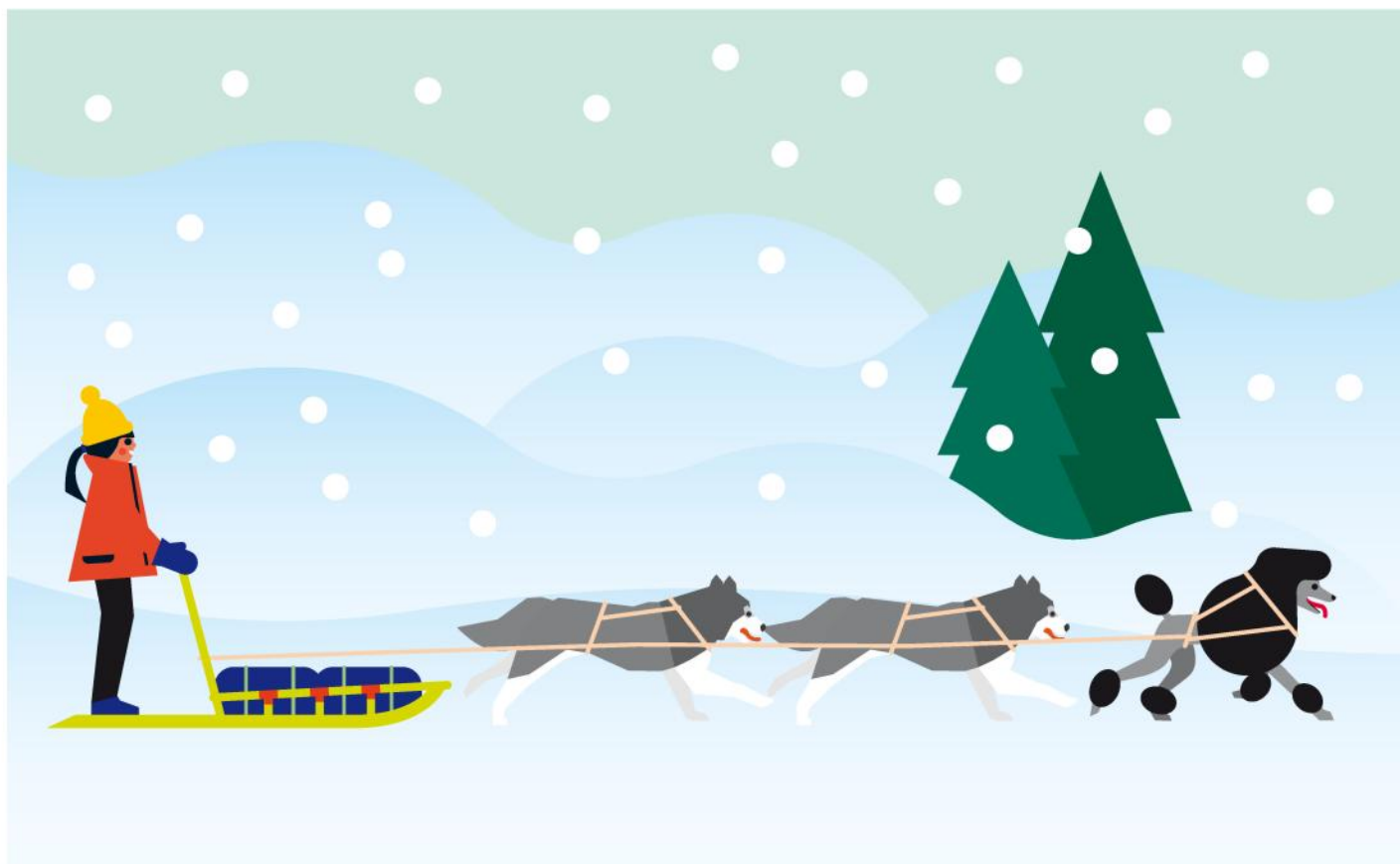
managers, he was initially distraught. Such a shift would take him out of contention for his desired promotion, disrupt his career momentum, wreak havoc with his annual bonus calculation, lower his status with his peers, and keep him away from his family during the several-month move to headquarters. He accepted the assignment reluctantly, but like Hall and Holt, soon realized he had a chance to expand his knowledge, broaden his network, and prove he could execute and innovate.

Perhaps even more important, he picked up new interpersonal skills as a result of being paired with a co-integration manager who was in many ways his opposite: a Latina HR director from the other company. The relationship was frosty at first: Richards's firm had a macho, hierarchical culture, and he was dubious about working with a woman who came from a "soft," non-revenue-producing function and was unquestionably his junior. But as the two got to know each other and scored some early wins helping struggling transition teams, they began to see their differences as complementary. They developed a good cop/bad cop routine, learned to adapt their styles when necessary, and formed a strong partnership. Richards became more comfortable guiding instead of controlling. He interacted with all parts of the business and with a wide range of people. His evolution as a leader gave the CEO enough confidence to later name him president of the combined firm's North American region—a much larger role than the one Richards had initially wanted.

FINDING YOUR OPENING

How can you communicate your desire to be part of the integration process if you haven't been invited to participate on a transition team? Depending on your situation, discussing it with your supervisor might not be the best approach. When companies are in the midst of mergers, some bosses are consumed with their own survival and not inclined to help subordinates. Furthermore, they may not embrace the notion of losing one of their solid contributors at a time when their work group's output might be scrutinized.

If you have had a good relationship with your boss and feel that he or she is more likely to support than impede your participation, by all means start a




conversation. Otherwise, seek out a trusted colleague in HR or another staff function close to headquarters, talk to current members of the transition teams, or consult the integration manager.

If the CEO or another senior executive is making an integration-related road show stop at your location, raise your hand after the speech and ask how to participate. Better yet, walk right up to the person as the meeting adjourns. No matter whom you approach, sell them on how you can contribute. Don't be shy about promoting yourself or your capabilities—there is a lot going on for all involved, and you may need to turn up the volume to get noticed. Even if you don't see a future for yourself in the post-transition organization, you can make a case that contributing to the integration process will be more valuable to the company than sitting around like a lame duck.

THERE'S NO QUESTION that mergers and acquisitions leave many victims in their wake. But you don't have to be

A MERGER SITUATION FORCES YOU TO WORK PRODUCTIVELY WITH OTHERS. IT'S A GREAT LABORATORY FOR SHOWCASING AND SHARPENING YOUR COLLABORATION SKILLS.

one of them. By proactively evaluating your situation and seizing leadership opportunities created by M&A, you can set your own trajectory. For some managers, like Mary Holt and Jason Richards, it's *onward and upward* to higher-level jobs in the combined company. For other employees, like Tom Hall, it's *inside and ready* with enhanced skills and visibility, poised for the next available promotion. Even those who soon find themselves out of a job believe that embracing the M&A process leaves them better equipped to succeed in different organizations—or perhaps, like Rob Michalak, to return to their former one with an even higher profile. 

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CASE STUDY IS HOLACRACY FOR US?

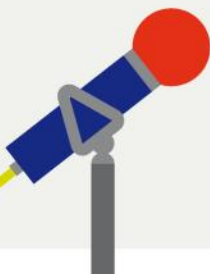
A GLOBAL CONSTRUCTION
COMPANY WEIGHS THE RISK OF
EXTREME DECENTRALIZATION.

BY ERIK ROELOFSEN AND TAO YUE

Rogier Maes's beginning-of-the-year speech never once mentioned holacracy or self-managed teams.

CASE STUDY CLASSROOM NOTES

Does the centralization of power dampen entrepreneurship? This is one of the critical questions Erik Roelofsen asks when he teaches this case in executive education classes.



Derek Melis, his friend and CFO, was relieved. Rogier was the CEO of the global construction company Contect; he, his executive team, and the board had been talking for months about transitioning to just such a system.

Derek still hated the idea; it was too risky to let 200 offices and subsidiaries around the world call the shots on major decisions without approval from headquarters in Eindhoven. But Rogier thought it was the key to boosting engagement and performance, and he had hinted that he might use Contect's 2017 annual all-employee meeting—his chance to announce new goals and celebrate the previous year's accomplishments—to roll out the change.

Instead, to Derek's relief, he'd stuck to the traditional rallying cry: "We've had double-digit growth again. Our revenue is up by 14%, EBITA by 12%, and order intake by 13%. Our performance has exceeded shareholder expectations. We could never have achieved it without all of you! Remember: No matter how large Contect gets, it will stay agile and motivated. Thank you. And here's to an even better 2017!"

Rogier handed the microphone over to Henning Haas, the CEO of Contect's Germany group, and came backstage where Derek was waiting. "That seemed to go well," he said. He and Derek could hear people still clapping and cheering in the auditorium. "Of course," he added, "I think the applause would be even louder if I'd talked about the holacracy initiative." His tone was teasing, but with a serious edge.

"You were right to hold off," Derek said.

"Yes, and I take your cautions very seriously. But I still believe that self-governance is the way forward. People want to be their own bosses,

ERIK ROELOFSEN is a professor of international financial reporting and capital market communications at the Rotterdam School of Management. **TAO YUE** is the managing editor of the Rotterdam School of Management Case Development Centre. HBR's fictionalized case studies present problems faced by leaders in real companies and offer solutions from experts. This one is based on the Rotterdam School of Management case study "Autonomy and Control: The Collapse of Royal Imtech," by Erik Roelofsen, Tao Yue, and Melanie Beuken, which is available at www.rsm.nl/cdc.

Adopting self-management wholesale—using it to determine what should be done, who should do it, and how people will be rewarded across an entire enterprise—is a difficult endeavor. Many experts say that in certain environments it won't pay off.

Does the fact that Rogier put Derek in this role compromise Derek's ability to do his job? Can he do what's best for the company if he's worried about his friendship with Rogier?

responding to local circumstances but working for the common good. If we give talented people the best opportunities, they'll stay with us forever, and we'll keep growing at the rate we want to."

"Let's just wait until we iron out more of the details," Derek said.

"Or until you finally get on board, my friend," Rogier replied.

GETTING USED TO THE IDEA?

The next morning, as Derek was driving to the office, he mulled over his relationship with Rogier. The two men went way back. They'd met at university, and although Derek had gone on to graduate school and a career in banking, while Rogier had joined his family construction business and then founded Contect, they'd never lost touch. Derek had helped Rogier stay anchored when Rogier was going through a brutal divorce. And when Derek had lost his job during the financial crisis, Rogier had invited him to join Contect.

Although they didn't always see eye to eye at work—Derek was far more conservative than Rogier—they had tremendous mutual respect and could usually compromise. But the decentralization debate was different. In Derek's view, the subsidiaries already had far too much power.

Although Contect had launched as a specialist in small but steady installation jobs with high margins and low risk, it was now a full-service company that did design, construction, lighting, ventilation, plumbing, waste processing, and IT infrastructure for much bigger, more complex projects. Rogier's strategy since 2000 had been to grow through acquisitions and to give a long leash to all the businesses he bought. The smaller ones could keep their own names, leadership teams, practices, and policies for the first five years. And although senior managers' remuneration was tied to Contect's overall sales and operating profits, the head office had relatively little control over the 30,000 projects the company had under way at any given time.

Rogier liked this system for three reasons: It freed him from having to

manage all the disparate businesses, so he could focus on additional acquisitions. He felt it wouldn't be cost-effective to add more controls at the group level. And he thought independence was a great motivator. "I'm an entrepreneur through and through," he would say. "I want my company to be just as entrepreneurial."

Derek understood all those points, but he still thought Contect was too lax. Inconsistent policies put the company at greater risk of lawsuits. The lack of control meant that the leadership team had little say in how the Contect brand was being managed at a local level. And without centralized oversight of projects, any single subsidiary's missteps risked taking down the entire company. Rogier knew Derek's position—but he had gone to an executive training course on holacracy in Las Vegas and had come back so fired up that he was now pushing for self-managed teams at headquarters and complete decentralization at the country level.

Derek had held him off by insisting that he get the board more involved in the decision, but Rogier had managed to align directors on his side. He now had only one major—and very vocal—opponent: Vera Hoch, the head of the audit committee.

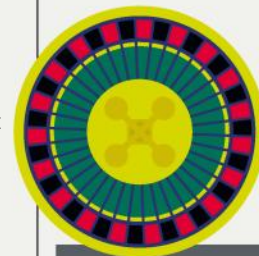
VERA'S PERSPECTIVE

Walking into the office, Derek checked his phone and saw that he had five e-mails from Vera. He called her right away, and she explained that Rogier had suggested she reach out. "I tried to talk to him about this whole holacracy nonsense last night, and he told me to check in with you," she said.

Derek smiled. This was an old trick of Rogier's: He would align two people who disagreed with him, knowing that the more moderate one (Derek in this case) might temper the other's view.

"I don't need to remind you what happens when we give so much power to the subsidiaries," Vera said. "I've seen firsthand how ugly it can get. Rogier has too, which is why, frankly, his position on this stuns me."

Just after Vera joined Contect's board, the company had been hit by a huge scandal. The project—



For-profit companies and nonprofit organizations in Australia, France, Germany, New Zealand, Switzerland, the UK, and the United States—most notably Zappos, which is based in Las Vegas—have adopted holacracy practices.

Critics of holacracy claim that it creates silos, does little to remove hierarchy, and is difficult to organize and maintain.





Royal Imtech, the company on which the original teaching case is based, went bankrupt in 2015 following a series of scandals.

Park 007—was a James Bond-themed amusement park with artificial ski slopes, cliffs for bungee jumping, roller coasters, indoor water sports, casinos, cinemas, and two five-star hotels. The Russia office had contracted to build it but hadn't done so. For two years the subsidiary had recorded revenue from the proposed €650 million megaresort. Contect's head office had discovered the fraud only after someone anonymously sent Rogier a thumb drive containing a Russian news report that the park was still barren land, despite what the Russia office's books said. Everyone involved had been fired, but cleaning up the company's reputation in Russia and Europe had not been easy.

Vera had led the subsequent charge to strengthen the internal audit system. After Derek joined, they'd worked together on further risk management. They established a central division to set policy, ensure compliance, and evaluate projects worth €100 million or more, and created an executive council of market and industry experts to advise on budgets and other strategic issues.

Now Vera was getting worked up. "He's calling it 'holacracy,'" she said, "but that's still just decentralizing, which we can't do any further. We have to take back control at the top—not give the subsidiaries more power. Rogier has set ambitious growth goals this year, and without oversight I'm worried they'll incentivize the wrong behaviors. Does he really want us to roll back all the work we've done and give the groups free rein? Why haven't you been tougher with him on this? Please don't let your personal relationship cloud your judgment as CFO. You need to tell him that from a risk perspective, full decentralization is out of the question."

HENNING WEIGHS IN

Derek couldn't stop thinking about Vera's admonition, but he tried his best to focus on the earnings report he needed to finish. Unfortunately, just before lunch, Henning Haas knocked on his door.

"I thought you'd be on your way back to Frankfurt already," Derek said.

"I'm leaving tomorrow. I wanted to see a few people first—including you."

Derek knew that this would be yet another conversation about decentralization. Henning was a big proponent of greater freedom for the groups, and as leader of the company's largest country group, he held a lot of sway with Rogier and the board.

"You've always been very careful around risk, Derek, and we appreciate that, but this company won't continue to grow if we hinder it. The success you're seeing in Germany, France, the UK, even Central Europe—it's because we have increasing autonomy and freedom."

"And Russia?" Derek asked.

"You can't punish us all because of one bad apple. Designing policy around the lowest common denominator is a poor strategy, and you know it."

"As the CFO, I can't lose sight of what's going on in each country."

"I'm not suggesting complete anarchy," Henning said.

"And I'm not suggesting we spy on everyone 24/7. But we're a global company. Our projects aren't isolated. You saw what happened with Park 007. If one office does the wrong thing, we all suffer. It hits our collective reputation and our finances."

"Just don't forget we're in construction, not banking, Derek. Decentralization is the norm in this industry. We're all organized around projects. And we should be able to contain risk at the local level. You have to admit that it would be a far more efficient approach, whether you call it holacracy or not: Faster decisions, made by the people who are most affected by them and know the ins and outs of the specific project, will make us much more agile. My peers and I will be able to bid on projects more quickly, get them done faster, and book more revenue if we aren't hindered by needless bureaucracy."

After Henning left, Derek found that he was too distracted to get back to work. He believed that if he was truly determined to, he could probably persuade Rogier to abandon his holacracy plans. But it would take a lot of social capital.

Was this the issue over which to put his friendship—and his job—on the line?

In a 2014 CEB study, 60% of the corporate strategy officers surveyed said that their company's decision-making process was too slow, in part because of an excessive focus on preventing risk.

SEE COMMENTARIES ON THE NEXT PAGE

SHOULD DEREK FIGHT THE HOLACRACY INITIATIVE? THE EXPERTS RESPOND

DEREK SHOULDN'T FIGHT Rogier on this initiative. In fact, he should tell his friend that moving more responsibility to the subsidiaries is a great idea. But he should explain that if the initiative is to be successful, Contect must first lower its risk profile, increase in-region monitoring and reporting, and build the right culture. With that groundwork laid, holacracy can flourish at the company.

Why is decentralization right for this organization? In large part because of the global business it's in. With more than 30,000 construction projects under way around the world, many of them unprecedentedly complex, Contect simply wouldn't be able to insist on standardization or keep close tabs on everything from headquarters. No one at an office in Eindhoven can know exactly how complete a job in Turkey is, for example. The decision makers need on-the-ground familiarity with the project.

Demographic developments and other megatrends such as urbanization, improved technology, and the strength of Asian markets also make decentralization a more desirable—and viable—option than ever before. Technology has boosted transparency and changed the way people do business across the globe. Urbanization is having a material effect on the complexity of construction projects. It's not just construction companies that should be pushing decisions down as close to the customer as possible; it's all companies.

That said, decentralization is no excuse for lack of accountability or control. Rogier's initiative will succeed only if he makes significant changes to how the company is run. First, he needs to ensure that all his subsidiary leaders are credible and trustworthy and are the kind of people who want to work independently but also feel accountable to the larger company. They must have the humility and self-awareness to share information with headquarters, admit when a project isn't going as planned, and recognize how they can improve their business. Rogier also needs to make sure

they have clarity regarding Contect's global strategy, purpose, and values and a better understanding of how their subsidiaries contribute to them. If those things are crystal clear to the people on the ground, the company's level of risk won't be as great as Derek and Vera fear.

Leaders at headquarters still need to know what's happening in all the units and in their largest projects. That's the only way to avoid another Russia situation. And Rogier's view that the CEO should focus solely on new acquisitions is reckless. Derek must persuade him to create a culture of accountability by closely monitoring such things as working capital levels, cash flows, delay reports, claims management, gross margin analysis, cost control, project pipelines, and the people engagement index. No matter how you run a company—with a tightly centralized structure or as a complete holacracy—that transparent

CONTECT SIMPLY CAN'T KEEP CLOSE TABS ON EVERYTHING FROM HEADQUARTERS.

view into unit and overall performance is essential. Furthermore, it will emphasize to the German CEO and other country leaders that it's in their self-interest to share as much information as possible and to discuss problems with headquarters.

Derek can support Rogier's push toward holacracy in a way that simultaneously safeguards the company. Ensuring that Contect has clarity around values, purpose, and strategy, and building systems that allow for transparent monitoring at the country and project levels, are the only ways to safely give the subsidiaries the responsibility they need to do their jobs well. Without those conditions in place, however, Rogier and Derek will be playing roulette with the company's future.

PETER VAN MIERLO
IS THE SENIOR
PARTNER OF PWC IN
THE NETHERLANDS.



BEN NOTEBOOM
IS THE FORMER CEO
OF RANDSTAD,
A GLOBAL STAFFING AND
RECRUITING FIRM.



COMMENTS FROM THE HBR.ORG COMMUNITY

Trust Your People

Holacracy is the future. It creates a culture where people naturally feel responsible for the larger good. The risks are higher if Contect's leadership assumes that people can't—and won't—make great decisions for the company.

Vidhya Abhijith,

director and partner,
Codewave Technologies

Hedge Your Bets

Derek shouldn't fight the initiative just yet. The model sounds like a good fit for the industry, but the question is whether it is right for this particular company. If he and Vera can't find ways to control the risks that come with holacracy, then he can work to stop it.

Sanna Wilson,

associate brand manager,
Orion Pharma

Do a Pilot First

This initiative won't succeed as is, but rather than stopping it, Derek should improve upon it by suggesting that Contect try holacracy in one department, division, or team first before scaling up.

Jeroen Vermeer,

owner, TripL Consulting

IF DEREK WANTS to save the company—and therefore his job—he should persuade Rogier to abandon the holacracy initiative. Contect should not be giving more control to its subsidiaries; it should be looking to further centralize. There are typically four reasons for this: to increase oversight, to share best practices and concepts, to realize potential economies of scale, and to help your subsidiaries join forces when approaching customers in the market.

Let's start with oversight. It's worth noting that this case is based on the Dutch company Royal Imtech, which went bankrupt in 2015. A big factor in that company's demise was its lack of control over the projects undertaken by each of its country units, including a fraudulent initiative in Poland (similar to the Russian one described in this case). In the construction industry—or in any business that, like Contect, is project based—one unit's failure can taint a whole company. So leaders need to scrutinize assignments and contract terms to reduce risk. They must know whether projects are on schedule and prevent potential manipulation by governments or other local actors.

It's possible for Contect to monitor these things while continuing to respect the integrity of local managers. When I was the CEO at Randstad, this is exactly what we did. We gave each of our individual offices room to operate while maintaining standards and control at the center. It might have been easier to keep the units independent—especially the recently acquired ones—but you can't be 100% sure that people will always act in the company's best interests.

Another benefit of centralization is to ensure that services are performed consistently across locations. During my tenure at Randstad we acquired, rebranded, and integrated 185 companies (including the next biggest competitor in our industry), and we made a point of spreading best practices—carefully

measuring the most efficient approaches to our work and then sharing them across offices. Both employee engagement and customer relations improved, and I believe that centralization at Contect could yield the same results. Of course, regulations and requirements governing construction vary from country to country, which might limit standardization. And the fact that this company is in construction and Randstad is a services-based business is an important distinction. But that shouldn't hold Contect back from ensuring that everyone executes to the same standards across the globe.

It's not clear whether the other two benefits—economies of scale and approaching customers together—are in play here, but efficiencies might well be gained by combining back-office, project administration, and monitoring systems, if not across the entire company, then at least for similar markets. And it would probably behoove Contect to encourage businesses in the same region to cross-sell or collaborate in serving customers.

**WHETHER ROGIER
CALLS IT HOLACRACY
OR DECENTRALIZATION,
WHAT HE'S PUSHING IS
DANGEROUS TO CONTECT.**

It's also possible (though I can't imagine it) that each subsidiary is unique and that centralization would bring none of these benefits. If that's the case, then Contect's leadership should act as a financial investor.

Whether Rogier calls it holacracy or decentralization, what he's pushing is dangerous to Contect. If the company doesn't share best practices and maintain control over its subsidiaries, then each one is essentially a stand-alone business—with the ability to bring down the whole company. ☹

HBR Reprint R1702N

Reprint Case only R1702X

Reprint Commentary only R1702Z

DOMINIK RICHTER
IS THE CEO OF
HELLOFRESH



WHAT I'M READING...

When I worked as a trader, I was addicted to the news cycle, to my Bloomberg screen. But I've realized that always looking at what's happening means I don't have time to understand everything or to build my knowledge and skills. So now I check the general news for only 20 minutes in the morning and evening and focus on better sources of information and learning—such as curated newsletters that land in my inbox. Two favorites are TechCrunch, for

tech industry updates, and Mark Sisson's *Primal Blueprint*, for the latest in nutrition science. I'm also a big reader of nonfiction. One book I turn to often is *Antifragile*, by Nassim Nicholas Taleb. The thesis—that some things thrive in response to volatility, disorder, and stress—applies in so many domains. I wish I had more time for fiction. A novel I try to read every year is *Shantaram*, by Gregory Roberts, about an escaped convict; it's an adventure story that puts me in good spirits.

SYNTHESIS
AN UNEASY CODEPENDENCE
CHINA AND THE U.S. IN THE 21ST CENTURY
BY ADI IGNATIUS

Assuming trend lines hold, the eventual shift of global supremacy from the United States to China will be the show of the century. The question is whether it will lead to more conflict or more cooperation.

For many U.S. citizens, national identity is wrapped up in being “number one,” whatever exactly that means. If an increasingly prosperous, stable, and confident China manages to assert itself as the global leader,

Americans aren't likely to slide gently into the backseat.

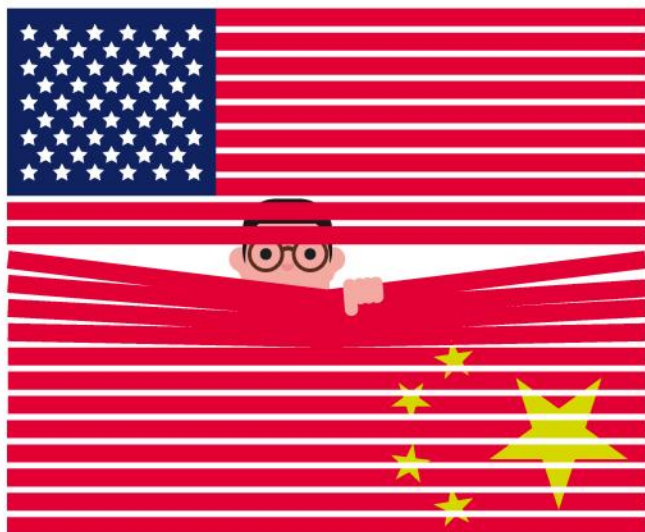
No other relationship is as important, or as fraught, as America's with China. On the one hand, the two nations are codependent. Americans import nearly \$500 billion worth of relatively cheap electronics, toys, and seemingly everything else from China each year. China, meanwhile, holds \$1.1 trillion in U.S. securities. The relationship, as observers like to say, is “too big to fail.”

On the other hand are areas of deep tension, which long predate Donald Trump's harangues about Beijing's trade practices and currency controls. Washington is unhappy with China's growing assertiveness in the South China Sea, its routine violations of human rights, its cyberattacks on American companies, and more. Beijing, for its part, sees the U.S. as meddling excessively in China's domestic affairs.

This uneasy alliance is critical to the future of the entire planet. As John Pomfret, a former Beijing-based foreign correspondent, explains in *The Beautiful Country and the Middle Kingdom*, “No problem of worldwide concern—from global warming, to terrorism, to the proliferation of nuclear weapons,

to the economy—can be solved unless Washington and Beijing find a way to work together.” His book makes that case persuasively while taking readers on an informative and entertaining historical journey through the endless cycles of “rapturous enchantment” and “inevitable disillusion” between the two countries.

My first visit to China was in 1980, soon after Washington and Beijing restored diplomatic ties, which had been severed in 1949 when the Communist Party took power. The Chinese didn't quite know what to make of our group of carefree, pushy Yankee tourists. We asked our official minders far too many questions about their political system, Mao Zedong's legacy, and the fate of socialism. The only time I got a rise out of “Mrs. Zhu,” our lead guide, was when I suggested a similarity between Richard Nixon and China's Gang of Four, the reviled hard-liners ousted after Mao's death. She didn't get it, because most Chinese liked Nixon, until I playacted the former president as a cartoonish bandit, brandishing imaginary six-shooters and lifting a wallet from a pocket. She nodded; it was an early moment of cross-cultural understanding.



The Beautiful Country and the Middle Kingdom: America and China, 1776 to the Present
John Pomfret
Henry Holt, 2016

TESSAROLA/ISTOCK

WHO I'M FOLLOWING...

I'm a passive observer on social media. I follow fellow entrepreneurs such as Dave Asprey (the founder of Bulletproof 360), venture capitalists, and productivity and nutrition gurus, including Tim Ferriss (of *The 4-Hour Workweek*) and the paleo diet expert Robb Wolff. All three host podcasts that I like. I'm on a lot of transatlantic flights—between London or Berlin and New York or Boston—and it's nice to have something to listen to.



ALL THE TIME YOU SPEND CONSUMING DAILY NEWS CAN BE PUT TO BETTER USE. IF SOMETHING IMPORTANT HAPPENS, YOU WON'T BE ABLE TO MISS IT.

WHAT I'M WATCHING...

I don't own a television, but I occasionally watch shows like Netflix's *Narcos* and *House of Cards* on my computer. It lets me take a break from the world of technology and food and just relax at the end of the day.



But if China at that stage seemed tentative in its embrace of the outside world, dramatic moves were under way behind the scenes. Mao's successors understood that China had plenty to learn from the West, particularly in terms of economic development. And so throughout the 1980s, Beijing invited a procession of foreign economists in to share their ideas. These interactions are the subject of *Unlikely Partners*, by Julian Gewirtz, an Oxford PhD candidate who spent several years working and researching in China. Americans were part of this dialogue—even Milton Friedman, whose free-market fundamentalism was anathema to Communist Party policy. His first visit didn't go well, Gewirtz reports. Friedman lectured his hosts on the unlimited virtues of capitalism; they lectured him on communist triumphalism. He left angry, sputtering about China's ignorance of how markets work. The Chinese derided him as a man who “would not speak politely no matter how high your position.”

Despite such hiccups, this era was the “golden age” of reform and openness in China, as intellectuals and party leaders debated a broad range of economic and

political possibilities and began to implement the free-market experiments that would eventually drive the country out of stagnation toward being the world's largest economy. (In terms of purchasing-power parity, it already is, and its absolute GDP is expected to surpass America's by 2025.)

Still, China isn't becoming like the U.S.—despite numerous attempts by mostly well-meaning Americans to make it, with carrot or stick, more democratic, more capitalistic, more God-fearing. To be sure, some Chinese are infatuated with American ideals. When I served as Beijing bureau chief for the *Wall Street Journal*, in the late 1980s, many spoke openly of their admiration for U.S. institutions and values and longed to see their country follow a similar path.

But these days it's clear that China is charting its own course, often defined as “authoritarian capitalism.” It's not just that its leaders worry that adopting Western-style democracy could sweep the party from power. They also sense that the U.S. free-market model has failed. The low point came with the Great Recession. Pomfret recounts a 2008 meeting between Hank Paulson, the former U.S. treasury

secretary, who has extensive ties to China, and Vice Premier Wang Qishan. “You were my teacher,” Wang told Paulson. “But now... look at your system, Hank. We aren't sure we should be learning from you anymore.”

China probably isn't equipped at this point to be a global leader on the political stage. But *Fortune Makers*, a new book by Michael Useem, Harbir Singh, Neng Liang, and Peter Cappelli, argues that a “China Way” is already emerging in the private sector and it's one to emulate. The authors look closely at the success of companies such as Alibaba, Lenovo, and Vanke, and show that it wasn't the product of government support or any other special favors but instead stemmed from a uniquely Chinese business and management mindset that has much to offer the West. Among their other virtues, these companies tend to focus obsessively on growth and aren't overly concerned with maximizing shareholder value, at least not in the short term.

Clearly, the U.S. model is under siege, and China is still ascendant. One can only hope that these two superpowers find ways to accommodate each other's greatness. ☺

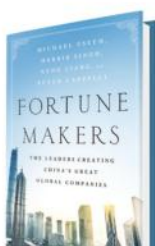
“WHETHER WESTERN COMPANIES CAN LEARN FROM THEIR CHINESE COUNTERPARTS DEPENDS ON WHETHER THEIR LEADERS CAN RECOGNIZE THAT WESTERN WAYS MAY NOT HAVE ALL THE ANSWERS.”

Michael Useem, Harbir Singh, Neng Liang, and Peter Cappelli, *Fortune Makers*

 **ADI IGNATIUS** is HBR's editor in chief.



Unlikely Partners: Chinese Reformers, Western Economists, and the Making of Global China
Julian Gewirtz
Harvard University Press, 2017



Fortune Makers: The Leaders Creating China's Great Global Companies
Michael Useem, Harbir Singh, Neng Liang, and Peter Cappelli
PublicAffairs, 2017

SPOTLIGHT

THE NEW SCIENCE OF TEAM CHEMISTRY

In this package we look at the personality types that make up a team—and how to get the best from any combination.
page 49



Making the Most of Cognitive Diversity

When teams fall short of their potential, it's often because leaders don't know how to spot and manage the differences in how people approach their work—and as a result, some of the best ideas go unheard or unrealized. To help organizations claim this lost value, Deloitte's Suzanne M. Johnson Vickberg and Kim Christfort provide a framework for identifying and managing four primary working styles.

Pioneers value possibilities, and they spark energy and imagination on their teams. *Guardians* value stability, and they bring order and rigor. *Drivers* value challenge and generate momentum. And *Integrators* value connection and draw teams together. Every person is a composite of these four styles, though most people's behavior and thinking are closely aligned with one or two.

The four styles give leaders and their teams a common language for discussing similarities and differences in how people experience things and prefer to work. Once managers have identified the work styles of their team members and considered how the differences among them are beneficial or problematic, they must take steps to ensure that they're not left with all frustration and no upside.

To get the most from the styles on their teams, leaders should (1) pull opposite types closer together to generate productive friction, (2) give more visibility and voice to people with nondominant perspectives, and (3) take extra care to get input from sensitive introverts, who risk being drowned out but have valuable contributions to make.



Five Executives Weigh In

Senior leaders at Marriott, American Express, Southwest, National Grid, and Kellogg share their experiences in applying Deloitte's framework in their teams and organizations.



A Biological Approach

Helen Fisher, the biological anthropologist whose research informed Deloitte's work on team chemistry, derives her personality assessment from brain science. In searching for an answer to what makes an individual fall in love with one person and not another, she found that four biological systems—dopamine/norepinephrine, serotonin, testosterone, and estrogen/oxytocin—are each linked to a particular suite of personality traits. Fisher explains the science behind her work, talks about how to identify and adjust productively to others' personality styles, and considers whether personality screening can and should inform management decisions.

The Tests That Shaped the Industry

Over the past 100 years, three tests—the Myers-Briggs Type Indicator, the Five-Factor Model, and StrengthsFinder—have had an outsized impact on the theory and practice of personality screening.

MANAGING YOURSELF

SURVIVING M&A

Mitchell Lee Marks, Philip Mirvis, and Ron Ashkenas | page 145



If your company is undergoing a merger or acquisition, you're apt to feel anxious. Roughly 30% of employees are deemed redundant when firms in the same industry merge. But you needn't dread the outcome, say the authors, who draw on their experience as academics and consultants. They've found that employees usually reap great rewards if they embrace the M&A process as a chance for introspection and growth.

Your first step should be to figure out where you stand. The authors recommend conducting a SWOT analysis: Assess your strengths and weaknesses and the opportunities and threats that the deal presents. Then get involved in the integration effort—in a way that lets you showcase or sharpen your skills. Executing transition plans, innovating, and collaborating with new colleagues are all postmerger opportunities for personal growth. If you prove adept, you will be well positioned for success in the hybrid organization—or at another company.

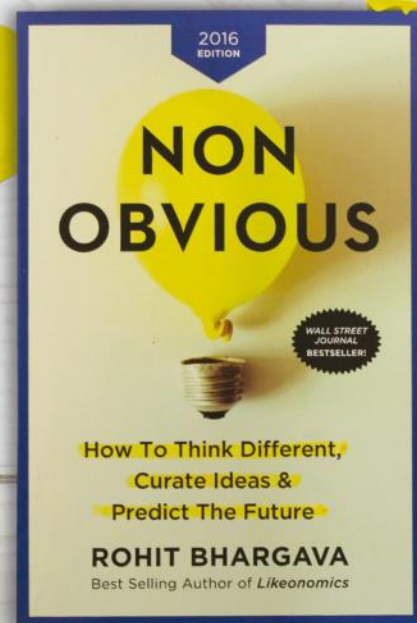
The authors suggest specific questions to ask yourself as you take stock of the situation. They provide tips on how to make sure you have a role in the integration work. And they present brief case studies of four professionals who followed the recommended approach and emerged from their companies' M&A deals as "winners."

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Connect the dots

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FEATURES

STRATEGY

STRATEGY IN THE AGE OF SUPERABUNDANT CAPITAL

Michael Mankins, Karen Harris, and David Harding
page 66



For much of the past five decades, financial capital was considered a scarce resource. Today, however, capital is abundant and cheap, and the authors expect that to be the case for another 20 years or more. They point out that global financial assets have been growing faster than global GDP, and they explain why that trend is likely to continue. They note, too, that as the supply of capital has increased, the cost has plunged, making it possible for many large firms to borrow funds for next to nothing. What all this means is that companies can no longer sustain competitive advantage simply by allocating capital skillfully.

In this new climate, the authors argue, business leaders need to lower hurdle rates and change their investment strategy, moving away from a few big bets and instead pursuing numerous small, varied growth opportunities. Not all will pan out, but embracing the risk of failure is necessary for success.

Executives must also recognize that human capital is the truly scarce resource today. Organizations need to manage their workforces as carefully and rigorously as they manage their financial assets, unleashing and supporting the talent within their organizations.

HBR Reprint R1702C

LEADERSHIP

BURSTING THE CEO BUBBLE

Hal Gregersen | page 76



“IF YOU’RE A LEADER, YOU CAN PUT YOURSELF IN A GOOD-NEWS COCOON.”

Although CEOs are charged with recognizing when their firms need a major change in direction, their power and privilege often insulate them from information that would help them perceive looming opportunities or threats. No one in the company wants to tell the CEO of problems, much less that he or she is mistaken.

In interviews with 200 executives, Gregersen came across hardly any who didn’t recognize this challenge. But he also saw that a few innovative leaders, like Walt Bettinger of Charles Schwab and Marc Benioff of Salesforce, have found a way to overcome it. Such executives take pains to get honest feedback from a broad range of constituents. They also venture off the beaten path, regularly putting themselves into situations where they are unusually uncomfortable, unexpectedly wrong, and uncharacteristically quiet. This helps them ask the right questions, discover new insights, and detect early weak signals of impending market shifts.

HBR Reprint R1702D

HUMAN RESOURCES

HIRING AN ENTREPRENEURIAL LEADER

Timothy Butler | page 84



Aspiring to be innovative and agile, today companies of all shapes and sizes want to recruit entrepreneurial managers. But most firms lack a scientific way to separate the true entrepreneurs from other candidates. To address that problem, Butler compared the psychological testing results of over 4,000 successful entrepreneurs and of some 1,800 business leaders who described themselves as general managers but not as entrepreneurs. His analysis uncovered three factors that differentiate entrepreneurs: *thriving in uncertainty*, a *passion for ownership*, and unique skill at *persuasion*.

In this article Butler dives deep into the skills, mindset, and traits of entrepreneurs, explaining what the stereotypes about them often miss. For instance, they aren’t always more creative or in love with risk, but they are deeply inquisitive, open to new experiences, and comfortable with the unpredictable. He also offers evidence-based, practical advice for interviews and résumé screening that hiring managers can use to identify entrepreneurial leaders.

HBR Reprint R1702E

LEADERSHIP

“WE NEED PEOPLE TO LEAN INTO THE FUTURE”

Walmart CEO Doug McMillon, interviewed by
Adi Ignatius | page 94



For years, Walmart’s unrivaled customer research capabilities helped it dominate retailing. Then along came the internet, and Walmart suddenly found itself playing catchup to e-commerce pioneers like Amazon. In 2014 the board appointed Doug McMillon as CEO and gave him an imperative: Bring Walmart into the future—without sacrificing its longtime strengths.

McMillon, who began his career unloading trucks at a neighborhood Walmart, respects tradition but is impatient for change. In this interview with HBR editor in chief Adi Ignatius, he describes the ups and downs of transforming America’s largest company. Going digital is a top priority—which is why Walmart recently paid \$3 billion to acquire e-tailer Jet.com. But the company also wants to strengthen the in-store experience. “The reality,” notes McMillon, “is that customers want everything”—low prices, convenience, and seamless interactions online and in person. In this new world, all employees, including those on the sales floor, will need to be tech savvy. And the management team can no longer make strategic decisions on an annual or even quarterly basis; “strategy is happening on a much faster cycle time,” says the CEO.

HBR Reprint R1702F

INNOVATION

HOW TO GET ECOSYSTEM BUY-IN

Martin Ihrig and Ian C. MacMillan | page 102



In many industries today—including aerospace, electronics, chemicals, software, global construction, global investment and commercial banking, and international manufacturing—even simple product or service innovations can become complicated, because so many companies now operate in ecosystems made up of powerful and highly interconnected stakeholders. That means you can’t focus exclusively on the customer and yourself: You need value propositions that stakeholders in your ecosystem can also buy into, which vastly complicates the process of identifying innovation opportunities. The authors have developed a tool-based ideation process that a major pharmaceutical company has rolled out worldwide. They describe the six steps in the process: (1) Identify key stakeholders and their most pressing needs; (2) outline stakeholder consumption chains; (3) categorize features of the current offer and build offer profiles; (4) create growth opportunity profiles; (5) map stakeholder tensions; and (6) choose your best opportunity.

HBR Reprint R1702G

MARKETING

WHAT'S THE VALUE OF A LIKE?

Leslie K. John, Daniel Mochon, Oliver Emrich, and Janet Schwartz
page 108



Brands spend billions of dollars a year on lavish efforts to establish and maintain a social media presence. But do those campaigns actually increase revenue? New research provides an answer to this question, which has vexed marketers ever since social media burst upon the scene.

In a series of experiments, the researchers tested four increasingly interactive ways in which Facebook might affect customers' behavior. First, they explored whether liking a brand—passively following it—makes people more likely to purchase it. Second, they examined whether people's likes affect their friends' purchasing. Third, they looked at whether liking affects things other than purchasing (for example, whether it can persuade people to engage in healthful behaviors). And fourth, they tested whether boosting likes by paying to have branded content displayed in followers' news feeds increases the chances of meaningful behavior change.

The results were clear: Merely liking a brand neither increases purchasing nor spurs friends to purchase more. Supporting likes with branded content, however, can prompt meaningful behavior change.

HBR Reprint R1702H

SALES

THE NEW SALES IMPERATIVE

Nicholas Toman, Brent Adamson, and Cristina Gomez | page 118



PILING ON INFORMATION JUST MAKES THINGS HARDER.

B2B customers are deeply uncertain and stressed. With virtually infinite information available on any solution, a swelling raft of stakeholders involved in each purchase, and an ever-expanding array of options, customers are increasingly overwhelmed and often more paralyzed than empowered. The authors' solution, developed through work with hundreds of sales organizations globally, is a proactive, take-charge prescriptive approach that sweeps away obstacles and guides customers through decision making. Companies that have mastered prescriptive selling share a set of practices: They work to understand customers' purchase journeys; identify significant customer challenges at each buying stage; arm their sellers with tools to help overcome each challenge; and track customers' purchase progress so that they can intervene to keep the process on track.

HBR Reprint R1702J

CHANGE MANAGEMENT

RESTRUCTURE OR RECONFIGURE?

Stéphane J.G. Girod and Samina Karim | page 128



Companies must reorganize periodically to keep pace with changes in market conditions. But executives grapple with conflicting advice about whether, when, and how to do so.

The term "reorganization" encompasses two distinct change processes: restructuring and reconfiguration. Each delivers value if pursued in the right way. *Restructuring* involves changing the structures around which resources and activities are grouped and coordinated—for example, function, business line, customer segment, technology platform, geography, or a matrixed combination of these. *Reconfiguration* involves adding, splitting, transferring, combining, or dissolving business units without modifying the company's underlying structure.

The goals for both tend to be the same: to boost innovation and, ultimately, financial performance. But the authors' research shows that success is almost always situational. In this article, they offer four guidelines to help companies decide which type to pursue when, how to space their reorgs, what should be reorganized, and what else needs to change in the process.

HBR Reprint R1702K

MANAGING ORGANIZATIONS

THE EDISON OF MEDICINE

Steven Prokesch | page 134



Early-stage research is expensive, risky, and unpredictable—so corporations generally shy away from it, leaving many opportunities unexplored. They could revitalize their research operations by adopting the approach taken by Bob Langer, a chemical engineer whose lab at MIT is one of the most productive and profitable research facilities in the world.

HBR senior editor Prokesch reports in depth on Langer Lab's proven formula for accelerating the pace of discoveries and getting them into the world as products. It includes:

- a focus on high-impact projects—ones that could make a major difference to society
- a process for crossing the proverbial "valley of death" between research and commercial development
- methods for facilitating multidisciplinary collaboration
- ways to make the constant turnover of researchers and the limited duration of project funding a plus
- a leadership style that balances freedom and support

By drawing on the Langer Lab values and model, companies could make the world a better place and make lots of money in the process.

HBR Reprint R1702L

HOW I DID IT

SUSTAINABILITY

TIFFANY'S CEO ON CREATING A SUSTAINABLE SUPPLY CHAIN

Frederic Cumenal | page 41



Vertical integration, a major competitive advantage at Tiffany, is entrenched for two reasons: a deeply held belief that great houses of luxury should craft their own designs, and an equally strong conviction that diamond traceability is the best means of ensuring social and environmental responsibility.

Tiffany's focus on sustainability began about 25 years ago, in the context of growing awareness about the toxic chemicals used in extracting precious metals and about "conflict diamonds" from countries at war. Since then the company has been an industry leader in addressing environmental and human rights concerns. Its stones are laser-inscribed with microscopic codes indicating their provenance so that Tiffany can ensure its chain of diamond custody.

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POSTMASTER

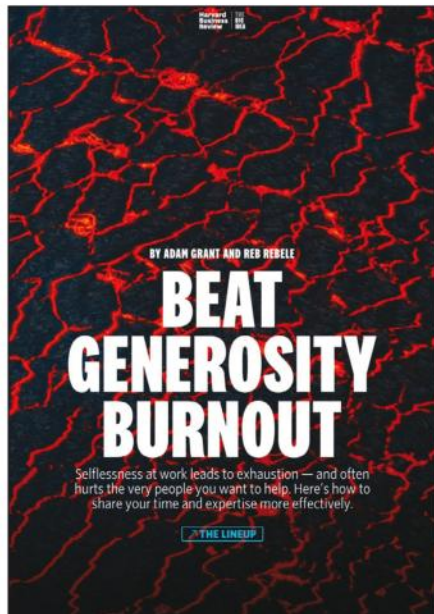
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THE BIG IDEA

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THE NEXT BIG IDEA: “CORPORATIONS IN AN AGE OF INEQUALITY,” BY NICHOLAS BLOOM, ON THE FORCES THAT ARE CREATING A WINNER-TAKE-ALL ECONOMY—AND WHAT CAN BE DONE TO FIX THE RESULTING INEQUALITY. **SIGN UP FOR INFORMATION AT HBR.ORG/INEQUALITY. STARTING ON MARCH 20.**



Do your M&A integration strategies need a new boost?



In the new digital landscape, integrating acquisitions has never been more complicated, but those who get it right could seize a competitive advantage.

Over the past couple of decades, companies that routinely grew through mergers and acquisitions have honed their ability to integrate acquired assets — their differing cultures, compensation and benefits programs, purchasing protocols, infrastructure and operations. There is little they haven't seen.

But as the pace of technological change accelerates, there is suddenly much to learn. This equally applies to those who are using informal alliance structures and joint ventures as part of their M&A strategies. Traditional approaches often no longer fully address the new issues companies need to manage when combining two organizations, or they don't enable management to fully exploit available information to make better-informed decisions. Companies need integration strategies that address this new environment and create value by preserving and enhancing customer experiences while still driving traditional synergies, cost savings and retention of key talent.

Companies that master this new environment stand to gain a competitive advantage over less digitally advanced peers. But to do so, they need to understand the full dimensions of the challenge and be prepared well before a transaction. Our view? Companies need to focus on five distinct areas of digital opportunity and vulnerability when assessing potential transactions and in the crucial first year:

- ▶ **Big data and analytics.** In quantifying potential synergies and future opportunities, it's no longer enough to rely on past performance. With big data and analytics — both real-time and predictive — companies can make better decisions that drive shareholder value in areas involving customer and product profitability, as well as realizable synergies across supply chain and operations, working capital and capital allocation.
- ▶ **Cyber vulnerability.** Acquirers must quickly assess a target's cybersecurity capabilities and oversee the integration of the target's information systems in a way that does not expose the combined organization to new cyber risks. Online consumer and financial services companies, in particular, will likely have vast troves of sensitive customer data that needs to be protected and various regulatory requirements to navigate.
- ▶ **Social media.** The rapid rise of social media presents acquirers with phenomenal amounts of information to consider. Prior to a deal, social media can provide previously inaccessible insights into a company's reputation and performance, which can impact valuation considerations. During integration, data from social media sources can keep the acquirer informed as to how the integration is being perceived by various stakeholders, and it can provide early warnings if issues arise around erosion of brand value.
- ▶ **Cloud computing.** An integration is an opportunity for a company to evaluate where its technology systems might need to change, particularly as it relates to cloud computing. For highly acquisitive companies, moving to the cloud can open the door to new ways to integrate acquisitions and separate non-core assets — especially now that cloud-based integration tools are available.
- ▶ **No-tech to high-tech.** As companies in low-tech industries make high-tech acquisitions or alliances, they face challenges that run from due diligence right through integration. These include how to value an unfamiliar asset, how to protect and retain intellectual property and human capital, how to blend often different corporate cultures, and, finally, how to mine, analyze and monetize the data that is often a byproduct of high-tech operations.

In a soon-to-be published briefing paper, EY and Harvard Business Review Analytic Services take a closer look at how companies can both meet the challenge and reap the rewards of integrating organizations in the digital age.

Learn more at ey.com/capitalstrategy.



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LIFE'S WORK

MIKE KRZYZEWSKI

COACH



“IF YOU COUPLE PREPAREDNESS WITH THE PASSION TO WIN, THERE’S A GOOD CHANCE YOU’RE GOING TO SUCCEED.”

Over four decades of coaching men’s basketball—including a stint at his alma mater, West Point; 36 full seasons at Duke University; and a simultaneous 11 years with the U.S. national team—Krzyzewski, age 70, has garnered more than 1,000 wins, five NCAA championships, and three Olympic gold medals. “Coach K” is a master recruiter, mentor, and manager of talent. Interviewed by Alison Beard

HBR: How have you done the same job so successfully for so long?

KRZYZEWSKI: I love what I do. When I was 16, I dreamed of being a teacher and a basketball coach, and I’m still following that passion, at an amazing institution—Duke—with great people. That leads to great results.

You’ve never felt any burnout? You took time off this year for surgery. Unfortunately, I couldn’t wait on that, but I left the team in capable hands, planning to return after I’d healed.

The only time I’ve felt burnout was actually after my first back operation, in the mid-1990s. I returned to work after two days, but about a third into the season, I lost my physical and emotional strength, and I had to step away for a few months. In the nine years before that, we’d gone to seven Final Fours. My schedule was nuts. And I never took time to critique how I was handling things. I was just moving forward. But that setback prompted me to change a lot: delegating more responsibilities, not micromanaging, being a different type of leader. Since then my energy and hunger have never wavered.

How do you recruit top players? I have a great product: a track record of excellence. But that’s true for other programs, too. So it’s not about persuading or selling. It’s about telling the truth—who you are and how you’ll do it—and then trying to learn about the player and figure out if that’s what he wants. We also

look for three things: the talent to be on a championship team; a love of academics and a willingness to work, which they need at Duke; and character, which is maybe the most important. Are they good guys? Team players? How do they interact with their parents, teammates, teachers? Thank goodness we’ve found kids that fit that profile. Of course, you don’t get pro-caliber players for four years anymore. So you need to work harder for the same level of success.


When players don’t live up to your standards, how do you discipline?

I try to not have a template. I do what the situation requires. And I don’t believe in doing what people tell me I’m supposed to do. As a teacher, I respect an individual’s right to be taught in private as much as possible.

How did you adjust your style to coach pros on the national team?

With a college group, I’m teaching and they’re learning. I’m changing the limits of what they’re able to achieve, speeding up the pace, helping them play together. With the U.S. team, some of their best practices are better or more appropriate than mine. So we adapt to one another and all take ownership. At one of my first Olympic practices, Jason Kidd, one of the great point guards, asked what I wanted him to do. I said, “Just be you.” You don’t want to change them. You just want them to mesh their talents with those of the other guys.

When do you expect to retire?

I don’t want to plan it. If you do, and the time comes and you’re not ready, that’s bad. So is waiting for the time you planned when you should already be out. I’m involved in teaching, speaking, and things I can go to. But I’m not prepared to leave right now. I’m still excited about this command.  **HBR Reprint R1702P**

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