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Harvard Business Review

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Let them have their pie charts.
Let them have their checklists.
Let them have their gurus.
Let them have their assistants. And their assistants' assistants.
Let them have their second guesses. And their thirds.
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Features

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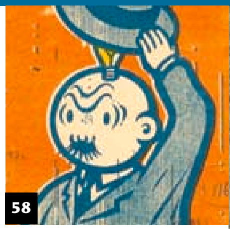

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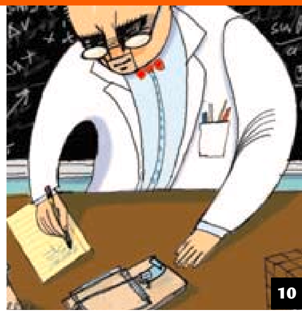
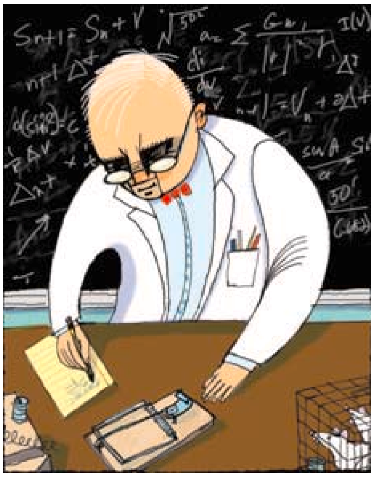


Practice Makes Perfect



ROBERT MEGANCK

COMPANIES NEVER seem to avoid two potholes on the road to growth. One is the daunting datum that three out of four mergers fail to deliver the results their advocates expected. There's a reason "tombstones" is the name for those business-section advertisements placed by investment bankers after a deal – a reason demonstrated by the recent dismissal of Hewlett-Packard's CEO Carly Fiorina, architect of that company's acquisition of Compaq. Second, time and again established firms stumble when they try to create breakthrough new businesses. Cautionary tales about this problem – such as Xerox's inability to commercialize the fax or the personal computer, both of which it invented – are as familiar to businesspeople as Aesop's fables were to Victorian children. Harvard Business School's Clay Christensen has offered a persuasive explanation of why established companies, prisoners of their own success, become unable to cope with disruptive technologies. Gary Hamel at London Business School, citing another familiar set of examples – such as Lockheed's Skunk Works – convincingly argues that old-line companies should set up business laboratories, running many small experiments to discover and incubate new ideas and business models.

However, as T.S. Eliot, banker and poet, wrote, "Between the idea/And the reality…Falls the Shadow" – prosaically, the gap between theory and practice. Vijay Govindarajan and Chris Trimble shine new light into this gap in this month's lead article, "Building Breakthrough Businesses Within Established Organizations." The authors, professors at Dartmouth's Tuck School of Business, have spent five years analyzing "strategic experiments" in large companies. One lesson from their research: Executives don't lack for strategies for growth nor ideas for new products or lines of business. They're short on practical guidance for getting ideas from the incubator to the market. They know that a fledgling business needs both independence and the ability to call upon its parent's assets and capabilities. But independence where? Dependence how? These are difficult questions. (That's why so many companies struggle to answer them profitably.) Govindarajan and Trimble offer the best kind of answers, which start with what works in practice, build to a hypothesis about why it works, then test the hypothesis.

Please reread the last sentence. It's important. The word "practice" is important. Our mission at HBR is to improve the practice of management and its impact in a changing world. We, like the business school that birthed us and owns us, believe that understanding business begins with cases in the real world, where cars get made and rubber meets roads, where stocks are sold and push comes to shove. Don't get me wrong. At HBR we live and breathe ideas. But we believe in theory because it serves practice. Theories are testable generalizations about the real world; they are valuable because they allow managers confidently to lift an idea from one context and apply it in another.

As Warren Bennis and James O'Toole point out in this issue in "How Business Schools Lost Their Way," many business educators are bewitched by the notion of a kind of pure science of business, regardless of practical application. "Physics envy," it's called: the conviction that the study of business can be as rigorous and quantitative as the science of quarks and quanta.

Bennis and O'Toole believe business schools have become too theoretical and too quantitative and that many are failing to graduate women and men equipped for the multidimensional challenges of business. Judgment, for example, is an unquantifiable quality leaders must have. Both HBR and Harvard Business School are mentioned favorably in the article. Speaking just for HBR, I think we have lots of room to improve. Still, I know our priorities are right. It is absolutely the role of scholars to develop theories to test "best practices" and make sure they aren't blind luck. Even more important, however, we in the management education business should demand that theory meet the test of practice.

Thomas A. Stewart

Harvard Business Review

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forethought

A survey of ideas, trends, people, and practices on the business horizon.

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PETER O. ZIERLEIN

GRIST

In Praise of Uncertainty

by JONATHAN ZITTRAIN

The information technology explosion was set off by visionaries who thrive on uncertainty. Today that innovation-fueling uncertainty is in danger, a victim of its own success and excess.

IT producers have historically built platforms that are useless standing alone, inviting others to parlay them into a variety of useful applications. The first PC makers shipped boxes that might as well have been doorstops – until consumers and independent developers wrote software that made them ubiquitous tools. Similarly, the Internet's creators had no specific expectations about the applications the Net would support or the infrastructure upon which it would operate.

Such platforms – called "generative technologies" because they solicit and enable innovation by others – have been a tremendous boon to consumers and developers. The widespread dissemination of computers with multipurpose operating systems spawned a Galápagos-like ecosystem of software designers. These designers – varied in talent, in motivation, in structure, and in business model – produced correspondingly varied software. The ecosystem received an evolutionary supercharge in the late 1990s as the generative PC became a gateway to the generative Internet.

By refusing to limit themselves to specific purposes and by welcoming contributions from disparate sources, the PC trounced stand-alone word processors like the Friden Flexowriter; the Internet trounced proprietary networks like CompuServe, MCI Mail, and Prodigy; and general-purpose online markets and gathering places overwhelmed their niche-specific counterparts. (Remember when Amazon.com sold only books?)

Unfortunately, the uncertainty fueling this proliferation of software and services is fading fast, making the IT industry less innovative and diverse. There are three reasons.

First, many players now believe they've mastered the fundamental uses of the Internet and personal computing. Confident they know what will win and what won't, they try to become gatekeepers for successful products rather than platforms for all comers. Producing a commodity OS isn't enough for Microsoft and Apple; they want to dominate the market for applications like Office and iTunes and beat out, subsume, or license third-party efforts for popular software. Many emerging video game, cell phone, and PDA platforms are closed from the start – third-party developers either aren't welcome or are subject to stringent licensing requirements.

Similarly, Internet infrastructure providers don't want to stop at Internet service. As the chairman of IDT put it in January of 2002, "Sure, I want to be the biggest telecom company in the world, but it's just a commodity. I want to be able to form opinion. By controlling the pipe, you can eventually get control of the content." That control means picking what data will flow and what won't, which in turn limits the ability of a wizard in a computer lab somewhere to invent an application that takes the world by storm.

Second, security threats have become genuinely overwhelming. The openness that enabled innovation has led to unacceptable vulnerabilities as consumer PCs have gained processing power and always-on high-bandwidth Net connections. A user clicking on the wrong .exe can entirely compromise his or her computer – transforming it into a networked zombie spewing spam, viruses, or denial-of-service attacks against other network targets.

Finally, the Internet and PCs attached to it threaten creative destruction to settled interests. Intellectual property owners, for example, don't want to see their works pirated through innovations like peer-to-peer software. And the publishers and lawmakers they then enlist to constrain such technologies care little for the collateral damage done to the work of citizen journalists and bloggers, as well as other benefits that flow from P2P.

These forces benefit from limiting the flexibility of generic platforms. Thus, Internet service providers are asked by institutional copyright holders to terminate access to users suspected of infringing copyright or to prevent certain types of network traffic entirely. OS manufacturers create "trusted" platforms that can handle intellectual property with a minimum of leakage. And as security concerns mount, IT companies seek to save users from themselves by designing roadblocks that won't let PCs run just any program or handle just any data.

What ought to be done? Openness proponents must address security concerns,

TEAMS

Trust, but Verify

Trust among team members is good – usually. But with some teams, too much trust can actually depress performance, finds Claus Langfred, a professor of organizational behavior at Washington University in St. Louis.

Langfred surveyed 71 self-managing teams of MBA students to measure levels of trust, self-monitoring, and autonomy within them. The teams worked for four months on financial analyses, marketing projects, business case write-ups, and other projects and at the end competed in presenting them to faculty and industry experts. As self-managing teams, they had complete discretion in deciding how to carry out assignments. Langfred found that trust dampened performance most in teams whose members were highly autonomous – that is, those whose members worked independent of one another. Not surprisingly, he found that when these team members trusted each other, they tended not to monitor one another much. As a result, they had relatively low awareness of each other's activities, which affected performance, probably by hampering processes and coordination.

This suggests that in a specific type of team – one where members are both highly independent and trusting of one another – deliberate monitoring is important. Even if members of such teams do suspect that supervision would be wise, they may be uncomfortable suggesting it. Failing to keep an eye on team members' activities can be naive, Langfred concludes, regardless of levels of trust. So managers may want to require a modicum of oversight rather than let a team decide for itself. A little skepticism never hurt anyone – or any team.

– Gardiner Morse

Reprint F0505B

in part through a collaboration to define, identify, and screen malware from networks and connected PCs. That's no easy task, but if the business and technical communities don't do it, one or two companies or governments will. Consumers' computers will have to become less flexible, but flexibility should be sacrificed only where it helps solve security problems, not where its loss invites new monopolies or broader regulation. And the end-to-end principle, which calls on designers and implementers of Internet protocols to avoid network filtering (or indeed, unnecessary network complexity of any sort), must be superseded by a "generativity principle" that calls for certain interventions – perhaps at the network level – in order to ensure overall system flexibility.

Finally, if a genuinely open network can't be readily reconciled with new demands for stability and predictability, we might need a two-Internet solution. That would allow consumers to choose whether their PCs operate at a given moment on the wider frontier or among a limited set of appliance-like applications. Experimental applications could migrate to prime time as they are tested and refined.

We must soften the real pain caused by the sharp, anarchic edges of open platforms. If those with a stake in openness do not address its problems, the Internet and PCs will become like the broadcast networks – aging platforms where there's nothing new to see. Reprint F0505A

MARKETING

Real Products in Imaginary Worlds

by EDWARD CASTRONOVA

Synthetic worlds offer marketers an attractive new hunting ground. While TV viewing declines, consumers – particularly 18- to 34-year-olds – spend hundreds of millions of hours in these shared social environments generated by powerful servers and accessible to anyone connected to the Internet. These worlds are a sort of video game that millions of people can play at the same time. All participants have their own characters through which they see, hear, and touch their digital environments. And in these Web-based worlds, participants can replicate almost any real-world activity. That includes conversations, battles, sex, and, increasingly, commerce.

Sure, the items being bought and sold are both digital and fantastic (magic wands and rocket ships, for example), but they have value. Participants are willing to pay real money for virtual items that they can deploy on-screen. Say one player needs a breastplate, but the game's developer has made this armor difficult to obtain within the virtual world. The player can go to an auction site, find someone selling a breastplate, and send that person a check for $50. Then the two meet online and simply click "trade." EBay category 1654, "Internet Games," comprises thousands of auctions for digital gold pieces, daggers, ray guns, and robots – accounting for $30 million worth of business in the U.S. alone. In Asia, the real-cash virtual-item market exceeds $100 million annually, according to a report in *Newsweek.* One industry executive startled a conference of intellectual property lawyers by proclaiming that virtual-item trade is worth at least $887 million and is likely to grow.

Meanwhile, trade within these worlds (of virtual magic wands for virtual gold pieces, say) is about 20 times the magnitude of external trade (of virtual magic wands for real dollars). In essence, millions of people are immersing themselves in a massive experiment in virtual-reality commerce. And while these worlds aren't rife with buying opportunities (and companies have yet to field virtual products to sell, although there are interesting opportunities to do so), creative marketers will see a new way to reach a desirable demographic.

Product placement – a popular recourse among the TiVo thwarted – is perhaps the best current opportunity. Unlike television and the movies, synthetic worlds offer consumers a chance to actually experience some products. Obviously, some things can't be replicated (yet): the taste of a new soft drink, for example. But habitués of synthetic worlds *can* experience the look of a new kind of poncho or the effectiveness of new business software (or of a proposed government policy, for that matter). They can sit in a newly designed car or office or city and directly experience its sight lines. And they can be subtly impressed by all sorts of associations: This kind of character eats, drinks, drives, or wears this kind of product. Done well, such marketing allows businesses and others to convey a variety of messages while enhancing the creative and aesthetic experience these worlds provide.

Done poorly, however, virtual product placement can anger consumers rather than engage them. For example, in a synthetic world based on a 1940s noir, Inspector Malone can quaff a Coke, so long as it's in a 1940s-style Coke bottle. But in King Arthur's Camelot, no one would want to see a Coke – or any other dark-colored carbonated beverages or swirling white ribbons on red backgrounds, for that matter. The slightest invocation of

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twenty-first-century products wrecks the fantasy, and the fantasy is why people visit synthetic worlds in the first place.

There are other risks as well. This generation takes for granted the right to manipulate any content tossed its way. Synthetic worlders probably won't interfere with campaigns that cohere with their chosen fantasy environments. But a campaign that bores or grates or violates a cherished environment will be chopped up and spit back in forms that would make marketers cringe. Cokes in Camelot would probably be socially transmuted into marks of shame or reskinned as urinary aids.

Marketing must go where the people are, and so virtual worlds are the logical next frontier. At least as attractive as their numbers is the intensity of participants' engagement with these environments. But marketers beware: Synthetic worlds offer the chance to be part of a dream – or to kill it. Reprint F0505C

LEADERSHIP

Culture Matters Most

by THOMAS KELL AND GREGORY T. CARROTT

Corporate culture, like personal character, is an amorphous quality that exerts a powerful influence. Business observers have long recognized commonalities among leaders nurtured at companies renowned for having strong cultures, such as Procter & Gamble and McKinsey. In fact, corporate cultures – and not just the strong ones – influence employees' leadership styles more than any other aspect of their jobs, according to our recent analysis of thousands of executive assessments for more than 100 corporations.

Specifically, we discovered that employees who work for the same corporation, no matter what their jobs, are 30% more likely to exhibit similar leadership competencies – defined as the way a person learns, deduces, envisions, engages, and executes – than people who do the same job but who work in different companies. That is true even if the people from different companies work in the same industry or region. Consider, for

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Opinion

by FRANK FUREDI

Treat Employees like Adults

People aren't getting dumber, but they're often treated that way. Politicians, educators, and the media assume the public is uncomfortable with nuance and grateful for prescribed solutions. Business, too, is being progressively dumbed down, not only by book authors who teach management by parable but also by managers themselves. Ironically, the infantilization of work is happening at the same time experts tout employee skills and knowledge as a prime source of corporations' intellectual capital.

Much of the dumbing down that occurs in organizations today is fueled by aversion to risk. Managers who are afraid to make their own decisions hire high-priced consultants to reaffirm the obvious: It is generally safer to adopt someone else's best practice than to engineer your own. Software systems script every interaction between workers and customers so that frontline employees never say the wrong thing. (Of course, neither do they say that one very right thing that might positively influence the buying decision.) Codes, guides, and rules proliferate in every area and are designed to save individuals the trouble of thinking for themselves and learning from experience. Yet for companies to thrive, employees need to feel as though they are on an open-ended journey of discovery, of which unpredictability is a key part.

Human resource departments in particular are uncomfortable with unpredictability. Many appear to operate on the premise that employees are children who must be protected from any unpleasantness emerging from ordinary work relations. The incessant emphasis on "appropriate behavior" encourages workers to view one another as psychically fragile and in need of protection, hardly the best conduit to mutual respect. Even worse, employees come to see themselves as fragile. Every off-the-cuff comment or e-mail invites the question "Should I be offended by this?" and a subsequent protest to a manager. Rarely are employees trusted to work out their personal differences like mature adults. Instead, the normal stuff of office life – misunderstandings, arguments, conflicts, rivalry – unleashes chains of events that lead to formal investigations and penalties. As a result, people censor their speech and, too often, their ideas. The simpler and more formulaic the discourse the better, because the less likely it is to be misinterpreted.

Rules are necessary, obviously, and some kinds of behavior cannot be tolerated. But companies should trust employees to make their own decisions and work out their own conflicts. Predictability and conformity are not the friends of innovation and change. The easy answer – which is generally the one already imposed by someone else – is rarely the best. Reprint F0505E


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example, an American engineer employed by Honda. The fact that she works for Honda tells you more about her leadership competencies than the fact that she is an engineer or that she labors in the auto industry or that she is American. What's more, her competencies will probably more closely resemble those of a Japanese comptroller at Honda than those of an American engineer at Ford.

The unexpected potency of culture can be both a blessing and a curse for organizations as they ponder strategic and human resource issues. Clearly, companies should analyze the leadership profiles of their own employees and assess their organizations' tolerance for divergent styles when considering mergers and acquisitions or important external hires. Not surprisingly, we found a greater incidence of successful mergers between companies in which employees displayed similar leadership styles or where the cultures tolerated different ones. It is possible to change a company's culture – or at least to prod it a bit in one direction or another. That is best achieved by continually hiring people who represent the direction in which you are headed.

CEOs trying to assemble a diverse and independent-minded executive team should also take note. Those brought up in the company culture will probably display many of the same corporate family traits, and so achieving a variety of perspectives will take work, considerable work. A board of directors overseeing a turnaround and the appointment of a new CEO must also be vigilant. Changing the top leader is tough enough; changing the entrenched behavior of hundreds or thousands of other leaders to gel with the new style can be a mammoth task.

Because it's so hard to pin down, corporate culture has been a convenient scapegoat when mergers stumble, new hires don't assimilate, and outside CEOs fail to win acceptance. Yet, in fact, it probably deserves much of that blame. And while it's still tough to measure, an upfront understanding of how culture influences leadership can help corporations keep obvious clashes at bay.

Reprint F0505D

STRATEGY

Emerging Expertise

by STEVEN SAMS

A major shift is occurring in the nature of global competition, but it's widely misunderstood. Emerging markets are no longer competing solely on price – by offering the lowest-cost manufacturing, for instance. Rather, they are increasingly competing with sophisticated skills in key sectors like health care, software, entertainment, consumer products, and manufacturing. They're leveraging a fast-growing ability to create economies of expertise and market their specializations anywhere in the world. They are developing and marketing products that are not only cost competitive but as innovative and as high in quality as any produced in developed markets.

Take Apollo Hospitals in India. With its 37 hospitals, 6,400 beds, and world-class medical expertise, Apollo has attracted more than 60,000 patients from overseas in the past three years for medical procedures like cardiac surgery, which costs $4,000 at Apollo compared with $30,000 in the U.S. It is packaging high-end medical procedures with tourism – an industry that attracted 600,000 patients last year in Asia alone. And it offers a wide range of related services to customers worldwide, including billing and claims processing, clinical trials for pharmaceutical companies, and laboratory services.

Or consider the growing role of emerging marketers in the global animation industry – which is increasing at double digits and expected to reach $50 billion to $70 billion this year. With its deep IT skills and English-speaking professionals, Asia is rapidly becoming a hub for global animation for everything from feature films to special effects, TV programming, advertising, Web entertainment, and 3-D modeling. Many of India's cities already have state-of-the-art animation studios, which are partnering with global entertainment companies. And India's cost advantage is enormous. A half hour of animation costs $60,000 in India compared with $250,000 to $400,000 in the U.S. or Canada.

The conventional wisdom is that these emerging economies of expertise pose a threat to current market leaders in the developed world. Nonsense. The fact is, it's the demand generated by businesses in the developed world – including the desire for broad-based global delivery of services – that is driving a lot of this rebalancing of skill and investment.

While their approaches vary, global business leaders have learned a few general rules for leveraging expertise in emerging markets. First, businesses are returning to the '90s notion of core and noncore processes within their enterprises, with one very important difference. Instead of sourcing noncore processes based on cost alone, they are turning to specialized third-party providers who can supply world-class capability wherever it is located, from new product development to the management and transformation of key business processes.

Second, in addition to direct investment, companies are finding that an ecosystem strategy is the best way to capitalize on expertise in emerging markets. Rather than flying blindly or going it alone, they're building relationships with local partners, suppliers, government officials, and research institutions. Thinking globally and operating locally only works if you have a network of knowledgeable partners and allies who can help you increase your local market presence. In December 2004, for example, Lenovo in Beijing announced plans to acquire the personal computing division of IBM and form a long-term strategic alliance to create a new global powerhouse in PCs. For IBM, this created an opportunity to build deeper relationships in one of the world's fastest-growing markets.

Third, companies are finding that they need to develop a consistent set of business and technical standards across the organization, worldwide, to tap global expertise. This can be difficult – as we at IBM know from our experience in the 1990s – but the savings and competitive advantages are enormous. Harmonizing technical standards across IBM helped us take advantage of economies of expertise wherever they resided, cutting product development costs by more than half and reducing time to market by more than 75%.

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Conversation

DEBORAH WINCE-SMITH ON COMPETITIVENESS

Innovate at Your Own Risk

The U.S. may be the world's leading innovator, but it won't be for long if investors, regulators, and the legal establishment continue to penalize companies for risk taking, says Deborah Wince-Smith, president of the Council on Competitiveness. Recently, the council's National Innovation Initiative, a leadership network of CEOs and university presidents, released a report in part assessing threats to U.S. innovation. In a conversation with HBR's Gardiner Morse, Wince-Smith discussed the report's conclusions.

The National Innovation Initiative cites "defensive management" as a major threat to U.S. competitiveness. Why?

Innovation is the driving force behind value creation and competitive advantage, but you can't innovate and grow unless you're willing to take risks. Yet in the current regulatory and tort environment, companies are more focused on risk reduction than ever before. They're practicing defensive management by reducing R&D and other investments that Wall Street might punish for being too focused on the long-term or that could lead to regulatory challenges or litigation. In the life sciences, for example, there's great opportunity for innovation based on genomics and the development of customized drugs. But companies are shying away from investment in these areas because they fear their products will get mired in FDA red tape or they'll face massive lawsuits if problems emerge with the drugs. This puts companies in the U.S. at a tremendous disadvantage relative to global competitors.

So how do you encourage innovation in this chilling environment?

The solutions need to combine legal and regulatory changes that reduce risk with investments in talent, R&D, entrepreneurship, and infrastructure. But let me focus on one key component of how to stimulate innovation that's less obvious than, say, tort reform: transparency, both in governance and in the measurement of intangibles.

First, governance. The conventional private-sector wisdom is that Sarbanes-Oxley is bad, that it diverts companies' resources into meeting accountability requirements. My view is that the companies that move quickly to develop superior compliance will have the competitive advantage. I predict that in time, companies will be rated on corporate governance just as they're rated on other performance metrics. Companies with the highest ratings for governance will reduce their legal exposure and attract investors – both essential to robust innovation.

What about measuring intangibles?

Intangibles – whether it's your R&D, your business processes, your skilled workforce – are what will differentiate your product or service from commodities. Intangibles are the future of wealth creation. And yet our financial accounting systems can't measure their value. We're trying to measure today's knowledge economy with tools inherited from nineteenth-century industrialism.

How does a consumer products company measure the value of using high-performance computing to model safety features in its products? Right now, there's no way for a potential investor to gauge that value. Markets do value investment in intangibles – when they know about it. Knowledge-intensive companies generally have a market value that is much higher than their book value. Companies should collaborate to develop best practices for valuing intangibles and to create a framework for voluntary reporting – while engaging the investment houses and accounting firms that play a critical role in asset valuation.

On the government side, we need to enhance the regulatory environment to encourage companies to disclose their intangible asset metrics. Right now, with the threat of litigation and regulatory challenges, even if companies had supplemental information about their intangibles, it would be risky to disclose it. Transparency around intangible assets and your strategy for value creation, coupled with regulation to reduce risk by protecting disclosure, will stimulate investment in innovation.

Unfortunately, the current environment makes these changes difficult. In the end, the questions for U.S. industry and the government are, Who is going to attract the high-value investment, and Where's the high-value economic activity going to be performed? If we want it performed here in the U.S., we need get serious about rewarding transparency and risk taking.

Reprint F0505G

The main reason to take advantage of these pockets of expertise is that it's becoming a competitive necessity. After all, when did U.S. and European automakers really start to innovate and produce better cars and trucks? When their customers started noticing what global competitors had to offer. That kind of adjustment is happening all over again, industry by industry. The smart players aren't waiting for the knock at the door. Reprint F0505F

BUSINESS HISTORY

Lessons from the Egg Master

by JOHN BUTMAN

Successful brands are a paradox: always consistent yet always mutable. One of the best models for that elusive balance is the artisan brand. Artisan brands possess a signature look and feel that seems to be the creation of an individual sensibility yet also permits variations on form and execution within a set of consistent design principles. Think of Pixar's movies, Kimpton's Monaco hotels, and Danny Meyer's Union Square restaurants.

Among the world's most enduring artisan brands is Fabergé. Born 135 years ago in Saint Petersburg, Russia, the company produced tens of thousands of pieces, from simple earrings to opulent Imperial Easter Eggs. The items were made by many craftsmen, yet all seemed to have sprung from a single imagination and pair of skilled hands. Fabergé's jewels and objets d'art became renowned throughout Europe, and the company prospered, at its peak employing 500 people in Saint Petersburg, Moscow, Kiev, Odessa, and London. Its success was the result of a shrewd combination of artistic fluency and business discipline that is still worth studying.

The artisan, in this case, was Carl Fabergé, who took over his father's modest jewelry shop in 1870. Fabergé soon stopped making pieces valued chiefly for their materials, choosing instead to distinguish his products by their design. Together with his brother Agathon and others, he developed a style that became quickly recognizable. Its characteristics included a distinctive sense of proportion, signature colors in rich shades, exquisite surfaces, beautifully wrought native materials, and recurring motifs such as egg shapes, laurel wreaths, ornate bows, and golden swags.

Fabergé understood the importance of organizational as well as product design, so he created an unusual model that optimized both. The main operation was a collection of workshops, each run by a chief workmaster. Fabergé the artisan was involved in developing each item, but once the drawings were finalized, Fabergé the manager turned responsibility over to the workmaster whose shop would produce the new piece. The workmaster managed as many as 64 specialist craftsmen – gem setters, enamelers, embossers, engravers, finishers, and others – who labored together at special kidney-shaped tables designed to facilitate consultation and collaboration.

Although regularly expected to work overtime, the artisans were full-time employees with reasonable job security. Workmasters could hold ownership positions, which encouraged them to make their shops more productive and to act in the best interests of the organization. Recognizing that pride in craft was a powerful motivator and also essential to the brand's style, Fabergé was liberal with public praise when a shop had done particularly nice work. He even allowed workmasters to initial their own items. As a result, employees exhibited a strong work ethic (in a society not known for the same) and low turnover.

The company was shut down in the aftermath of the Russian revolution; Fabergé himself escaped to Switzerland, where he died in 1920. But the company's products have continued to grow in value and are now among the world's most precious art objects. Nine Fabergé Imperial Easter Eggs, owned by the Forbes Collection, were recently purchased by Russian oil tycoon Viktor Vekselberg for some $100 million.

At the heart of an artisan brand is a leader whose dual understanding of product and organizational design serves the aesthetic desires of the marketplace and the business needs of the firm. Such people are rare. Chris Bangle, chief designer at BMW, is one such leader. Another was Hubert de Givenchy, who ran the legendary French couture house.

Companies wishing to emulate Fabergé – or Pixar or Kimpton – must find their artisans, whether inside or outside their walls. And they must give those artisans two things: the freedom to pursue their creative vision, and the structure and skilled support to translate that vision into a consistent, sustainable brand.

Reprint F0505H

LABOR LAW

The New Tools of Trade

by REGINA M. ABRAMI AND LEONARD BIERMAN

Today, most multinationals have a conspicuous social conscience. They publicize their internal codes of conduct, monitor labor conditions in their global supply chains, and require suppliers to meet basic labor practice standards. But despite efforts to be better global citizens, companies by themselves are unable to eliminate abuses in their supply chains. In fact, so long as the countries with which they do business turn a blind eye to labor abuses or can't manage the problem, companies have few options – short of canceling contracts – to reduce exploitation and safeguard their reputations.

Part of the blame for this situation belongs to corporations themselves. During the past decade, they have agreed to take on what ought to be the work of the state. Large multinationals are today running programs on community development, health care, and legal education throughout the developing world. But the governments of these countries

continued on page 28

remain relatively free from accountability for their business environments.

This makes no sense. If companies want to see improved labor practices in the countries where they do business, they should support efforts to include labor standards in trade agreements. But the business community has long been suspicious of this kind of regulation. This is not only shortsighted but increasingly out-of-date, as the recent wave of U.S. and European trade agreements shows.

These trade initiatives emphasize carrots instead of sticks, with both the U.S. and European Union rewarding trade partners who protect working conditions rather than only punishing those who don't. For example, the latest EU Generalized System of Preferences, a program for granting tariff reductions to developing-country products imported into the EU market, now has a measure to allow additional tariff reductions to countries that demonstrate compliance with the International Labor Organization's (ILO) core labor standards. To date, Sri Lanka and Moldova have benefited from this special preference. Their exports to the EU are now eligible for an additional 5% tariff reduction, giving these countries some advantage over competitors.

The U.S.–Cambodia Bilateral Textile Trade Agreement is another example. Created while the international textile quota regime was still active, it offered Cambodia additional textile export quota in return for improvements in textile workers' conditions. By bringing in the ILO to monitor conditions in Cambodian factories, the agreement helped remedy a problem common in many developing states: good laws but weak implementation. The ILO's findings were reported not only to the local business in question but also to international customers and the Cambodian government, prodding the various parties to work together to improve compliance with the country's labor laws. The recently signed U.S.–Chile agreement is also intended to help enforce existing laws. If either party is fined for violations, the funds remain within the country being fined and are earmarked for enforcement. They may be used to hire and train labor inspectors, for example.

These kinds of policy innovations don't eliminate the need for multinationals to pressure irresponsible suppliers. But they can turn the dilemma of labor abuse into a diplomatic matter, forcing greater accountability on the part of all governments. When trade agreements and labor standards are linked this way, local workers benefit from improved conditions, governments and local businesses benefit from more favorable terms of trade, and multinational customers insure their most valuable asset: their reputations.

Reprint F0505J

MARKETING

Capturing Customers' Spare Change

by TERRI C. ALBERT AND RUSSELL S. WINER

Getting customers to make impulse purchases at the checkout counter has always been more of an art than a science. Now, though, the fast-food industry is combining psychology and computer technology to increase impulse buying.

This new sales strategy exploits what we call the "spare-change effect"– people's willingness to buy with change goods that they wouldn't buy with unbroken bills. In one study, for example, Priya Raghubir from the University of California, Berkeley, and Joydeep Srivastava from the University of Maryland found that 71% of subjects would spend four quarters on candy but only 29% would spend the same amount in the form of a dollar bill.

Appreciating that customers are more likely to part with change than an equivalent sum in bills, fast-food restaurants including Burger King, KFC, Taco Bell, and Wendy's are now using software that makes real-time sales pitches based on the change the customer is about to receive. For example, if a customer orders a Number 3 meal for $4.29, the software, which runs on a cash register, instantly generates a discount offer for another food item based on the change (71 cents) that would be returned on an "even" amount ($5, in this case). If, for example, french fries normally cost a dollar, the system might offer to add fries to the order and round it to an even $5 – selling the fries for 71 cents. If the customer goes for it, the restaurant makes an additional sale, and the customer gets a discount.

The offer generated by the system isn't random; it's developed from a continually updated database of previous offers and their acceptance rates. If the system discovers that more customers who have bought hamburgers will buy french fries with the resulting spare change than will

buy milk shakes, for instance, it will offer french fries to future hamburger buyers.

Stores using this technology have increased their sales by 3% to 5% and pretax profits by 30%. Approximately 35% of all spare-change offers are accepted, and most of the time, customers pay 35% to 45% less for the added item than if they had bought it separately.

This system works in the fast-food environment but hasn't yet been tried much beyond it. Experiments by two state lottery bureaus had fared poorly, in part because the purchase process was complicated. Evidence so far shows that customers accept, even appreciate, the technology when it's convenient, makes offers directly related to their main purchase, and delivers food at a discount. Whether it would be as effective in other retail environments and with different types of products remains to be seen.

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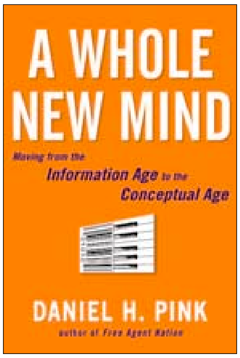
Reviews

A Whole New Mind
Moving from the Information Age to the Conceptual Age
Daniel H. Pink
(Riverhead Books, 2005)

Our egos took a beating in the Industrial Revolution when we learned machines could perform some tasks better than people. But hey, we still had our brains, right? Surely, no machine could ever match the power and intricacy of the human mind.

But then came computers, and soon the brain's superiority was being challenged. Deep Blue whupped Garry Kasparov, *Time* magazine nominated the PC as 1983's "Person" of the Year, and microprocessors appeared that could perform four billion calculations a second without ever getting tired or cranky. Is it any wonder that knowledge workers feel hopelessly outclassed?



Leave the computers to the problem solving, says Pink, a contributing editor for *Wired* magazine. Logic and analytical skills only get you so far, which is how come Western countries don't lose much by outsourcing routine technical work to countries like India. In *A Whole New Mind,* Pink argues that what really matters is, well, meaning. And beauty. And empathy. And joyfulness. Those and other innately human qualities produce the kinds of innovations that resist commoditization and resonate with customers, many of whom, after all, are human themselves.

The creative, relational skills required for this new era – here dubbed the Conceptual Age – are the domain of the brain's right hemisphere, long considered the poorer hemisphere by business. Conventional wisdom says such skills are tough to acquire, but Pink begs to differ. Learning to tell stories better won't transform you into a Toni Morrison any more than studying physics will make you the next Stephen Hawking. But anyone can acquire sufficient competency to get by, says the author.

To prove it, Pink sets out to develop his own right-brain aptitude by, for example, taking a drawing class. There, he learns to synthesize information and relationships, detect patterns, and combine elements. (He also gets pretty handy with a pencil if his self-portraits done before and after the class are any indication.) For those wishing to give their own creative muscles a similar workout, the book is full of exercises and resources. The Web-based self-assessments are a pleasant diversion, but you probably won't discover much about yourself you don't already know.

A Whole New Mind is a breezy, good-humored read, even if the advice is a bit facile. The search for deeper meaning in work will likely appeal to aging baby boomers and to those grown jaded from corporate misbehavior and the single-minded pursuit of profit. And while most readers won't rush to ditch their spreadsheets, they might be inspired to pick up a few paintbrushes to go with them. After all, who would disagree that even half a mind is a terrible thing to waste?

– M. Ellen Peebles

Coach: Lessons on the Game of Life
Michael Lewis
(W. W. Norton, 2005)

Where do people get the discipline and focus to accomplish big tasks? Lewis, the author of *Moneyball,* credits his high school baseball coach for his own success. But the firebrand intensity that motivated Lewis and his teammates 30 years ago is now itself under fire. Parents are complaining about the coach's high expectations and tough standards; they want indulgent treatment for their offspring. But without uncompromising mentors like his former coach, Lewis says in this brief but sparkling book, children may never develop sufficient character to overcome future challenges.

DisneyWar
James B. Stewart
(Simon & Schuster, 2005)

This account of Michael Eisner's fall from grace received lots of press when it was released in February. But buried in the mass of detail from journalist Stewart is a lesson for all companies whose stock-in-trade is creativity and fantasy. Eisner's reputation and initial success at Disney were built on his instinct for recognizing stories that would delight audiences. But his penchant for storytelling was accompanied by a carelessness with the truth that, Stewart argues, undermined his business relationships.

Moral Intelligence: Enhancing Business Performance and Leadership Success
Doug Lennick and Fred Kiel
(Wharton School Publishing, 2005)

Consultants Lennick and Kiel reframe the term "moral intelligence" – most commonly applied to childhood development – in unsurprising ways for a business context. Like emotional intelligence – the concept's groundbreaking progenitor – moral intelligence is a combination of behavior as well as smarts, here applied to justice and responsibility rather than to empathy and self-awareness. But unlike Daniel Goleman's work, this book offers no studies linking corporate success with individual integrity. And the dilemmas described in its wide-ranging, feel-good anecdotes come with too-easy answers.

– John T. Landry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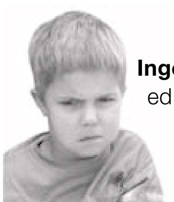

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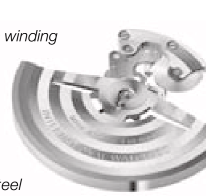

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Fat Chance

by Bronwyn Fryer and Julia Kirby

Sid has put his hat in the ring for a client-serving position. He's got the skills and the knowledge – the problem is, he's also obese. Can his weight be a factor in the decision?

Bill Houglan was three pages deep into his spreadsheet when he felt the thud, thud, thud through the rough-hewn floor of the hallway connecting sales and marketing with the desktop publishing group. "Here comes Sid," he thought.

The Seattle offices of NMO Financial Services, charmingly situated in a quaint old building on a city wharf, were rather sensitive to the rattle of passing trucks – and to Sid Shawn's 400-pound footsteps. The door to Bill's office was open, so instead of just passing by, the obese man stopped and looked in.

"How's it going, Sid?" Bill said. He noticed that Sid's face was a bit moist; he seemed short of breath.

HBR's cases, which are fictional, present common managerial dilemmas and offer concrete solutions from experts.

DANIEL VASCONCELLOS

"Going great," Sid replied, smiling and giving NMO's VP of sales and marketing a little salute. "Hey, did Terry happen to speak with you?"

"Uh, yes," Bill said. "She put your résumé and everything in the system. I'm supposed to be interviewing candidates over the next month or so."

"Terrific," Sid said. "Well, I hope you'll keep me in mind."

"Sure, Sid," Bill responded, turning to stare at his computer screen. "I'll keep you posted."

He's a good guy, Bill thought, as Sid continued down the corridor. You can't blame him for coming by to help his cause. Or maybe it was the deli tray that had lured Sid down this hallway? A vendor had treated the production group to lunch that day, and there were sandwiches and cookies left over for the rest of the staff. Almost as soon as that notion entered his head, Bill rebuked himself for it. He leaned back and sighed, not happy about the decision he would have to make.

A ten-year veteran of NMO and a mainstay of the pensions marketing group, Sid had always been a good, consistent worker. As a product specialist, he was an invaluable resource to the salespeople who called on chief investment officers, treasurers, and others making the decisions about employee retirement benefits for their companies. Sid was also a resource to the consultant relations managers, who tried to influence the people advising those buyers. At this point, Sid was so steeped in NMO's products that those colleagues had come to depend on him to outline their talking points and pitch books. Amiable and sometimes funny, Sid garnered above-average performance reviews and regular pay raises. But during his last review he'd made it clear he was ready for something new, so it shouldn't have surprised Bill when Sid applied for the job that had just opened up.

Still, when Bill got the e-mail from HR about Sid's interest, he was taken aback. Sid had applied for a consultant relations job – where his success, and not a small portion of his compensation, would depend on impressing the polished professionals at major benefits consultancies. Of course, he'd impressed them many times before – or his work had while he remained behind the scenes. But now the consultants would encounter Sid face-to-face, and that seemed a different matter.

"That really fat guy?...You're kidding! How can you even consider it? What kind of impression would he make?"

A Friend Weighs In

Bill pulled his suit jacket from the hanger on his door and took the stairs to his friend Chuck Bell's office on the fourth floor. Chuck, who headed up the 401(k) sales group, was on the phone, so Bill lingered in the hallway until he heard the conversation end. Then he tapped a knuckle on the doorjamb.

"Hey, Bill," Chuck said. "You don't look so good. Something you ate?"

"Nah, I just need some fresh air. You wanna take a walk?"

Chuck immediately stood up and grabbed his jacket, and they headed for the elevator.

A rainstorm the previous day had cleared the sky, and the city seemed to sparkle. As the two executives walked together down the wharf, Bill felt less oppressed. A pelican swooped over them, soared into the sky, and then dove to spear the deep blue water in a flash of white spray.

"Can I ask you something, Chuck?" Bill asked, watching the pelican reclaim the air with its wriggling silver prize.

"Shoot."

"If you asked for a promotion and it was denied, would you leave?"

Chuck's eyes widened. "You're not hankering after that EVP title..."

"No, no," Bill insisted. "This isn't about me. It's about a guy who works in my marketing department. He's angling for the consultant relations job that just opened up. He's a product specialist now – really good at it, too – but he's done it for years, and he wants something new. Consultant relations, though – that's a much more visible job. You know. It's got its own demands. I'm not sure he's ready for it."

"Why can't you just try him out on the job? Can you get someone to work with him, show him the ropes?"

"Well, there are...some issues," Bill said. "He has some health problems."

"What kind of health problems?"

"He's diabetic for one thing." Bill glanced at his friend. "See, he's overweight, and I think that's why –"

"Wait a minute," Chuck said. "You're not talking about that really fat guy?"

Bill's uncomfortable silence answered the question. Chuck threw back his head and laughed. "You're kidding! How can you even consider it? What kind of impression would he make for NMO?"

Bill suddenly felt protective of Sid. "Well, I don't know. He's actually quite personable."

"Oh, no doubt," Chuck said, grinning. "You'd probably have to take a cross-town bus to get on his bad side."

Bill gave Chuck a sharp look. "He knows the products better than just about anyone else in my group."

"So send him over to new product development," Chuck suggested.

"Well, he isn't going to make more money there, is he?" Bill responded. "He'd quit for sure."

"You think so, huh?" Chuck countered. "Who's gonna hire him?"

Growing Concerns

Back at his desk, Bill pulled out Sid's personnel file and began thumbing through it. His eyes fell on the résumé.

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He recalled that Sid had already been on the heavy side when he started at NMO but nothing like he was now. At first, people ribbed him about his wife's irresistible baking; he frequently came to work bearing trays of chocolate chip cookies to share with his colleagues. Sid couldn't resist the cookies either; within two years, he'd gained more than 40 pounds. At one point he went on a crash diet and lost a lot, but before long, he'd regained it and more. When his wife left him, Sid's weight ballooned.

A couple of years ago, Bill noticed that Sid was calling in sick more. He hadn't exceeded his allowable days, but this was a business in which almost no one did. Eventually, Sid mentioned that he was battling diabetes, which accounted for at least some of the sick time. While preparing Sid's semiannual review, Bill wondered whether to broach the subject. The precedent he had in mind was the time he'd confronted Ron Darcy, an NMO salesman who clearly suffered from alcoholism. Darcy had made his numbers and then some, but there were signs that he was about to derail, personally and professionally. Bill liked to think he'd made a difference in that man's life, awkward as it was at the time. Still, when it came to Sid's review, Bill decided it was a conversation that could wait.

Since then, even more troubling than Sid's health was the increasingly oblique approach people at work took toward him. Sid was outgoing, always happy to strike up a conversation. But as old-timers left the group and new hires entered, fewer and fewer people seemed to warm up to him. Bill recalled the days when Sid, particularly after his divorce, went out with colleagues after work for drinks, and people invited him to their dinner parties. That didn't seem to happen much any more. The workgroup dynamic cried out for some kind of intervention, however subtle. "Diversity training of some kind?" Bill wondered. The thought seemed absurd when he didn't even feel comfortable discussing Sid's weight with Sid himself. Bill hated feeling so helpless as a manager.

Sid was outgoing, always happy to strike up a conversation. But as old-timers left the group and new hires entered, fewer and fewer people seemed to warm up to him.

Just then he had a sickening thought: If Sid were passed over for the consultant relations job, could he sue the company for discrimination? He thought of picking up the phone and calling Terry in HR. Then he realized that merely asking the question made him sound like he had an issue with Sid's size – like maybe *he* was the problem. He stared at the receiver. Could he even bring up the subject?

The Right Fit?

A taxi was idling outside the office building, and Bill kept checking his watch. "If we don't get going now, we'll miss the plane," he thought. Just then, Sid stepped off the elevator and into the lobby, pulling a remarkably large suitcase and a smaller bag.

"Let's go," Bill said, holding the door open. Sid wheeled his bags out to the cab. Bill climbed into the backseat behind the driver. When Sid eased into the seat on the passenger side, Bill felt the taxi sink.

"Here's the agenda," Bill said, handing Sid a glossy pamphlet. "I figure between the two of us we can hit all the best sessions."

As Sid leafed through the brochure, Bill looked out at the gray sky that threatened more rain. Feeling some pangs about having excluded Sid from such things in the past, Bill had invited him along to a conference in San Francisco. Sid's enthusiasm was much greater than the event really deserved. Bill realized now that Sid might have seen the invitation as an encouraging sign that he was being considered for the job and that the trip was a kind of test run.

"So Bill," Sid spoke up, "in your opinion, what is the key to succeeding at consultant relations?"

Bill drew a deep breath. "Well, of course, you know it comes down to getting recommended for a manager search," he said. The consultants weren't in a position to engage NMO directly; they developed short lists for their clients, who in turn would send out requests for proposals. NMO's consultant relations managers were assigned to particular consulting firms and did whatever they could to get NMO's products on the consultants' short lists – in fact, one key performance measure for those employees was the number of RFPs received from the companies their target consultants advised. The consultants were very smart about the industry – more so than most finance executives – so they couldn't be snowed. At the same time, they were only human. If they liked you, they might include you in the beauty contest even when your returns were only on a par with others'. "And that means you need to present the case for NMO's superior portfolio management – "

"I'm pretty good at that," Sid interjected.

"But it's just as much about the schmoozing," Bill pressed on. "You have to build those relationships, and that means traveling – more than some people are comfortable with."

"No worries there," Sid said a bit wistfully. "Bill, I'm very confident I can do the job. What do you think my chances are?"

"Well, it's hard to say," Bill answered, not quite meeting Sid's eye. "There's a lot of talent on the street, what with the layoffs and mergers. Terry hasn't said anything about the number of candidates who've applied so far."

"Are there any other internal candidates?" Sid asked.

"Not as far as I know," Bill said. The car in front of them came to a sudden stop, and the cabdriver stepped hard on his brakes. For a minute, everything was at a standstill. Then the traffic began to inch forward. Bill noted the time on the taxi's small dashboard clock.

"I was just wondering," Sid continued, "because the company prefers hiring internal candidates over external ones if they're equally qualified, right?"

"Charity begins at home," Bill quipped in response. A sign for the airport exit loomed. Grabbing at the chance to change the subject, Bill directed the cabdriver to Terminal B.

As Bill pulled the bags from the trunk, he motioned toward the skycap station, where, fortunately, there wasn't much of a line. But now it appeared that a wheel had broken off of Sid's smaller bag. Sid decided to transfer some of the contents. He bent down uncomfortably, removed a pair of slippers, a sweater, and two books, and pressed them into the larger bag. Bill sourly wondered how so much stuff could be required for an overnight trip. Averting his glance, Bill studied the e-tickets his assistant had printed out; he noted Sid's two seat assignments.

"Well, it's half past, and we've got half an hour to takeoff," he said, checking his watch again as Sid slowly stood up. "It's going to be tight, but we can make it if we hustle."

They proceeded toward the security gate, and that's when Bill realized Sid was incapable of hustling. As Sid shuffled along, a child pointed and called out to his brother, "Whoa! That guy is huge!" At the screening station, Sid bent down again to untie and remove his shoes–which turned out to be another very slow process. People stared; Bill felt embarrassed. "Stuff like this must happen to him every day," he thought.

As Sid struggled to put his shoes back on, an announcement came over the public-address system: "Last call for passengers Bill Houglan and Sidney Shawn. Please proceed to Gate 3A."

"I'm gonna run for it," Bill told Sid. "I'll let them know you're coming. Please, Sid, hurry up."

Breakfast for Three

If Bill had any doubts about how people perceive an obese person, they were dispelled on this trip.

On the plane, other passengers were visibly relieved when Sid didn't head for their row. When Bill and Sid walked past the bar in the hotel lobby, two women stared and then dissolved into giggles. At the registration desk, the bellman put on a kind of waxen expression and pretended not to notice Sid's size. The conference registrar, looking up from her list, blinked in astonishment, and then tried to cover up by being overly solicitous. "Just as bad," Bill thought. "He can certainly rely on the unkindness of strangers."

During the late-afternoon break at the conference, Bill checked in with Mina, his assistant. "Terry called earlier," she told him. "She'd like you to get back to her right away." Bill had his assistant transfer the call.

"I just wanted to fill you in on the status of your search," Terry said. "We've got a woman with five years' experience on the consulting side and a CFA. She looks good, and she's in our salary range. The thing is, she's close to an offer with Quality Funds. We should get her in fast if you want to talk to her."

"Do," Bill said. "Anyone else? How about internal candidates?"

"Just Sid so far," Terry said. "Are you considering him?"

Bill felt put on the spot. He wasn't sure how to answer but chose to reply in the affirmative. "I'd like to see if we can pull in more people, though," he added quickly. "Definitely leave the posting on the intranet. Let's see what we get. Meanwhile, if you give Mina a call, I'm sure she can find room on my schedule for that candidate."

After he hung up, Bill thought for a while about how it would affect Sid if he didn't get the job. Maybe that would be best all around. Even with their occasional barbs and social neglect, people in the office were fairly casual and comfortable with nonconformity. Perhaps it wasn't the ultimate in heterogeneity, but the workforce at NMO had its diverse elements.

By contrast, Bill could so clearly picture the challenges Sid faced on the outside; in fact, he'd glimpsed it at this very conference.

In the hallway outside the ballroom, Angela Betz, a star consultant with Tallan Associates, was holding court as representatives from three different fund managers clustered around her, nodding at her comments and trying to score conversational points. There was no denying there was a certain cut to their jib; any one of them could pass for a nightly news anchor. Would Sid be one of the people she'd open up to? If not, the RFPs would go elsewhere. And if the numbers didn't add up, he'd fail in the job. Where would he go then?

During the group dinner that night, Bill noted that Sid fell into a conversation with a man on his right. Occasionally, the man laughed out loud in response to something Sid said, and Sid seemed pleased. Bill felt less uneasy, remembering how Sid had turned on the charm in his early days at the company. "At least he's having a good time," he thought.

About an hour later, Bill was in his room checking his messages when the phone rang. It was Sid.

"Guess what I found out? That fellow sitting next to me at dinner–his name is Dick Huff. Turns out he's with the Ohio Teachers Pension, and he says they're disgusted with their returns lately. We hit it off really well. Naturally I worked in a few comments about our equity products. I told him you were here and that I'd make an introduction."

Bill was impressed. "Great, Sid. You should have gone ahead and arranged to meet for breakfast–"

"Well, that's why I'm calling," Sid said. "I've got his card. I can ring him now, if you want to set a time."

Smart guy, Bill thought. He's trying hard to show me he can do the job. And who knows? Maybe with a fresh start in a new position, Sid would make a serious effort to lose some pounds.

Should Sid's weight be a factor in Bill's decision? • Four commentators offer expert advice.

Howard Weyers *(howardw@weyco.com) is the president and CEO of Weyco, an employee-benefits administration firm in Okemos, Michigan.*

If NMO Financial Services has HR policies that force it to ignore Sid Shawn's habits, then its problems are much bigger than Sid. Too many companies implicitly enable the unhealthy lifestyles of the minority – those who smoke, drink to excess, or otherwise neglect or abuse themselves–and they do so to their detriment. The real cost here will occur when NMO pays its insurance premiums.

Why not, instead, consider rewarding the majority of employees who take a proactive approach to their own health? If NMO offered its employees incentives to adopt healthier lifestyles, it might not be facing this dilemma. More generally, I predict the company would end up paying considerably less for insurance in the long run. But such incentive programs are rare–which goes a long way toward explaining why health care costs in the United States are so out of control.

At my company, we decided to grapple with the problem of employee well-being head-on. We provide healthy foods in our vending machines, as well as health counseling by on-staff medical professionals. We have also instituted several programs designed to urge employees to live healthily. While most of these programs are voluntary, some are not.

One voluntary program is the Lifestyle Challenge: We reward employees who improve their dietary habits and participate in regular exercise and fitness programs. Participants can start off by earning $45 a month toward a health club membership and up to $65 a month for improving their overall health, which we check every six months. We also offer a broad buffet of support programs, from seminars on selecting and preparing meals to counseling on the emotional causes of eating disorders.

Our involuntary programs are more controversial. In 2003, we learned that, as a private employer, there was no law in Michigan that prevented us from screening out tobacco use at the office and during the hiring process, just as employers routinely screen out drug use through testing. As a first step, we banned tobacco from the corporate property. The following year, we instituted voluntary testing, accompanied by classes and programs designed to assist smokers in quitting. This year, we instituted mandatory testing for tobacco use. Controversy arose when four employees decided they did not want to take the test, and quit. But we were within our legal rights to screen out the smokers.

Such steps may sound draconian, but they get results. By making employees responsible for their own health, and by establishing support programs for them, we have both lowered and stabilized our health care costs. Our insurance costs per employee – including medical and dental care, and prescription and vision coverage – average $300 per month compared with the state average of $500. Our health care costs have remained level for 27 months in a row.

Too many companies implicitly enable the unhealthy lifestyles of the minority–and they do so to their detriment.

Focusing on the health of our employees helps our business in other ways. As an employee-benefits administration firm, we advise our clients about the costs and benefits of various health care packages. Most of our clients are afraid to even talk about their employees' health. It helps when they see just how willing we are to walk the walk.

NMO's leadership should understand that it's possible to work directly with employees rather than simply allow them to fend for themselves and then complain about cost control.

By pushing HR to offer carrots (in the form of positive programs) and use sticks where necessary, Bill Houglan can help Sid and other employees – and his company's bottom line.

WENDY WRAY

Should weight be a factor in Bill's decision? Too late: It already is. And the problem here is not Sid and his quest for a promotion; the problem is that the company openly tolerates discrimination. The work group ostracizes Sid, and Chuck Bell's joke says it all.

Sid is a valuable worker who has demonstrated that he can connect with people as the new job requires. Like anyone else, he deserves the opportunity to show what he can do. He's smart, affable, and can easily establish rapport with a prospective business partner over dinner. He does a great deal to overcome the prejudice and hostility he faces. He's a good guy; he deserves a chance to learn the ropes and should be given reasonable support in trying the new position.

If Sid is passed over on the basis of his physical appearance or his disability, all kinds of negative effects could follow.

First, given his depth of product knowledge, Sid would be hard to replace. Study after study has demonstrated that it is very expensive to locate, hire, and train new workers; on average, replacing someone costs roughly one-and-a-half times the departing person's salary. Sid could also become a real liability if he decides to approach a competitor with his market knowledge and skills.

Second, if Bill allows Sid's weight to be a factor in the promotion decision, he exposes the company to significant legal liability. Sid may qualify for disability based on his weight and mobility issues. Sid's diabetes medications may contribute to his weight.

Even if Sid is not disabled according to the legal definition, Bill perceives him to have health problems, so Sid may find redress for bias under the Americans with Disabilities Act or similar state and local laws. Such regulations forbid outright exclusion, architectural and transportation barriers, and overprotective rules and policies designed to help people with disabilities "for their own good."

Then there's the public relations issue. If Sid chose, he could start a blog or go to the press with his story, inflicting some public harm on his former employer and possibly expanding legal protections in his city. When 24 Hour Fitness, a health club chain, put up a billboard in San Francisco that featured a space alien and the caption, "When they come, they'll eat the fat ones first," activists rallied in full force. Holding "Eat Me!" signs, protesters garnered international coverage. The public backlash resulted in the adoption of a citywide law outlawing discrimination on the basis of weight.

San Francisco is now one of at least four places in the United States with such laws on the books – the others are the state of Michigan; Washington, DC; and Santa Cruz, California. Given the number of fat people in the United States and the widespread hostility against them, I predict we'll see more such legislation.

In short, the risks of continued discrimination simply aren't worth it.

Bill should follow his instincts regarding diversity training and push for it companywide. If he had ordered training for Sid's work group when he first noticed any ostracism (whether it was because of Sid's weight or his age), Sid might not even have opted for the new position. Now the onus is on Bill and other executives at NMO to step in and address the prejudice issue squarely. Promoting Sid would be a good, highly visible place for Bill to start. He should stand up for diversity by addressing discrimination in all its forms, including sex, race, sexual orientation, gender identity and gender presentation, color, religion, disability, weight, and age. And the company's HR policies should obviously be honed accordingly; banning discrimination, if nothing else, is simply good business practice.

Bill should follow his instincts regarding diversity training and push for it companywide.

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Employees in most American jurisdictions have very few legal protections against weight-based discrimination. Unlike race, age, and gender, body weight is not a protected characteristic under U.S. fair-employment laws. Employers are legally free to discriminate on the basis of weight – so long as they are not dealing with those very few overweight individuals who qualify as disabled under the Americans with Disabilities Act or applying more stringent standards to one legally protected group than to another (for instance, women versus men).

The ADA, which addresses discrimination based on both *actual* and *perceived* disabilities, provides some legal protection – but the courts and the U.S. Equal Employment Opportunity Commission have emphasized that ADA coverage of obesity will be a "rare occurrence."

To establish an actual disability, an employee must prove two things: that he or she is either morbidly obese (100% over ideal weight) or suffering from obesity that is a symptom of a physiological condition; and that as a result of this condition, he or she is substantially limited in one or more major life activities. At 400 pounds, Sid may be morbidly obese but, as I'm sure he would agree, the limitations he experiences don't come close to constituting an actual disability.

There is a danger that by linking Sid's medical condition (diabetes) with his weight during discussions of Sid's possible promotion, Bill may create a *perceived* disability that extends the ADA's protection to Sid. But given that Bill's primary concern is that clients won't want to socialize with Sid, not that Sid is truly disabled, it's doubtful that Sid would be able to establish a claim of perceived disability. It appears, then, that it is legally permissible for Bill to take Sid's weight into account. But the question remains: Is it ethical?

The principle of equal opportunity in employment creates an ethical obligation for employers to ensure that their decisions are based on valid, work-related information about employees rather than on stereotypical inferences. This means that, first, before Sid's weight is taken into account, the relationship between employee weight and successful performance of the consultant relations job should be established by a thorough job or competency analysis – not by Bill's subjective assessment. Second, given that past behaviors are generally the best predictors of future behaviors, historical indications that Sid can do the job should be given greater emphasis than Bill's fears about clients' possible prejudices. Third, NMO must try to identify and employ other tools with demonstrated validity in predicting successful performance in the consultant relations job (for example, tests of relevant personality traits, job knowledge, or interpersonal skills). Of course, the best test would be to allow Sid to perform the job temporarily.

All of this is simply a matter of sound, scientific practice – relying on stereotypes unnecessarily risks the introduction of systematic bias or error in HR decision processes. Given the time and expense involved in attracting, training, and retaining qualified employees; NMO's policy of favoring internal candidates; and Sid's tenure and success to date – and unless there is an external candidate whose qualifications are clearly superior – denying Sid this opportunity could be viewed as HR malpractice. How could his loyalty and motivation not be negatively affected if he is passed over, especially if he determines that it was due to concerns about his weight? Bill's friend, Chuck, dismissed this concern, asking, "Who's gonna hire him?" Maybe no one, but having a disgruntled Sid stay at NMO may be a worse outcome. Either way, NMO loses a valuable contributor.

It is legally permissible for Bill to take Sid's weight into account. But the question remains: Is it ethical?

The engine production line at Toyota Motor Manufacturing, West Virginia.

It takes local talent to build world-class engines. Since Toyota began building vehicles in the U.S. in 1986, we've been committed to investing in local manufacturing. Today in our eight U.S. plants, Toyota team members build engines, transmissions and cylinder heads, as well as more than one million quality cars and trucks a year.* And with two more manufacturing plants under construction, our growth will continue to be powered by local investment.

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Prejudice against fat people is the last socially acceptable prejudice in what I will call "polite society," for lack of a better term. Chuck and his real-life counterparts feel comfortable making fat jokes, but they might be more circumspect if Sid's problem were concealed – if he suffered from, say, a hearing impairment or bipolar disorder, a condition that would surely affect his job performance more than his weight would. Sid is perfectly capable – even excellent – but he cannot conceal the fact that he is fat.

Bill is afraid of being judged. He's worried that, if he chooses Sid, somehow Sid's obesity will reflect poorly on him.

If Sid were not fat, the decision would have been a no-brainer. Bill knows in his heart that Sid is the most qualified applicant because of his in-house status, proactive nature, and successful performance. In this situation, Bill's own insecurities may take a massive toll on another person's life. He's inclined to discount Sid under the pretense that the new job would be too difficult. In this case, Bill is afraid of being judged. He's worried that, if he chooses Sid, somehow Sid's obesity will reflect poorly on him, that others will think less of him.

Is Bill neurotic, paranoid, a sniveling wimp? Maybe, but he's also right in terms of his fears. Like Bill, I worried that being linked in public with my sister, who became obese as a teenager and remained so well into adulthood, would be social suicide. I didn't want to be seen at the grocery store with my sister by the boy I hoped would ask me to the prom. When peers smirked in her presence, I didn't stand up to them. (Studies have since demonstrated that people do project negative attitudes about weight, not just to the obese individual but also to those who associate with him or her – which I find frightening in its ramifications.) Deep down, of course, I would have been horrified to be accused of my shame, and I certainly never expressed it. It is the worst feeling I have ever felt; I am ashamed years later to think it, let alone write it. I did not have the confidence, self-assurance, or strength of character to do what I should have done and say what I should have said, which was: This is my sister. I love her. She is an absolutely amazing person, and what she looks like is not who she is.

My behavior hurt Alison terribly, more than I ever knew at the time. It affected her life in subtle, lasting ways. But all teenage siblings behave in reprehensible ways toward each other in some form or another, and, for the most part, we get over it. It teaches us how not to behave as adults. I will spend the rest of my life living with this flaw in my younger self. But I was 16. Bill is a responsible adult, and what he is considering doing to Sid is significantly worse.

If Bill does not give Sid the chance to prove that his weight will not be a factor – and I seriously doubt a slightly more arduous walk to the airline terminal will hold Sid back much – he could affect Sid's future. He would be undermining all Sid has worked for as an adult – even his very place in the world. He would also be playing his part in the horrible pageant we all act out every day, claiming we don't care what people look like and then damning them in a thousand underhanded ways.

In my opinion, it is Bill's moral obligation to offer Sid this job. Strong words? This is not a subject on which I feel impartial. But I am not a zealot. If Sid cannot keep up with the workload or job expectations for a weight-related (or any other) reason, he should not expect to remain in the new position. The primary criterion for a new hire should be the ability to do the job. In Sid's case, I suspect he'll do it superbly.

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To order, see page 155.

At Pitney Bowes, diversifying from our longtime core business turned out to be a mistake. You *can* go home again, we learned – but it isn't easy.

Back Where We Belong

by Michael J. Critelli

For most of my 25 years at Pitney Bowes, the threat of obsolescence has hung over us. We are, after all, in a business that is deeply associated with what commentators inappropriately refer to as snail mail. Our genesis was a single product – the postage meter – and still, 85 years after Arthur Pitney and Walter Bowes brought it to market, more effective processing of physical mail is at the core of our business. To use the most ominous metaphor, we are the buggy whip to the postal service's buggy. The question constantly arises: In a world increasingly transformed by e-mail and other electronic communications, is our business destined to go the way of the pony express?

Perhaps it's no surprise, then, that as chairman and CEO I spend a large proportion of my time – about 25% – on strategy. Speculation about our future enters into every discussion with every investor, it factors into customers' decisions on investing in capital equipment, and potential employees pose questions about it when they're considering joining us. I have to arrive at answers that I can put forward convincingly and with conviction, even if they clash with many people's assumptions.

The strategy we've formulated does clash with conventional wisdom in some quarters, because it constitutes a big bet that physical mail will continue to be relevant for a long time to come and that digital communications can complement mail as well as substitute for it. Perhaps more challenging for leadership here, the strategy clashes with Pitney Bowes's direction of the past four decades. (See the exhibit "Back to the Future.") As early as the 1960s, the company began thinking that its future strength lay in broad diversification. By the end of the century, we had taken at least six different tacks, moving into ventures as disparate as noncore capital equipment leasing, mortgage servicing, and retail supply chain systems. Now we've shed those plans and are recommitted to our core businesses of helping companies manage their mail and documents more effectively. We think

JOANNA SZACHOWSKA

there's plenty of opportunity to grow that core, particularly in global markets, and to move into adjacent, lucrative market spaces. We also believe that, working collaboratively with other stakeholders in our industry, including postal services, we can create more profitable growth opportunities.

The point of this article, however, is not to sell you on that strategy – though I hope you will see its wisdom. Rather, it's to put you in the shoes of someone who has a big-bet strategy to sell every day. *Harvard Business Review* asked me to reflect on how strategy is formulated in a company that is acutely aware of that strategy's importance. It's a subject that tends toward dispassionate and abstract analysis; but HBR wanted to hear from someone who lives it, breathes it, and is even impassioned about it. And that, I admit, would be me.

Will the postal service end up like Amtrak? We're optimistic that that won't happen, but it's one of our nightmare scenarios.

Foreseeing Change over Time

Thinking strategically, of course, begins with making predictions about the future, and that means perceiving the direction in which things are changing. You have to start with the facts about trends. For instance, at Pitney Bowes, we know that first-class transaction mail – which has been our company's sweet spot for all of its history and includes consumer-originated mail as well as the bills, statements, correspondence, and offers that a business sends to its customers – has been declining in recent years. And although it has shown signs of possible growth in recent months, we do not expect a return to the 4% to 5% annual growth rates of the 1980s. (Overall mail volumes, which declined in the United States between 2001 and 2003, grew last year at 1.9% – although the increase was concentrated in standard, or advertising, mail in which we have participated very little.)

But directional understanding is only the beginning; the real key is gauging the rate of change. Are we looking at slow growth, flat volumes, a gradual decline that we can live with, or acceleration into a faster decline? That's the question we wrestle with – because if the latter is the case, we're in danger of entering a death spiral and should take more drastic action to move into adjacent spaces. The thing is, even a rapid decline is not going to amount to 10% in one year, so we need to state our expectation with some precision. If we were to experience a 1% per year decline from the current 207-billion-piece level, the mail stream would decrease to half its size (about 100 billion pieces) in 72 years. But if that annual decline were at 6%, it would shrink in half in just 12 years. Where we expect it to land in that range has dramatic implications for how we manage.

If you've read Andrew Grove's *Only the Paranoid Survive* or, better, if you've lived through the kind of strategic inflection point he describes, you know how hard it can be to track change in a dynamic business setting. Inflection points, Grove says, occur when the balance shifts in an industry – often due to subtle, easy-to-overlook changes – and things suddenly start rushing headlong toward a new competitive business model. His point is that, if you rely on straightforward extrapolation from what has happened in the recent past, you will miss the signs – hence the need to be paranoid.

At Pitney Bowes, we think about the future of physical mail in these terms, and also about the future of government postal services around the world. With a few missteps or the wrong leadership at the helm, the fortunes of certain postal services could change precipitously. Recall the state of the U.S. Postal Service in the 1980s and 1990s when it tried to move into unrelated businesses by charging for services like digital signatures, e-mail address forwarding, and "hybrid" mail, none of which took hold in the marketplace. Arguably the only thing that saved the organization then was the fact that mail volumes were growing in a booming economy. Today, a strong leadership team under John Potter and John Nolan is trying to transform the USPS – but they operate under remarkably severe political and economic constraints. Will the postal service end up like Amtrak? We're optimistic that that won't happen, but it's one of our nightmare scenarios.

Other questions hang over other postal services. When the European Union moved to create common standards and borderless mail service through directives in the 1990s, some nations reacted with a circle-the-wagons mentality. As a result, EU postal standards now have less in common than they did back then. Will they become more or less protectionist over time? At the other end of the spectrum, will the current post-IPO business model of Deutsche Post prove to be sustainable, or will the company need to curb its expansion and start producing higher returns for shareholders?

More broadly, the history of physical mail itself may be ripe for an inflection point. I remember having a strong sense of this on the day the news hit that the mail system was being used to send anthrax-tainted letters. And it's a question that has to be revisited continually. Absent a repetition of such shocking abuse of the mail, we take the view that mail volumes in the advanced economies are going to land somewhere between 1% growth and 1% decline over the next five to seven years, leading us to an operative principle of flat to slow decline. Happily, we're also seeing fast-rising demand for the company's broader

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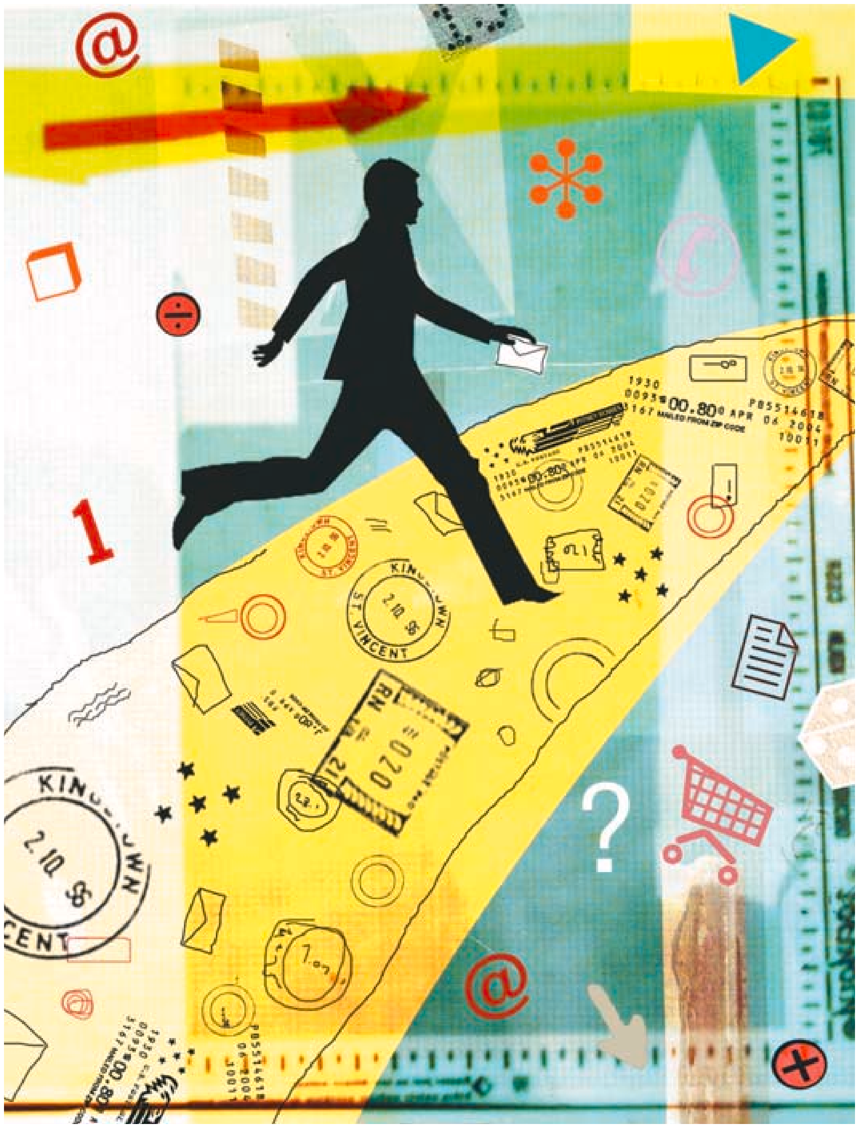
portfolio: mail and document management hardware, software, and professional services – growing parts of the new Pitney Bowes.

Keeping an Ear to the Ground

I don't mean to imply that I alone should do this kind of thinking – or that 25% of my time would begin to be sufficient for the task. My strategic responsibility to the company is to ensure that the thinking is being done and that actions are taken as a result. Soon after becoming the chairman, I created a role reporting directly to me, focused on anticipating the future. The man I hired, Luis Jimenez (he is now our chief strategy officer), had headed the postal practice for consulting firm Arthur D. Little for 16 years and worked extensively on modeling the different components of the mail stream. We've also dedicated another full-time professional to looking at factors that could influence the future of mail, and we use techniques like scenario planning (as famously pioneered by Royal Dutch/Shell) to understand how they will evolve. We have a postal policy council of senior executives that convenes regularly to look at the data and ask, Is there anything new in the environment that could change our basic conclusions? We're constantly monitoring the landscape for changing conditions.



But neither do I simply hire strategic thinkers and leave the task to them. I do my own homework and revisit the issues constantly. Every time I hear a surprising piece of news, my thoughts go immediately to its possible implications for the business. The obvious example is picking up the paper and learning of some freshly appalling act of terrorism. I think, "What if that happened here? Is there something we haven't thought of?" Naturally, we have a task force focused on crisis management and emergency preparedness, we've gone through simulations and drills to identify potential weaknesses, and we are taking the prudent step of geographically separating critical business functions. But I am acutely aware that one can plan for only so many contingencies and events. That's why I stay up late reading books like *Imperial Hubris,* Michael Scheuer's analysis of why America is hated in many parts of Islam, or *The Sling and the Stone,* by Thomas Hammes, which discusses what he calls "fourth generation warfare," the kind being practiced by the Iraqi insurgents. I want to develop my own sense of what we are dealing with. Where are the enemies likely to attack? How are they likely to attack? And what does this mean in terms of how we run mission-critical activities?

At the same time, I try to take notice of the more subtle changes in the environment that may have disproportionate effects over time, such as Grove's inflection points. For example, I was in a meeting with some senior people at one of the nation's biggest banks just as the Check Clearing for the 21st Century Act was going into effect last fall. Check 21 relieved banks of the burden of having to ship paper checks physically to the bank on which they were drawn. Instead, banks can now transmit electronic images of checks to each other. For consumers, the effect (sometimes unwelcome) is to wipe away the old system's float time: waiting for checks to clear. For Pitney Bowes, it's another part of the mail stream displaced. As I listened to the bankers describe the changes it would entail for them, I did so with two sets of ears: one for the immediate customer service opportunity and one for the broader strategic implications.

During the same visit, I talked with employees at our Management Services site for the bank, getting a sense of how their work was going and changing. I came away from that hour struck by the amount of fulfillment activity there, as the bank sends out to its own employees things like training manuals, loan guidebooks, enterprise risk manuals, and so forth. I picked up tidbits of knowledge – such as the fact that coil binders are the preferred document-binding method right now, though they are very labor-intensive – and also the broader insight that a tremendous amount of value is added in the fulfillment process: making sure documents look just right, get to the right people, and arrive in a format that increases the likelihood of their being read. It was yet another reminder that there's more to mail than #10 envelopes with indicia and a prod for our Management Services business to go further in standardizing and marketing our fulfillment offering. If anything, the market for this service five years from now will be even bigger and more valuable. I tell the story not because it was a breakthrough moment strategically but because it was a fairly typical day on the road.

Reframing the Questions

No serious strategist stops at an understanding of how the world is evolving around him. The follow-up questions are, How much influence do we have over the outcome? How can we reshape the context to our advantage? Pitney Bowes's substantial ongoing investment in research and development ($1 billion over the past decade) is one way to do this; with more than 3,000 patents to our name, we are responsible for many of the major innovations in our industry and in some related industries. A technique for high-resolution laser printing, to cite only one example, was invented by Pitney Bowes scientists and subsequently licensed to virtually every major printer manufacturer worldwide. We also have leading encryption technologies vital to securing the more than $14 billion of postal funds we handle every year. Another way to reshape the competitive context is to engage in constant dialogue with regulators, policy makers, and others who influence market forces. This is especially critical in emerging markets where the business communications industry is expanding rapidly. In some countries, such as China, India, and Brazil, governments are still determining how to develop a commercial market. We're in varying stages of work with each of them, hoping to create more potential in markets where we are experiencing double-digit growth.

More than being a motivational or charismatic leader, I think my strength lies in altering the terms of the debate.

Understanding the competitive context and how it could be reshaped by our actions is my greatest strategic responsibility. In fact, more than being a motivational or charismatic leader, I think my strength lies in altering the terms of the debate and getting people to think about how the game could be changed. If I can bring in different frameworks, new lenses, and fresh vocabulary to help spring people from their entrenched mental models, that may help us to innovate in strategically creative ways.

I remember, for instance, when I read Ram Charan and Noel Tichy's book *Every Business Is a Growth Business* and took from it some different ways to think about the growth potential in mail and document management. The authors cite the shift in perspective that took place at Coca-Cola in the 1980s; the company already enjoyed huge market share, and it seemed as though further gains would be hard-won. But things looked very different when Coke noted it had only a tiny share of the world's total drinks consumption – what it called "the market share of the stomach." The same shift in perspective helped us see our growth potential. Although our market share vis-à-vis direct competitors is huge, the better question is, What percentage of the mail are we participating in, and how are we participating in it? Thinking this way helped us to spot the opportunity presented by remote commerce. More and more goods are being moved directly to consumers through the mail, whether they're purchased from long-established direct merchants or from enterprising individuals on eBay. So, for example, we now have a partnership with eBay that enables sellers to print postage and address labels right from their desktops with a couple of clicks of a mouse. We sell dedicated label printers to make things that much simpler. And sellers don't even have to drop off packages at the post office – their regular mail carrier picks them up. It's the best retail system ever invented, and with the online auction market growing at 30% a year, it promises good returns.

We've reinforced this new perspective on growth with new performance metrics. We used to ask, How many meters did we place and how many customers do we have? Now we ask, How many pieces of mail are we participating in and how many pennies do we get per piece? Right now we're up to about 30 billion pieces of mail a year and get 8.7 cents per piece on average in the United States. That continues to rise as we add new services to deal with mail both before it reaches the meter (such as address verification software) and after the meter (such as digital confirmation of delivery). With our current capabilities, we figure we can make about nine cents for every piece posted by a midsize mailer. That's now our benchmark.

Another strategic concept, Adrian Slywotzky's notion of profit zones, has helped me think in terms of another big question: Where is there money to be made? Within our business, for example, we've analyzed the mailing value chain and decided to focus more on what's known as "presort." The U.S. postal service offers a substantial postage discount – up to 9.2 cents per piece – to high-volume users that present their mail already sorted by zip code. Obviously, it reduces the workload at the post office. The problem is that it requires a lot of effort by the mailers, most of which aren't set up to do it efficiently. Pitney Bowes is so good at it that we can take on the presort work, split the savings with the mailer, and still come out ahead. It's the best kind of strategic move, because everyone wins.

By looking aggressively for profit zones, we've been able to find several areas in which people are willing to pay premiums for what we offer. We've expanded our financing activities to offer credit services that extend beyond our traditional financing for both equipment and postage, such as a new credit card targeted at small business owners, who make up more than half of all our customers. The ancillary professional services we provide constitute another profit zone. Supplies themselves have become a profit zone as we've moved 75% of our U.S. customer base to digital postage equipment and the business has begun to take on classic razor/razorblade attributes, requiring steady replenishment of inks and other proprietary supplies. All this adds up. Today, a little more than 40% of our revenues come from areas of the business that are growing at double-digit rates. These revenues more than offset the flattening out of traditional meter rentals in the United States.

Thinking in Terms of Solutions

What we're trying to do now is realize the full potential of our strategic goal to provide solutions for customers and generate superior shareholder returns. This is harder than it sounds, especially in our Management Services business. We already have all the products and services required to meet any mail and document management challenge – but what customers value most is when we take on the task of making those products and services work together seamlessly within their operations. We have done it many times. But the unique solutions we have crafted, often through heroic entrepreneurial efforts on the part of local site managers, simply have not been scalable. As many other companies moving into services have discovered, every customer site is unique. But if our professional services business is to be profitable, we must select from among all possible solutions the handful that can be standardized, branded, and sold broadly.

It's a difficult challenge for a company that has been, metaphorically speaking, in a concierge business. We think of ourselves as highly skilled, high-value, responsive professionals who show up at customer sites, perform the work the customers want, and get paid as a markup on the cost of our labor. But many of the increasingly cost-conscious companies we serve have decided they don't necessarily want or need white-glove service. We woke up to this a few years ago, when a major customer took its business elsewhere. We'd had an on-site team doing desktop publishing, putting together the highly customized pitch books it used to propose new business. The professional staff at that site knew our people by name and engaged in dialogue about the books, sometimes going through many rounds of revisions. That changed right after September 11, 2001, when the customer's procurement people started looking harder at costs. They said, in essence, that all this dialogue could take place remotely; from now on, users would have to make revisions on a screen because the work would be done in India.

We saw this in the financial, then legal, services industries. It had started even earlier with telecom companies, when whole buildings and sometimes whole divisions were shut down. When the same customers started to grow again, they didn't go back and rebuild their staffs in the same way. The thought processes had changed. So what we needed was a set of standardized, highly cost-effective offerings that provided different degrees of hand-holding. This is what we are creating now. And I am acutely aware that designing the offering – selecting from the many different services we could offer the ones that deserve to be core services – is only the first part of the challenge. A culture shift is also necessary, because the managers in place at customer sites are so used to acting entrepreneurially and customizing our service. Now we're asking them to relinquish some of that control and work in a very standardized, disciplined way. We're starting to see progress. For example, we provide mailroom and copy-center services to scores of banks and law firms in New York City. It used to be that an individual site with a backlog of work would send that backlog to whatever third-party copy shop was down the street. Now we've opened our own centrally located service center; it has high-speed capacity to support all our New York sites and can generate its own business as well.

Pulling Together

There is no doubt that a shift in strategy has deep implications for an organization. Refocusing on our core business and aiming to provide integrated solutions will require us to become one company in form and spirit. But this, too,

Back to the Future

Pitney Bowes's history comprises three strategic eras. After a 40-year period of broad diversification, the company is refocusing on its core business.

*Period 1

1920–1960

Organic Growth: Building the foundation

Pitney Bowes grew largely organically and within the mailing space.

*Period 2

1960–2000

Diversification

A catalytic event toward change was a 1959 consent decree between Pitney Bowes and the U.S. Department of Justice. If adequate competition did not arise within ten years, more onerous provisions would be put in place, such as a mandated breakup of the company. Fortunately, competition did enter the market in the 1960s. But perceiving a sword of Damocles over its head, the company embarked on a 40-year period of diversification with six discernible strategies.

Selling office equipment. This included copiers, fax machines, dictation equipment, executive workstations, and word processors.

Financing leases. Traditional leasing of Pitney Bowes equipment was expanded into noncore leasing of cars, airplanes, and small-ticket items. The company also moved into mortgage servicing, residual value insurance, and broker insurance.

Selling retail supply chain products. The acquisition of Monarch Marking Systems in 1968 got the company into bar-code and other point-of-sale retail systems.

bucks a 35-year trend here. My predecessor, George Harvey, was a strong believer in self-contained, independently run business units. In fact, in 1990 he implemented this belief very aggressively by setting up four discrete lines of business, each headed by a group president with a great deal of freedom. In part, this was a succession-planning move. By giving these people latitude and holding them accountable, he hoped to see what they were made of. He also believed that business leaders with full accountability would move faster, have lower-cost businesses, and be more customer focused. It was a workable strategy at the time because there was not as much overlap in the customer bases of our various businesses. However, because employees were more loyal to their divisions than to the overall company, the company inevitably became deeply siloed and conflict ridden. Customers were able to see this conflict.

Management Services, for example, developed a strong culture of independence. I remember its executives telling potential clients at the time that, when we were selling reprographic services, a key point of differentiation between our company and Xerox was that we were vendor neutral. In other words, even though Pitney Bowes Office Systems sold the kind of hardware and software the client needed, we were not wedded to it. I thank Karen Garrison, who ran Management Services from 1999 to 2003, and Matt Kissner, who led the unit in 2004, for pushing in the opposite direction, urging us to sell well-integrated Pitney Bowes solutions. We've now made it politically incorrect to go with anything else.

We've realigned the organization, too, to encourage more enterprisewide collaboration on the customer's behalf. In the first stage of the realignment, I resegmented our operations based on customer needs. More recently, I consolidated the reporting structure for those segments. This should help us serve customers more seamlessly, move toward a more integrated business model, and execute our growth strategies more aggressively. I also think that, while the decentralized model optimizes business unit costs, it creates higher costs for the company overall.

Striking a Balance

I understand that managers unaccustomed to working together don't change their habits overnight. I'm far less sympathetic with behavior that seems siloed and budget driven, rather than guided by a true commitment to realizing shareholder and customer benefits. Perhaps this is not a bigger problem for Pitney

Selling business forms, greeting cards, and executive gift items. These sales were made through the sales force and catalog direct marketing.

Granting autonomy to international country managers. In the 1980s, this strategy moved the company into businesses ranging from physicians' computer systems in Germany to typewriter ribbons in Australia to plastic card systems in Japan.

Pursuing technology and patent licensing as a new source of revenue. For instance, many printer companies licensed Pitney Bowes's innovations in laser-printing resolution techniques.

* Period 3

2000–present

Renewed focus on the core, with moderate diversification

Spinning off the office systems group and discontinuing noncore lease financing marked the end of diversification into unrelated businesses. Pitney Bowes continues to make acquisitions, but each provides a specific capability or geographic coverage to enhance the core business or diversify into adjacent spaces.

Bowes than for any other large organization, but I am on a mission to root it out wherever it crops up.

I also get frustrated when people seem unable to do some multitasking. The cultural tendency, too often, is to believe that we can walk – even walk fast and purposefully – but please don't ask us to chew gum at the same time, even if we are highly paid executives.

I learned as early as 1994 that this was a sore spot that would have to be tempered if I was ever to lead effectively. That was the first full year after I took the helm of our Financial Services business, which had agreed the previous fall to certain strategic objectives for the year. What none of us had anticipated in those objectives, however, was how fast the Federal Reserve would raise short-term interest rates. After going four years without a rate increase, we saw six Federal Reserve rate increases that year, four of them by May 1994. I asked my managers, "Okay, what else are we going to do?" Many of them were surprised by my question. They responded, "What do you mean? We just have to tell the CEO there's no way we'll make the budget." When I rejected that course and named three things I thought might close the gap, they pointed out that, aside from the fact that they wouldn't count toward our annual objectives, those initiatives would call for new roles and other resources. They weren't in the budget. I was livid. "Well, multiple rate increases weren't in the budget either!" By the end of that year, I had gotten rid of some of those people and reached an accommodation with the rest, but I had also learned something about myself. I needed more patience.

What I did then is something I have since done again as chairman. I created a mechanism to strike a balance between my ambitious vision for the business and the current change capacity of the organization. Now a transformation committee of five executives – led by our CIO and including our president, CFO, head of human resources, and transformation leader – achieves a balance, and we move forward without a counterproductive level of trauma. It also helps that I have a president and COO, Murray Martin, who is fully aligned with my vision and strategy and who provides the leadership to help us move along at the right pace.

Aiming to provide integrated solutions will require us to become one company in form and spirit. But this bucks a 35-year trend here.

• • •

Our transformation into an organization focused on a core business and operating as one company is still a work in progress. We took it in bite-size pieces and developed certain parts of it faster than others. Not surprisingly, we focused first on our strategy regarding mail, which was under siege in the late 1990s. In areas less far along, we're on the right track and making progress.

It may be that my approach to strategic change is not like most other CEOs'. I engage more actively in formulating the plan of attack than in rallying the troops to charge. Yet my strategy work is not done in the abstract – it's done in the course of day-to-day communications with frontline employees, customers, and people who are interacting with our products and services in their workplaces. Rarely am I credited with sterling words or bold, symbolic actions. Instead, I help people to see the business we are in differently and to reach a shared vision as to where we want to end up. And, little by little, things move in the right direction.

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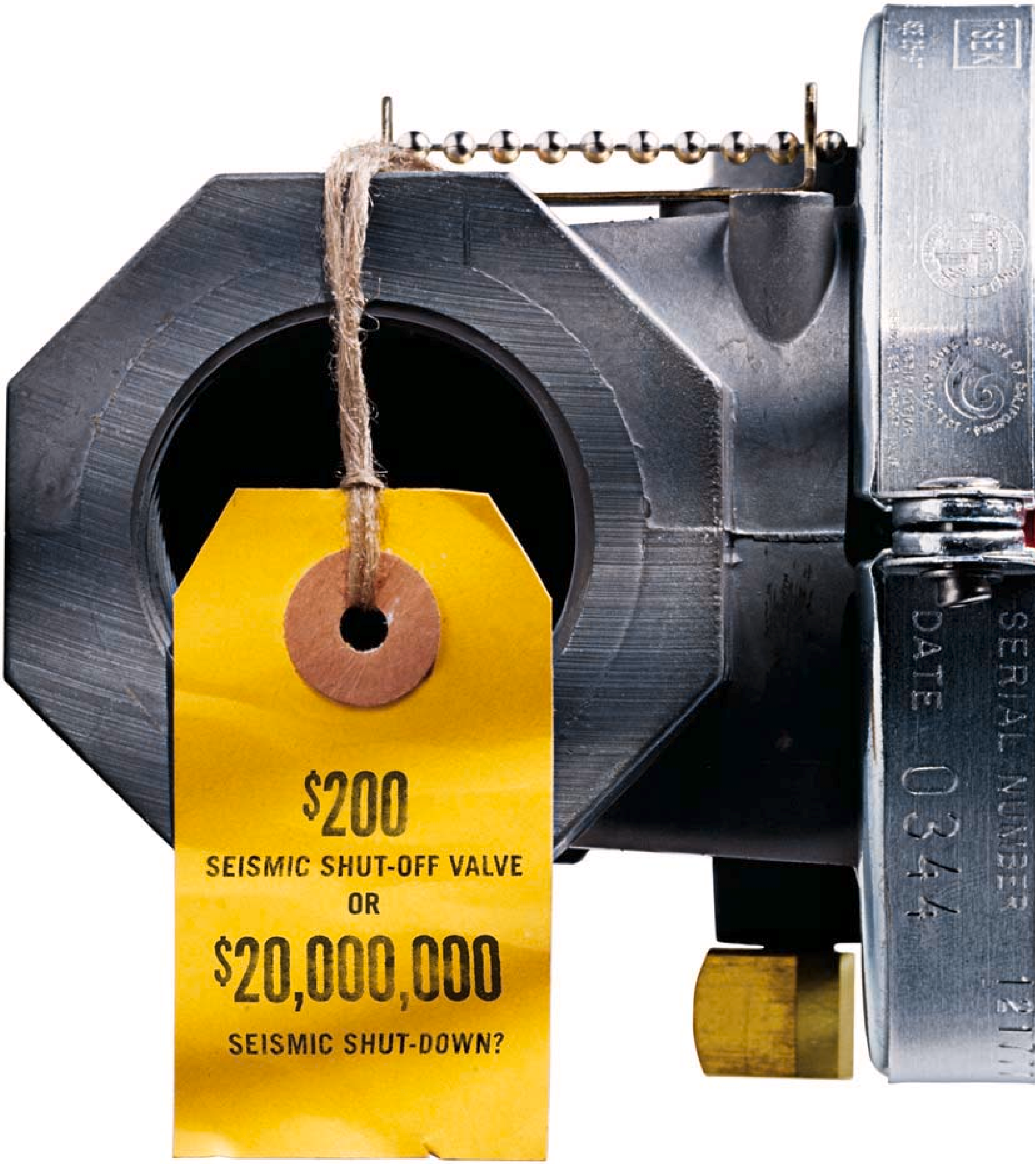
To order, see page 155.

"Can you imagine? The guy was accused, tried, and convicted in the media. You can't buy that kind of publicity!"

CHRIS WILDT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Strategic experiments are crucial to long-term growth – but exactly what does it take to get promising ideas out of the incubator and up and running as sustainable new businesses?

Building Breakthrough Businesses Within Established Organizations

by Vijay Govindarajan and Chris Trimble

FEW BUSINESS NARRATIVES are more evocative than that of the inspired leader boldly pursuing an extraordinarily innovative idea. So romantic is the notion that companies pushing for more innovation often devote the bulk of their energies and resources to generating ideas and encouraging individual initiatives. This is a good start, but nothing more. New businesses with the potential to deliver breakthrough growth for established companies face stiff headwinds well after launch. Ray Stata, a cofounder of Analog Devices, the $2 billion semiconductor company, has lived this challenge for decades: "I came to the conclusion long ago that limits to innovation have less to do with technology or creativity than organizational agility. Inspired individuals can only do so much." Emphasis must shift: from ideas to execution and from leadership excellence to organizational excellence.

GARY TAXALI

To find out exactly what it takes to get beyond ideas, we have spent the past five years chronicling initiatives at organizations such as the New York Times Company, Analog Devices, Corning, Hasbro, Cisco, Unilever, Kodak, Johnson & Johnson, Nucor, Stora Enso, and the Thomson Corporation. We have examined best practices for managing strategic experiments – high-growth-potential new businesses that depart from an organization's current business model and that target emerging industries in which no clear formula exists for making a profit. Strategic experiments constitute the highest-risk, highest-return category of innovation and require a unique managerial approach. We chose to focus on strategic experiments because dramatic forces such as globalization, digital technology, biotechnology, and demographic change are now creating nonlinear shifts in the economy – threatening stability but also opening up opportunities for breakthrough growth.

A new business with high growth potential (let's call it NewCo) rarely coexists gracefully with the most closely related established business unit within the company (let's call it CoreCo). The unnatural combination creates three specific challenges for NewCo: *forgetting, borrowing,* and *learning.* NewCo must forget some of what made CoreCo successful, because NewCo and CoreCo have elemental differences. NewCo must borrow some of CoreCo's assets – the greatest advantage it has over independent start-ups. And NewCo must be prepared to learn some things from scratch.

When Analog Devices decided to explore opportunities presented by a new semiconductor technology, it faced all three challenges. The technology, called microelectromechanical systems (MEMS), uses a chip with microscopic moving parts that act as sensors; the first commercial application was automotive crash sensors, which launch airbags. The MEMS team at Analog Devices needed to *forget,* because the company's core business model wouldn't work for MEMS. Analog Devices was accustomed to serving thousands of customers with thousands of products, many designed for custom applications. There were only a few automakers, however, and because they valued cost and reliability over customization, they needed only a few variations on the basic crash sensor. As a result, the MEMS team had to alter all of its processes for selling, marketing, and manufacturing. The team also needed to *borrow* Analog Devices' semiconductor expertise and manufacturing plants. And it needed to *learn* whether MEMS devices could be manufactured at a profit and to what extent markets for MEMS applications outside the automotive industry would develop. The business ultimately became profitable but not without first having to confront each of the three challenges.

Forgetting, borrowing, and learning are monumental tasks. That's why it's crucial for a company to leverage the power of organizational design – a term we use in its broadest sense. In building NewCo, the CEO must be willing to challenge the status quo on an extraordinary range of issues: hiring, individual performance evaluation, needed competencies, reporting relationships, decision rights, planning and budgeting, business performance assessment, metrics, compensation, shared values, and shared assumptions about success.

The three challenges are present throughout NewCo's awkward adolescence, from launch to profitability. And they're present all at once, which means tackling them requires an understanding of how they're related. Forgetting and borrowing are at odds, for example, and need to be balanced. A sole focus on forgetting would suggest isolation of NewCo, while a sole focus on borrowing would suggest full integration of NewCo. Also, failure to forget cripples the learning effort. If NewCo cannot leave behind CoreCo's formula for success, it will not find its own.

If NewCo cannot leave behind CoreCo's formula for success, it will not find its own.

Forget

To build a foundation for success, NewCo must forget CoreCo's business model. NewCo's answers to the fundamental questions that define a business – Who is our cus-

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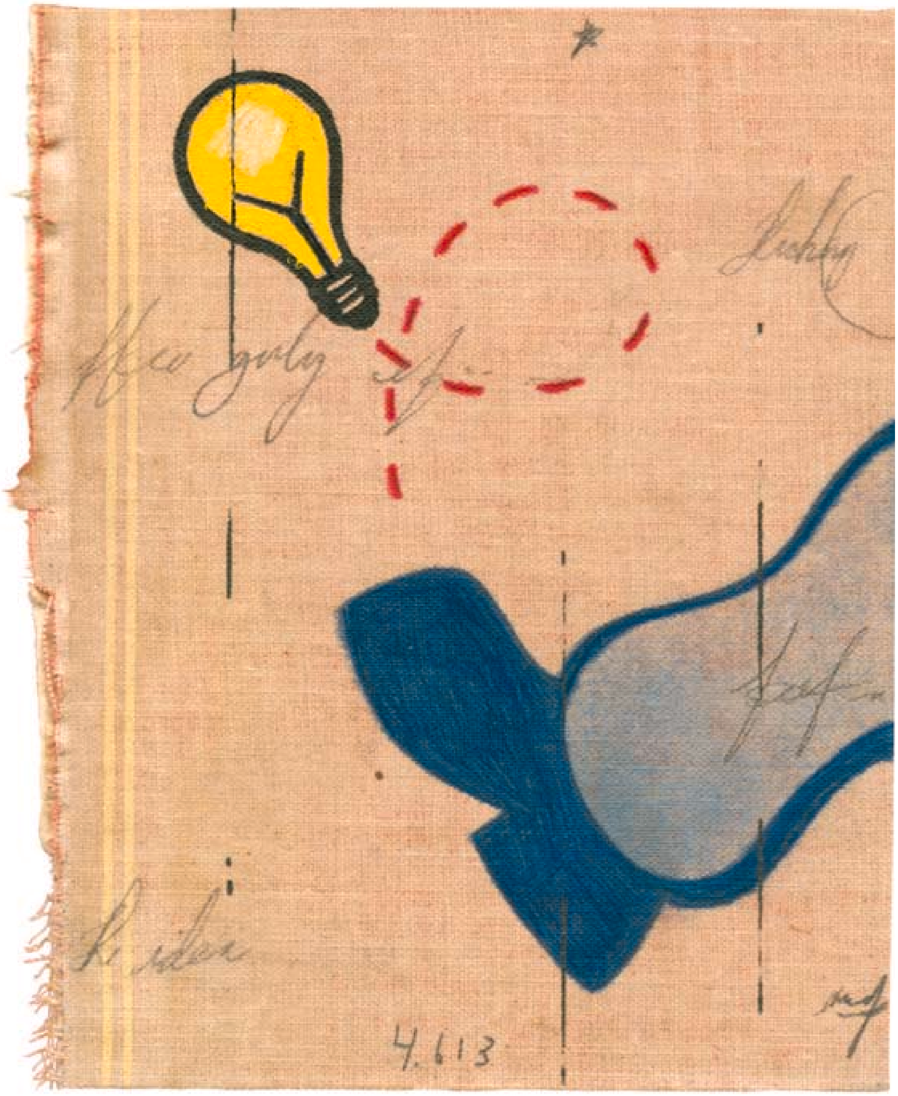


tomer? What value do we offer? How do we deliver that value? – should be different from CoreCo's. NewCo must therefore leave behind notions about what skills and competencies are most valuable. And it must forget the relative predictability of CoreCo's environment.

It is easy to underestimate the magnitude of the forgetting challenge. And it is easy to conclude too quickly that NewCo has succeeded in forgetting. Awareness of the differences between NewCo and CoreCo is not enough. Forgetting is about changing behavior. Often, we have observed, NewCo talks like NewCo but acts like CoreCo.

Many powerful sources of institutional memory – instincts developed through past experiences, relationships between employees that are grounded in CoreCo's business model, performance measures, planning templates, norms for individual performance evaluation, and even often-told stories about the company's history – can interfere with forgetting. Some companies have especially strong memories. (See the sidebar "Warning Signs That Forgetting Will Be an Uphill Battle.")

Many firms make the mistake of duplicating CoreCo's organizational design when they create NewCo. Doing so minimizes hassles, since making NewCo an exception to rules about such things as hiring, compensation, and status can lead to resistance, even resentment, within CoreCo. But the only way to erase memory is to overhaul NewCo's organizational design.

To understand what it takes to forget, consider Corning's venture into the genomics industry. Through the 1990s, advances in biotechnology spawned an industry dedicated to serving the needs of genomics researchers, who were trying to unlock the secrets of DNA and unleash a revolution in medical therapies. Millions of new experiments became possible, and researchers desperately wanted to automate and accelerate the experimentation process.

One crucial piece of laboratory apparatus was the DNA microarray – a glass slide with thousands of tiny DNA samples adhered to it. Because of issues of quality, reliability, and ease of use, many researchers "printed" their own microarrays – a time-consuming and costly process. The opportunity for Corning was clear: to leverage its world-class expertise in specialty glass and microscopic manufacturing processes so it could offer genomics researchers a reliable and inexpensive supply of microarrays. When Corning launched Corning Microarray Technologies (CMT) in 1998, analysts were projecting explosive growth for the industry.

Over the years, Corning had been effective in part because its business units shared a common formula for success. Each sold components to industrial manufacturers. Each emphasized high quality and reliability. Each depended on strong intellectual property rights that limited competition. Each relied on excellence in the manufacture of glass and ceramics and on mastery of related scientific fields. Each planned in a disciplined fashion, and each held managers accountable to those plans.

But CMT was different. CMT sold to an unfamiliar customer – senior laboratory administrators. It needed to emphasize cost and convenience instead of the highest possible quality. It had to work in an unfamiliar, emerging scientific field where patent protection was unlikely. It needed to balance expertise in glass manufacturing with expertise in molecular biology. And it faced a much higher level of ambiguity.

The differences between Corning and CMT are clear in hindsight. But at the time, Corning naturally assumed that what had worked for its established business units would also work for CMT. Therefore, CMT had its own manufacturing, sales, and marketing functions and shared Corning's centralized research and development functions. CMT also adopted Corning's rigorous five-stage model for new product development, along with clear expectations for hitting certain milestones. Because CMT was small, it reported to the existing life sciences business unit. Corning did depart from its tradition of hiring and promoting from within – CMT hired several outside experts in molecular biology, many of whom were assigned to the centralized R&D groups – but all management positions were filled by Corning insiders. As a result, CMT did not develop a culture or identity that was noticeably different from Corning's.

Nonetheless, within months, CMT achieved its first success. It offered researchers who printed their own microarrays a much-improved *un*printed glass slide (without DNA adhered to it) with a special coating. Customers were thrilled with the improved consistency they achieved in printing their own microarrays.

Ambitions for CMT escalated. Its leaders thought that if they simply stuck to the plan, breakthrough growth and profitability would certainly follow. But CMT soon faced unanticipated difficulties.

Working with DNA presented unfamiliar challenges. DNA from different suppliers had chemical inconsistencies, and Corning's usual methods for identifying and correcting manufacturing problems were confounded by the peculiarities of DNA fluid. One day the process would appear to be working fine; the next day a mysterious new problem would arise.

Soon CMT started missing deadlines established in the business plan. The leadership team felt intense pressure. Corning held managers accountable to the plan. Falling short was failing. Plus, falling behind meant that CMT would drag down the profitability of Corning's life sciences unit, which was just as concerned about hitting its numbers. Rather than reexamine fundamental choices, which would have meant admitting failure and asking for more capital, CMT leaders viewed their struggles as minor setbacks, and they urged their team to work harder.

Despite the high level of urgency, CMT was unable to meet expectations. In an environment of perceived failure, the cohesiveness of the leadership group frayed. The team often settled disagreements by reverting to what had worked in the past. Antagonism also developed between the molecular biology experts that CMT had hired from outside Corning and the CMT leadership team. The molecular biologists took issue with the way the leadership team allocated resources and evaluated outcomes. The biologists also disagreed with decisions to delay product launches to achieve quality standards they knew to be unnecessary in the imperfect world of biotechnology.

All of CMT's struggles stemmed from failures to forget. And all were probably inevitable from the moment CMT adopted Corning's organizational design.

Two years into CMT's operations, turnover in Corning's senior staff led to a reevaluation. Corning's leaders decided to rebuild the CMT organization. First, they appointed a new general manager, someone who had the ability to manage in ambiguous contexts and had a knack for facilitating communication between businesspeople, engineers, and scientists. Second, they reduced the extent to which CMT was integrated with the existing research and development functions by having CMT's heads of R&D report to CMT's general manager. Third, they changed to more subjective criteria for evaluating the general manager's performance, focusing on factors such as how quickly he learned and made adjustments. Fourth, the general manager no longer reported to the head of the life sciences business but to the president of Corning Technologies, who would dedicate significant time and energy to advising CMT.

CMT's new general manager subsequently made his own changes. He hired an outside molecular biology ex-

Warning Signs That Forgetting Will Be an Uphill Battle

- The company has only one business model.
- All business units within the company are at similar points in the business life cycle (starting up, rapidly growing, steadily expanding, maturing, or declining).
- CoreCo has well-established standards of business performance that do not apply to NewCo – often because NewCo has a different cost structure.
- The company has a well-defined culture and has effective socialization mechanisms built into its hiring and acquisition processes.
- The company has a history of promoting primarily from within.
- The company has a strong culture of holding people accountable to plans.

pert to manage the product development effort and another to manage relationships with suppliers. He also moved numerous CMT employees working in distant Corning facilities back to Corning, New York, to help CMT develop a distinct culture.

All of these changes took several months, but it was time well spent. CMT was able to restructure its relationships between research, development, marketing, and sales and to follow a more iterative innovation process. The molecular biologists were given a stronger voice and were able to help CMT make more rapid technical progress. And Corning's senior management team treated CMT's projections as though they were informed estimates rather than a nonnegotiable basis for judging performance. Knowing that he would be evaluated on how quickly he learned and made adjustments, CMT's general manager frequently updated the president on setbacks, lessons, and new directions. When CMT launched its first microarray product in September 2000, customers rated the product a "home run."

How to Forget

From studying Corning's experience – and comparing it to similar efforts at other companies – we have isolated a number of best practices for forgetting:

Don't be insular. NewCo should hire outsiders in key management roles and strongly consider an outsider to head the business. Outsiders challenge institutional memory and are instrumental in building new competencies.

Don't assign status based on size. NewCo should report at least one level above CoreCo in order to reduce the pressures on NewCo for short-term results and to ensure that CoreCo does not hoard resources.

Rearrange the moving parts. NewCo should reconsider how major business functions such as marketing and product development interact. Established patterns of interaction within CoreCo are usually incompatible with the new business model.

Build a new dashboard. The company should not base NewCo's performance on CoreCo's metrics. Doing so reinforces CoreCo's formula for success, not NewCo's.

Dare to make complex judgments. The company should not judge the performance of NewCo's leader too heavily against plans.

Promote new thinking about success. NewCo's leader should create a unique set of beliefs about actions that lead to success and regularly reinforce them. CoreCo's beliefs may not apply in NewCo's environment.

Borrow

NewCo forgets most easily if it is isolated from CoreCo. But complete separation is impractical. CoreCo's tremendous resources are too valuable to ignore.

NewCo *could* borrow a lot from CoreCo – everything from unique assets such as a brand, a network of sales relationships, and manufacturing capacity, to more routine items such as hiring policies, accounting systems, and purchasing processes. We suggest a more measured approach. Borrow too much, and it becomes too hard to forget.

NewCo should borrow when it can gain a crucial competitive advantage – crucial enough that the company would highlight it in a pitch to outside investors. Corning, for example, could not credibly talk to shareholders about its investment in CMT without directing attention to its existing expertise in glass manufacturing. That's a sign that Corning's expertise in glass manufacturing is something CMT should borrow. Usually, there are only one or two such areas that meet this criteria. Incremental cost reductions are never sufficient justification for borrowing.

Links between NewCo and CoreCo should be selected carefully because if NewCo has been properly designed to forget, interactions will be difficult to manage. In fact, once the links are in place, the crux of the borrowing challenge then becomes anticipating the tensions between NewCo and CoreCo – and never allowing them to escalate beyond productive levels. Managing these interactions deserves substantial attention from senior management. Otherwise, cooperation between NewCo and CoreCo can easily disintegrate.

The story of the New York Times Company's venture into the interactive world demonstrates the difficulties of borrowing. The company launched its Internet business unit, eventually named New York Times Digital (NYTD), in 1995. At first, Internet operations were kept closely integrated with newspaper operations. The Internet team prepared content by altering headlines, adding hyperlinks, resizing photos, changing captions, and so forth, keeping the Web site up-to-date throughout the night until the final edition went to press. NYTD added many new features in the early years, but it soon started lagging behind competitors, which were more fully utilizing the rapidly expanding capability of the Internet. Though the NYTD staff pushed to keep pace, it felt constrained to a simple "newspaper.com" operation.

Soon, the company decided on a complete organizational overhaul, choosing an approach similar to Corning's. The head of NYTD began reporting directly to the president rather than to the general manager of the *Times.* NYTD's managers created their own policy team, including a CFO and heads of human resources and business development. They hired so many outsiders with Internet experience that, by the end of 2000, only one-fourth of the staff had come through internal transfers. They altered planning norms and focused on different measures of performance. They moved to a separate building. And they made an effort to redefine their culture and values.

An explosion of creativity followed. The NYTD employees were now operating under the assumption that

they served a different set of readers and advertisers than the *Times* and met distinct needs. They experimented with potential revenue sources and added a great deal of content that was not in the daily newspaper, including material from other news sources, audio and video content, interactive features, continuous news breaks, and *Times* archives.

Unfortunately, the organizational overhaul that enabled NYTD to forget also hindered its borrowing. Tensions heightened in the daily interactions between NYTD and the *Times.* And borrowing was absolutely crucial. NYTD needed two links in particular to the *Times.* Most obvious, NYTD could not survive without the newspaper's branded content, the main attraction for its readers. And NYTD needed to tap into the newspaper's existing base of advertisers, which required the coordination of sales processes.

Some tensions arose from substantive business conflicts. For example, the *Times* circulation department, quite understandably, was not enamored with NYTD. Making newspaper content available on the Internet at no charge gave people a powerful reason not to subscribe to the print version of the newspaper. Also, the *Times* editorial staff was concerned about protecting the newspaper's brand. NYTD was primarily a software operation and, as such, was designed to encourage cross-functional collaboration, something strictly limited within the newspaper to ensure that journalism was not influenced by commercial pressures. Finally, the *Times* group that sold display advertisements (as opposed to classifieds) viewed coordination with the NYTD sales team as a distraction, since the *Times* print ads were much bigger sources of revenue.

Tensions rooted in rivalry were also disruptive. NYTD received a great deal of media attention, especially when the company proposed, though never launched, a NYTD tracking stock that would have given NYTD employees a chance at a large payoff. And because NYTD had made it so clear that it was trying to build a different kind of organization, interactions took on an "us versus them" undertone. NYTD communicated that it aimed to be fast moving, antibureaucratic, risk taking, and experimental. Naturally, the *Times* aspired to be the same and winced at the implication that it was not.

These tensions are hardly unique. They are an inevitable part of the challenge of managing strategic experiments. We observed similar tensions in every company we studied. (For more on these tensions, see the sidebar "Warning Signs That Borrowing Will Be an Uphill Battle.")

Whereas other companies in our research struggled to create effective cooperation, the New York Times Company succeeded because the senior management team acknowledged and proactively managed the tensions. The president, in particular, closely monitored interactions between NYTD and the *Times* and intervened when necessary to keep interactions productive.

In addition, in performance reviews of individual managers, the company stressed collaborating across business units. And to minimize tensions over subscription cannibalization, the senior management team conducted an analysis showing that cannibalization was minimal and that the Web site was actually generating new subscriptions by inducing trial use of the product online.

In most cases, the company empowered NYTD in its interactions with the *Times.* For example, to help NYTD establish a clear price in the market, the senior management team prohibited any initiative on the part of the *Times* to give away Web advertising as part of a larger print advertising package. (Editorial was one area where the company didn't empower NYTD. To protect the *Times* brand, the newspaper retained substantial control over alterations to editorial content on the Web site.)

NYTD reached profitability in 2001, in part because company leaders carefully managed interactions between NYTD and the *Times.* By 2004, NYTD was earning more than $30 million annually on revenues of approximately $100 million.

How to Borrow

Ultimately, NewCo has a much better chance of success when it can leverage CoreCo's assets. The trick, however, is borrowing only where the leverage is highest and ensuring that the senior management team is engaged in monitoring and facilitating. By comparing the New York Times' approach to those of other companies we studied, we were able to identify a number of best practices for borrowing:

Balance the yin of forgetting with the yang of borrowing. Create links, yes, but only to lend NewCo a crucial competitive advantage. Avoid links where conflicts are severe. Avoid links to the IT or HR departments.

Find common ground. Reinforce values that NewCo and CoreCo share. In most cases, CoreCo will have some values that are inconsistent with NewCo's business model. Still, the senior management team can facilitate cooperation by creating a "metaculture" composed of more general values.

Be careful what you ask for. To promote collaboration, reconsider individual incentives. Evaluate and reward CoreCo managers, in part, according to their willingness to cooperate with NewCo. Avoid strong incentives tied strictly to CoreCo's short-term performance.

Co-opt CoreCo. To eliminate resistance from CoreCo's general manager, make borrowing as painless as possible so that he can focus strictly on CoreCo. Replenish CoreCo's resources when NewCo borrows heavily. Set transfer prices high enough to ensure that CoreCo will consider it a priority to help NewCo but not so high that NewCo cannot realistically achieve profitability. NewCo's profitability is a powerful symbol. CoreCo will always be more enthusiastic about helping when there is evidence that NewCo is succeeding.

Be alert to tremors. Assign a senior executive to anticipate tensions between NewCo and CoreCo and to intervene should those tensions become destructive. The senior executive must be willing to commit a lot of time and energy and must be influential and respected within the corporation. She must continually explain the rationale for the differences between NewCo and CoreCo.

Warning Signs That Borrowing Will Be an Uphill Battle

- CoreCo perceives that NewCo will cannibalize CoreCo revenues.
- CoreCo perceives that NewCo could render a CoreCo competence obsolete.
- CoreCo perceives that NewCo might damage CoreCo assets, such as brands or customer relationships.
- NewCo's losses are rising, even as its leaders are succeeding in growing revenues, and CoreCo managers are questioning the wisdom of allocating capital to a business incurring a loss. Bonuses tied to corporate profits exacerbate the situation.
- Resources are scarce or becoming scarcer as CoreCo goes through a downturn. CoreCo is resistant to allocating capital, manufacturing capacity, employee time, and other resources for NewCo.
- CoreCo managers are unfamiliar with the varying needs of units at different stages in the business life cycle, such as the need to evaluate business performance differently, the need to place more emphasis on flexibility than on efficiency, and the need to hire, promote, and compensate based on unique criteria. In fact, if NewCo managers receive large bonuses when NewCo succeeds, CoreCo may specifically resent the fact that NewCo's success was dependent upon CoreCo resources.
- Establishing trust between CoreCo and NewCo, two very different organizations, is proving difficult.
- CoreCo managers are jealous of NewCo. This is likely if NewCo starts to receive strong public endorsements from analysts, the press, outside consultants, or the CEO. CoreCo managers have worked for years or decades to advance within CoreCo, and now CoreCo may appear inferior to a much younger and sexier division.
- Stereotypes persist about the capabilities of new and old companies. NewCo may assume that big companies cannot be agile or entrepreneurial, and CoreCo may insist that status should be based solely on resources under command. Such attitudes rarely constitute healthy rivalry – and they can easily disrupt cooperation.
- CoreCo is so disciplined about process efficiency that it refuses to alter any processes on NewCo's behalf.

Force authority uphill. Unless NewCo is in danger of damaging one of CoreCo's assets, particularly a brand, empower NewCo in its interactions with CoreCo. Without intervention, power will naturally shift back to the larger, more entrenched CoreCo.

Learn

Strategic experiments are highly uncertain endeavors. Regardless of the level of prior research and analysis, NewCo will face several critical unknowns. The faster it can resolve these unknowns – that is, the faster it learns – the sooner it will zero in on a winning business model or exit a hopeless situation.

Any new business has a great deal to learn – new skills to hone, new processes to perfect, new relationships to master. These are important. But the fundamental uncertainties in the business model itself will make or break the business. NewCo's leaders can resolve the critical unknowns most quickly by focusing on a specific task: learning to predict NewCo's business outcomes. At the outset, predictions are always wild guesses. It is not uncommon for revenue forecasts for three years out to be off by a factor of ten. But as the management team learns, wild guesses become informed estimates, and informed estimates become reliable forecasts. (See the exhibit "Is NewCo Learning?")

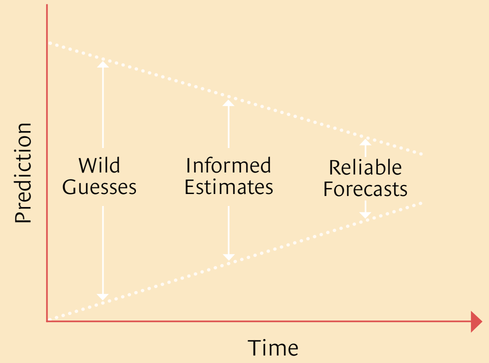
Because predictions are bound to be wrong, especially early on, it is tempting to put little effort into them or quickly discard them. This is a trap. You cannot get better at making predictions by avoiding them. Predictions are important not because of their accuracy but because of the learning opportunities they present. In fact, the crucial learning step for NewCo is analyzing disparities between predictions and outcomes. This analysis must be open and candid. And it must be conducted with speed, rigor, and discipline.

The learning challenge is the most difficult of the three. (See the sidebar "Warning Signs That Learning Will Be an Uphill Battle.") In fact, none of the companies we studied implemented a robust learning process that led to the quick resolution of critical unknowns. Thus, in our field research, we learned much more about what can go wrong than what can go right. The story of Hasbro Interactive illustrates several of the possible pitfalls associated with learning.

In 1995, Hasbro's traditional game business, with iconic brands such as Scrabble and Monopoly, was under threat. The ubiquitous PC, with its rapidly expanding multimedia capabilities, appeared to be the future of gaming. Viewing the threat as an opportunity, Hasbro created Hasbro Interactive. With a distinct organizational design and limited links to the core business, Hasbro Interactive succeeded both in forgetting and borrowing. But it would soon struggle with learning.

Is NewCo Learning?

Reliable forecasts are the best indicators that a new business is learning.



Hasbro Interactive's initial strategy was conservative. Executives there focused on converting existing Hasbro products to an interactive format. The new products were a quick success, generating $80 million in revenues and earning a profit in 1997. Hasbro touted Hasbro Interactive's potential to Wall Street analysts.

The division planned to double revenues in 1998. But to get there, Hasbro Interactive would have to pursue much more experimental possibilities. At this point, learning became even more important. Starting in early 1998, Hasbro Interactive bought licenses to produce games based on television shows. They purchased old video game properties, hoping to resurrect classics from the 1980s. They created deals with sports franchises. They acquired other video game producers. They expanded the video game platforms to serve more than just PCs. They began developing their own titles from scratch. And they invested heavily in a new Internet platform, Games.com.

Overall, the heightened ambition was consistent with the anything-is-possible atmosphere of the late 1990s. But the way that Hasbro Interactive pursued growth brought a tremendous number of additional unknowns into the business. For example, did Hasbro Interactive have the skills to develop products from scratch? Could it turn other companies' products into video games as successfully as its own? How quickly would video game players migrate to the Internet? Hasbro Interactive needed an effective learning process to quickly resolve these and other unknowns. Instead, it kept moving ahead aggressively for as long as possible.

Results were strong once again in 1998. Consequently, even though many of the new initiatives had yet to prove themselves, Hasbro Interactive set an audacious tar-

Warning Signs That Learning Will Be an Uphill Battle

- NewCo's leader perceives that NewCo is in a tremendous rush to get to market first – and therefore has little time for planning.
- The company has a tradition of very detailed and exact planning.
- The company has a history of insisting on common planning approaches for every business unit.
- Data on NewCo's performance (other than financials) are difficult to gather or highly ambiguous.
- The nature of NewCo's business is such that it demands major onetime commitments and thus has little opportunity to change direction.
- The company strongly penalizes managers who fail to make their numbers.
- One or more measures of business performance are viewed as important throughout the company. Senior executives judge NewCo by the same measures, even though the measures are probably irrelevant to NewCo.

get: $1 billion in revenues within three years. The goal was initially just conversational, but it affected decision making and fueled ambition.

Nobody could know it at the time, but as the goal of reaching $1 billion coalesced, Hasbro Interactive entered a new period in its history – the beginning of the end. Results in the first quarter of 1999 were disappointing because of unexpectedly high returns of unsold product from retailers after the 1998 Christmas season. Senior executives at Hasbro became more alert. They had many questions. Concerns heightened when Hasbro Interactive reported a significant loss at the end of 1999 – in the tens of millions of dollars. The pressure was on, and it only got worse when Hasbro's core business suffered a slight decline in 2000.

Hasbro Interactive was unable to quickly restore profitability. It had invested a great deal in experimental opportunities and did not want to abandon them before they had a realistic chance to succeed. The end came late in 2000, when turnover in Hasbro's senior management team led to a change in sentiment. The new team would not endure additional losses, and Hasbro Interactive was sold at a disappointing price.

Had Hasbro Interactive been engaged in a learning process from the beginning, a more favorable outcome would have been likely. The business would have been able to part with the specific initiatives that were failing, and it could have continued to build on those that were succeeding. But Hasbro Interactive did not learn quickly because its predictions were not treated with care. They were ignored, they were manipulated, and they became too rigid.

For a variety of reasons, Hasbro Interactive *ignored* its own predictions. First, it dismissed the importance of making them, believing they would be wrong anyway. Its executives felt they were in an all-out race for first-mover advantage and should be focused on doing, not planning. Second, like most companies, Hasbro's planning cycle was annual. But the planning cycle is also the learning cycle. Thus, Hasbro Interactive ignored the fundamental assumptions underlying predictions throughout the year, and learning slowed to a crawl. A quarterly or even monthly frequency would have been a better match for Hasbro Interactive's fast-changing business.

Managers of Hasbro's established toy and game business *manipulated* Hasbro Interactive's predictions by imposing their own performance measures. Starting in 1999, Hasbro held monthly meetings to review the performance of all Hasbro business units. Naturally, the instinct was to evaluate Hasbro Interactive just like any other Hasbro division. For example, Hasbro placed heavy emphasis on short-term profitability – an unrealistic measure, given Hasbro Interactive's risky initiatives. And when Hasbro Interactive's returns from the retail trade were excessive by toy and game standards, it looked bad – even though the terms of trade are very different in software. Finally, when Hasbro Interactive argued that its product development expenses could be capitalized rather than expensed, a practice common in the software industry, others became uncomfortable because the practice was unfamiliar in toys and games. Thus, the measures that shaped the perceived performance of Hasbro Interactive were not those that could help resolve critical unknowns.

Hasbro Interactive also made the mistake of letting its predictions become *too rigid.* For years, Hasbro had applied relatively forgiving standards of accountability to plans because of the inherent unpredictability of the toy business. At the prodding of a senior executive hired from the outside, however, Hasbro had stiffened its standards, which made it unlikely that predictions for Hasbro Interactive could be revised.

Leaders of potentially high-growth businesses often view themselves as bold visionaries, and this also can interfere with the necessary revision of predictions. When it became clear that 1999 revenues would fall short, Hasbro Interactive's leader reaffirmed his belief in the original plan. He insisted on staying the course and continued to promote the $1 billion goal.

CEOs can also inadvertently make predictions inflexible. They may speak loudly of a new business's potential – as Hasbro's top executives did – both to insiders and outsiders. The intent may be to get investors excited, or it may be to increase CoreCo's support for NewCo. But doing so can lock in an overly aggressive prediction. The voice of the CEO is extremely powerful, and expectations can stick.

Rigid predictions, especially long-term ones, often lead to "guardrail-to-guardrail" decision making – that is, aggressive investment followed by complete abandonment. Such a pattern is the opposite of the gradual zeroing-in pattern that marks a healthy learning process. Hasbro Interactive went guardrail to guardrail in large part because of its heavy focus on the $1 billion revenue goal. Tensions escalated as time went by, and people's ability to rationally assess the situation became almost impossible. In the end, those who never believed that $1 billion was feasible managed to drown out the voices of those who saw the potential in Hasbro Interactive – and Hasbro Interactive was abandoned altogether.

Though accountability to plans is an effective practice in mature businesses, it can be crippling in new high-potential businesses.

How to Learn

Learning is the most difficult of the three challenges. It requires stepping away from tried-and-true, disciplined, and rigorous approaches to planning and moving to something very different but just as disciplined and rigorous. To promote effective learning:

Don't try to mix oil and water. Hold separate meetings for evaluating the business performance of NewCo and CoreCo. These meetings must be handled very differently, and combining them can be impractical, if not destructive.

Protect predictions. Ensure that executives involved in NewCo's planning process understand the importance of improving predictions and are aware of how this learning process can go astray when predictions are ignored, are manipulated, or become rigid.

Avoid being defensive. Evaluate the leader of NewCo not on results but on his ability to learn and make good decisions. Though accountability to plans is an effective practice in mature businesses, it can be crippling in new high-potential businesses. If NewCo's leader is held accountable to the business plan, he will become defensive once targets are missed – a highly likely outcome in any strategic experiment. He will have a hard time being open and candid and may even hide information, perhaps even taking the senior management team out of the learning process altogether.

Do less, faster. That is, simplify plans, but plan more often. Each cycle through the planning process creates a learning opportunity, so planning more frequently increases the learning rate. To make a higher frequency practical, plans must be simplified. Detailed plans (broken down by region, product line, sales channel, and so forth) are useful for mature businesses, but NewCo should focus on resolving critical unknowns, which can be accomplished at a more aggregate level.

Analyze through a new lens. Compare predicted and actual *trends.* Because strategic experiments are dynamic, rates of change are often more valuable information than current results.

Measure what you don't know. Identify metrics that are most useful in resolving critical unknowns. These are usually nonfinancial measures and are rarely the most closely watched metrics at CoreCo.

• • •

Opportunities to lead strategic experiments do not come along every day. In fact, we have encountered very few managers who have led such experiments more than once. Strategic experiments are adventures, and they are challenging – perhaps the "triple flip with a quadruple twist" of general management.

Thus, it is imperative that companies try to learn from others' experiences. The central lesson of history is this: To convert breakthrough ideas into breakthrough growth, you must forget, borrow, and learn. Each has straightforward principles.

Today's executives celebrate an innovation myth focused on gifted visionaries. But the capabilities of the organizations that surround these visionaries will make or break the visions.

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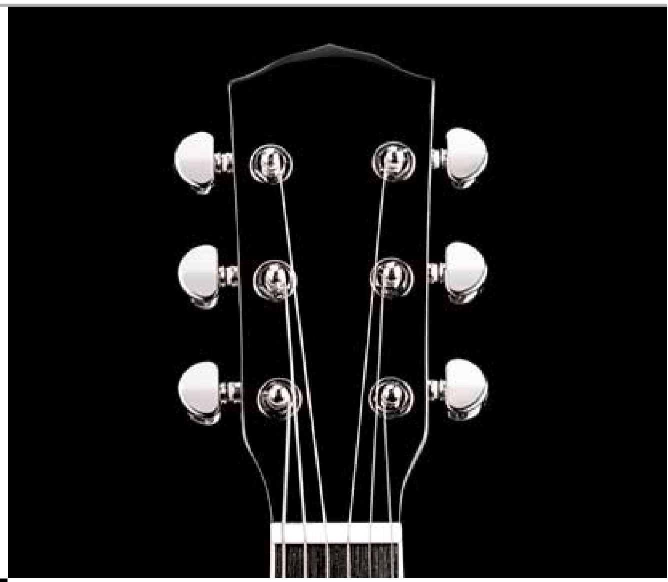
To order, see page 155.

YOU KNOW YOUR BUSINESS.
YOU KNOW WHERE YOU WANT TO TAKE IT.
YOU KNOW HOW YOU WANT TO RUN IT.

THE QUESTION IS, WHAT DO WE KNOW?

WE KNOW BUSINESS FUNDAMENTALS.
AND WE KNOW WHAT MAKES EACH BUSINESS



On the surface, a business is a business,
no matter what size or industry.
You develop a product or a service.
You market it.
You distribute it.
You sell it.
And in between, you strive to do the whole process more
efficiently and profitably than your competitors.
It's not rocket science. In fact, it's pretty simple –
until you factor in the not-so-simple things that make
doing business in your industry so complex.
These are the things that keep you up at night.
These are the things that can mean the difference
between success and failure.

Individual solutions for individual industries. As a leader in business solutions, SAP understands that your industry is like no other. And we have the experience to prove it – software that's specifically geared to the nuances of your business – software that's grounded in our years of working with the world's best-run businesses in your industry.

Small, medium and large companies run SAP. While many SAP customers are in the Fortune 500, thousands of midmarket leaders – icons like The North Face, Oakley and Montblanc – run SAP. And so do companies that may not be on the tip of your tongue, like YAK PAK and Crestron Electronics.

We also have a network of qualified channel partners, so you can be sure you're getting the best solution for your needs and the best service for your investment.

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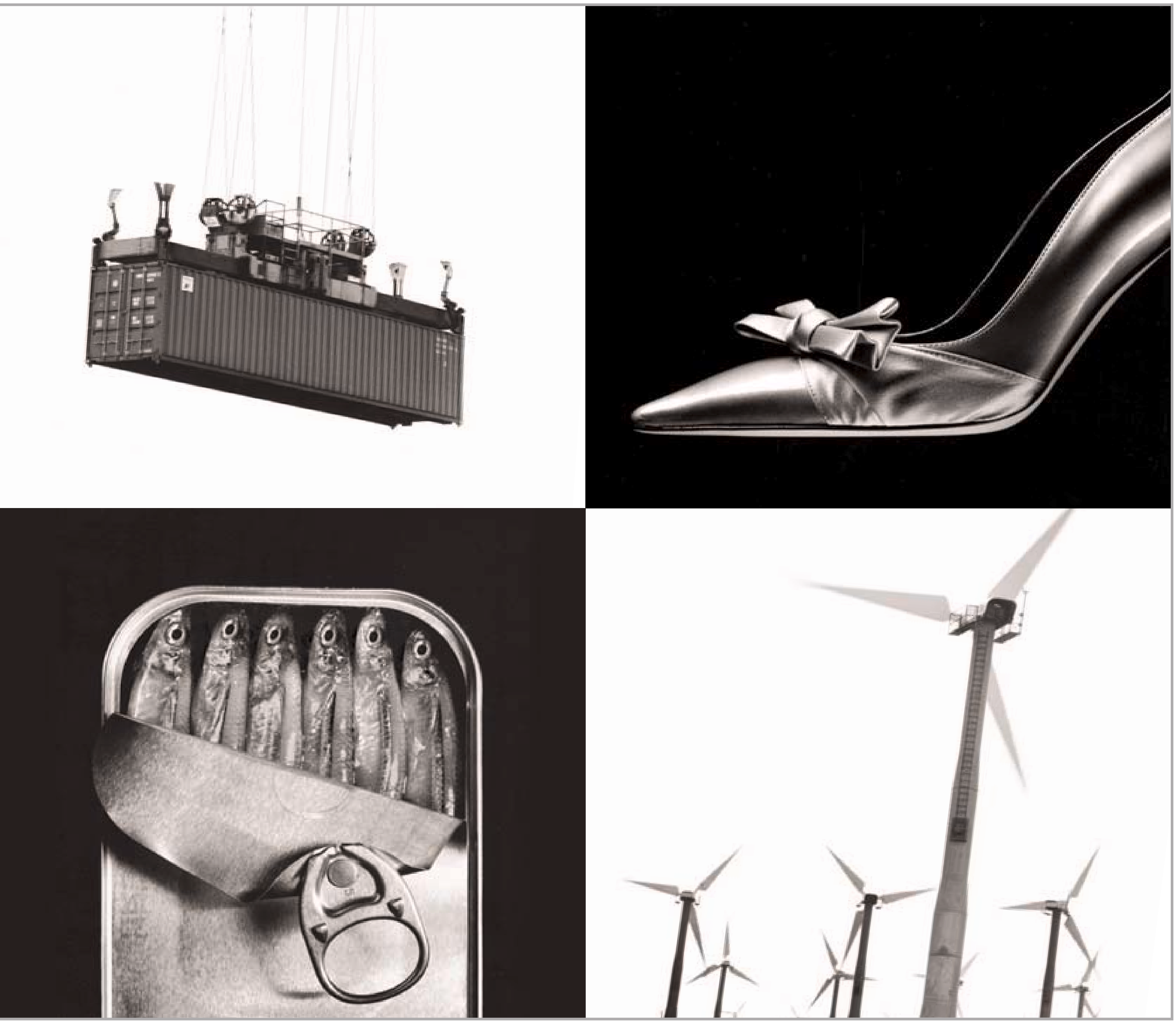

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We recognize you want a system that will work with what you already have. So we have an open platform that lets you leverage your existing investments and keeps your options open for the future. SAP has 33 years of experience partnering with some of the world's most successful companies. **Visit sap.com/unique or call 800 880 1727** to see how we've helped them deliver results and how we can help you do the same.

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YOUR COMPANY'S *Secret* CHANGE AGENTS

by Richard Tanner Pascale
and Jerry Sternin

Somewhere in your organization, groups of people are already doing things differently and better. To create lasting change, find these areas of positive deviance and fan their flames.

Some business problems – employees working at half their potential, endlessly escalating health care costs, conflicts between departments – never seem to get fixed, no matter how hard people try. But if you look closely, you'll find that the tyranny of averages always conceals sparkling exceptions to the rule. Somehow, a few isolated groups and individuals, operating with the same constraints and resources as everyone else, prevail against the odds.

Bridging the gap between what is happening and what is possible is what change management is all about. The traditional process for creating organizational change

BRIAN STAUFFER

involves digging deep to uncover the root causes of problems, hiring experts or importing best-of-breed practices, and assigning a strong role to leaders as champions of change. We believe there is a better method, one that looks for indigenous sources of change. There are people in your company or group who are already doing things in a radically better way. The process we advocate seeks to bring the isolated success strategies of these "positive deviants" into the mainstream. Ordinary change management methods don't do a very good job at that: Managers either overlook the isolated successes under their noses or, having spotted them, repackage the discoveries as templates and disseminate them from the top. This seldom generates the enthusiasm necessary to create change. (For a look at the pitfalls of best practices, see the sidebar "Best Practices Are Hard to Copy.")

It's time for a radical break. Isolated success strategies can indeed be brought into the mainstream, but doing so requires a departure from the notions of benchmarking and best practices with which we are all familiar. The key is to engage the members of the community you want to change in the process of discovery, making them the evangelists of their own conversion experience. This means that as a leader, you will take on a very different role from the one you have played in previous change management scenarios.

During the past 14 years, we have been working to uncover these positive deviants – usually individuals on the periphery of their organizations or societies who are far removed from the orthodoxies of mainstream change endeavors. These innovators' uncommon practices and behaviors enable them to find better solutions to problems than others in their communities. They are the key to this approach to change.

Change in Action

Skeptical readers may be inured to overheated claims of "the next new change model." Fasten your seat belts. Far from basing our case on esoteric and isolated incidents, we have derived our conclusions from some of the largest, messiest, most intractable change problems on the planet: malnutrition in Mali and Vietnam, catastrophic dropout rates within rural schools in Argentina, the trafficking of girls in East Java, the spread of HIV/AIDS in Myanmar, and the widespread practice of female circumcision in Egypt.

The positive deviance approach has also begun to penetrate the corporate consciousness. Goldman Sachs used it to transform the practices of its nationwide force of investment advisers. Engineers at Hewlett-Packard used it to tackle technical challenges. At Genentech, two positive deviants outperformed the median results of the company's national sales force by a factor of 20:1. Merck and Novartis are experimenting with the model as well. In short, the positive deviance model works. Its results are verifiable, replicable, and scalable. Millions of individuals around the world have been its beneficiaries. (For a look at the differences between the positive deviance model and the traditional approach, see the exhibit "Uncommon Sense?")

Based on inductive research, we developed the following six-step positive deviance model, which upends standard notions of the way change works.

Step 1: Make the group the guru. The literature on change management universally emphasizes the importance of "champions" and leaders. They matter, of course, but too often, these individuals generate unconstructive dependency from their teams. This absolves the community from owning the solutions it must adopt for change to succeed. In the positive deviance model, problem identification, ownership, and action begin in and remain with the community. Because the innovators are members of the community who are "just like us," disbelief and resistance are easier to overcome.

Consider what happened at a village in Mali, where prevailing beliefs attributed widespread childhood malnutrition to the village sorcerer. The will of the sorcerer was like an immutable law of nature that the villagers unquestioningly accepted. Nothing could prevail against the sorcerer's spells. Change seemed impossible.

Representatives from Save the Children who were working to solve the problem of malnutrition began a positive deviance inquiry – the jumping-off point for the process – with a simple question: "Has the sorcerer put a spell on *every* child in the village?" A few children in the community were, in fact, rarely sick or lethargic. It became clear that their parents engaged in behaviors that were different from those of the sick children's parents. They provided their children with several additional daily snacks, and all the members of the household washed their hands with soap and water. The fathers of the healthy children were also actively involved in mealtimes and helped decide whether their youngsters needed to go to the clinic (normally that decision was left to grandfathers). Perhaps, the villagers reasoned, these actions kept the sorcerer's spell at bay.

As the parents of the malnourished children began emulating their neighbors' counterconventional behaviors,

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their own children grew healthier. The villagers experienced a communitywide epiphany: They could be the agents of change. Malnutrition was no longer beyond their control. A wizened grandmother summed up the villagers' sense of triumph when she proclaimed, "We have vanquished the sorcerer!"

The field conditions in Mali have parallels in the corporate world. How often do we encounter conventional wisdom that shifts blame – along with the responsibility for fixing the problem – to those in authority? Contemporary superstitions such as "Headquarters will never let us do it" or "Don't bother; the boss already has the answer" create *Dilbert*-like echoes of villagers resigned to obeying the sorcerer.

At Hewlett-Packard, a seemingly intractable computer design problem was solved and turned into a competitive

UNCOMMON SENSE?

Traditional change efforts are typically top-down, outside in, and deficit based. They focus on fixing what's wrong or not working. They also assume a reasonable degree of predictability and control during the change initiative. Unintended consequences are rarely anticipated. Once a solution is chosen, the change program is communicated and rolled out through the ranks. The positive deviance approach to change, by contrast, is bottom-up, inside out, and asset based. It powers change from within by identifying and leveraging innovators. This method diminishes the social distance that often blocks acceptance.

TRADITIONAL APPROACH TO CHANGE	POSITIVE DEVIANCE APPROACH TO CHANGE
Leadership as Path Breaker Primary ownership and momentum for change come from above.	**Leadership as Inquiry** Leader facilitates search; community takes ownership of the quest for change.
Outside In Experts identify and disseminate best practices.	**Inside Out** Community identifies preexisting solutions and amplifies them.
Deficit Based Leaders deconstruct common problems and recommend best-practice solutions. Implication: "Why aren't you as good as your peers?"	**Asset Based** Community leverages preexisting solutions practiced by those who succeed against the odds.
Logic Driven Participants think into a new way of acting.	**Learning Driven** Participants act into a new way of thinking.
Vulnerable to Transplant Rejection Resistance arises from ideas imported or imposed by outsiders.	**Open to Self-Replication** Latent wisdom is tapped within a community to circumvent the social system's reaction.
Flows from Problem Solving to Solution Identification Best practices are applied to problems defined within the context of existing parameters.	**Flows from Solution Identification to Problem Solving** Solution space is expanded through the discovery of new parameters.
Focused on the Protagonists Engages stakeholders who would be conventionally associated with the problem.	**Focused on Enlarging the Network** Identifies stakeholders beyond those directly involved with the problem.

advantage when a positive deviant decided to take on the challenge. The problem: When computers are left running – as most computers are – they get hot, which accelerates their failure rate. This is known as thermal transfer. Periodically, management would vaguely declare that something needed to be done about the issue. But the company's engineers, rewarded for tackling more intellectually demanding challenges, regarded the problem as a low-status janitorial job. The sorcerer, in this instance, was the fixed idea that thermal transfer was a fact of life; every computer on the planet built up heat, and there was little that could be done about it. Another fixed notion was that real computer engineers worked on more glamorous problems.

> LEARN FROM THE PEOPLE
> PLAN WITH THE PEOPLE…
> WHEN THE TASK
> IS ACCOMPLISHED
> THE PEOPLE ALL REMARK
> WE HAVE DONE IT OURSELVES
>
> *– Lao-tzu*

A program within HP's research division exposed a cadre of engineers to the concept of positive deviance. One of them, Chandra Patel, decided to take on thermal transfer in earnest. He set about identifying shards of a solution. Scattered around HP's global engineering fraternity were a few positive deviants who had dabbled in the problem and who had developed various ideas and prototypes. Ultimately, the inquiry galvanized 100 engineers and resulted in some unprecedented solutions. Today, HP enjoys unchallenged leadership in the thermal-transfer domain – an advantage that funnels millions to the bottom line as the result of savings generated from cooler and less-failure-prone machines. Patel was rewarded with increased opportunity and accelerated career advancement, as well as with peer recognition.

In short, some problems can be solved only by those in the trenches. When change agents work together to discover others just like them who are doing things differently, they can step up to being accountable for their own solutions.

Step 2: Reframe through facts. Inside-the-box definitions of problems guarantee inside-the-box solutions. Restating the problem shifts attention to fertile new ground and opens minds to new possibilities. If there is an art form to facilitating a positive deviance inquiry, it lies in ferreting out and framing the real challenge at hand, as opposed to reverting to tired clichés and pseudo-challenges. By casting a problem in a different light and by using hard data to confront orthodoxies, a community can be encouraged to discover whether there are exceptions to the status quo and, if so, how those exceptions came about.

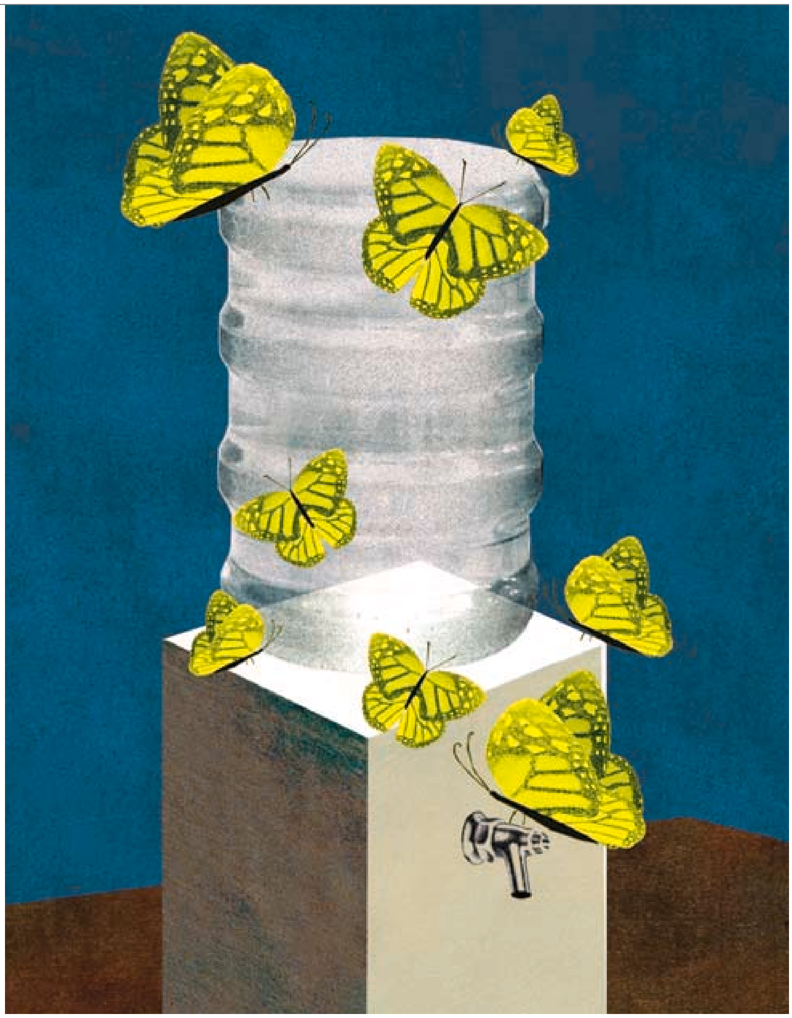
Reframing a problem entails three steps. First, grasp its conventional presentation ("The sorcerer's curse makes our children sick.") Second, find out if there are exceptions to the norm, people in identical circumstances who seem to be coping especially well. Third, reframe the problem to focus attention on the exceptions.

Reframing through facts was essential in addressing the elevated dropout rates in Argentina's rural elementary schools. A workshop on positive deviance sponsored by the World Bank brought together two dozen teachers and principals. They shared a strong suspicion that the nation's Ministry of Education was trying to implicate them in the high dropout rates and deflect attention from the ministry's accountability for a woefully underfunded education system. Although 86% of children in Argentina completed elementary education, only 56% of children in the rural province of Misiones did so.

Imagine the setting: a stark cafeteria with concrete floors and steel chairs. The teachers and principals are seated, with their arms folded across their chests. Their body language speaks volumes: "OK, dazzle us with your expertise. This problem involves a whole bunch of things we can't control. We're angry. We haven't been paid in six months. We don't want to be here." Blame for the dropout problem lay elsewhere, in lazy students, uninterested parents, and lousy facilities.

The atmosphere changed when workshop participants turned their attention to the question of whether any schools plagued by the same constraints had a better track record. This reframing was reinforced by dropout statistics for all 120 schools in the Misiones district. Working in small groups, the educators found plenty of schools clustered near the median. But they were flabbergasted to discover that one school had retained 100% of its pupils through sixth grade and that ten had retained nearly 90%. "How," they asked themselves, "do these schools retain so many students?" After all, their teachers presumably hadn't been paid either. The mood shifted from self-righteous anger to surprise and curiosity.

The workshop participants visited the high-retention schools and discovered that the differentiating factor had little to do with what was happening in the classroom. The teachers there were negotiating "learning contracts" with rural parents before the beginning of each school year. In effect, the teachers were enrolling illiterate parents as partners in their children's education. As the children learned to read, add, and subtract, they could help their parents take advantage of government subsidies and compute the amount earned from crops or owed at the village store. With parents as partners, students showed up at school and did their assignments. The teachers and principals who had participated in the workshop began negotiating similar contracts with families of at-risk children. One year later, dropout rates in Misiones had reportedly decreased by half.



A corporate example that illustrates reframing through hard data – although it's not part of a positive deviance inquiry – comes from Billy Beane, the celebrated general manager of the Oakland A's. In 1997, Beane took over a losing baseball team and a low-budget franchise. Instead of badgering the owners for more recruiting dollars or arguing with talent scouts over the prospects of high school superstars, Beane looked for great players by mining professional baseball's near-inexhaustible vein of statistics. In doing so, he shifted management's focus from religious wars over the potential and value of players to an actuarial examination of the factors that most highly correlated with winning games. On-base percentage turned out to be a far better predictor than long-shot bets on who would be the next Barry Bonds. Beane's approach transformed the A's into a frequent title contender, though he had one of the smallest budgets in the game. The moral? There's value in looking at things in a different way and getting beyond gut feelings to hard facts.

Step 3: Make it safe to learn. People get attached to the status quo, even when it's not good for them. Problems often go unresolved because the path to the solution is littered with potential losses and other risks. It is essential to acknowledge that journeying into terra incognita is a danger sport. Positive deviants may fear being exposed, ridiculed, or subjected to retaliation if their newly enhanced influence challenges the status of others. Authority figures may feel threatened by a process that invites them to learn rather than just have all the answers or, as in the case of Mali's sorcerers, that disempowers them altogether. Likewise, the others in the group may fear that acknowledging a problem implicates them in it. Few hospitals, for example, want to tackle the predictive indicators of malpractice because doing so might be misconstrued as having foreknowledge. What's more, discussions might be discoverable in legal proceedings. Only when people feel safe enough to discuss a taboo and when the community is sufficiently invested in finding solutions can the prospect of an alternative reality appear.

In Indonesia, the need for psychological safety underscored the difficult topic of human trafficking. A local nongovernmental organization (NGO) had observed the worrisome trend among poor East Javan families of "exporting" young village girls to urban centers. Silence enshrouded the practice. Parental shame was compounded by fear of repercussions if procurers' supply channels were disrupted.

The NGO convened a low-profile positive deviance workshop for villagers to explore "safe" problems such as school dropout rates. As the workshop leaders talked about how positive deviance had helped communities find solutions for sensitive challenges such as HIV/AIDS-risk reduction in other countries, the group became less guarded. One outspoken volunteer raised the issue of girls "going out" – a euphemism for trafficking. The oblique approach to the undiscussable topic eventually led the villagers to broach the problem of girls being sent away by their poverty-stricken parents.

The participants organized an inquiry and visited poor families that had resisted the temptation to send their girls away. Six months later, community watch groups had identified the homes of high-risk girls. Local leaders, who had previously ignored regulations regarding submission of "travel papers," began to enforce the rules. Today, this early warning system dispatches volunteers to counsel the families of all girls planning to leave the village and provides access to positive deviant families that have addressed their economic shortfalls through other means, such as creating home gardens and purchasing fewer packs of cigarettes. The approach has halved the number of documented trafficking incidents in the area.

Corporations have their own sets of unspoken taboos that, if not addressed, can develop into problems of Enronesque proportions. Richard Pascale, one of the authors of this article, has worked with companies such as Coca-Cola, Ford, BP, Shell, and BAE Systems to surface "undiscussable" issues using a four-step "organizational CAT scan." The centerpiece of this process is a one-day workshop, set up and conducted by an external facilitator. The group consists of 50 to 100 key stakeholders deemed critical to organizational change. The convening executive kicks off the event by emphasizing the importance of confronting problems squarely and of learning from past failures. The focus is on identifying and removing obstacles, not killing messengers. Candor is crucial to this work. The group members read blind and blunt quotes from one another that talk about the problems in the company. The group then divides into subgroups, each of which delves into the identified issues and reports back in an hour or two with its analysis. In a span of six hours, an organization can generate a penetrating, real-time case study of itself. On the heels of this exercise, teams can examine the identified problems and return with action plans and milestones within 30 to 60 days.

Step 4: Make the problem concrete. Corporations are awash in meaningless discourse. While words are exchanged and heads are nodded, a great deal of signal distortion is happening between sender and receiver. Because of unwritten social codes meant to keep individuals from being put on the spot, people aren't forced to speak concretely – in fact, they're often discouraged from doing so. These abstractions do a lot to obscure insight. Consider, for example, how the format of PowerPoint can blur or hide hard facts: Before NASA's devastating loss of the Columbia space shuttle, engineers from Martin Marietta and Boeing buried the imminent risks to the spacecraft's protective ceramic tiles within the complicated, nested, ten-point-font bullet points of their PowerPoint presentation.

A firm grasp of reality obliterates vague assumptions and helps focus attention on what's really working. Dealing directly with an uncomfortable truth requires stating it concretely so that there is no way to duck the challenge at hand. This is not merely a matter of being specific. It also entails portraying or dramatizing a pivotal issue in a compelling way. An example of this type of framing occurred during a positive deviance workshop devoted to finding practices to curtail the spread of HIV/AIDS in Myanmar. The group consisted of prostitutes – nearly all of whom insisted that she faithfully made her clients use condoms. The moment of truth occurred when each participant was asked to apply a condom to a banana. Varying degrees of dexterity quickly differentiated the pretenders from the practitioners. The positive deviants, once identified, began sharing the negotiation strategies they used to persuade their partners to use condoms. Soon the others in the group became adept at overcoming their partners' objections. With the right exercises, many organizations could profit from appropriate reincarnations of the "banana test."

Step 5: Leverage social proof. The old adage "Seeing is believing" has particular potency when it comes to change. Take Alcoholics Anonymous. In the 1930s, two positive deviants stumbled onto the notion of holding weekly get-togethers to help keep themselves sober. Others joined. An inductive process of reflection and learning gave rise to the 12-step program – a protocol that was decades ahead of any intervention that had been devised by professional psychiatry. The approach is enshrined today in the worldwide success of AA and its application to many afflictions. Social proof is the lifeblood of the support group movement.

Let's turn to a far more dramatic example of the power of social proof. Envision a frightened child struggling in the grip of her mother and aunt against the assault of a barber and his straight razor. In Egypt, female genital mutilation (FGM) or female circumcision is a 4,000-year-old practice used by Christian Copts and Muslims alike to deprive women of sexual enjoyment and to ensure faithfulness. Ninety percent of Egyptian girls, usually between the ages of nine and 13, undergo the painful and sometimes dangerous procedure, often without understanding what is happening to them or why. Girls sometimes die from infection or blood loss. The practice is tightly woven into the fabric of Egyptian life and, as such, is strongly resistant to change. Traditionally, it hasn't been seen as a problem; it's simply "the way it is."

Could women's advocates find families in Egyptian villages that did not circumcise their girls – and would such families be willing to talk? Eventually, advocates in one village identified a few exceptions to the norm. The first interviews – with uncircumcised women, mothers and fathers who were against the practice, and husbands who had knowingly married uncircumcised women – were held in a remote, guarded monastery to ensure anonymity. The half-dozen families that came forward provided additional contacts who were willing to give testimony. A year into the project, more than 100 families had been identified and interviewed.

For victims, their mothers, and other female relatives, discussing the trauma of the practice spawned a therapeutic cycle of catharsis, forgiveness, and healing. The women gave poignant testimony: "We are butchering our

BEST PRACTICES ARE HARD TO COPY

Best practices and benchmarking share one trait with positive deviance: They strive to utilize success models to stimulate learning. But the similarities end there. Best practices rely on an external authority, not on the community itself, to identify and introduce a superior template. That, in part, is why best practices are often interpreted as code for "Why aren't you as good as the other guy?" With best practices, onlookers view the circumstances that fostered the success as being quite different from their own – it's easy to accuse advocates of having incubated success under exceptional and unreplicable conditions. Best practices are a foreign import. No surprise, then, that they suffer a dismal replication rate.

Recent events at top biopharmaceutical firm Genentech illustrate both the opportunities of positive deviance and the pitfalls of best practices. In 2003, Genentech introduced Xolair, a miracle drug for many chronic asthma sufferers. Unlike standard treatments, which arrest asthma attacks after they occur, Xolair modulates the histamines in the immune system and addresses asthma preventatively. The patient can lead a normal life, free from the fear of debilitating attacks. But despite Xolair's pharmacological superiority, sales remained well below expectations six months after launch.

As the company sought an explanation for the disappointing results, managers spotted an anomaly. Two salespeople among a national force of 242 were selling 20 times more Xolair than their peers. Here were classic positive deviants. Two women, responsible for the Dallas and Fort Worth territories, had successfully overcome resistance in the target audience.

Upon closer investigation, executives could see why this was happening. Genentech's traditional stronghold was in cancer medicine. Whereas oncologists and pulmonary specialists routinely administer chemotherapy – an infusion procedure – in their offices on an outpatient basis, allergists and pediatricians – the target market for asthma drugs – do not. Infusion protocols (delivering medication in the form of an intravenous drip) require infusion rooms, infusion couches, and infusion nurses – all of which were unfamiliar for this segment of physicians and their nursing staffs. The positive deviants from Dallas and Fort Worth understood that product acceptance would not happen through a standard sit-down physician call. Nor could resistance be allayed with yet more data demonstrating Xolair's pharmacological superiority. The hidden obstacles were fear of seemingly exotic procedures, concerns about time-consuming insurance approvals, and worries that patients would be exposed to unnecessary risks. At the heart of the matter was a need to alter the doctors' mind-sets and the front-office culture.

The two women guided doctors and nurses through the process of readying the drug for infusion and administering it to patients. They taught administrators how to fill out the specialized paperwork. They pitched the drug's lifestyle impact and described how children who took Xolair could own pets and participate in outdoor sports. In expanding the horizons of doctors, nurses, and administrators, the two salespeople had discovered what armies of Genetech's market researchers had missed. They were successful because they had morphed into change agents.

Our narrative seems headed for the predictable successful conclusion. But what actually unfolded provides a sobering counterpoint. The aberrant sales results actually evoked consternation and scrutiny. Management's initial assumption was that the sales team had an unfair advantage and that territories or the quota system needed to be reconfigured. Belatedly, after retaining an external market research firm, the company accepted the merits of the change agent strategy. It then implemented a conventional best practices rollout. The manager of the Dallas and Fort Worth reps described the techniques to other managers during a conference call. The result? Partial acceptance by some members of the sales force. Implementation at modest velocity.

When identification of a superior method is imposed, not self-discovered, cries of "We're not them" or "It just won't work here" predictably limit acceptance. By contrast, a design that allows a community to learn from its own hidden wisdom is, among other things, respectful. Innovator and adopter share the same DNA. Community members invest sweat equity in discovering the positive deviants, and, in the process, they become partners to change.

girls." "Cutting out the tongue does not deny the experience of hunger." "Desire is in the mind, not the organs." "I could never trust my mother again." As the conversation progressed, a new consciousness began to form. Word spread, and communities began to more openly discuss female circumcision. Other families expressed their willingness not only to be interviewed but also to be advocates within their communities.

PEOPLE ARE MUCH MORE LIKELY TO ACT THEIR WAY INTO A NEW WAY OF THINKING THAN TO THINK THEIR WAY INTO A NEW WAY OF ACTING.

Over time, the village experienced a contagion of spontaneous initiatives. In one case, an 18-year-old girl gathered her peers in the dusty shade of a village tamarisk tree. Together, they relived the horror of their experiences and their feelings of betrayal. All agreed to return home and beg their mothers not to subject their younger sisters to the same fate. In another case, a sheik, speaking in the mosque during prayers, asserted that circumcision was not required by Islam. Soon, mainstream village voices began to join the chorus of dissenters. An alternative possibility – rejecting the practice of FGM – was gaining legitimacy.

In the past five years, tens of thousands of ordinary villagers have proven that it is possible for a woman to be uncircumcised and still be virtuous. More than 1,000 circumcisions have been averted in a few villages alone. More remarkable, the Egyptian government is initiating its first nationwide anti-FGM campaign.

Step 6: Confound the immune defense response. Newton was right: Every action has an equal and opposite reaction. In organizations, that reaction comes in the form of avoidance, resistance, and exceptionalism. But when you fan the embers within a community rather than rely on firebrands from headquarters or outside the group, change feels natural. Internally developed solutions circumvent transplant rejection, since the change agents share the same DNA as the host. The trick is to introduce already existing ideas into the mainstream without excessive use of authority. Why use a sledgehammer when a feather will do?

Five years ago, Goldman Sachs's Private Wealth Management (PWM) business unit had experienced a string of top-down change initiatives. Its field force of more than 300 investment advisers felt strong pressure to adopt an unproven business model imposed by New York's far-reaching policy shifts and top-down edicts. Headquarters felt thwarted in achieving the pace of change needed to stay in step with the marketplace.

Investment professionals (IPs) in the field historically operated independently or as two-person teams. Each unit evolved highly idiosyncratic approaches to the work of persuading high-net-worth clients to entrust it with the management of their money. Success depended on performance, of course, but also on the creation of deep, trusting relationships with clients that often lasted for generations. Investors often invited IPs to weddings, bar mitzvahs, and graduations, extending relationships from anchor clients to heirs.

By late 2000, PWM's top management was deeply concerned that the industry was undergoing a transformation of seismic proportions. Investment firms were under pressure to deliver greater transparency and compliance oversight while simultaneously reducing their brokerage fees. How could Goldman Sachs retain its clients, improve its profitability, and grow its assets in a depressed but increasingly competitive environment? Management's solution was to transform the IPs' approach from a model that relied heavily on brokerage income to one focused on fee-based advice. But the IPs, having built their individual franchises on a well-proven formula, were passionate advocates of the "If it ain't broke, don't fix it" maxim.

One of the leaders of the PWM unit at the time was at the center of the impasse. His chosen path was to relinquish the conventional role of authority figure and let go of top management's deep attachment to its solution. Instead, he exercised a stealth brand of leadership, asking the IPs one arresting question: "Are some teams, with similar territories and prospects, able to thrive in this difficult climate?"

A six-person council of influential IPs (selected as guerrilla leaders from nationwide field offices) spearheaded a "sales force effectiveness" inquiry. The council's task was to identify exceptionally successful approaches. Its members assured the rank and file that any findings would be subjected to an acid test of relevance and scalability – what was working for the best team in Boston would have to be transferable to teams everywhere else.

Phase one of the project began in 2000 with a two-month discovery period that identified five positive deviant practices among the most successful IP teams. Phase two expanded the community of discovery by creating five rollout squads (again made up of informal leaders selected from around the country) for each of the five practices. The squads were charged with coming up with a template that every IP team in the country could adopt and implement on a voluntary basis.

When it was time to roll out the new templates and train others, these squads became the pointed end of the spear. They visited each office and explained why and how their particular practices worked. There was one person on each squad from each office, so one of the presenting IPs could double as a local resource on the topic. When local IP teams had questions, they turned to the resource person. This dynamic generated an amazing buzz throughout the PWM unit.

Phase three of the process involved building a system to measure progress toward goals and to track trends. Each of the 11 regional offices were ranked by their incorporation of the five practices, and the results were publicized. The process relied exclusively on transparency and peer review. No sanctions for nonadoption were imposed. People automatically felt good about being on top or bad about being on the bottom. This sustained attention when backsliding might have otherwise set in.

During the course of this endeavor, old rivalries between teams subsided. For the first time in memory, a sense of "We win together" emerged as the new ethic. Skepticism gave way to conviction as the IPs overcame their own exceptionalism. The positive deviance approaches, implemented over 18 months, shifted behavior, practice, and performance. The PWM unit got a jump on the competition. Three years later, it has gone from being a source of tumult and marginal economic returns to being a major contributor to overall firm earnings. The average productivity per IP has nearly doubled, team size has increased from 1.7 to the near-optimal three IPs per team, and the fee-based model has achieved almost universal acceptance. Today, Goldman Sachs reports that high net-worth assets under management have reached an astonishing $130 billion.

The Leader's New Role

The positive deviance approach requires a role reversal in which experts become learners, teachers become students, and leaders become followers. Leaders must relinquish to the community the job of chief discoverer. This isn't easy, for it requires leaders to set aside their egos and habitual identities (being the go-to guy, the decision maker who knows what to do). What, then, becomes of the leader?

While he or she seemingly abdicates the traditional role of discoverer, important work remains to be done. This includes four primary tasks: management of attention, allocation of scarce resources, reinforcement to sustain the momentum of inquiry, and application of scorekeeping mechanisms to sustain attention and ensure progress toward goals once the community has chosen its course of action.

Instead of being the "CEO" – chief expert officer – the leader becomes the "CFO" – chief facilitation officer – whose job is to guide the positive deviance process as it unfolds. This role is as radically different from traditional leadership practices as the technique itself is from standard approaches.

The classic KAP (knowledge, attitude, practice) behavior-change model holds that knowledge changes attitudes, which in turn change practice. Positive deviance facilitators turn this upside down and employ a PAK (practice, attitude, knowledge) approach instead. Once you help the community discover who the positive deviants are and identify their practices, you help change people's attitudes through action. Why? Because people are much more likely to act their way into a new way of thinking than to think their way into a new way of acting.

• • •

Should the positive deviance approach be applied to every change initiative? Of course not. When there are proven remedies to technical problems – the Salk vaccine to polio, supply-chain management practices, hardware and software solutions – companies can use them to work harder, faster, or smarter. And problems that rely on brainpower but that don't require major behavioral adjustments, as in the case of portfolio rebalancing, are unsuitable for the positive deviance approach.

The method works best when behavioral and attitudinal changes are called for – that is, when there is no apparent off-the-shelf remedy and successful coping strategies remain isolated and concealed. In such cases, change from within, discovered, celebrated, and implemented by the people who need to do the changing, is a surefire win.

The Taoist sage Lao-tzu captures the essence of the positive deviance approach with eloquent simplicity:

Learn from the people
Plan with the people
Begin with what they have
Build on what they know
Of the best leaders
When the task is accomplished
The people all remark
We have done it ourselves

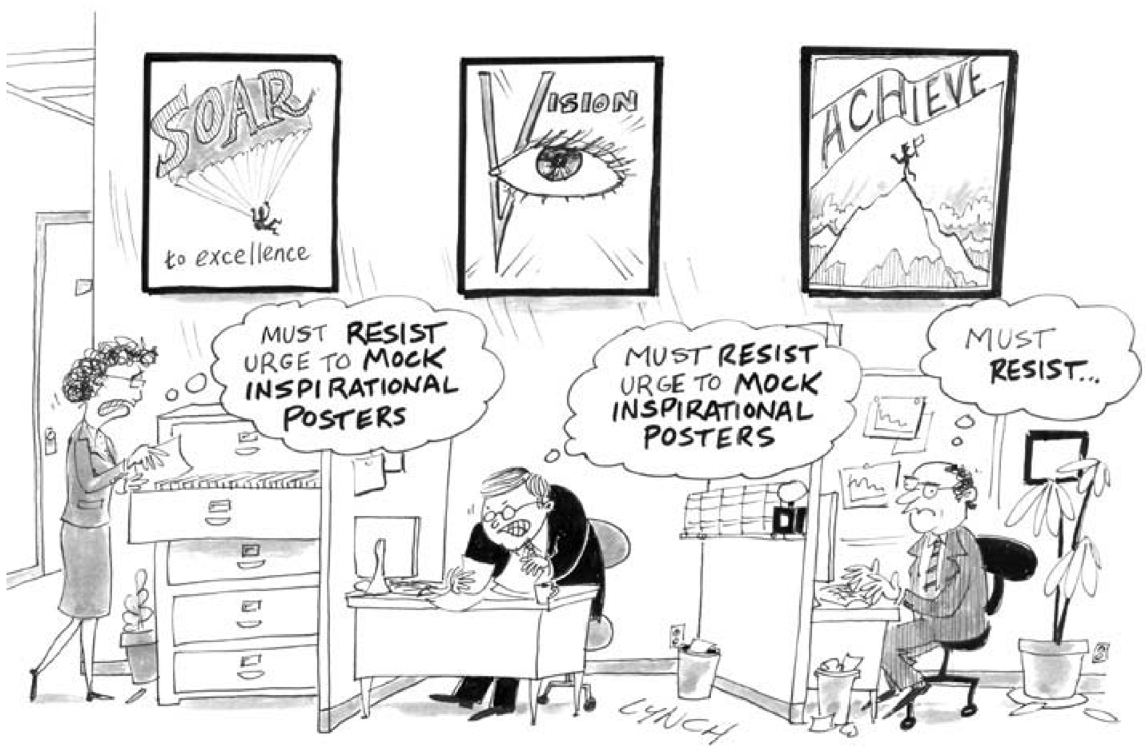
Reprint R0505D
To order, see page 155.

Office Cynicism

"We have watched employees turn the slogan Quality in Everything We Make into Quality Is Everything We Fake.… The frontline workforce is not sprinkled with a handful of cynics; it is cynical through and through."

T.J. Larkin and Sandar Larkin
"Reaching and Changing Frontline Employees"
Harvard Business Review
May–June 1996

"I dropped the ball at work today, but I managed to kick it under someone else's desk before anyone noticed."



DAVE CARPENTER, ROY DELGADO, MIKE LYNCH, AND P.C. VEY

"Just remember, they can't outsource your job if they don't know what you do."

"This misinformation is very usable."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XII

There's nothing inevitable about the product life cycle. Marketers are disrupting it by redefining the boundaries between product types. In the process, they're rejuvenating categories and creating whole new markets.

BREAK FREE FROM THE PRODUCT LIFE CYCLE

by Youngme Moon

In his classic 1965 *Harvard Business Review* article, Theodore Levitt introduced marketers to the concept of the product life cycle and showed how it could be put to work as an "instrument of competitive power." Today, this concept remains at the center of most firms' marketing and positioning strategies, helping them to manage the methodical progress of their offerings along a bell-shaped curve, from introduction and growth to maturity and decline.

But as useful as this model has been over the past 40 years, it has given marketers tunnel vision. They tend to see only one trajectory for successful products: an inexorable advance along the curve. And because they all view the product life cycle in the same way, companies tend to adopt similar positioning approaches for products and services during each of the life cycle's stages.

LEO ESPINOSA

One consequence of this tunnel vision is a competitive reflex to augment products as they mature. Typically, marketers layer new product benefits on top of the old in an endless struggle to differentiate and rejuvenate their offerings. For example, a toothpaste manufacturer once had only to consider a few dimensions – like "freshens breath" and "fights cavities" – in order to compete. Today, it must offer consumers an ever-broadening array of attributes, from "helps prevent gum disease" to "whitens teeth" to "removes plaque." Over time, the augmented product becomes the expected product, and so it must be further enhanced to remain competitive. To wit, nowadays even generic toothpastes remove plaque.

It's hard to win such a competition. As marketers instinctively embrace the old life cycle paradigm, they needlessly consign their products to following the curve into maturity and decline. Over the past five years, I have studied dozens of successful companies and products that have defied the "rules" of the life cycle. In interviews with the executives behind these successes, I've found that their strategies converge at one point: By positioning – or, often, repositioning – their products in unexpected ways, companies can change how customers mentally categorize them. As a result, companies can rescue products foundering in the maturity phase of their life cycles and return them to the growth phase. And they can catapult new products forward into the growth phase, leapfrogging obstacles that could slow consumers' acceptance.

In this article, I describe three positioning strategies that marketers use to force consumers' mental shift. *Reverse positioning* strips away "sacred" product attributes while adding new ones; *breakaway positioning* associates the product with a radically different category; and *stealth positioning* acclimates leery consumers to a new offering by cloaking the product's true nature. Companies can use each of these strategies to alter a product's competitive environment to their advantage. But they needn't stop there.

In his disruptive innovation model, Clayton Christensen describes how new, simple technologies can upend a market. The proliferation of features and attributes that occurs as companies ride the product life cycle can create the kind of "product overshoot" that leaves them vulnerable to a disruptive competitor with a simpler technology. In an analogous way, the strategies I describe can exploit the vulnerability of established categories not to new technologies but, rather, to new positioning. In the right circumstances, a company can use these techniques to go on the offensive and transform a category by demolishing its traditional boundaries. Companies that successfully disrupt a category through positioning create a lucrative place to ply their wares – and can leave category incumbents scrambling.

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Reverse Positioning

Most players in a category continually augment their value proposition because they assume customers can never be fully satisfied. Reverse positioners, however, assume that although customers do want something more than the baseline product, they don't necessarily want an endless parade of new features. Such firms make the heretical decision to step off the augmentation treadmill, shedding product attributes the rest of the industry considers sacred. Once a product is returned to its baseline state, reverse positioners supplement the stripped-down product with one or more carefully selected attributes that would typically be found only in a highly augmented product. This unconventional combination of attributes allows the product to assume a new competitive position within the category and move backwards from maturity into a growth position on the life cycle curve. Consider these cases:

As marketers instinctively embrace the old life cycle paradigm, they *needlessly consign* their products to following the curve into maturity and decline.

IKEA. The global furniture retailer IKEA has long been celebrated in the business press for its innovative marketing and phenomenal growth. There are plenty of good reasons for IKEA's success, not the least of which is its cheap but stylish inventory. But a key factor in the store's high performance is its brilliant reverse positioning.

Like most players in mature categories, furniture companies have steadily augmented their offerings. Today, top stores compete by carrying enormous and varied inventories, assuring not only that customers will find exactly what they want, but that the couch they bring home will be the only one like it in the neighborhood. Sales consultants coddle customers, helping them measure furniture and visualize their options. Most retailers deliver new furniture to customers' homes and even truck away the old. And retailers work hard to instill the idea that furniture is designed to last forever.

Given this, IKEA's success is surprising. When consumers visit a typical IKEA store, they find that there is no in-store sales assistance (though they will find disposable measuring tape so they can make their own measurements); that the variety is limited (IKEA's furniture comes in just a few basic styles); that there is no delivery option (buyers must grapple with heavy boxes on their own); that most of the furniture requires assembly; and that durability is not to be expected (IKEA works to convince buyers that furniture should be replaced often).

If IKEA had stuck with this stripped-down offering, it's doubtful that the company could have competed successfully in its crowded category. But the store skillfully reverse positioned itself by supplementing this bare-bones value proposition with a store environment and services that are virtually unheard-of among typical low-end participants. Its stores have an airy, ultramodern look. Customers can drop off their children at a beautifully designed, company-operated day care center while they shop. They can stop for lunch at a delightful café that serves delicacies like smoked salmon and lingonberry tarts. And they can purchase items besides furniture – brightly colored housewares and cleverly designed toys that are not available at most other furniture stores.

The formula works. While U.S. furniture stores have been steadily losing out to retailers like Sam's Club and Wal-Mart, IKEA has become the seventh-largest furniture store in the country. It has doubled its market share and nearly tripled its U.S. sales over the past eight years, going from $600 million to $1.7 billion. Using reverse positioning to plainly distinguish itself from middle-tier furniture stores, low-end warehouse stores, and big-box retailers, IKEA shook up the category and, in effect, created a new customer segment by attracting an eclectic mix of customers – from students to young urban professionals – who previously had spread their furniture shopping across a range of outlets.

Commerce Bank. Most banks offer dozens of checking and savings accounts and compete by claiming to offer account holders the highest interest rates. Yet Commerce Bank, serving New Jersey, Delaware, New York, and metropolitan Philadelphia, pays among the lowest rates in its market. What's more, it offers a conspicuously limited product line – just four checking accounts, for example. This stingy approach would seem like a doomed strategy, were it not for the bank's astonishing growth. Between 1999 and 2004, Commerce Bank expanded from 120 to 319 branches, deposits quintupled from $5.6 billion to $27.7 billion, and loans tripled from $3 billion to $9.4 billion.

The bank's growth is due in no small part to its unprecedented service perks. After stripping away what customers expect – competitive interest rates and abundant choices – Commerce Bank reverse positioned itself as "the most convenient bank in America." It's open seven days a week, including evenings. You can get a debit card while you wait, and, when it rains, an escort with an umbrella will walk you to your car. The bank offers free coffee and newspapers, and most branches have free coin-counting "penny arcade" machines that customers love (in one recent month, bank patrons fed the machines a total of $28 million in loose change). Customers may have limited choices and get inferior rates, but they're flocking to the bank. In 2004, Commerce Bank opened 1.1 million new customer accounts, increasing total accounts by nearly 600,000.

When a breakaway product succeeds in leaping out of its category and into a new one, *it can redefine its competition.*

JetBlue. In December 2004, while most of the airline industry hemorrhaged, JetBlue celebrated its sixteenth consecutive profitable quarter. Its 2004 operating revenues reached $1.27 billion, a 26.8% increase over the previous year. The upstart carrier achieved this performance in part by following Southwest's lead, offering cheap seats and a lean value proposition: no meals, no round-trip fares, and no first-class seating. But then it supplemented its bare-bones offering with surprising indulgences like leather seats, high-end personal entertainment systems with satellite television, and extra legroom in the back two-thirds of the plane. This counterintuitive juxtaposition of attributes has helped JetBlue establish a unique position in the market and steal share from less creative competitors. By setting itself apart from both the low and high end while offering features of each, JetBlue successfully appeals to customers across segments – from college students to business executives.

Breakaway Positioning

With reverse positioning, a product establishes a unique position in its category but retains its clear category membership. With breakaway positioning, a product escapes its category by deliberately associating with a different one. Marketers leverage the new category's conventions to change both how products are consumed and with whom they compete.

Products communicate their category membership in many ways – through their design, distribution channels, promotions, and pricing. Each of these elements of the marketing mix cue consumers to mentally categorize an offering in a certain way. By manipulating these cues, a firm can change how consumers "frame" a product and, therefore, how they respond to it. Instead of seeing the breakaway product as simply an alternative to others in its category, consumers perceive it as altogether different.

When a breakaway product succeeds in leaping out of its category and into a new one, it can redefine its competition. Like reverse positioning, this strategy allows the product to shift backward on the life cycle curve, moving from the doldrums of maturity into a thriving growth position. Just as important, it can disrupt both the category it has left and the one it has affiliated with, particularly if copycats begin to emulate the breakaway strategy.

Swatch. Every businessperson knows the Swatch story, but few appreciate that it is a prototypical example of successful breakaway positioning. Before Swatch launched in 1983, Swiss watches were marketed as a form of jewelry. They were serious, enduring, expensive, and discreetly promoted. A customer bought only one, and it lasted a lifetime. Swatch changed all that by defining its watches as playful fashion accessories. They were fun, ephemeral, inexpensive, and showily promoted. And they inspired impulse buying – customers often would purchase half a dozen in different designs. Their price – $40 when the brand was introduced – expanded Swatch's reach beyond its default category (watches as high-end jewelry) and into the fashion accessory category, where it has different customers and competitors.

Swatch's breakaway positioning also disrupted the watch category by creating a fashion accessory subcategory. In doing so, Swatch not only opened up uncontested space for its own growth, but it allowed almost all of the industry giants, such as Timex and Citizen, as well as dozens of fashion brands, including Calvin Klein and Coach, to expand with their own lines of fashion accessory watches. Fossil, for example, was launched a year after Swatch specifically to exploit the new market space. Using this breakaway positioning strategy, Swatch has become the best-selling wristwatch of all time.

The Simpsons. The Fox network was understandably nervous when it launched its animated series *The Simpsons* in 1989. Although *The Flintstones* appeared on evening TV in the 1960s, no network had created a cartoon specifically for adults and placed it in the shark-infested waters of prime time. But Fox was then a relatively new network; with a younger, smaller audience and a less-established network identity than its mainstream competitors, it was willing to take chances.

Fast-forward 15 years: *The Simpsons* is not just the longest-running animated series on American TV, but this spring it became the longest-running sitcom ever, surpassing the previous record holder, *The Adventures of Ozzie and Harriet.* Along the way, *The Simpsons* has amassed 21 Emmy awards, made the cover of *Time,* and consistently ranked among the highest-rated shows on TV.

Certainly the show's smart writing and oddly appealing characters have fueled its success. But, crucially, so did its ability to break away from its presumed category (cartoons) and associate itself with an entirely different one (adult prime-time sitcoms). With features of both categories, *The Simpsons* attracted a wide demographic.

From its first episode, *The Simpsons* disrupted the sitcom category, transforming consumers' expectations of prime-time TV. Because it was "only a cartoon," the series could get away with caustic satire and subversive social commentary that, 15 years ago, could have stalled a typical live-action situation comedy. It spawned other edgy animated sitcoms, including *South Park, King of the Hill,* and *Beavis and Butt-head,* and inspired conventional sitcoms to experiment with riskier content. And, unlike any live-action sitcom, it generated an enormous merchandising business, selling, at times, a million *Simpsons* T-shirts a week. Today, with about 11 million viewers per episode, the show is Fox's number one Sunday series and ranks first in its time slot for adult viewers.

The Simpsons's breakaway positioning has had an important impact on its progress along the life cycle. Most live-action sitcoms have a compressed life cycle, in part because actors age. Lucille Ball, for example, delighted audiences as an eccentric young housewife in the 1950s but lost them when she tried to play an eccentric single grandmother in the 1980s. Similarly, *Friends* exited after a ten-year run when its stars, originally cast as dizzy

Which Strategy When?

Each of the three positioning strategies for breaking free of the product life cycle lends itself for use in particular categories. Reverse positioning is best suited to service categories; breakaway positioning to consumer packaged goods; and stealth positioning to consumer technologies. These aren't hard-and-fast rules, but a clear logic underlies them.

Reverse for Services. Services are intangible, so it's hard for consumers to grasp nuanced differences between them (for example, they have to study endless fine print to distinguish between credit card offers). Because proliferating service options tend to confuse rather than delight customers, they often welcome the elimination of certain benefits or options when it means that, in return, they will receive transparency and simplicity – and a few surprising perks. The reverse positioning at Commerce Bank makes it easy for consumers to know exactly what they are getting in exchange for limited choice and uncompetitive returns. Similarly, passengers on JetBlue may sacrifice meals, but they can be confident that seat pricing is equitable, unlike pricing at other airlines where adjacent seats can be invisibly priced hundreds of dollars apart. Reverse-positioned services often create loyal "brand missionaries" who are enchanted by the combination of simplicity and unexpected delights. Both JetBlue and Commerce Bank are known for the positive word of mouth they generate. Reverse positioning also tends to create powerful brand identities by subverting convention, as JetBlue famously does.

Breakaway for Packaged Goods. Products, on the other hand, are tangible, and, through constant exposure, consumers learn to easily navigate new features as products evolve. Thus, consumers tend to welcome new options, particularly in mature products where purchasing feels mundane and routine. Although continual line extensions do give consumers the diversity they seek – and perhaps keep them faithful to a particular brand – incremental changes rarely ignite the sort of passionate buying that breakaway positioning can stimulate. As Heinz's experience with EZ Squirt ketchup shows, breakaway positioning leverages the ease with which consumers judge familiar products and their desire for novelty. It also often expands category boundaries by attracting copycats who emulate the breakaway strategy. The watch-as-fashion-accessory subcategory pioneered by Swatch now represents a significant portion of the overall watch market.

Stealth for Technologies. Stealth positioning works by moving a product out of a category that customers may resist and placing it into a more desirable one. Thus it is well suited to categories whose products are perceived as having intrinsic shortcomings, such as being difficult to use, unreliable, or threatening. Although many types of products have such shortcomings, they are particularly common among consumer technologies in early development. In cases like these, repositioning the product – without actually changing it – can neutralize its apparent shortcomings or even turn them into assets. Sony's positioning of the AIBO robot as a lovable pet shifted consumers' attention away from its limitations as a household aide and turned even the elderly into early technology adopters.

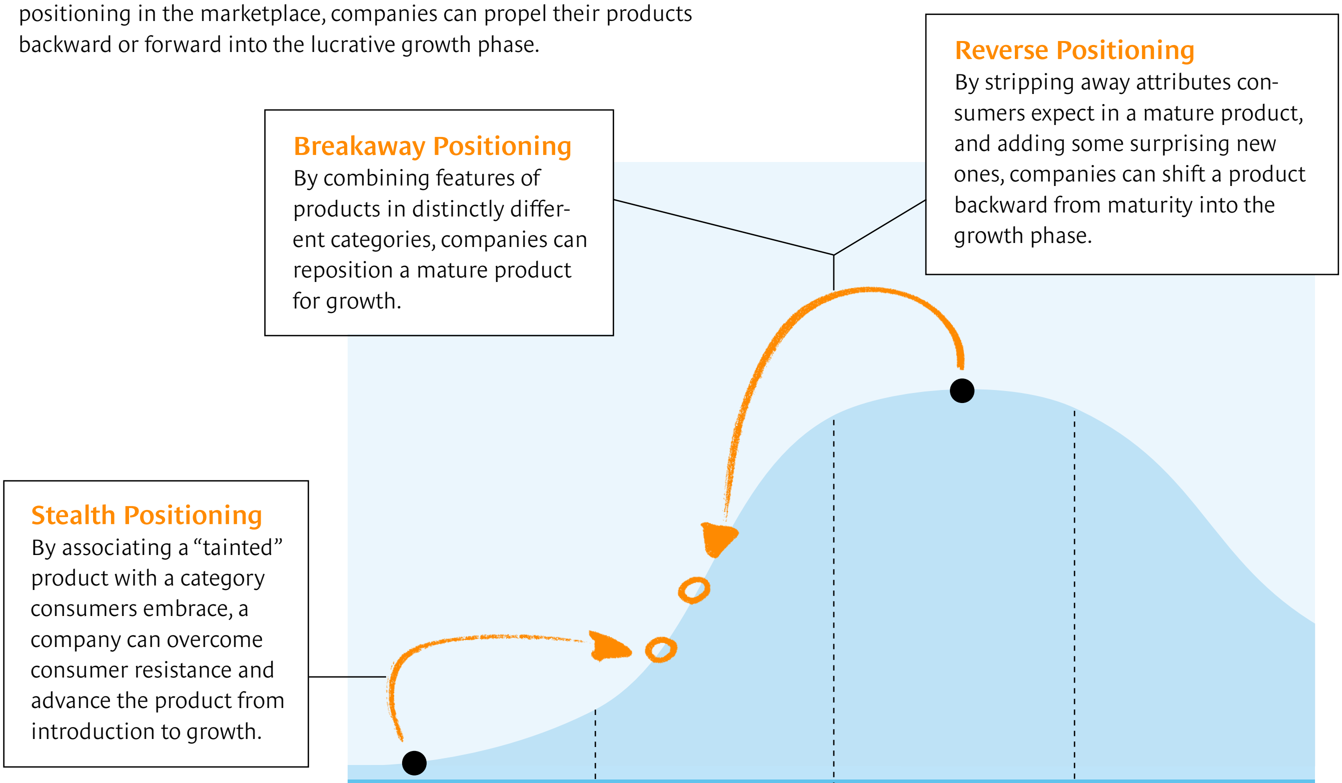
20-somethings, started approaching 40. But cartoon characters are ageless (Bart Simpson has been ten years old for a decade and a half). Just as Bugs Bunny exploited the cartoon medium to stay fresh for 65 years, *The Simpsons*'s breakaway status has allowed the series to pause indefinitely on the life cycle curve at a point at which live-action sitcoms usually head into decline.

EZ Squirt Ketchup. For generations, parents have told children not to play with their food. So what was Heinz thinking when it launched EZ Squirt ketchup in 2000? EZ Squirt came in a spectrum of unketchuppy hues – green, purple, orange, pink, and teal – and was sold in flamboyant squeeze bottles with kid-friendly nozzles. Heinz's advertising emphasized the product's "creative" applications and encouraged kids to write their names on hot dogs and draw dinosaurs on burgers. Children immediately grasped that EZ Squirt was more than a food; it was an edible arts and crafts product. Households that used to buy ketchup one bottle at a time, and consume it over a period of months, started buying several different colors at once and polishing them off in days. It was one of the most successful product launches in the company's history, resulting in a 10% leap in market share.

Other companies tried to mimic EZ Squirt by introducing strangely colored foods, but none took off. What these firms failed to recognize was that EZ Squirt's suc-

Reposition for Growth

The venerable product life cycle curve describes the growth trajectory most products take from introduction to decline. But by changing products' positioning in the marketplace, companies can propel their products backward or forward into the lucrative growth phase.



	INTRODUCTION	GROWTH	MATURITY	DECLINE
Focus	Educate the market and build brand identity	Refine the product and build brand preference	Augment and differentiate the product and build brand reputation	Phase out weak models, reduce costs, and milk the brand
Market Segmentation	Latent	Emerging	Fragmented	Eroding
Competition	Limited	Growing	Fierce	Fading

cess had less to do with its color than with the way it was positioned in the marketplace. Heinz's insight was to change how children (and their parents) mentally categorized the product by breaking it away from the food category and affiliating it with the arts and crafts category. By successfully redefining what ketchup was, Heinz repositioned this mature product with stagnant sales for growth. (Because EZ Squirt's appeal stems largely from its novelty, Heinz carefully controls its availability, tactically introducing selected colors into new markets to reinvigorate the category.)

Stealth Positioning

When firms adopt a reverse or breakaway positioning strategy, there is no pretense about what they're up to. Part of the appeal of their cleverly positioned product offerings comes from explicitly subverting convention through unconventional promotions, prices, and attributes. In contrast, companies that use stealth positioning adopt a covert approach. They conceal the true nature of their products by affiliating them with a different category.

This is a powerful strategy for marketers when a category is in some way tainted. Consumers may feel intimidated by products in the category (as can be the case with new technologies); they may be skeptical of the products because previous offerings have failed to live up to expectations; or they may have personal objections to products or companies in the category. By using stealth positioning, companies can, in effect, sneak products into the market and gain acceptance that might otherwise prove elusive. Although stealth positioning doesn't typically disrupt categories, it can give products a fresh run at the life cycle and keep them from languishing – or dying outright – in the introduction phase.

One word of caution: There is an important difference between stealth positioning and deceit. The difference is both ethical and economic. When used thoughtfully, stealth positioning is a legitimate way to diffuse prejudice about a product or company, encourage acceptance, and deliver value to customers. But the strategy can backfire if consumers discover that a company used the technique to cheat them by exploiting their naïveté. The difference is evident in the following examples, where companies have thoughtfully adopted a stealth-positioning approach.

EyeToy: Play. Sony's PlayStation is the dominant game console in the market. But its market penetration – like that of rivals Microsoft (with the Xbox) and Nintendo (with the GameCube) – has been limited by a narrow customer base of mostly males in their late teens and twenties. Sony's goal is to make the PlayStation a broad platform for home entertainment and communications. But first, it has to undo the common perception that the product is an intimidating machine for guys.

As part of its strategy, in July 2003, Sony introduced a PlayStation product in Europe called EyeToy: Play – a video camera (the EyeToy) and game software (called Play) that plugged into the new PlayStation 2 console. The game concept was simple but groundbreaking. Standing in front of the EyeToy camera (which sits unthreateningly on top of the TV), users place themselves into the game, appearing "inside" it on the television. There they interact with objects on the screen by moving their bodies, without using a complicated handheld controller. EyeToy: Play was an enormous success, selling more than 2.5 million units in its first seven months on the European market. More significant, it succeeded in engaging mothers and fathers, boys and girls, the very old and the very young. The immediate appeal for the atypical user was that the game was simple and unintimidating. But it was also a fun social activity, a diverting game to bring out during the holidays or at informal get-togethers.

In fact, EyeToy: Play is more than a toy, although most customers don't yet see that. It can record brief video messages, and, with an application called Chat slated for release this year, it will be able to turn the PlayStation into a video phone. "It's not just that we wanted to break the ice with a piece of software that people would view as a game rather than a communications application," one Sony executive explained. "It's also that we wanted to establish the EyeToy hardware in people's minds as a plaything rather than a scary communications device…Gradually introduce it, and then slowly add functionality." Sony hopes its stealth-positioning strategy will change the way consumers view its PlayStation offering and slowly shift this niche product into the mainstream.

AIBO. Sony exploited a similar stealth strategy to gain a foothold in the nascent household robot category. In a March 2004 article in *Harvard Business Review,* I described the company's approach to the challenge of warming consumers to its imperfect early robots. Sony had spent tens of millions of dollars to develop the first household robot, with the goal of seizing a leadership position in the emerging field against formidable competitors like Honda, Toyota, and Matsushita. But making a robot that could do anything useful proved daunting. Sony knew that marketing an unreliable, humanlike household robot that couldn't handle even simple chores was sure to backfire.

Sony's solution was to stealth position its product. Rather than set consumers up to be disappointed by an inadequate household robot, Sony positioned the product as a lovable but otherwise useless pet. Although buggy and unpredictable, the doglike AIBO was an immediate hit. In its first two years on the market, Sony sold out its limited production of 100,000 units. During what amounts to a five-year market test of a flawed technology, Sony has gathered invaluable consumer feedback to guide continued development of its robots. The company is now prototyping its next-generation robot, a little humanoid named QRIO.

Mac Mini. Moments after Apple unveiled its $499 Mac Mini in January 2005, the Internet was buzzing with speculation about just what the new computer was for. Sold without a monitor, mouse, or keyboard, the Mini was a minimalist aluminum box, six inches square and two inches tall. It left everything up to the imagination–which is precisely what Apple had in mind. Downplaying its PC capability, Apple's marketers emphasized the Mini's many other uses: It could be a music server for your car; a dedicated Internet port for the kitchen; a mobile recording studio for the band; a backup device for your photos; a TiVo-like recorder and digital entertainment hub for the living room.

Despite the buzz, Apple faced a familiar marketing challenge. Most people use Windows-based PCs, and to many of them, Apple computers seem overpriced and out of step. Past attempts to woo PC users have been unsuccessful, and Apple's share of the PC market has steadily eroded. Saddled with this baggage, the company stealth positioned the Mini as anything but what it fundamentally is: a competitively priced machine that can go head-to-head in the low-end PC market. What's striking about this stealth strategy is that Apple didn't affiliate the product with a specific alternative category. It simply suggested that it was not a PC–a strategy that not only disassociates the Mini from other low-priced, commoditized PCs, but leaves future marketing options wide open.

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Most companies aren't technology innovators like Apple or Sony, whose novel products readily lend themselves to unconventional positioning. But a product does not have to be novel to benefit from radical new positioning, nor does it have to be past its prime. Watches, banks, furniture, airlines, sitcoms–even ketchup–can defy the old rules of the product life cycle by simply challenging consumers' notions about what, exactly, they are. Ask your customers what they expect your products to be, then shatter their expectations. You'll find they'll be delighted.

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HOW BUSINESS SCHOOLS LOST THEIR WAY

by Warren G. Bennis and James O'Toole

Too focused on "scientific" research, business schools are hiring professors with limited real-world experience and graduating students who are ill equipped to wrangle with complex, unquantifiable issues – in other words, the stuff of management.

BUSINESS SCHOOLS ARE ON THE WRONG TRACK. For many years, MBA programs enjoyed rising respectability in academia and growing prestige in the business world. Their admissions were ever more selective, the pay packages of graduates ever more dazzling. Today, however, MBA programs face intense criticism for failing to impart useful skills, failing to prepare leaders, failing to instill norms of ethical behavior – and even failing to lead graduates to good corporate jobs. These criticisms come not just from students, employers, and the media but also from deans of some of America's most prestigious business schools, including Dipak Jain at Northwestern University's top-ranked Kellogg School of Management. One outspoken critic, McGill University professor Henry Mintzberg, says that the main culprit is a less-than-relevant MBA curriculum. If the number of reform efforts under way is any indication, many deans seem to agree with this charge. But genuine reform of the MBA curriculum remains elusive. We believe that is

BRAD YEO

because the curriculum is the effect, not the cause, of what ails the modern business school.

The actual cause of today's crisis in management education is far broader in scope and can be traced to a dramatic shift in the culture of business schools. During the past several decades, many leading B schools have quietly adopted an inappropriate–and ultimately self-defeating–model of academic excellence. Instead of measuring themselves in terms of the competence of their graduates, or by how well their faculties understand important drivers of business performance, they measure themselves almost solely by the rigor of their scientific research. They have adopted a model of science that uses abstract financial and economic analysis, statistical multiple regressions, and laboratory psychology. Some of the research produced is excellent, but because so little of it is grounded in actual business practices, the focus of graduate business education has become increasingly circumscribed – and less and less relevant to practitioners.

This *scientific model,* as we call it, is predicated on the faulty assumption that business is an academic discipline like chemistry or geology. In fact, business is a profession, akin to medicine and the law, and business schools are professional schools–or should be. Like other professions, business calls upon the work of many academic disciplines. For medicine, those disciplines include biology, chemistry, and psychology; for business, they include mathematics, economics, psychology, philosophy, and sociology. The distinction between a profession and an academic discipline is crucial. In our view, no curricular reforms will work until the scientific model is replaced by a more appropriate model rooted in the special requirements of a profession.

Before asking how business education should change, we need to examine its evolution. Most business schools claim a dual mission: to educate practitioners and to create knowledge through research. Historically, business schools have emphasized the former at the expense of the latter. In fact, for the first half of the twentieth century, B schools were more akin to trade schools; most professors were good ole boys dispensing war stories, cracker-barrel wisdom, and the occasional practical pointer. We remember when MIT's Sloan School of Management was known as MIT School of Industrial Management and its production class was taught by the manager of a nearby General Motors assembly plant. That was a useful, but hardly comprehensive and professional, education.

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Then, in 1959, prompted at least in part by the enormous demand for professional managers in a booming postwar economy, the Ford and Carnegie foundations issued devastating reports on the woeful state of business school research and theory. Both foundations recommended ways to give B schools respectable academic underpinnings and offered grant money toward achieving that end. Driven by conscience and cash, top-tier universities began to treat their business schools almost as seriously as law schools. By the end of the twentieth century, nearly all the nation's leading business schools – the two dozen or so elite MBA-granting institutions and another dozen schools fighting to join the highest echelon–offered a curriculum of academic distinction. But, in the process, their focus switched, and now the objective of most B schools is to conduct scientific research. Going back to the trade school paradigm would be a disaster. Still, we believe it is necessary to strike a new balance between scientific rigor and practical relevance.

The Scientific Model

Virtually none of today's top-ranked business schools would hire, let alone promote, a tenure-track professor whose primary qualification is managing an assembly plant, no matter how distinguished his or her performance. Nor would they hire professors who write articles only for practitioner reviews, like this one. Instead, the best B schools aspire to the same standards of academic excellence that hard disciplines embrace – an approach sometimes waggishly referred to as "physics envy." In departments such as physics and economics, top faculty members have few responsibilities other than to attend to their disciplines. They are not required to train practitioners or to demonstrate practical uses of their work; and they are free to do whatever research they choose and to produce subsequent, even more focused, generations of scholars. In this scientific model, the university exists primarily to support the scholar's interests. For the most part, universities accept this arrangement and the intellectual premise on which it rests: namely, that universities help society advance by supporting scientists who push back the boundaries of knowledge. They leave the practical implications to others.

It's very different in schools of law and medicine, which deliberately engage with the outside world. Law schools expect faculty members to be first-rate scholars; in fact, articles published in law reviews are often cited in trials. But these institutions also value professors' ability to teach. Similarly, medical schools carry on advanced biological research, but most members of the teaching faculty are also practicing doctors.

Why have business schools embraced the scientific model of physicists and economists rather than the professional model of doctors and lawyers? Although few

B school faculty members would admit it, professors like it that way. This model gives scientific respectability to the research they enjoy doing and eliminates the vocational stigma that business school professors once bore. In short, the model advances the careers and satisfies the egos of the professoriat. And, frankly, it makes things easier: Though scientific research techniques may require considerable skill in statistics or experimental design, they call for little insight into complex social and human factors and minimal time in the field discovering the actual problems facing managers.

Business school professors using the scientific approach often begin with data that they use to test a hypothesis by applying such tools as regression analysis. Instead of entering the world of business, professors set up simulations (hypothetical portfolios of R&D projects, for instance) to see how people might behave in what amounts to a laboratory experiment. In some instances those methods are useful, necessary, and enlightening. But because they are at arm's length from actual practice, they often fail to reflect the way business works in real life.

When applied to business – essentially a human activity in which judgments are made with messy, incomplete, and incoherent data – statistical and methodological wizardry can blind rather than illuminate. Consider some of the most difficult questions facing managers: How does a culture of celebrity affect leadership? How should a CEO be compensated? How does one design global operations so they are at once effective and equitable? What is the purpose of a corporation beyond the creation of shareholder value? Such broad, multifaceted questions do not easily lend themselves to scientific experiment or validation.

Another consequence of the scientific model is that professors' evaluations are influenced by the number of articles they publish in A-list business research journals. Submissions to these discipline-based publications are refereed by anonymous panels of scholars who assess research findings based on objective, scientific standards. Those safeguards, de rigueur for A-list journals, help ensure that published research passes scientific muster. Indeed, the system works fairly well in the hard business disciplines, such as economics and finance, to which mathematical modeling can be easily applied. Even in finance, however, the system creates pressure on scholars to publish articles on narrow subjects chiefly of interest to other academics, not practitioners.

To be fair, some of what is published in A-list journals is excellent, imaginative, and valuable. But much is not. A renowned CEO doubtless speaks for many when he labels academic publishing a "vast wasteland" from the point of view of business practitioners. In fact, relevance is often systematically expunged from these journals. For instance, a leading management journal recently reviewed the results of a promising study of the behavior of several thousand leaders in global corporations. The initial research results showed that certain indicators of leadership misbehavior could be monitored to identify ethical problems before a crisis occurs. Unfortunately, that finding could not be proved in a strictly scientific sense. As a result, the version of the article that was finally published focused not on developing practical methods to reduce organizational risk but, instead, on questioning a minor detail in a previous study on a different subject. The article was factual, but it was neither interesting nor useful.

WHEN APPLIED TO BUSINESS – where judgments are made with messy, incomplete data – statistical and methodological wizardry can blind rather than illuminate.

Scholars, in their own defense, argue that the gradual accumulation of tiny facts will one day accrete to a larger and more general scientific understanding of organizational behavior. Practitioners who have to make real decisions, however, must meanwhile look elsewhere for guidance, notably to the business press and to the best-seller list – now home to fewer and fewer books by faculty members.

Most issues facing business leaders are, in the final analysis, questions of judgment. What looks like a straightforward financial decision – say, to cut costs by relocating a service center – often has implications for marketing, sales, manufacturing, and morale that can't be shoehorned into an equation. Strategic decisions, especially, are likely to go awry when based purely on quantitative factors, as Robert McNamara–the developer of many such techniques at Ford and, later, the U.S. Department of Defense – ruefully admits. In what amounts to a major mea culpa, he now argues that hard analysis often leads to overweighting the value of the knowledge you have. Of course, this bias affects everyone, not just scientists, but the aura of quantification masks the fact that social scientists often assume that the variables not included in their equations are insignificant. In business research, however, the things routinely ignored by academics on the grounds that they cannot be measured – most human factors and all matters relating to judgment, ethics, and morality–are exactly what make the difference between good business decisions and bad ones.

As McNamara's Vietnam War–era experience painfully demonstrates, leaders tend to get into trouble not by fouling up the numbers but by failing to give the correct weight to all the quantitative and qualitative factors that should figure in their decisions. The greatest risks they run are the by-products of their trained tendency to define problems in terms of what they know and then to fall back on past behavior when faced with a new challenge. As McNamara concedes, "We see what we want to believe." That is not surprising; most of us wear the concrete shoes of our earlier successes. But in a rapidly changing global economy, business education should help students learn to recognize their conditioned reflexes. However reassuring the halo of science, it can also lull us into a false sense of confidence that we are making objective decisions.

By allowing the scientific research model to drive out all others, business schools are institutionalizing their own irrelevance. We fear that this will be a difficult problem to correct because many business professors lack enough confidence in the legitimacy of their enterprise to define their own agenda. For example, business economics journals today are practically indistinguishable from traditional economics journals. And, not to be "outscienced," management researchers now focus on technical issues that have the look and feel of topics studied by their peers in the harder disciplines.

Business scholars could take a lesson from their colleagues in the discipline of psychology, which was stifling under the scientific model three or four decades ago. Psychological research then was dominated by rigorous, but ultimately unproductive, studies of reaction time. As long as psychology professors labored within that small area, they learned little that was of value to anyone. It was only after they began to apply their imaginations–and rigor–to much broader problems that psychology began to make enormous strides. Not until respected psychologists dared to ask questions that mattered, whether or not they could be quantified in traditional ways, were groundbreaking studies undertaken, such as the Nobel Prize–winning work of Daniel Kahneman and the late Amos Tversky on how people make financial decisions. Unfortunately, most B school professors still limit their sights to what they can measure readily – a kind of "methodolatry"– instead of searching for new ways to study what is important. In fact, management professors seem to have an almost morbid fear of being damned as popularizers. Do they believe that the regard of their peers is more important than studying what really matters to executives who can put their ideas into practice? Apparently so.

Who Gets Tenure

This new emphasis on scientific research in business schools remains, for the most part, unspoken. Indeed, most deans publicly deny it exists, claiming that their schools remain focused on practice, albeit with an increasing awareness of the value of rigorous research. Here we must watch what leaders do, not what they say. At elite business schools, and at the wannabes emulating their practices, the shift toward the centrality of scientific research is evidenced almost everywhere.

Just look at the hiring and tenure processes. Deans may say they want practitioner-oriented research, but their schools reward scientific research designed to please academics. By recruiting and promoting those who publish in discipline-based journals, business schools are creating faculties filled with individuals whose main professional aspiration is a career devoted to science. Today it is possible to find tenured professors of management who have never set foot inside a real business, except as customers.

At many schools, the road to tenure does not run through field work in businesses. Among young academics and their advisers, this understanding is explicit. Junior scholars are urged to avoid too much work with practitioners and to concentrate their research on narrow, scientific subjects, at least until late in their quest for tenure. (While many conscientious researchers take it upon themselves to learn about the practice of business after they are tenured, there are few incentives for them to do so.) To be sure, there is merit in suggesting that fledgling faculty members try their wings before attempting arduous intellectual journeys, but B school research is becoming too narrow even for academics. One traditional factor in tenure decisions is how often a candidate's work is cited by other scholars. Paradoxically, deans and tenure committees tell us that the number of citations of articles written by candidates is dramatically lower than it was a decade ago–evidence that researchers' work doesn't matter even to their peers.

Nevertheless, a management professor who publishes rigorously executed studies in the highly quantitative *Administrative Science Quarterly* is considered a star, while an academic whose articles appear in the accessible pages of a professional review – which is much more likely to influence business practices – risks being denied tenure. We know of no scholar at a first-rate business school with a good publishing record who has been denied tenure or promotion for being a poor teacher or for being unable to teach effectively in executive education programs, where teachers must have real-world business experience. But we do know of a professor of finance who was denied promotion when his department decided he was not a serious scholar. The damning evidence against him included seven articles in this publication and the highest teaching ratings in his department. In short, the stated end of business education may remain the same: to educate practitioners and to create knowledge through research. But the means make that end impossible to achieve because rewards are directed elsewhere.

TODAY IT IS POSSIBLE to find tenured professors of management who have never set foot inside a real business, except as customers.

What Gets Taught

What professors study, and the way they study it, directly affects the education of MBA candidates. As research-oriented business professors come to dominate B school faculties, they assume responsibility for setting the MBA curriculum. Not surprisingly, they tend to teach what they know, which often translates into first-class instruction on methodology and scientifically oriented research. These professors are brilliant fact collectors; but despite their high level of competence, they are too often uncomfortable dealing with multidisciplinary issues in the classroom. They are ill at ease subjectively analyzing multifaceted questions of policy and strategy, or examining cases that require judgment based on wisdom and experience in addition to – and sometimes opposed to – isolated facts. As a result, these messy issues, no matter how pressing, receive less attention in MBA courses. The trend away from using the case method corroborates this point and is accelerated by greater emphasis on mathematical and quantitative skills in the revised Graduate Management Admission Test, the first filter of future managers.

Business professors too often forget that executive decision makers are not fact collectors; they are fact users and integrators. Thus, what they need from educators is help in understanding how to interpret facts and guidance from experienced teachers in making decisions in the absence of clear facts. After all, any low-level administrator can make sound decisions when all the facts are in; having the courage to take a shot in the dark is one of the hallmarks of leadership. If the purpose of graduate business education is to develop executives – leaders – then the faculty must have expertise in more than just fact collection. The best classroom experiences are those in which professors with broad perspectives and diverse skills analyze cases that have seemingly straightforward technical challenges and then gradually peel away the layers to reveal hidden strategic, economic, competitive, human, and political complexities – all of which must be plumbed to reach truly effective business decisions. We all can name great practitioners of this style of business education; unfortunately, given the narrowing of the intellectual paradigm over the past two decades, chances are good that not one of them would be hired – or tenured – at a top business school today. Columnist David Brooks laments that "…our universities operate too much like a guild system, throwing plenty of people with dissertations at students, not enough with practical knowledge. Why aren't there more scholars…who teach students to be generalists, to see the great connections?"

In that regard, conditions at business schools have worsened dramatically since the mid-1980s. During the 1970s and early 1980s, the best business schools were arguably the most intellectually exciting places in academia. In many universities, B schools were the primary loci of multidisciplinary research. That intellectual ferment and cross-pollination helped make business schools the hugely popular institutions they are today. At one point, the faculty in our department at the University of Southern California's Marshall School of Business included individuals with advanced degrees in mathematics, anthropology, sociology, engineering, decision sciences, economics, and psychology. Recruitment committees actively sought out scholars who were conducting innovative research and, at the same time, were committed to making a difference in organizations. Those scholars published regularly, but few appeared in what today are regarded as the "right" journals. During the past 15 years, however, hiring almost everywhere, including at the Marshall School, has focused on narrowly trained specialists, particularly those holding discipline-based doctorates from other business schools. One unfortunate result of this trend has been that many B schools have to hire adjunct professors to teach required MBA courses.

Worse, the integration of disciplined-based knowledge with the requirements of business practice is left to the student. A few years back, the curriculum committee of a highly regarded B school considered a proposal for a multidisciplinary first-semester MBA course based on the current challenges of a well-known global corporation. The committee rejected the proposal – but not because it was poorly designed or pedagogically flawed; in fact, the committee said it would be an advance over the existing program. The problem, in the words of one faculty member, was that "we are not qualified to teach it."

The impact of this loss extends far beyond the classroom. Businesspeople are starting to sense that individuals in the academy are not engaged in the same profession they practice. Employers are noticing that freshly minted MBAs, even those from the best schools – in some cases, *especially* those from the best schools – lack skills their organizations need. At first, employers were confused about the source of this problem, but they seem to be realizing that the people who taught their new hires had spent little time in organizations as managers or consultants and that younger faculty members may not even know many businesspeople. Today, business practitioners are discovering that B school professors know more about academic publishing than about the problems of the workplace. It's no wonder there's been such a marked increase in the number of in-house corporate universities and for-profit management education organizations.

Regaining Relevance

In a 1927 address to the American Association of the Collegiate Schools of Business, the philosopher and mathematician Alfred North Whitehead spoke prophetic words:

> Imagination is not to be divorced from the facts: It is a way of illuminating the facts….The tragedy of the world is that those who are imaginative have but slight experience, and those who are experienced have feeble imaginations.

Today, Whitehead's observation is more fitting than ever. If business schools are to regain their relevance, they must come to grips with the reality that business management is not a scientific discipline but a profession, and they must deal with what a professional education requires. Harvard Business School associate professor Rakesh Khurana has pointed out that professions have at least four key elements: an accepted body of knowledge, a system for certifying that individuals have mastered that body of knowledge before they are allowed to practice, a commitment to the public good, and an enforceable code of ethics. Professions thus are oriented toward practice and focused on client needs. Above all, professions integrate knowledge and practice. We do not propose making management a gated profession requiring credentialing and licensing. Nonetheless, we believe a useful step toward acknowledging that business is a profession would be to recognize that both imagination and experience are vital – and ought, therefore, to be central to business education. With an eye toward integrating knowledge and practice, Polaroid's Edwin Land suggested 50 years ago that every business school should run its own business. Why shouldn't business schools operate ventures that function like the equivalent of medical-school teaching hospitals? Cornell University's S.C. Johnson Graduate School of Management has recently responded

THE PROBLEM IS NOT that business schools have embraced scientific rigor but that they have forsaken other forms of knowledge.

to this long-ignored challenge by establishing the Cayuga MBA Fund, run by students at the Parker Center for Investment Research.

By whatever means they choose – running businesses, offering internships, encouraging action research, consulting, and so forth – business school faculties simply must rediscover the practice of business. We cannot imagine a professor of surgery who has never seen a patient, or a piano teacher who doesn't play the instrument, and yet today's business schools are packed with intelligent, highly skilled faculty with little or no managerial experience. As a result, they can't identify the most important problems facing executives and don't know how to analyze the indirect and long-term implications of complex business decisions. In this way, they shortchange their students and, ultimately, society. Things won't improve until professors see that they have as much responsibility for educating professionals to make practical decisions as they do for advancing the state of scientific knowledge.

The strongest potential force for change is the business community, but, unfortunately, most corporate employers have been sending mixed signals. They complain that B schools aren't producing potential leaders, but then they hire MBAs with narrow specialties. What's more, business leaders have been unstinting in their support of business schools, often giving large sums of money, typically without strings. This support is interpreted as a vote of confidence. After all, when a donor gives $30 million to put his name on the outside of a school, one can't blame faculty members for assuming that donor is pleased with what they do inside. In our view, business leaders have not demanded enough from the educational institutions purporting to serve them. But until the business community clearly articulates its needs, deans will continue to respond to calls from the faculty for more of the same.

If prestigious organizations like the Business Roundtable or the World Economic Forum were to undertake a study of the quality and utility of business education, the findings would likely garner a level of attention among faculty and administrators similar to that generated by the 1959 Ford and Carnegie reports. We don't think it is healthy for corporate philanthropists to micromanage the policies of educational institutions; but in the case of professional schools, practitioners must adopt a governance role. The first step in this process is for corporate leaders to educate themselves about the current practices of the schools producing their future managers. They might start by picking up a copy of an A-list business journal and asking themselves if the articles in it say anything their managers need to hear.

At the risk of sounding repetitive, let us be clear: We are not advocating a return to the days when business schools were glorified trade schools. In every business, decision making requires amassing and analyzing objective facts, so B schools must continue to teach quantitative skills. The challenge is to restore balance to the curriculum and the faculty: We need rigor *and* relevance. The dirty little secret at most of today's best business schools is that they chiefly serve the faculty's research interests and career goals, with too little regard for the needs of other stakeholders. Serving the business community by educating practitioners and generating knowledge they can use may exist as secondary functions at those institutions, but such objectives are honored mainly in speeches made by deans seeking donations.

The Professional Model

To balance the goals of faculty members with the needs of other constituencies, business schools might look to their sister professional schools in medicine, dentistry, and law for guidance. Dental education is an apt model to the extent that it prepares students to deliver a service requiring sophisticated skills and to manage hands-on enterprises. Research is critical to dental education, but it plays a secondary role to the task of educating competent and ethical practitioners. Isn't that also the right balance for business education?

Ultimately, however, we believe business schools would reap the greatest benefit from emulating the most innovative law schools. The law is a broad-based activity drawing upon many of the same disciplines relevant to business: economics, psychology, accounting, politics, philosophy, history, sociology, language, literature, and so on. Law schools, however, have not succumbed to physics envy and the scientism it spawns. Instead, they tend to reward excellence in teaching and in pragmatic writing. Research is an important component of legal practice and education, but most of it is applied research, and its validity is not equated with the presence of a scientific patina. Law schools recognize that a well-written book or a well-documented article published in a serious, practitioner-oriented review is as valuable as a quantitative article published in a journal read only by cutting-edge researchers. Nevertheless, scientific publications are certainly valued in law school performance assessments. A law school professor who uses the scientific method to demonstrate that a commonly held belief is wrong, or to quantify an insight that is counterintuitive, will be rewarded. When assessing the work of law school faculty members, evaluators ask questions such as, Is the research important? Is it useful? Is it interesting or original? Is it well thought-out, well argued, and well designed? All of these queries seem more appropriate as standards for appraising the work of business school faculties than the narrowly defined standard of scientific rigor.

Of course, not all business schools suffer from the attenuated focus we find so alarming. Deans and faculties at a few top-tier institutions are conscientiously struggling to find ways to conduct rigorous research without abandoning their professional missions. At Harvard Business

School, for instance, continued emphasis on case studies makes practitioners an integral part of the educational process. And Harvard helps ensure that its curriculum will keep evolving by making course development a consideration in tenure and promotion decisions. Similarly, Tom Campbell, dean of the Haas School of Business at the University of California, Berkeley, has made a public commitment to teaching and research in the broader and softer areas of business that are the focus of his school's influential – but unrefereed – *California Management Review.*

Many second-tier B schools, especially those not housed in large research-oriented universities, have also retained their professional focus. (Unfortunately, the quality of education offered at some of those institutions harkens back to trade school days). We are impressed with the University of Dallas's recognition that an overly narrow approach to business education may have been a factor in the Tyco, Arthur Andersen, WorldCom, and Enron scandals. As Thomas Lindsay, the university's former provost, explains:

> [B]usiness education in this country is devoted overwhelmingly to technical training. This is ironic, because even before Enron, studies showed that executives who fail – financially as well as morally – rarely do so from a lack of expertise. Rather, they fail because they lack interpersonal skills and practical wisdom; what Aristotle called prudence.
>
> Aristotle taught that genuine leadership consisted in the ability to identify and serve the common good. To do so requires much more than technical training. It requires an education in moral reasoning, which must include history, philosophy, literature, theology, and logic….

Lindsay estimates that, before the recent scandals, business students spent "95% of their time learning how to calculate with a view to maximizing wealth. Just 5% of their time…is spent developing their moral capacities." To right that balance, the Dallas business school introduced liberal studies into the curriculum and initiated a series of intellectual and ethical exercises.

Looking Ahead

Traditionally, business schools have lacked offerings in the humanities. That is a serious shortcoming. As teachers of leadership, we doubt that our topic can be understood properly without solid grounding in the humanities. When the hard-nosed behavioral scientist James March taught his famous course at Stanford using *War and Peace* and other novels as texts, he emphatically was not teaching a literature course. He was drawing on works of imaginative literature to exemplify and explain the behavior of people in business organizations in a way that was richer and more realistic than any journal article or textbook. Similarly, when executives are given excerpts from the classics of political economy and philosophy in seminars at the Aspen Institute, the intent is not to turn them into experts on Plato and Locke but to illuminate the profound recesses of leadership that scientifically oriented texts either overlook or oversimplify.

Naturally, reforming business education means more than adding courses in the humanities. The entire MBA curriculum must be infused with multidisciplinary, practical, and ethical questions and analyses reflecting the complex challenges business leaders face. We are encouraged on this score that the freshly appointed dean of the Marshall School has courageously gone on record as advocating a major rebalancing of our MBA program in order to link hard and soft skills. We certainly do not advocate that business schools, in revising MBA curricula, abandon science. Rather, they should encourage and reward research that illuminates the mysteries and ambiguities of today's business practices. Oddly, despite B schools' scientific emphasis, they do little in the areas of contemporary science that probably hold the greatest promise for business education: cognitive science and neuroscience. In those fields, pioneering researchers use magnetic resonance imaging technology to study how the brain behaves while making economic decisions, taking into account such factors as gender differences and the role of trust.

The problem is not that business schools have embraced scientific rigor but that they have forsaken other forms of knowledge. It isn't a case of either-or. Not every professor needs to be a switch-hitter, however. In practice, business schools need a diverse faculty populated with professors who, collectively, hold a variety of skills and interests that cover territory as broad and as deep as business itself. As the late Sumantra Ghoshal wrote in a shrewd analysis of the problems with management education today, "The task is not one of delegitimizing existing research approaches, but one of relegitimizing pluralism."

Rebalancing runs against the perceived self-interest of many professors, not to mention the seemingly unstoppable trend in academia toward specialization. We believe the most effective levers for overcoming this resistance are personnel policies related to recruitment, promotion, tenure, and other academic rewards. Instead of blindly following the paths forged by trade schools or traditional academic departments, business schools must create their own standards of excellence. However, many business school leaders now say their universities are forcing them to adopt the same standards for hiring and promotion used by graduate departments in the hard sciences. In our view, this is often an excuse for maintaining a dysfunctional (but comfortable) system. Other professional schools have carved out standards that are appropriate for their various professions; now business schools must have the courage to do the same.

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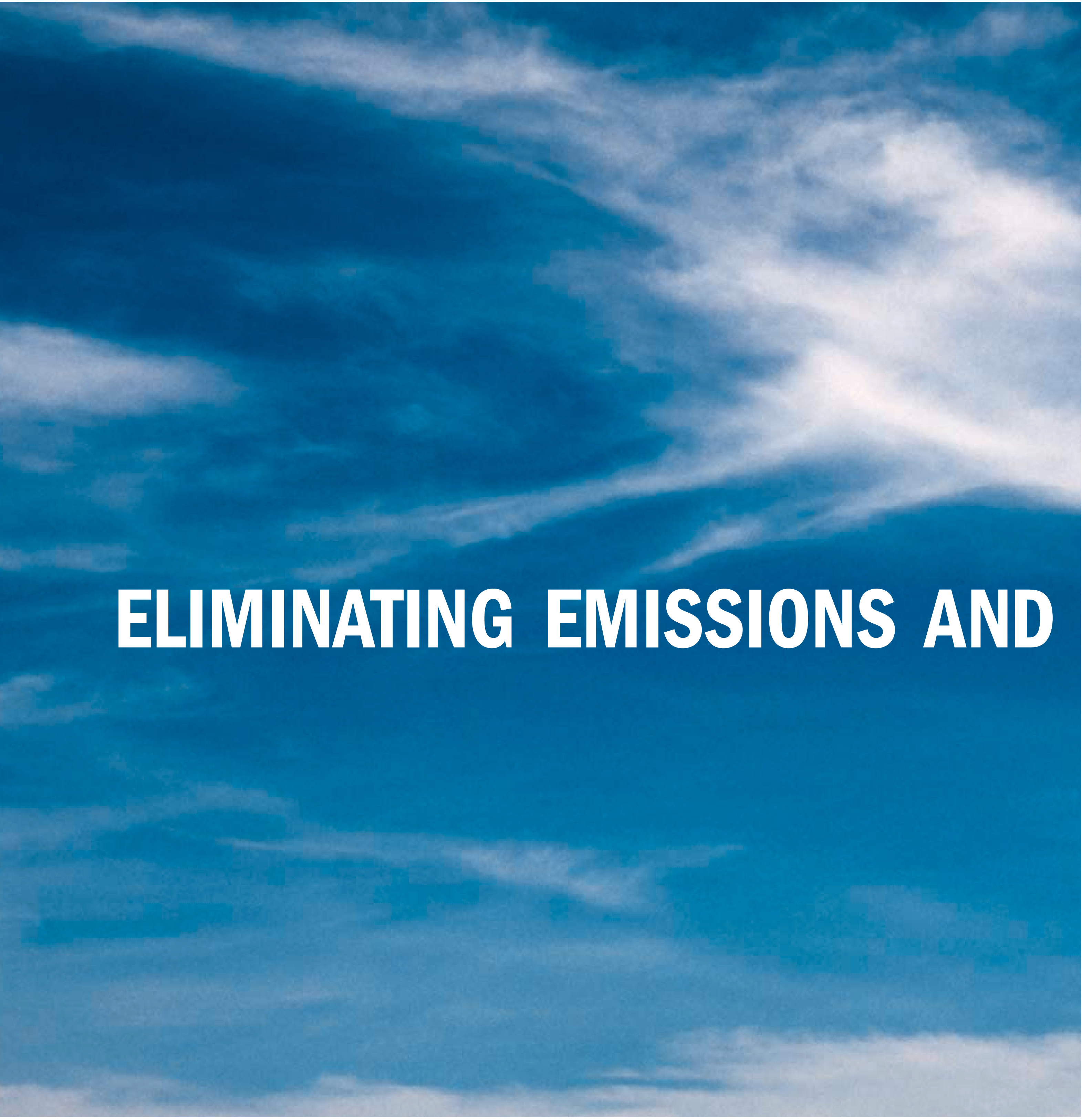

Someone should make hydrogen vehicles and their refueling stations a reality. Only GM could. Only General Motors has teamed up with Shell to introduce the nation's first hydrogen refueling pump at a retail station. It's the endgame of a multi-faceted strategy GM set in motion years ago to make cleaner cars and trucks powered by hydrogen. Right now, a test fleet of hydrogen-powered GM vehicles

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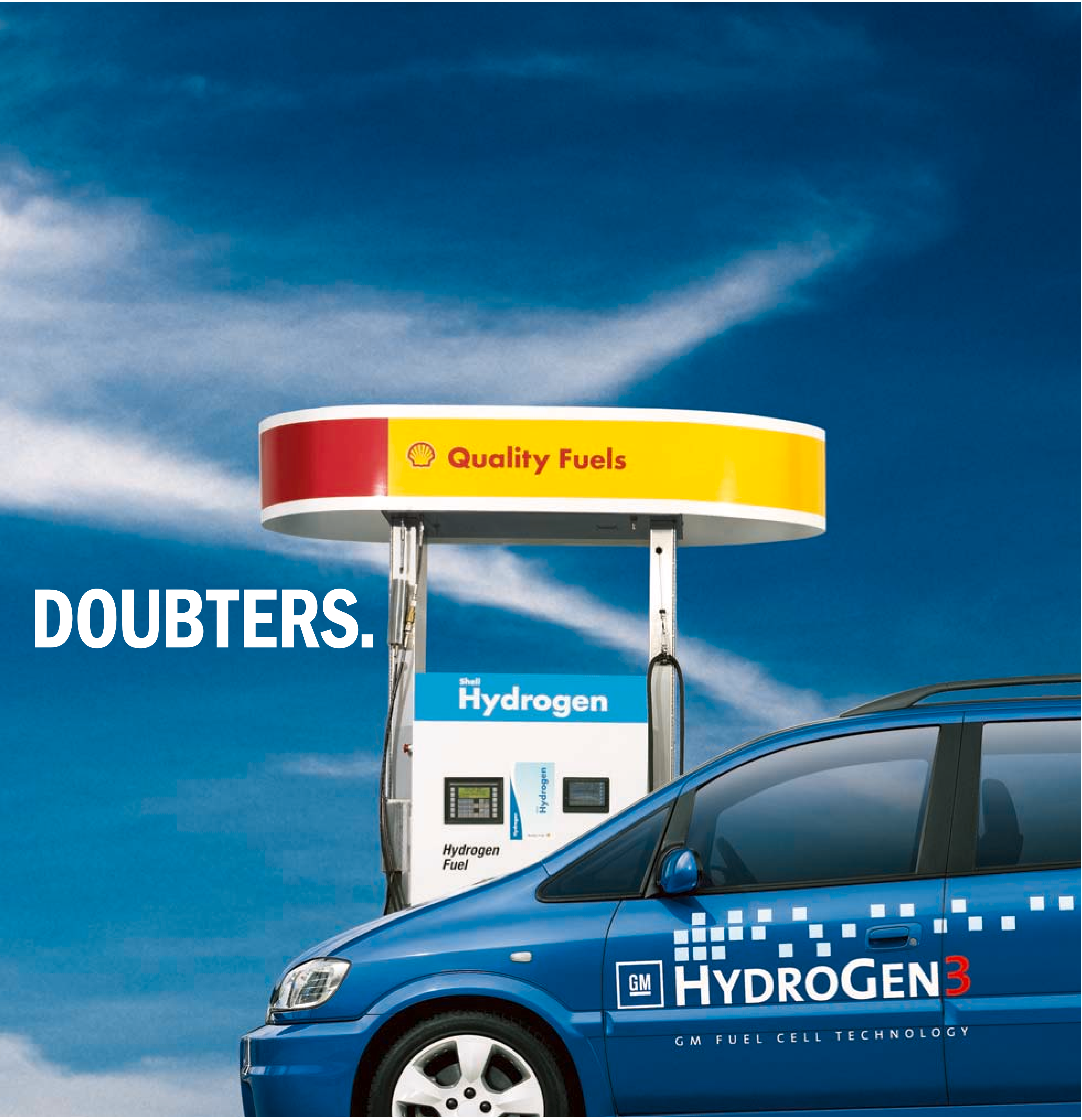

is negotiating traffic in downtown Washington, D.C. GM introduced the first fuel cell-powered concept vehicle nearly forty years ago, and we've continued to push fuel cells forward ever since. With over five hundred GM engineers on three different continents working on hydrogen technologies, it's clear the hydrogen economy isn't a pipe dream anymore.

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ENERGY: A NEW PLAYING FIELD

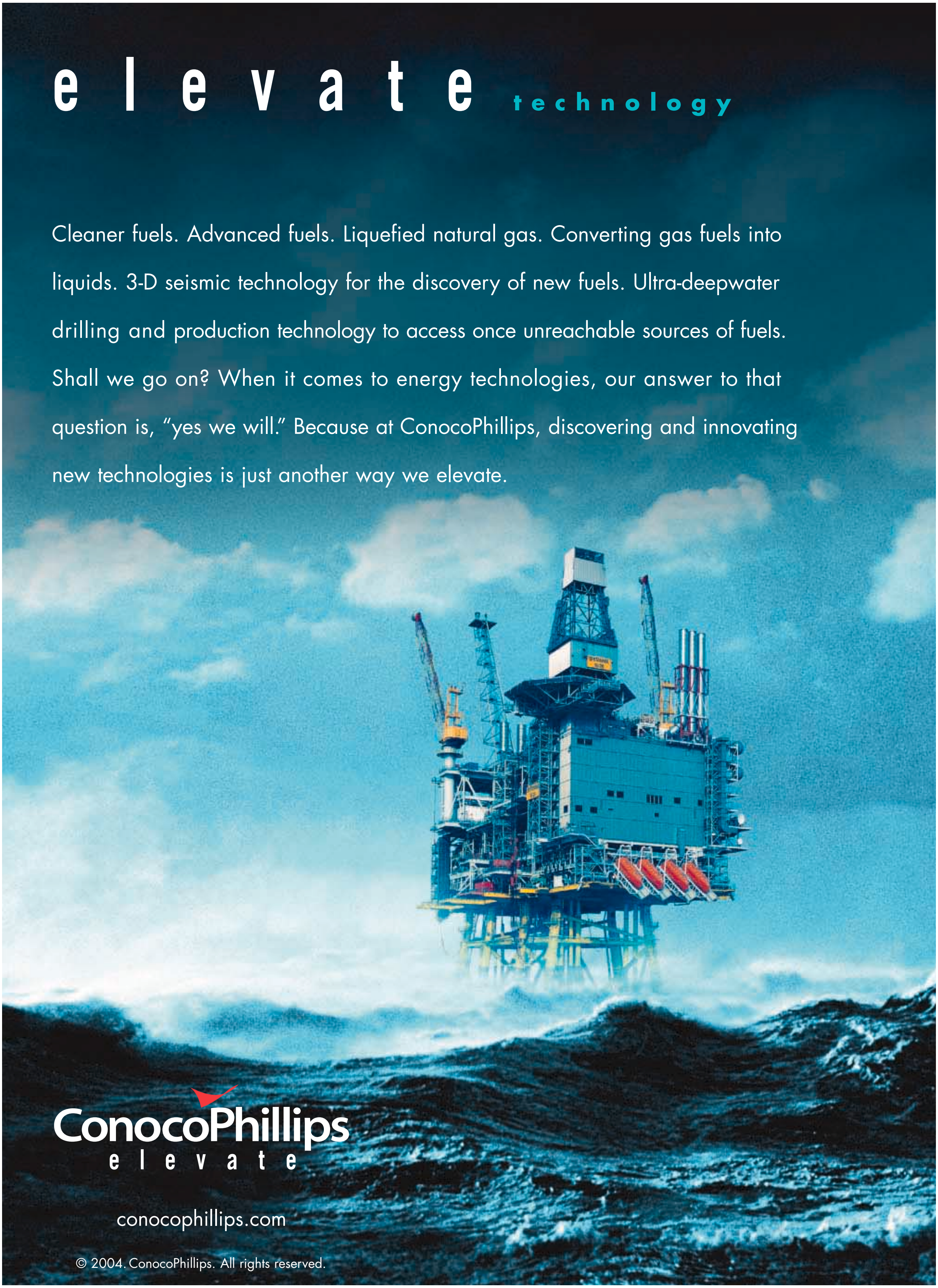
by Robert McGarvey

Call the lesson Energy Economics 101: When crude oil prices consistently rise above $40 per barrel and occasionally top $50 per barrel, as they recently did again in early March, the consequences are pervasive. High petroleum prices have motivated a flurry of activity around alternative ways to power the economy. What might have seemed absurd when oil was priced at $22 to $28 per barrel—the OPEC cartel's official price band as recently as 2002—is now looking viable. And there's no end in sight. Rebounding western economies are thirstier than ever for energy, as are emerging economies such as China and India, intensifying pressure on petroleum supplies and pricing. OPEC, for its part, has recently discussed setting its official price band at $40 to $50, signifying that high petroleum prices are likely an enduring reality.

But the power equation is shifting as viable alternatives are emerging. Suddenly, nuclear power is regaining favor, as is cleaner coal and, to a lesser extent, renewable energy sources such as hydrogen. But we remain a petroleum economy and, for that reason, there's continued interest in—and good news to report about—imports of liquefied natural gas (LNG) and also ongoing petroleum exploration in exotic destinations.

Nuclear Resurgence

Nuclear power, once shunned, is becoming an increasingly popular energy option. Why? The U.S. government projects that use of electricity domestically will grow by 50 percent over the next 20 years. And while natural gas has been the fuel of choice for the past decade, recent price increases—coupled with uncertainty about supply—have prompted experts to explore other options. In light of this,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nuclear power is considered attractive because it is inexpensive; domestic supplies of uranium are ample; and it does not exacerbate global warming, emit greenhouse gases, or lead to any of the other environmental issues associated with fossil fuels. Nuclear energy is reemerging as a clean, environmentally friendly fuel and it is gaining plenty of support.

This support extends beyond the United States. Countries that once decided to phase out nuclear plants, such as Sweden, Germany, and Italy, are reversing those decisions, says Richard Myers, senior director of business & environmental policy at the Nuclear Energy Institute in Washington, D.C. New nuclear power plant construction is booming globally, according to Myers: Japan, Taiwan, and China all have opened numerous new plants; new plant construction is under way in Finland; and France is considering similar plans.

Nuclear energy produces approximately 20 percent of domestic electricity, a percentage that has remained stable for the past 10 years, says Myers. But this may increase, as the United States may also soon build new plants. Myers anticipates that as many as three companies will be submitting applications for new construction permits in the next several months. Detailed review by the U.S. Nuclear Regulatory Commission will take many months, as will construction. But by 2013 to 2014, "We are likely to see the first new nuclear plants opened in the United States in decades," says Myers.

It has been a long time since the nuclear industry has been this optimistic. Nuclear power executives believe that the energy source's double benefit—"low operating costs and our very small environmental footprint," per Myers—is a winning combination.

What about the disposal of nuclear waste? Myers admits this problem still needs to be resolved. "Spent fuel management is our most significant challenge," he says. But Myers asserts that the science and engineering of safe disposal have been developed; what is delaying progress are policy and governmental issues.

The LNG Solution

For more than a decade, natural gas has been the United States' fuel of choice. Consumption has continued to sharply rise, triggering supply problems as well as higher prices. Now there may be a solution. A number of nations, including Venezuela, Nigeria, Australia, Algeria, and Trinidad and Tobago, have vast quantities of natural gas they are eager to export.

In the past, there have been various logistical problems in transporting natural gas. But new, cost-effective transportation methods are gaining popularity. Technologies have been developed to cool natural gas to a liquefied state, aptly called liquefied natural gas (LNG), which can then be transported via specially built ships. Already, Japan, Taiwan, and China are large importers of LNG and there are efforts to expand the United States' LNG capacity. How? The critical step is building terminals where tankers will off-load the fuel. So far, a "not in my backyard" resistance to LNG terminals has hampered construction in the United States, but according to Bob Linden, an expert with PA Consulting, "Terminal developers are getting smarter." For instance, there are plans under way to build terminals in nearby Mexico (four projects have been permitted by Mexico; another eight are under review). LNG terminals in Jamaica and the Bahamas are also being considered.

Will new LNG terminals ever be built in the United States? Very possibly. Linden says proposals to build terminals off the California coast are receiving a great deal of attention. John Olsen, Australia's consul-general in Los Angeles, supports this possibility. Since Australia has a surplus of natural gas and California has an abundant demand for the fuel, to Olsen's eyes, this is a perfect relationship. "We can envision the first shipments arriving in California as early as 2007," he says.

Either way, two facts about LNG are plain. "The natural gas market is moving from being a local market to a global one, much like oil," says Linden. The other fact: U.S. consumption of LNG is expected to skyrocket; government figures show LNG imports increasing by two trillion cubic feet (42 million tons) between 2002 to 2010. By 2010, LNG is expected to account for 39 percent of U.S. natural gas imports, with further increases anticipated. LNG has become a major factor in the nation's fuel mix and, going forward, this trend seems destined to continue.

Cleaner Coal

"King Coal is back, that's the headline for this year," Luke Popovich, a vice president at the National Mining Association in Washington, D.C., says. Why? Pricing. "On a Btu basis, coal costs one-third what natural gas costs," he explains.

This price advantage is rippling through the mines of Wyoming, Montana, and the other big coal producers. "There's a lot of optimism in the coal industry," notes PA Consulting energy expert Jerry Eyster. That said, prices last winter "went through the roof"—spikes were the largest in years—and, says Eyster, coal also encountered some transportation problems.

Even so, according to the Edison Electric Institute, in 2002, 50.1 percent of the nation's electricity came from coal, a similar percentage to 2004 estimates, and, Popovich says, "No one predicts coal's share of the electricity market will dip below 50 percent in the period through 2025."

Another positive trend in the coal industry has been "significant progress with clean coal technologies," says Popovich, who indicates that most of the main coal-bred pollutants have been severely reduced by existing technologies.

The picture may get sharper still, however, because "work is being done to produce a zero-emissions coal plant by 2020," Eyster says. Dubbed FutureGen, this $1 billion initiative has been endorsed by the Bush Administration. If FutureGen is built as scheduled and delivers on its environmentally friendly promise, domestic consumption of the nation's more-than-200-year coal supply almost certainly will skyrocket.

Abroad, however, the impact may be just as profound. The U.S. Department of Energy is explicitly inviting foreign governments to participate in the project, which may lead to improved environmental practices worldwide. "Nations such as China and India have significant coal supplies they intend to burn," says Joe Lucas, a vice president with Americans for Balanced Energy Choices, an advocacy group. FutureGen advocates believe that the benefits will be global if coal is burned with fewer—or no—pollutants as a byproduct.

Today, there are literally hundreds of research projects (some funded by the Department of Energy, some public- and private-sector joint ventures) aimed at reducing coal-burning emissions. While FutureGen aims for the skies, these smaller projects may have profound effects before 2020. They promise to provide the tools and tactics to incrementally transform coal from the 20th century's polluter into a 21st-century hero. Our ample supply makes this research critical, and lately, advocates are increasingly optimistic about coal's promise.

Oil Rules

Despite all of the promise of energy alternatives, the reality is, oil is the fuel that every industrial and emerging economy demands most. Oil powers cars, trucks, buses, and, in

Up in the Air

As petroleum prices rocket higher, suddenly there is intense interest in what may be the most Buck Rogers, sci-fi alternative fuel of all: hydrogen. As the earth's most abundant element, hydrogen offers the delicious promise of ready availability and, even better, it may be the elixir that can power tomorrow's cars. Oil giant BP has emerged as one of the lead players in using hydrogen as a prime energy source. "We have been working on hydrogen for at least five years," Carol Battershell, BP's director of alternative fuels, says.

While Battershell is notably optimistic about hydrogen's potential, she cautions against overconfidence in the near term: "Hydrogen is 15 to 20 years away from being an everyday consumer fuel," she explains. What is the holdup? Manufacturing hydrogen cost-effectively is not the problem—BP alone produces 5,000 tons of it every day, mainly for use in the company's gasoline refineries.

For mass-market use, one main obstacle is that automobile fuel cells need to be made more durable, more reliable, and less expensive. Infrastructure, too, is a major issue, as the logistics of getting hydrogen to market need to be resolved. But breakthrough research is occurring. At BP, for example, the company is closely investigating the feasibility of transporting hydrogen to refueling stations while simultaneously looking at on-site manufacture of hydrogen at those stations. Which mode will prevail? This groundbreaking research promises to find the best solution so that by 2020 or so, hydrogen will take its rightful place among the fuels that power the globe.

some cases, heats homes and factories. And now two shockwaves are rippling through the petroleum universe.

The first is what seems to be an inexorable rise in demand. According to the U.S. Energy Information Administration, demand for oil in Asia's developing countries will more than double between 2000 and 2025. By 2025, the those countries' demand will equal that of the United States. In the meantime, U.S. demand is slated to increase by 50 percent in the same period while smaller increases are projected for oil consumption in Western Europe and industrialized Asia (Japan, Taiwan, etc). Where will the new oil come from?

The second shockwave is that sharply higher oil prices now make exploration and production in what were once considered too-expensive regions economically feasible, particularly for the largest oil companies. Total, a France-based company (the result of the 2000 merger of Totalfina and Elf Aquitaine) that now ranks as the world's fourth-largest producer of hydrocarbons, now has production in 27 countries and exploration and production activities in 43 countries. Total plans to increase petroleum production by 4 percent yearly through 2008. Where, how? Total is active in Africa, where it is the largest producer; the Middle East; South America; Asia; and elsewhere. In just one month—January 2005—Total announced new production or exploration activities in Nigeria, Trinidad and Tobago, Venezuela, Australia, and Mauritania. Surprising? Not in today's petroleum economy, where the hunt is on in ever-deeper waters, further and further offshore, in frigid climates, and in parched deserts.

Oil, too, has become remarkably international in character. While BP, Shell, and Total are among the biggest players, now there are so many more international companies, often with governmental links. In early March, for example, India's state-owned petroleum company, Videsh Ltd., signed a joint-venture deal with Venezuela's state-owned oil company, PDVSA, to hunt for and produce oil in India. Such partnerships have become the norm because the hunt for new petroleum has gotten fiercely complex—technologically and, often, politically—and it also has gotten ever more expensive as the search has extended into regions that impose high operational costs. But the payoff is shaping up to be more petroleum discoveries in more unlikely places. A longtime energy industry axiom is to never bet against the engineers, because even when obstacles seem impossibly high, somehow they find ways to bring the Btus to market. There's no reason to believe engineers will be any less skillful in the 21st century.

Jersey City, NJ-based **Robert McGarvey** *frequently writes about energy for a range of leading magazines. He also has authored a number of special advertising sections on energy for HBR. He can be reached at: rjmcgarvey@mcgarvey.net.*

Blackout Cures?

U.S. power industry executives are increasingly confident that new tools are making the nation's electricity grid dramatically more reliable and more efficient. These new tools are allowing for companies to remotely monitor individual components, such as transformers, that help shift power around the country. It was just August 2003 when the Northeast United States and parts of Canada were devastated by power outages, but evolving technology may be making such blackouts obsolete.

"We are now producing systems that let utility companies monitor their operations, in real time," says Randy Schreiber, a senior vice president with ABB in Connecticut, a leader in developing advanced power technologies for utilities. "Utilities may be able to see problems as they arise and take the steps needed to prevent them from cascading into another blackout," says Schreiber.

Called a Wide Areas Monitoring System (WAMS), this toolset does more than simply act as an early warning system for disturbances. It also helps provide insights that allow for the most effective, and most cost-effective, optimization of transmission capacities.

But there may be a stealth benefit to these monitoring tools. Much of the nation's electricity infrastructure is aging. By one estimate, the average age of a transformer is over 40 years. While utilities lack the cash to implement wholesale replacement programs, "New tools such as ones we offer let utilities target exactly which parts are most prone to failure," says Schreiber, "and this will let them replace what needs to be replaced before there are problems." This, too, is contributing to the increased confidence in the grid.


REVIEWING THE OIL ISSUE IN DEPTH
AND BRINGING NEW SOLUTIONS TO THE SURFACE
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BIOTECHNOLOGY THE PACE QUICKENS

by Robert McGarvey

Biotechnology helped you wake up this morning. To reduce chlorine, your coffee filter was bleached with biotechnology-manufactured enzymes; your vitamin C and B2 vitamins were made by biotechnology processes, as were some 190 biotech-derived prescription drugs that are on the market. Over the past 20 years, the biotechnology industry has matured dramatically and is now making people healthier and producing products we all use. Biotechnology has become a powerful engine for economic development in regions that have established themselves as biotech-friendly.

Numbers tell this story. There are 1,473 biotechnology companies in the United States. They employ approximately 200,000 people and, for each employee, the eight biggest biotech firms spend more than $100,000 on R&D, according to numbers collected by BIO, the Biotechnology Industry Organization in Washington, D.C. This level of investment indicates the industry's determination to make itself ever-more important to our lives.

Turning a Profit

These numbers don't lie. For 2004, south San Francisco-based Genentech reported revenues of $4.6 billion, and the company also reported significant earnings. This is very important work, too. Central to Genentech's revenues are BioOncology products such as Avastin, Rituxan, Herceptin, and other products that are giving new hope to cancer patients.

Genentech remains true to its biotechnology heritage. "Our business model is about taking the biology as we find it and using it. We don't force the biology," says Joe McCracken, Genentech's vice president of business development. Historically, McCracken elaborates, drug discovery teams have developed specific drug candidates to alleviate, for example, high cholesterol or high blood pressure. While that strategy may work for some companies, Genentech focuses more closely on what its researchers are turning up in their labs right now.

That said, Genentech clearly focuses on commercial opportunities. For instance, the company has long been a leader in angiogenesis drugs and,

The Manufacturing Powerhouse for Life Sciences

- 16 of the top 20 pharmaceutical products sold in the U.S. are manufactured in Puerto Rico.
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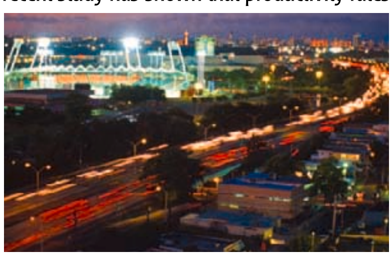
- U.S. currency
- Training and wage incentives
- U.S. legal I.P. protections
- U.S. citizens

A Manufacturing Powerhouse
Puerto Rico's bilingual and available workforce is well prepared to meet the needs of companies operating on the island. Almost 40 years of manufacturing experience in the life sciences sector has given rise to an elite group of highly educated, innovative and dedicated management teams with extensive regulatory experience. A recent study has shown that productivity rates



per dollar in Puerto Rico are significantly higher than the U.S. average. This combined with high capacity transportation, advanced telecommunications and electrical infrastructure makes Puerto Rico the location of choice for manufacturing companies.

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Puerto Rico

specifically, in substances that help thwart the formation of new blood vessels to tumors. The core idea is a simple one: Deny blood flow to tumors and they won't grow. This is how Avastin, a Genentech drug approved for patients with previously untreated metastatic colon or rectal cancer, works. But Genentech sees more potential for Avastin, which is now in trials to treat renal cell carcinoma, advanced non-small-cell lung cancer, metastatic breast cancer, and metastatic and locally advanced pancreatic cancer. Assuming the positive results continue, these tests may herald a new day of optimism for sufferers of some of the deadliest cancers.

Genentech also plans to use its expertise in angiogenesis to help stimulate blood vessel growth in patients suffering from diabetic ulcers. This is, in essence, reversing the idea—but with potentially powerful implications. In severe cases of diabetic ulcers, for some patients, amputation is the only option. So Genentech is zeroing in on using what it has learned about inhibiting blood vessel growth to prompt new blood vessel growth. Now in Stage II clinical trials, this substance, called PRO128115, illustrates how Genentech works, says McCracken. For one, "We tend to go where other companies aren't" and—unlike, say, cholesterol drugs, where there are a slew of competitors—few biotech firms are targeting diabetic ulcers. "We also like targets where there is a strong scientific story that we understand," says McCracken. Genentech's lengthy work on angiogenesis gives the company unparalleled knowledge in this area.

Genentech is an undisputed biotechnology leader but, in a sign of the sector's strength, it is not alone. Down the California coast a few hundred miles, Amgen is the other biotech leader, with 2004 reported revenues of approximately $10.6 billion and income of roughly $2.4 billion. Amgen, too, targets tough diseases such as cancer and inflammatory diseases, and its products also change lives.

Between them, these superstars richly illustrate the industry's growing profitability and also the increasing focus on products that give hope to people who, a generation ago, might have had none. And Amgen and Genentech aren't alone. Many biotechnology firms are now successfully introducing products that are good news for patients and investors alike.

Outsourcing the "Last Miles"

Another major trend behind the industry's growing profitability is the emergence of new-breed outsourcing firms. These firms already have the product development expertise biotech companies sometimes need to get over the last hurdles. To bring drugs to market, many specific steps must be taken, in a precise order and in ways that are satisfactory to the U.S. Food and Drug Administration, which monitors not just drug safety but proper labeling, advertising, and so forth. It can be easy for a small or mid-market company—particularly one founded by researchers who love the thrill of the lab but may have little marketing prowess—to get sidetracked, even lost, as it enters what might have seemed to be the last mile.

Companies like PAREXEL, a Waltham, MA-based biopharmaceutical outsourcing firm with 57 offices in 36 countries, expertly cut through the thickets and ensure that the right steps get taken. Among its many activities, PARAXEL has managed HIV/AIDS trials involving 45,000 patients worldwide. When a small or mid-size biotech firm has a promising drug candidate, increasingly the call goes out to PAREXEL or one of its competitors for their expertise in clinical trials management, data management, biostatistical analysis, medical marketing, clinical pharmacology, regulatory and medical consulting, and other drug-development consulting services.

The ready availability of so much expertise is a large reason why biotechnology at last is seeing more drug candidates entering trials and, eventually, successfully going to market. This is analogous to the shipping industry. While the ship's captain sees the vessel across the ocean, as the ship comes into dock in congested urban areas, often a local pilot helps the captain safely navigate into the port. "Biotechs need guidance navigating the last miles, and that's where we come in," says PAREXEL Chairman and

Novartis and John drove his Cancer into remission in 56 days.

"I didn't think I'd live to teach my son to hit a baseball. Now I believe I'm coaching a future major leaguer."

— John Nesbitt

Two months after his son Christian was born, John Nesbitt was diagnosed with cancer. He lost weight, his energy and his dream of one day teaching his son to play baseball. Today, John has his dream back and he is out on the field living it. Novartis is proud to be the innovative force that's bringing new optimism and hope to patients and their families. No one can promise what the future holds for cancer patients, but today John is winning the fight against his particular form of cancer, enjoying a good quality of life and realizing his dreams.

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CEO Josef von Rickenbach. "Many are science-oriented, not development-oriented—and that is the expertise they need to get their products to market in a timely way. What we do is provide navigational help, which results in more products reaching the patients who need them."

Big Pharma Roars

Don't count the big pharmaceuticals out of the race to discover and commercialize new drugs. Some analysts do exactly that, but in the largest drugmakers' labs, researchers are working overtime to streamline drug development processes. At Novartis, says Trevor Mundel, Global Head of Exploratory Clinical Development, the company is integrating R&D functions to help their scientists choose better disease targets, i.e., ones where successful outcomes are more probable. "We are trying to steer away from open-ended research and low-probability directions," says Mundel.

This doesn't mean Novartis is any less ambitious in its targets. To the contrary, Mundel indicates that Alzheimer's disease, which has long stymied researchers, remains a top Novartis target. That is because the company believes it has some special strengths to bring to the chase. Furthermore, Novartis is using a core strategy it calls translational medicine to focus on its knowledge base—developed over years of prior research—and to eliminate from consideration strategies that it ranks as unlikely to produce meaningful results. Translational medicine will help Novartis eliminate nonproductive drug candidates earlier and, according to Mundel, it will lead to greater efficiency.

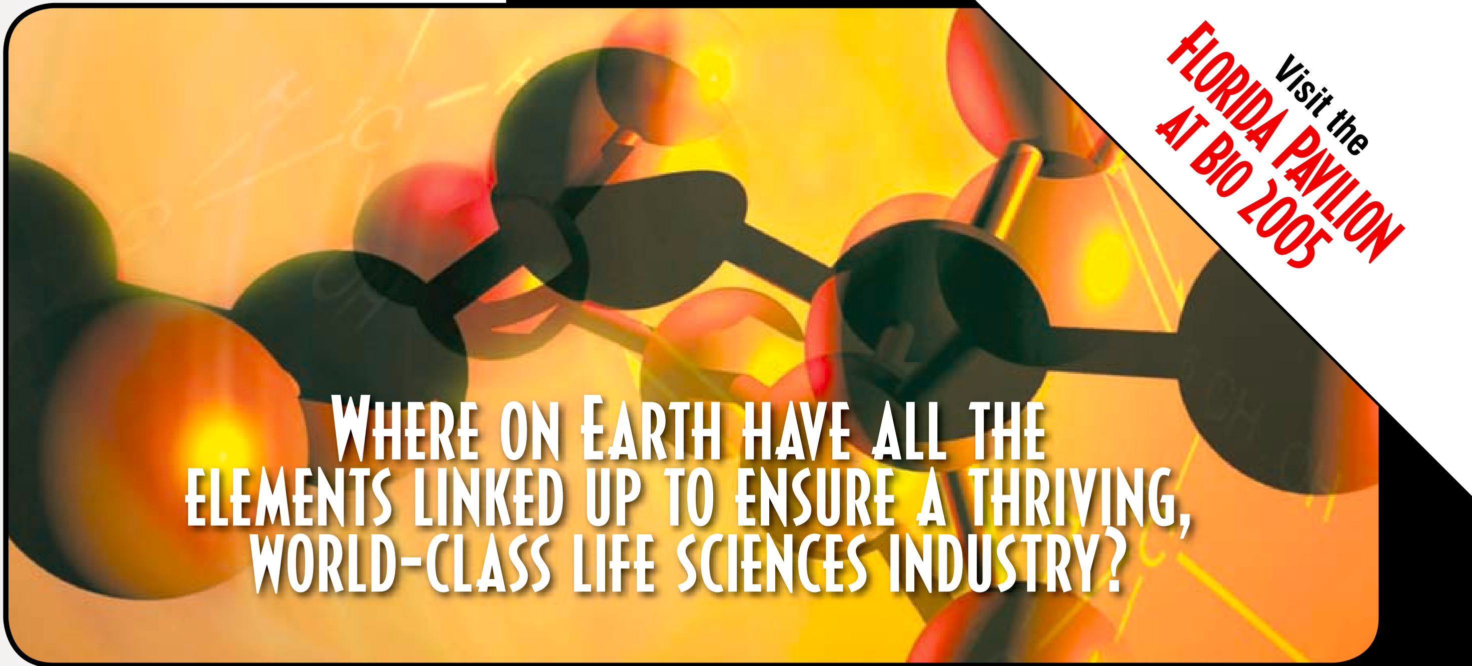
In the meantime, says Mundel, many labs get mired in what admittedly are great intellectual breakthroughs, such as genetics research. While Mundel doesn't want to terminate the heavy thinking, he believes that the route to efficiency will be in rigorously holding to a patient-centric focus: How will patients benefit now from this approach? Novartis believes that this strategy will enable it to move with the alacrity and precision of a biotech firm in picking and hitting research targets.

Filling in the Gaps

Children love to poke around the cracks in a sofa, feeling between the cushions in search of cash; often they find a treasure trove of small change. For today's drug manufacturers, a comparable activity is occurring—but it's definitely not child's play and the payoffs may be huge and critically important, too. As the big pharmaceuticals and well-established biotech firms narrow their focus, vast opportunities emerge for newcomers that can find ways to profitably fill in the gaps.

One such niche product is CroFab, a rattlesnake anti-venom that Protherics, a 190-employee biotech firm with facilities in the United Kingdom, Australia, and Nashville, TN, manufactures using sheep blood. CroFab, launched in the United States in 2001, already is the leader in its niche, according to company president Saul Komisar, a market he estimates at $80 million. And every bit as important, CroFab saves lives. CroFab was the first new anti-venom drug approved for use in the United States in 50 years, but its high level of effectiveness and safety has persuaded physicians to make it the anti-venom of choice. In fact, after CroFab was introduced, a big pharmaceutical company withdrew its established anti-venom drug, a move that put pressure on Protherics to step up manufacturing the product. How is it made? Sheep are injected with venom, antibodies are extracted from the sheep blood, and eventually the anti-venom is produced. Sheep-derived anti-venom is well-tolerated in humans, and this has hastened CroFab's acceptance, says Komisar.

Lexington, MA-based Cubist, another niche player, specializes in anti-infective drugs for use primarily in acute-care contexts. Its flagship product is Cubicin, an anti-bacterial agent that combats skin infections. Sales in 2005 are projected to exceed $110 million, which admittedly would be a rounding error on a big drugmaker's general ledger. But that presents an opportunity for small biopharmaceutical firms like Cubist, says Robert Perez, senior vice president, commercial operations. "Big pharma is attracted to chronic therapies." The reason, of course, is that a prescription for a chronic therapy—a cholesterol pill



The Life Sciences Cluster In Florida

Florida's life sciences cluster is blossoming. Home to Scripps Florida, leading university research institutions, renowned research clinics, and innovative biotech firms, Florida is the catalyst for companies looking to combine an unmatched lifestyle with stellar scientific achievement.

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Did You Know That...

- Florida's medical device industry ranks 2nd in the nation for the number of FDA-registered medical device establishments
- Florida is the 11th largest biotechnology state in the U.S. as reported by Ernst & Young

Top 5 Reasons Life Sciences Companies Should Locate/Expand in Florida

1. R&D Infrastructure
Florida has built a network of resources that serves discovery and commercialization. The state is home to Scripps Florida, two Centers of Excellence in biotechnology, multiple medical research clinics, top-notch medical schools and research universities, and numerous technology transfer programs – all creating a synergy and climate for innovation.

2. Entrepreneurial Environment
Commercialization of research discoveries and young companies are championed by Florida's strong workforce talent, technology incubators, research parks and wet labs, as well as an upsurge of venture capital investment in the state.

3. Venture Capital
The state offers an excellent opportunity for experienced venture capitalists to take advantage of Florida's deal flow. In Florida, venture capital spending totaled more than $555 million for 114 deals in 2003 and 2004. There are also more than 20 venture capital companies headquartered in Florida.

4. Business Climate
With the biomedical technology industry designated as a "high impact" sector, Florida offers biotech companies special incentives and a highly competitive business climate. The state's remarkable quality of life is also one of its major assets -- with year-round sunshine, no state personal income tax, low cost of living and affordable housing.

5. Workforce Talent
Florida's universities and colleges rank among the best producers of the nation's top performers of research & development. Additionally, the state's customized workforce training programs help companies recruit, train and maintain employees with cutting-edge skills to keep pace with new technologies.

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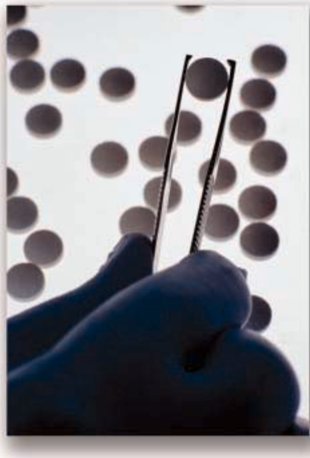
such as Lipitor or a high-blood-pressure pill such as Lotensin—potentially represents many years of refills. Not so with an acute-care treatment such as Cubicin, which is prescribed in response to a condition that, hopefully, it will resolve in short order. Even so, Perez says that for companies that know how to pursue the acute-care marketplace, there's a solid upside. Marketing costs, for instance, are comparatively low: "The data sells acute-care products," says Perez, who adds that Cubicin only needs a small sales force to target the hospital market so critical to the company's success. Think lean, keep focused, and, says Perez, fast-moving small companies can find profitable acute-care niches.



Industrial Biotech Has Answers

Long an industry sweet spot, industrial biotechnology—where industrial processes are streamlined by introducing new biotech-derived tools—has, paradoxically, received scant attention. But literally hundreds of new enzymes and other biotechnology products are making it faster and easier to do business, and industrial biotech may soon hit a home run.

Biotech firms' long-term efforts to convert agricultural wastes, known as biomass, into usable fuels are beginning to pay off. Increasingly, these firms are achieving success in their efforts to convert cellulose into fermentable sugars, which can be turned into a so-called carbohydrate crude oil. When oil is priced at $50 per barrel, research into such alternatives gains real speed.

For some years now, companies have converted starches from corn and other grains into ethanol that (usually when blended with gasoline) is used to power automobiles. Today's breakthrough is that new technologies will allow cellulose to be converted into fuel, allowing much more of the plant to be utilized in these processes. And production of ethanol from crop residues (straw, for instance) is highly energy efficient. According to BIO, when perfected, these processes will produce eight to 10 times more energy than they consume, thus reducing dependence on imported oil and the volume of greenhouse gases released into the atmosphere.

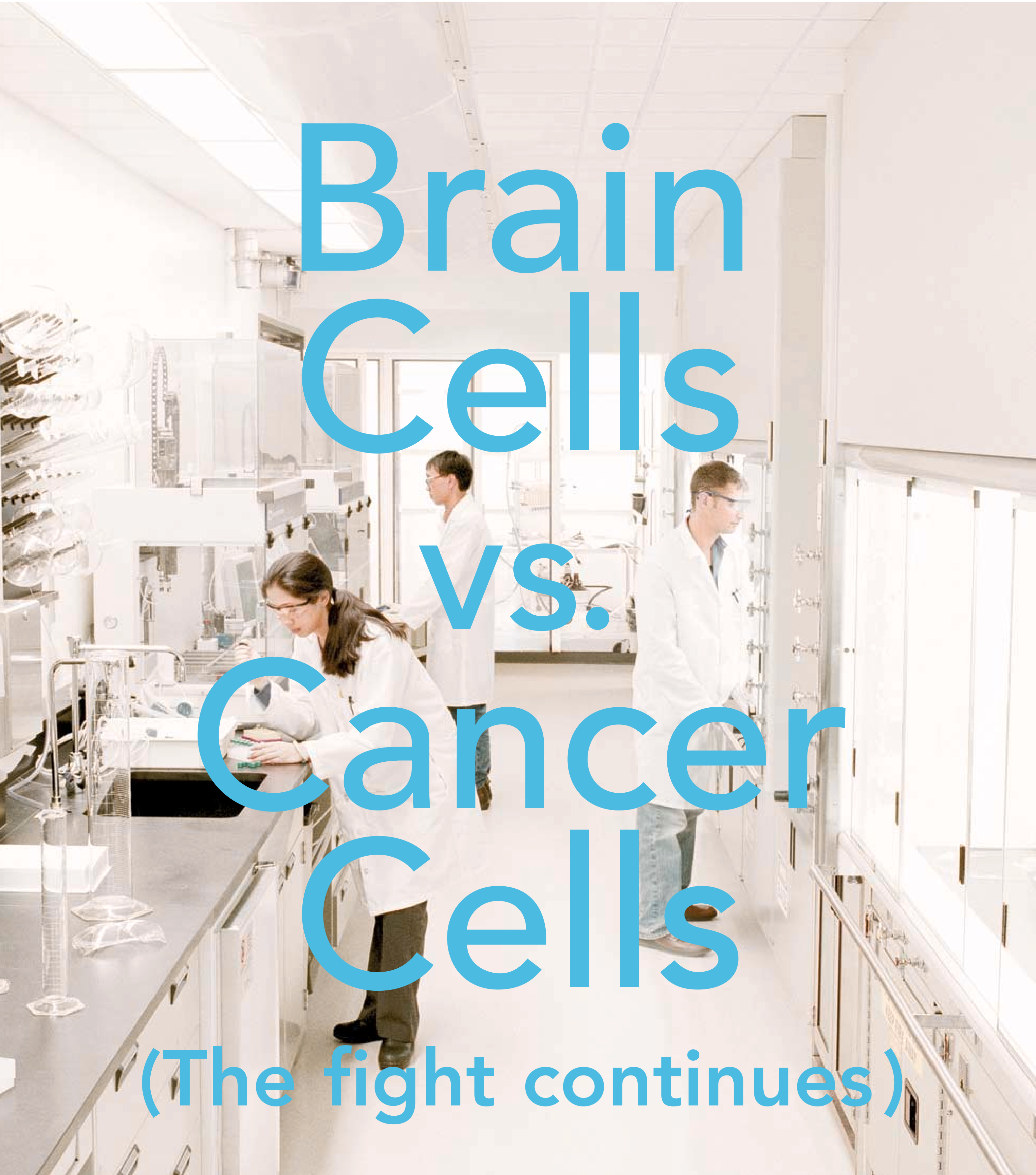
This is just one dramatic example of how industrial biotechnology is, increasingly, where biotechnology affects almost all of our lives, every day.

Got Work?

You would have great difficulty trying to name a U.S. state that is not actively courting biotech firms to set up shop or expand operations there. In fact, it seems nearly every economic development agency is keen to lure biotechnology companies to their locales, for several reasons. The main attraction is that, in the 21st century, biotech firms have all of the excitement surrounding them that high-technology companies had in the 20th century. Biotech firms are also considered clean enterprises that produce few environmental problems and offer high-quality jobs.

Surprising winners are emerging in the race for new biotech investment. The perennial leaders, of course, are California and, in second place, Massachusetts. But just as visionary biotech leaders are challenging traditional healthcare paradigms, they are also settling in places that might not instantly be top of mind.

One emerging biotech hub is Puerto Rico, which recently won more than $1.5 billion in new investments from Amgen, Eli Lilly, and Abbott Laboratories. Puerto Rico actually has longstanding roots in biotechnology: "We've had biotechs here for over 20 years," says Marie Robert, executive director of the Puerto Rico Industrial Development Company, an agency responsible for recruiting industry to the island. Another reason for Puerto Rico's success in winning the biotechnology factories is its history in drug manufacturing. "We have a long record manufacturing pharmaceuticals. The first plants went in 40 years ago," says Robert, who indicates that, globally, Puerto Rico ranks among the top five manufacturers of pharmaceuticals. Robert contends that Puerto Rico is prepared to offer a range of favorable tax incentives to companies that locate on the island. "We position ourselves as the lowest-cost gateway to mainland United States," says Robert, who adds that companies that settle there find the quality of the workforce


Brain
Cells
vs.
Cancer
Cells
(The fight continues)

particularly appealing. Puerto Rico ranks ninth among U.S. states and commonwealths in the number of engineering degrees awarded, and it trails only Japan in rankings of manufacturing days lost due to labor disputes.

Another regional winner in the rush for biotechnology business is Florida. Almost in stealth mode, Florida has quietly emerged as a major biotechnology center; 54 biotech companies call Florida home. Importantly, Florida has been gaining strength in areas that particularly attract biotech firms. In the past two years, 22 Florida life-sciences companies received venture funding and, conveniently, approximately two dozen sizable venture funds now have set up offices in the state.

Florida has also become the second largest manufacturer of medical devices—1,021 device companies employ 23,000 Floridians—and, in a large coup, Florida houses a new campus of the famed Scripps Research Institute. That facility, which had its ribbon-cutting ceremony in March, brings more than 100 staffers to work on cutting-edge research in a new, $12 million state-of-the-art building. A particular focus will be biotech building blocks such as a genetics disease informatics program and research into the genetics of complex diseases. “For us, this is an historic opportunity, and we are creating a new model for doing this work,” says SRI spokesman Steve Kay.

With facilities such as Scripps, Florida suddenly is gaining favor as a genuine player in life sciences in general, and biotechnology in particular. Adds Enterprise Florida CEO Darrell Kelly: "Each day, Florida's life-sciences researchers and business professionals are making remarkable discoveries that can have a positive impact on the world. Our universities, business leaders, and elected officials are all committed to fulfilling Florida's legacy as a hub for biotech innovation."

The Era of Personalized Medicine

Don’t think that today’s biotechnology has focused only on small targets. In fact, one of the biggest goals of all may soon become a reality, says Dr. David Nash, Chair of the Department of Health Policy at Jefferson Medical College in Philadelphia. “The era of personalized medicine is closer than we think; it’s right on the horizon,” says Nash. How close? “Two or three years away,” he says.

That is enormously exciting news. Many professionals had turned away from pharmacogenomics—the study and practice of pairing drugs and dosages to an individual’s unique genetic makeup to produce a revolution in healthcare. The core idea is that, with medicine, one size definitely does not fit all. Different patients react differently to the same drug. While the idea was universally praised, until recently, progress has been slow.

Nash predicts that a sea change in pharmaceutical and biotechnology labs will soon occur. He contends that the quest for “blockbusters”—by design, one-size-fits-all drugs because blockbusters must be consumable by many to earn their status—is slowing. This places new emphasis on drugs that may have limited applicability but, when the proper patient population can be readily predicted using genetic scans, those drugs may indeed be very profitable, too.

Iressa, for example, has been approved by the FDA for treating non-small-cell lung cancer. This disease is deadly; there are few options for victims. And while Iressa doesn’t help 90 percent of patients, in 10 percent, it produces significant tumor reductions. Because of these success rates, at some prior point in medical history, Iressa might not have won approval. Increasingly, though, experts recognize that medicine’s weapons need to become more personalized and more individual. As that happens, we just may produce improved results in individual patients, says Nash.

Jersey City, NJ-based **Robert McGarvey** *frequently writes about biotechnology for a range of leading magazines. He also has authored a number of special advertising sections on biotechnology for HBR. He can be reached at: rjmcgarvey@mcgarvey.net.*

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MATT VINCENT

Creating the Living Brand

by Neeli Bendapudi and Venkat Bendapudi

Any company can deliver outstanding customer service – even convenience stores, where low pay and high turnover supposedly make service a problem. The secret: generating a bond between employees and the brand.

What company first comes to mind when you think about outstanding customer service? Most of us would single out Nordstrom or Ritz-Carlton or one of the other luxury companies so often showcased in articles on the subject. In fact, it's easy to conclude from the literature and the lore that top-notch service is the exclusive province of a select few and that any retailer outside that rarefied atmosphere is condemned to offer mediocre service at best.

But even companies that position themselves for the mass market can provide outstanding customer–employee interactions and profit from them. Their secret? They consider employees their living brand and devote a great deal of time and energy to training and developing them so that they reflect the brand's core values. In fact, these companies make as much effort to groom employees as they do to develop pithy messages about what the brand is and does. Look at two companies in the convenience store industry: QuikTrip (QT), a $4 billion privately held firm based in Tulsa, Oklahoma, that operates 462 stores in nine central, western, and southern states, and the $2.8 billion Wawa, a privately held company based in Wawa, Pennsylvania, that operates more than 500 stores in five eastern states. QT has been listed as one of *Fortune*'s 100 best places to work three years in a row; in 2005 it was ranked number 19. Turnover rates at QT and Wawa are 14% and 22% respectively, a small fraction of the triple-digit average turnover in the retail sector. Wawa gets a couple of hundred applications for each position, and in 2004 QT received close to 118,580 applications for just 284 new jobs. Customers

are raving fans. There are even blogs and Web sites dedicated to these companies. The "We love Wawa" community on LiveJournal has more than 700 members.

But this is not just a feel-good story. Both companies routinely outperform the market. From 1977 through 2003, Wawa stock has grown at an average annual compounded rate of 17%, nearly twice that of the S&P 500. QT's stock value has risen 19.2% in the past three-year period, more than four times the S&P's rate. (Stock values are determined through an independent appraisal.)

We have studied the convenience store industry in depth during the past two years in conjunction with the National Association of Convenience Stores and conducted detailed case studies of these two companies. We uncovered six principles that both companies embrace to instill the brand and its meaning in their employees – and to create a strong culture of customer service. Both Wawa and QT demonstrate the power, even in minimum-wage businesses, of investment in employees to create a positive customer experience.

Six Lessons of the Living Brand

Know what you're looking for. It may seem a truism that every organization must have a clear vision of the skills and characteristics it wants in its workforce and a plan for getting them. But few companies that hire in the mass market have the discipline to go about doing that rationally and systematically or to think past such vague qualities as "service orientation" and "good work ethic." Even if a company does have a clear wish list of employee behaviors, it needs to go one step further and decide whether to "make or buy." It must decide which skills and qualities can be taught and which must be hired.

QT insists on hiring "nice" people who like people, because that's a tough quality to teach; it's either present or not. Other key qualities for QT hires include the ability to work in teams, the humility to learn from others, and an appreciation for diversity. But while it focuses on these intangibles, QT does not take a subjective approach to hiring. On the contrary, it puts applicants through a rigorous, structured process that includes a personality assessment designed to reveal specifics such as how patient or extroverted candidates are. The personality profiles are based on the qualities of QT's most successful performers across the company and are continually updated and refined.

It's hard for an applicant to game the test, because each question is asked several ways – and recruiters reviewing the answers will notice any results that look too perfect and will flag the applicant for an especially careful follow-up. Interviewers probe for stories to complete the picture. One manager might ask about past experiences with difficult customers and listen for clues about the candidate's service orientation. Did he blame the customer? Did he find a creative solution? Another might ask what life experience the candidate would like to do over and what he or she would do differently. All of the interviewers have served in the positions for which they're hiring, so they can bring firsthand knowledge to choosing a successful candidate.

Hiring decisions at QT aren't left to store managers, a departure for the industry. Instead, managers in each of the company's eight geographic divisions do all the recruiting and hiring for their regions. There are two reasons for this. First, centralized hiring allows the company to maintain a consistent employee profile so that it can assign workers to positions and locations as needed, though the company makes every effort to place people in the stores closest to their homes. Second, centralized hiring reduces the risk that a store manager who is pressured for time or not skilled in identifying talent will hire weak employees who will bring down a store's brand equity and, by extension, the company's.

A focus on intrinsic traits, rather than on a particular set of work experiences, allows these companies to look past a typical retail background to find people who will naturally bring the right qualities to the job. At Wawa, the must-have is passion, for work and life. Since the late 1980s, Wawa has been "importing" teenagers from Ireland and the UK every year to fill the demand for summer labor on the New Jersey shore. Colleges in Europe break in June and don't start up again until October (many U.S.

colleges break in May and resume in late August). On the Jersey shore, the rush continues well past Labor Day, and the competition for employees is steep, so Wawa hires American students for the start of the season, then brings in the English and Irish recruits to overlap with the Americans and finish out the season. The company has relationships with several schools in Ireland that have food-service programs, so these students view the job not only as an opportunity to spend some time in the United States but also as relevant work experience that will beef up their résumés. And because the recruitment program is more than 20 years old, each new batch of students has heard things about working at Wawa from those who came previously. Their abundant enthusiasm makes them good brand ambassadors.

Make the most of talent. In mass-market retail environments, talent is generally viewed as a commodity, and employees are basically interchangeable. But that outlook becomes a self-fulfilling prophesy. Studies have repeatedly shown that people rise or stoop to the expectations set for them, whether it be schoolchildren achieving more when their teachers are told they're especially bright or employees outperforming their colleagues after being labeled as fast-trackers. Wawa and QT get more from their people because they expect more. One way they communicate expectations is through training.

In most retail environments, training is minimal – seven hours, on average. Training is typically conducted off-site, and if it's done inside a store, it's usually in a low-volume outlet, where the new employee is less likely to be in the way. At QT, the process looks very different. Each new full-time employee is partnered with a personal trainer who has previously held the same position (the trainer is, in fact, the person from the regional hiring office who recruited and hired that employee). The two work the same shifts – in the store where the new hire will work – and the trainer acts as a buddy and mentor for two weeks. This allows the new employee to interact with his colleagues and provides the best preview of life after training. That way, the pace of work in a bustling store won't come as a shock.

Such investment in people continues well beyond the initial hire. Wawa encourages its people to pursue degrees in any field of study – philosophy, biology, history – and reimburses tuition at three colleges with which it has relationships. Executives reason that higher education benefits individuals, the community, and Wawa by boosting employees' confidence and critical-thinking skills. This is a clear differentiator in the industry. In addition, the company has an in-house curriculum that offers more than 100 courses, in a central training facility, on topics as diverse as safety, inventory management, and people skills. Sometimes a store manager will decide that his entire staff needs education on a particular topic, and Wawa will send the store either internal trainers or teachers from the colleges. The emphasis on learning helps Wawa to be an employer of choice (witness its low turnover), even though its pay is on a par with other companies in its labor market.

People perform at their best if they see a future for themselves at a company. Employees know they can have a career at QT, due to its strong culture of promoting from within. All of its more than 400 store managers and very nearly all of its top executives started at the bottom and worked their way up. The culture fosters teamwork, too – managers have empathy for their employees, and frontline workers have role models to emulate. It is harder for the rank and file to think in terms of "us" versus "them" than it is at other companies.

Another way QT maintains loyalty is with its tailored benefits packages. Full-time employees get regular coverage from day one, and part-time employees are offered a scaled-back plan. The company also has a medical reimbursement plan to allow employees to save for the expenses the plan doesn't cover, such as deductibles and copayments. Flexibility is a hallmark of QT's time-off program. Depending on tenure, employees receive ten to 25 days of vacation, plus ten days of sick pay, and they can purchase an extra two weeks of vacation. All full-time employees may request ten additional days off without pay for personal activities such as school plays and graduations. Nearly every employee takes advantage of this benefit, an unusual perk in the retail industry. The arrangement works well for the company, because employees needing to take a day here and there would otherwise call in sick on the morning of the absence, and service would suffer. QT's policy allows managers to get advance notice of such absences and staff accordingly.

Finally, these companies ensure that employees have the support they need, both externally and internally, to do their jobs well. Wawa involves store managers, who have the best information on store operations, in improving the performance of vendors. Twice a year, the managers formally assess selected vendors' delivery accuracy, customer service, and other attributes. The vendors are then given an opportunity to discuss the feedback and determine

A focus on intrinsic traits, rather than particular work experiences, allows these companies to hire people who will naturally bring the right qualities to the job.

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what steps should be taken to improve performance.

The company takes the same hard-nosed approach to analyzing the quality of internal support processes such as marketing and human resources, with the same expectation that performance will be improved. When a survey showed that store managers found it frustrating to get stuck in voice mail when they phoned the marketing people, for example, the department set up a call center so that store managers would always be immediately connected to a live contact. In year-end reviews, Wawa's marketing department won most improved, beating out even its external vendors.

Create pride in the brand. In retail, service is the manifestation of the brand, and service quality depends directly on employees' attachment to the brand. QT and Wawa constantly and consciously invest in maintaining brands that employees can take pride in. Wawa has a devoted following for its private-label offerings, with a brand identity rare in the convenience store industry. Its focus is on simplifying customers' lives, which can mean sacrifices when it comes to profits. ATMs in the stores carry no surcharge, a benefit prominently labeled on the machines. And when lottery jackpots are huge, there are no long lines of bettors to inconvenience regular customers, because Wawa doesn't carry lottery tickets. QT was the leader in removing adult magazines from its stores – it did so in 1986, resulting in an annual loss of more than $1 million in profit.

Such is the attachment to Wawa brands that the company's 1994 move to put Taco Bell and Pizza Hut outlets in more than 100 stores, and Dunkin' Donuts outlets in all stores, was met with opposition from customers and employees alike. Wawa had invested a great deal in franchise fees, training costs, facility redesign, and so forth in this effort to meet customers' expressed desire for more variety. But the products didn't sell; customers were used to seeing Wawa-branded items. And associates grumbled about working hard to build other companies' brands – they wanted people to come into the store for Wawa, not for Pizza Hut. In 1996, Wawa began to phase out the brands to make more room for Wawa products. The company openly discussed with associates the error of the earlier decision and acknowledged the value of employee input.

Build community. While many convenience store chains have focused on speed of transactions and sales volume per store, Wawa and QT have made concerted efforts to build customer loyalty through a sense of community. We interviewed 80 customers, and almost all of them mentioned employee friendliness as one of the reasons they come back to the stores. A Wawa coffee host we observed in Richmond, Virginia, greeted most people by name when they came in and knew their coffee preferences. One Wawa we visited closed its doors for 45 minutes to allow a couple – who had met and become acquainted over daily coffee at the store – to get married at "their" Wawa. We went to the ceremony; the store was decked out like a chapel. Wawa provided coffee and cake, and all the store associates were in attendance.

QT customers reported similar sentiments. "I feel better when I am in QT land," said one. "I can't imagine my life without QT," said another. At both stores, customers remarked upon two things they believed were unique: The people who worked at the stores seemed to be glad to be there, and they seemed to like one another. The perceived sense of community among store associates appears to spill over into a sense of community with customers.

Both companies have strong commitments to local charities and causes. Customers in one area mentioned that Wawa provides coffee and other beverages to families of patients at a local children's hospital. QT allocates 5% of its annual net profits to charity (the same percentage donated by Target, which is sometimes held up as a community-investment model). QT has partnered with Safe Place, a nonprofit that helps get runaways and other troubled youths off the streets. QT's stores are ubiquitous in its market area, so they make great havens. A store employee will offer a young person seeking help something to eat and drink while a Safe Place volunteer is called to pick up the person


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and take him or her to a place to stay or get professional help.

The community spirit is evident internally, too. At Wawa, when a store faces a natural disaster or a personnel difficulty, the manager can count on the Wawa flock to provide support until the store is fully functional. Managers came from hundreds of miles away to help clean storefronts and do whatever else was necessary after Hurricane Isabel smashed into the Virginia area in 2003. ("Wawa" is a Native American word for Canada goose, and employees often point to the cooperative migratory habits of geese as an inspiration for their sense of community.)

At QT, the community feeling extends to the customer-service appraisal system and the reward structure. The emphasis is on the team's performance in satisfying and delighting customers. If a mystery shopper–someone who visits a store anonymously and reports on service–is especially impressed with a particular employee, everyone on staff at the store during that shift receives a bonus, because the company believes that individual rewards would undermine the message that all employees contribute to the customer's experience. Outstanding individual contributions are recognized with a note from the CEO.

While many convenience store chains have focused on speed of transactions and volume of sales per store, Wawa and QT have made a concerted effort to build customer loyalty through a sense of community.

Share the business context. Employees need a clear understanding of how their company operates – particularly, how it defines success. Wawa considers an employee successful if he or she acts to preserve the level of trust that the company has built up over many years. (In the 1950s and 1960s, when women were entering the workforce and leaving their homes empty during the day, Wawa milkmen were commonly trusted to use hidden keys so they could put deliveries in refrigerators.) Because they understand the company's values, employees don't have to follow a rigid set of rules–they just have to behave in ways that meet customer needs.

Employees also need to know how their work affects companywide financial performance and how the company arrives at its targets. Armed with this information, workers can better understand the decisions of upper management and improve job performance. Both QT and Wawa show a remarkable openness in discussing company performance and strategy with associates. At QT, every full-time associate is trained to read the store's monthly financial statements and earns a bonus that is based on the store's operating profit.

QT executives are quick to dissect their mistakes, from the installation of individual gasoline pumps along the sidewalk for drivers' convenience (customers didn't like the arrangement, so QT switched to a more typical pump setup) to failed products and categories. One of the purposes of this policy of openness is to encourage innovation by conveying the company's tolerance for well-meant mistakes. Chet Cadieux, the CEO, tells employees that as long as the company hires smart and caring people, no employee can make an error that the company cannot recover from. In a recent meeting introducing a new product category, he told employees that there might be missteps along the way. The point, he emphasized, was to try to minimize them but not to let the fear of a mistake stifle innovation among associates, an important source of new product ideas. Wawa coffee, which has a devoted following, was introduced because a lone employee decided to offer brewed coffee in a store. And as we write this, the company has a contest on its intranet for the best recipe for mixing fountain drinks. The winner will get $100, and the recipe will be posted in the store.

Satisfy the soul. Researchers suggest that to truly harness an individual's creativity, to get her full passion and engagement, a company must meet her needs for security, esteem, and justice.

Security. QT's employees know that their safety and well-being are of paramount importance to top management, which deploys technology and staffing models to create a sense of security. No employee ever works alone. The stores are brightly lit both inside and out. Every store has a raised checkout

Our Study

To learn how Wawa and QT have become known as both employers of choice and retail stores that are an integral part of customers' lives, we conducted an in-depth study involving observation and interviews with top managers, store associates, and customers. The companies coordinated about half of our visits and informed the store managers that we were coming. During those visits, we got permission from the store teams to talk with customers. The companies gave us store coupons that we offered shoppers to thank them for participating in the study. The rest of the time, we went unannounced so that we could quietly observe such things as the upkeep of the stores and interactions between customers and employees.

stand and uncluttered front windows to ensure visibility from the street. The company sets the industry standard in the number of sophisticated alarm and video monitoring devices in every store. For several decades, Wawa has staffed stores with more than two associates at a time to increase safety.

Esteem. The emotional and physical demands of a service job can be wearing, so Wawa provides rejuvenation by celebrating successes and milestones. Employees are informed about store performance every month, and each year, the top 20% of store managers and store supervisors, determined by financial performance and improvement over the previous year, are inducted into the President's Club. Induction means a three-night trip with a guest to a resort location for a series of events that culminates in the President's Club ring ceremony, held in some dramatic setting such as a major-league baseball park or ancient ruins. The choreographed extravaganza carries a motivational message and is designed to inspire managers to create an atmosphere of excellence at their stores. The President's Club is an important part of a corporate culture that emphasizes celebration and the importance of employees' taking the time to support one another.

Every month, mystery shoppers evaluate Wawa stores along the company's brand standards, which detail expectations for every element of the store experience, from waiting time to the freshness of the food to the cleanliness of the restrooms. High-scoring teams are visited by the "prize patrol," which brings rewards and a party. Every quarter, associates from the prize patrol stores are entered into a drawing for trips to Disney. Even part-timers from the teams get a chance to win vacation trips – one got a trip around the world.

Justice. So that workers will feel they are being treated fairly, Wawa gives eligible employees (people who have been at the company for more than a year and work more than 1,000 hours a year) a share in about 10% of the company's base profits. It has expanded its employee stock-ownership plan and is offering associates an opportunity to purchase additional shares. A mark of employee confidence in the company: Some 29% of company shares are held by associates.

• • •

At first glance, the investments that Wawa and QT make in their living brands may seem excessive. Executives are quick to agree that both organizations spend more than their competitors, though as private companies they keep the numbers close to the vest. "How can they afford to do that?" is a question we have heard as we have shared these stories of uncommon service quality in a commonplace industry. The leaders of Wawa and QT would most likely reply: "How can you afford not to?"

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To order, see page 155.

"I just found the first Post-it note you ever wrote me."

P.C. VEY

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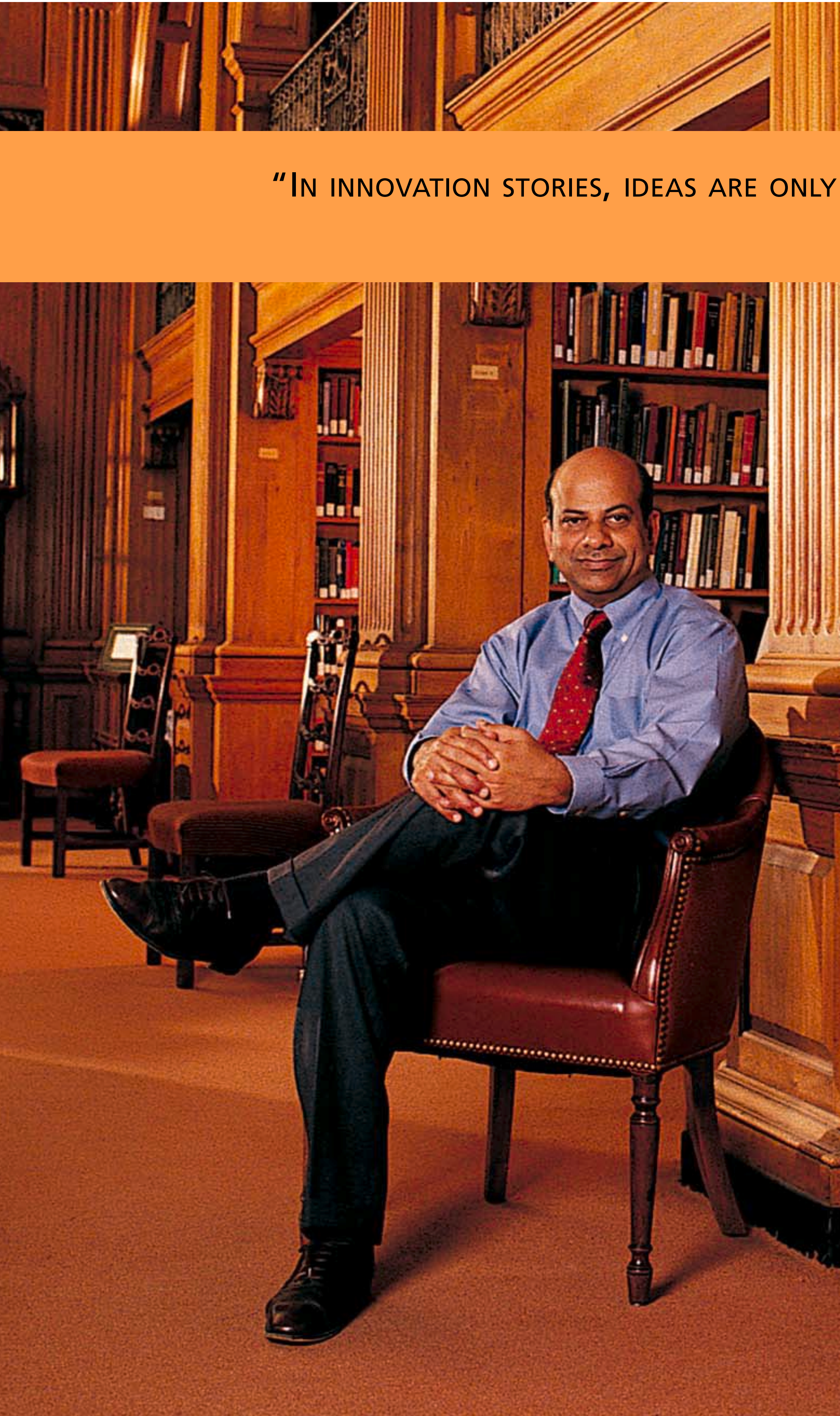

Many organizations use Six Sigma disciplines to decrease the costs of manufacturing or service processes. They can use the same tools to increase revenues.

JON CANNELL

Six Sigma Pricing

by ManMohan S. Sodhi and Navdeep S. Sodhi

MANY COMPANIES have become good at managing costs and mastering manufacturing efficiencies. The TQM and Six Sigma movements have seen to that. But the discipline so often brought to the cost side of the business equation is far less common on the revenue side. As a result, many companies continue to leak cash from the top line.

In this article, we describe how a global manufacturer of industrial equipment, which we will call Acme Incorporated, applied Six Sigma rigor to its price-setting process for one product line to great effect. Acme met its target of increasing annual revenue by $500,000 in less than three months. When Acme subsequently raised list prices across the board, the company reaped the full value of the increase for this product line, but much less in others. And in just six months, annual revenue increases reached an eye-popping $5.8 million for this product line alone, all of which went straight to the bottom line as well.

Not only did the reforms stem the revenue leaks, they also removed much of the organizational friction that had long bedeviled the company's pricing process by making it clear who had authority over which pricing decisions. Uncertainty about pricing policy (or rather the appearance of it) may help salespeople in their negotiations with customers, but it does a company no good for its own people to be confused and conflicted on that score.

At Acme, that tension was readily apparent. On the one hand, Acme's sales reps saw their mission as building market share – senior management's stated aim. Being close to the customer, they felt they knew what the best price was. They saw the pricing managers and analysts as an obstruction, out of touch and too slow to respond to changing facts on the ground. They would often circumvent the necessary checks and controls on invoiced prices, potentially eroding the company's profit margins.

For their part, the pricing analysts saw themselves as the guardians of Acme's profitability, providing essential pricing analysis and, in their opinion, quick turnaround on approvals. As we will see, the Six Sigma project generated hard evidence that significantly reduced the tension in this uneasy Sales–Pricing relationship, which became less influenced by gut instinct or emotion.

The Problem

The trigger for the project was a change in market conditions, which put Acme under considerable pricing pressure. The price of two key raw materials, steel and petroleum, had risen quickly and sharply, threatening to inflict a projected $20 million in unplanned annual incremental costs on the company. Some of its steel suppliers had even refused to honor existing contracts. Overall, average costs had doubled within the space of a few months.

The company had no choice but to raise list prices. But by how much? Raise prices too much, and Acme stood to lose customers to rivals. Raise prices too little, and it would not be worth the effort to announce and implement the change. Moreover, Acme could not be sure whether a nominal increase in list prices would even hit the bottom line. The organization's pricing processes made it difficult to control the price that was actually invoiced.

Acme's myriad products could each be configured in numerous ways, according to customers' needs, and the company published list prices for every possible configuration. But each sale then had its own individually approved discount and hence its own invoiced price. Prices and discounts were set by the pricing division. Acme's sales division had market-specific blanket ceilings for percentage discounts on all products, and sales reps had to obtain authorization from Pricing to offer deeper discounts. Pricing either approved the request or set a slightly higher approved price, typically expressed as a percentage of the list price. After the transaction was completed, Sales invoiced the customer with a final transaction price, which was (in principle) the same as or slightly higher than the approved price.

But it was well known that top management frowned on losing market share, and the absence of any effective controls encouraged some salespeople to short-circuit the process. A sales representative would ask Pricing for a discount that was much deeper than the guidelines allowed for, and even if Pricing complied, the representative might offer a further, unapproved discount to close a deal. For instance, one order approved by Pricing at $81,000 was actually invoiced at $75,000, and another at $31,000 was invoiced at $28,000.

With tens of thousands of sales transactions per year, the task of making sure each invoice accorded with the list and approved prices was daunting. But the lack of control over final prices meant that even if Acme could work out how much of a hike in list prices the market could bear, the company still could not be sure it would actually see the increase in each transaction or even overall, across transactions.

The Project

How to get a grip on the situation? Senior managers began by considering what other parts of the organization had done to bring similarly variable processes under control. They knew that Acme had enjoyed considerable success in reducing manufacturing variability by applying the famous Six Sigma discipline. Employees from different functions and organizational levels understood the methodology, and some had company-specific Six Sigma certification, holding titles like Green Belt and Black Belt, following the example of such companies as Motorola and General Electric.

It seemed to Acme's executives that pricing closely resembled many manufacturing processes. A product's invoiced price could be considered a final product, the result of a "manufacturing" process encompassing several stages. They decided, therefore, to pilot a Six Sigma pricing project in one of the company's North American subsidiaries. If the project led to better control of final prices, they could roll out the approach throughout the company's entire global operations.

A manager from Pricing was appointed as project manager to carry out the five Six Sigma steps: define, measure, analyze, improve, and control. He was given the help of a Six Sigma expert, or Master Black Belt, recruited from the manufacturing side. The project sponsor was the senior executive responsible for pricing.

Definition. The first step in any Six Sigma project is to clarify the problem and narrow its scope in such a way that measurable goals can be achieved within a few months. Then a team is assembled to examine the process in detail, suggest improvements, and implement those recommendations. In the manufacturing realm, project managers and their sponsors typically begin by defining what constitutes a defect and then establish a set of objectives designed to reduce the occurrence of such defects. (The phrase "Six Sigma" in fact implies a goal of reducing the number of defects to less than 3.4 per million occurrences, assuming that the quality of a product's attributes varies according to a normal bell-shaped distribution pattern.)

Acme's project manager proposed that a defect should be defined as a transaction invoiced at a price lower than the one Pricing had approved (or lower than those allowed by the current blanket guidelines, when approval had not been sought). Note that defects are being defined in relative terms, according to the blanket discount ceilings set for the salespeople and the guidelines established by the pricing analysts. If the market were to take a turn for the worse, the ceilings could be raised; if the market were to strengthen, they could be lowered. A defect occurs only

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when the actual invoiced price is out of compliance with the guidelines.

Once the definition of a defect was set, the project manager, with the help of the sponsor, recommended an appropriate scope for the project–that is, whether it should be limited to only one particular product line or applied to several. In this case, the project sponsor limited the scope to a single product line.

The next step for the project manager is to propose a charter for the project that specifies the expected deliverables. Given the definition of a defective price, it was clear that this project would have to deliver:

- a better understanding of the existing pricing process;
- a modified process to control and, hence, improve final transaction prices;
- ways to track improvement in final prices and to monitor compliance with the process and with pricing guidelines.

Next, to collect data, carry out analysis, and ensure everyone's buy-in for any subsequent implementation, the project manager enlisted people from the pricing, finance, marketing, IT, and sales divisions to be part of the Six Sigma team. The various team members were selected for their functional and analytical expertise. The finance person, for example, was chosen because she was familiar with the many pricing-related reports Acme was currently generating and also with many of the company's data sources.

In addition, to endow the project with institutional backing and to ensure that team members had good access to data, the project manager asked people in positions of influence at Acme to serve on a steering committee for the project. The chair of the committee was the project sponsor. Other members included the director of sales, the vice president of IT, the vice president of finance, and the vice president of marketing. They agreed that the project manager would meet with the team and the steering committee as needed to keep them apprised of the project's progress.

The first duty of the team was to confirm the proposed problem definition and project charter and to set a financial goal for the project. That was no easy task, as it was the first time Acme had embarked on such a project. Nonetheless, the team set a goal of increasing revenues by $500,000 in the first year following implementation. This additional revenue was to come entirely from more efficient price management–in other words, from actions that did not incur any losses in market share or sales volumes. This was a far more ambitious number than Acme had ever set for comparable manufacturing or service Six Sigma projects, which had typically delivered average annual cost savings of less than $100,000.

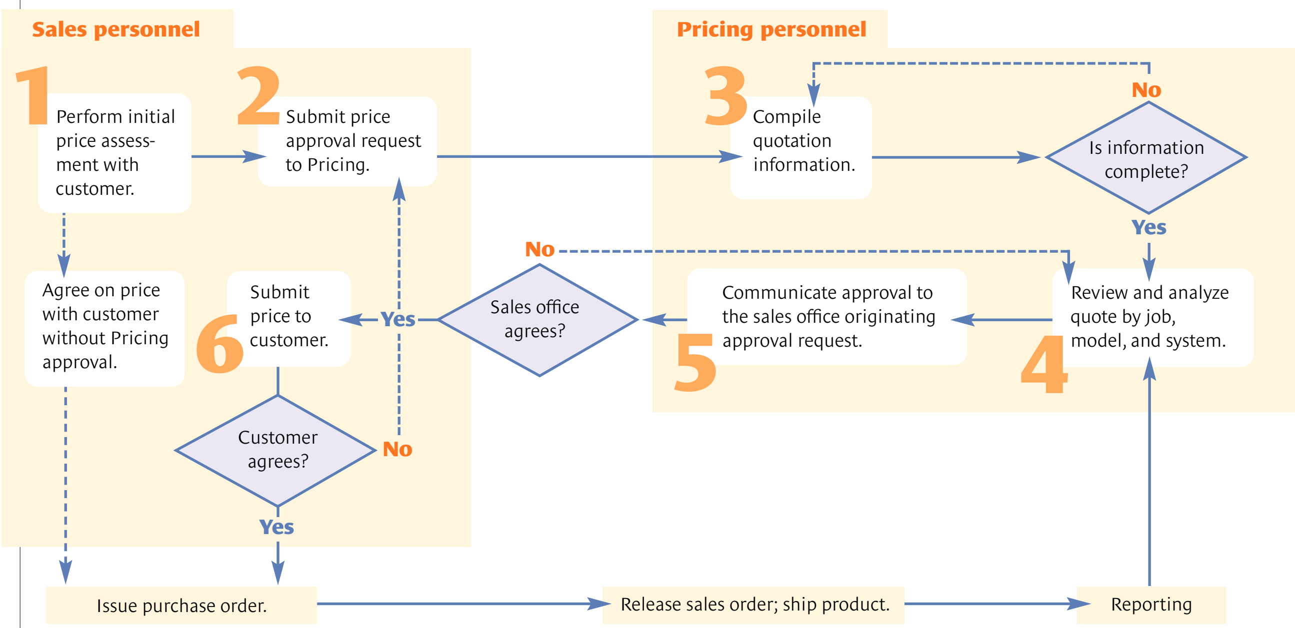
The Six Sigma approach has considerably reduced the inherent friction between pricing and sales.

Measurement. In the second step of a Six Sigma project, the team gathers data and prepares it for analysis. At Acme, the project manager began by mapping the price agreement process, with team members helping to fill in process details. To generate and verify the information he needed, the project manager formally interviewed eight colleagues from five functional divisions: IT, sales, pricing, finance, and marketing. He also sought informal feedback from other people in these functions. As a result of this exercise, the team was able to draw a high-level diagram of the entire process showing the flow of information from one step to the next (see the exhibit "What Are We Doing?").

The map was supported by documentation detailing the inputs (called X's, in Six Sigma parlance) and outputs (Y's) associated with each step, showing all the people and IT systems involved, and specifying whether the decision-making inputs could be controlled by Pricing or Sales. The eventual output variable for the entire process is the final transaction price, but intermediate steps have their own intermediate

What Are We Doing?

When Acme's Six Sigma team mapped the company's existing pricing process, it became easy to see not only how the process was supposed to work but how it actually worked. The formal process comprised six main steps, which should have been taken in sequence (as depicted with solid lines). But oftentimes, sales reps sidestepped it all by negotiating final prices with the customer directly. Other times, the process got bogged down as pricing analysts rooted around for information they should have already obtained from the sales staff in Step 2 or negotiations went back and forth between the sales rep and the pricing analyst (essentially getting stuck before Step 6).



outputs. For example, after an initial discussion with a customer, the output could be an agreed upon price that conforms to guidelines, or it might be a proposed price that would have to be referred to Pricing for approval. The inputs are the characteristics of the deal, such as the product type, order size, or time of year.

The map revealed a pricing process with six main steps, which seemed straightforward in principle. But it was clear that in practice the sequence did not work smoothly, that it was replete with exceptions and shortcuts, and that the quality of inputs available to Sales or Pricing personnel in any step could be quite poor.

1. Perform initial price assessment with customer (Sales). The inputs for this are the list price, the blanket discount guidelines for Sales in the particular market, and the customer's product and pricing requirements. The output is a tentative price (that is, a discount off the list price). Approval is needed from Pricing if the discount is deeper than the maximum authorized for the particular market.

2. Submit price approval request to Pricing (Sales). For the Pricing personnel receiving such a request, the inputs are the price the sales rep has requested and the guidelines for pricing analysts. In practice, sometimes this step, and most of the subsequent ones, were circumvented when a sales rep offered a final discounted price to the customer without prior Pricing approval.

3. Compile quotation information (Pricing). The input is the information about the customer and the order provided by the sales rep to support his or her request. The output is the complete details of the transaction in question. This step should be trivial but often, in practice, the sales rep did not or could not provide enough information about the quotation, and the Pricing analyst or manager would have to chase around to get the missing information.

4. Review and analyze quote (Pricing). Inputs are the completed quotation information generated in the previous steps (including the tentative price the sales rep has requested); reports summarizing the history of similar transactions in the particular market; and, when available, reports of similar transactions with the same customer. In theory, such reports would guide Pricing's efforts to accept or modify the price requested and to produce the output–the tentative approved price. In reality, with information scattered in different computer systems, the guidelines available to the pricing analyst could be quite poor. Or the sales rep might request a very quick turnaround, leaving little time for a pricing analyst to carry out this step effectively.

5. Communicate approval to sales office (Pricing). The input is the tentative approved price from the analysis in the previous step and any additional information regarding the order and customer. The output is the approved price. This should be the penultimate step before the sales rep approaches the customer but, in practice, this could instead be the beginning of a prolonged negotiation between Sales and Pricing. Other people may weigh in at this point as well, and the final approved price could end up quite a bit lower because of pressure from a manager or from a more senior sales or marketing executive.

6. Submit price to customer (Sales). The input is the approved price. The output is the tentative price for invoicing that the sales rep submits to the customer. At this point, the sales rep should simply be offering the customer the approved price. But this entire project was based on the observation that the price the sales rep actually offered the customer, as indicated by the invoice from the subsequent transaction (if there was one), could be quite a bit lower than the approved price.

Before moving on to the next stage of the project, the team assessed the quality of the input data that supported the pricing process. It would be difficult to improve the process if the current steps systematically produced faulty data. Moreover, the team needed to have faith in the numbers on which it was going to base its findings and recommendations. By examining representative samples of data in detail, the team was able to confirm that the actual sales transaction data were by and large stable and reliable, even though different reports presented the information in different formats.

Analysis. Once a process has been mapped and documented, and the quality of the hard data supporting it has been verified, the Six Sigma team can begin the analysis. The team members usually start by meeting to identify the ways in which people fail to act as needed or fail to assert effective control at each stage.

To aid in this analysis, the Acme team used a common Six Sigma tool called the Cause and Effect (C&E) Matrix to guide discussion. With the help of the Master Black Belt, the project manager held a workshop using the tool to identify problems and put them in order of priority. The rows on the C&E matrix list all the steps in the current process, and the columns list all of the requirements a particular process customer has for the entire process. Each requirement is then weighted according to how important it is to that customer. (See the exhibit "Which Steps Matter?") For Acme's team, the customers were senior executives who wanted better controls in the pricing process and, eventually, better price performance.

The team did not actually assign number scores. Instead, members used the structure of the matrix to focus on possible causes for lack of control at each step. The process diagram was projected as a slide, and team members used a whiteboard to discuss each step in turn. The main findings from this exercise suggested that the defects arose largely from problems in steps 1, 4, and 6, and from failures in reporting.

• *Step 1.* The team found that the ability of the sales reps to help customers select the right products, and the right features for those products, was critical to managing customers' price expectations. Unfortunately, salespeople's failures in assessing customer requirements could not be easily detected and controlled.

• *Step 4.* The key constraint here was time; sales reps sometimes wanted discount approval within hours of forwarding a request, which made it difficult for pricing analysts to work out whether or not the discount was reasonable. Giving Pricing more time for analysis would make it easier to reduce the incidence of defective prices.

• *Step 6.* Sales reps sometimes offered final prices to customers without prior approval, leaving Pricing with little choice but to OK the price after the fact. The team agreed that such situations should be tracked.

• *Reporting.* Information about transactions was not gathered or presented in a consistent manner. The unit's various functions generated more than a hundred different transaction reports that summarized sales data by product line, market, and other ways at weekly, monthly, or quarterly intervals. Discrepancies and redundancies in those reports led to variability in the decisions analysts came to in deciding prices. This meant that managers could neither track pricing defects easily nor obtain the data they needed for Step 4 in time to do adequate due diligence on price quotes.

After completing the C&E workshop, the project manager did a standard statistical analysis of transaction-level data for all of the individual transactions that occurred in the two years before the project started. As the exhibit "What Are We Really Charging?" reveals, he confirmed that actual transaction prices were distributed along normal bell-shaped curves around the average transaction prices. But he also discovered distinct bell curves for different transaction sizes: average discounts increased the higher the list price of the transaction. That indicated that many customers were willing to pay higher prices for smaller transactions, suggesting that pricing guidelines could and should be differentiated for different-sized transactions.

In addition, the analysis revealed that salespeople serving certain territories within the same market had a greater tendency than their colleagues in other territories to invoice at prices either significantly higher or lower than approved. The team concluded from this analysis that different pricing guidelines needed to be set not only for different transaction sizes but also for different territories within the same market and possibly even for different customer groups. Pricing guidelines had always been market specific but were not differentiated by transaction size, by territory, or, for the most part, by customer group.

Improvement. The results from the analysis created a lot of positive buzz

Which Steps Matter?

The Cause and Effect Matrix is one of the basic tools of any Six Sigma project. It is a systematic way to judge the impact of each step on the process's customers (whether internal or external) as a prelude to prioritizing underlying problems and identifying their causes. In this example, we've filled in two steps, and senior management is the customer.

1. List the customer's requirements for the process as a whole.

2. Rate how important each requirement is to the customer.

3. Describe each step in the process.

4. List all of its inputs.

5. Rate the effect each step has on the customer requirement.

6. Multiply the importance rating by the effect score for each step. Add across to get a score that indicates how important the step is for meeting the customer's requirements.

		Customer Requirements				
		Maintain market share	*Increase average transaction price*	*Improve and maintain control*		
		Importance of Requirement to Customer (score 1–10)				
		8	*7*	*5*		
Process Step	Process Input	Importance of Process Step to Requirement (score 1–10)				Step Total
Perform initial price assessment with customer	*Customer's requirements; price guidelines for Sales*	*9*	*9*	*0*		*135*
Submit price approval request to Pricing		*0*	*7*	*7*		*84*

among Acme's senior managers. It was time to recommend modifications to the existing process to decrease the number of unapproved prices without creating an onerous approval process. Response speed was critical for salespeople so they could continue to act quickly and close deals. But this was a challenge for pricing personnel. What they needed, the team concluded, was clear guidelines to help them decide when they should or should not approve any deeper-than-usual discounts that Sales had requested or promised to customers.

So the team proposed giving graduated discount approval authority to individuals in three levels of the organization's hierarchy: sales reps or managers, pricing analysts, and the pricing manager. Finally, at a fourth level, top executives could continue to approve discounts without any limit. So, for example, in one particular market for a transaction size between $100,000 and $150,000, a sales representative could offer any discount up to 30%, but to be able to offer an even lower price to a customer, he would have to contact a pricing analyst for approval. She would first check against the guideline price for that region, type of product, transaction size, and perhaps other criteria, and use this to negotiate with the sales rep any further discount, up to 35%. If the sales rep felt that the situation demanded an even lower price than the analyst could authorize, the request would be elevated to the pricing manager, who could approve a discount of up to 40%. If the salesperson was going for an even lower price, the request was passed up to a specified group at the top leadership level, which alone could approve a higher discount. Making both the guidelines and the escalation process clear made the process more efficient and faster.

In cases where sales representatives had already offered a customer a price and needed post hoc authorization, the new process required that the rep involve his boss, who would have to e-mail or call Pricing for approval. The price already offered would still be honored, but now reps could be held more accountable for making unauthorized commitments.

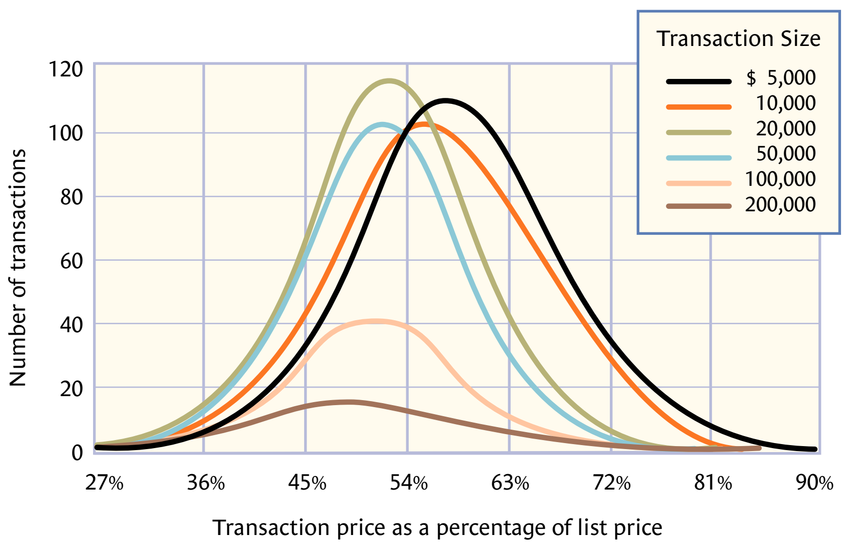
The new distribution of pricing responsibilities required a process for developing–and, from time to time, reevaluating – all of the discount limits. To ensure that limits did not become outdated, the team created a spreadsheet tool that let Pricing work off recent transaction history.

The team also created exception codes that enabled Acme to track the reasons for variations in prices. The codes made it clear who had been involved in the decision to deviate from guidelines. For instance, if someone from the leadership had approved a deep discount, the eventual transaction was tagged with a Leadership Approval code. If Acme needed to match a competitor's aggressive price, the pricing manager could approve a low price that was tagged with a Competitive Match code. If a sales rep had already promised a price to a customer before getting approval, the transaction would have to be tagged with a Sales Error code. What's more, Pricing would now have 24 hours to do due diligence before approving a price request, and Acme tracked which sales reps consistently asked for extra-fast turnarounds.

Control. In the final stage of a Six Sigma project, the team creates controls that enable the company to sustain and extend the improvements. Acme set up a monthly review at which executives – mainly the vice presidents of marketing, sales, and finance, along with their direct reports – look at the company's overall performance and at particular geographic markets and transaction sizes to see if the new process is indeed resulting in higher average transaction

What Are We Really Charging?

At Acme, analysis of two years' sales data showed that the higher the list price, the deeper the mean discount tended to be. For large transactions with list prices in the $200,000 range, for instance, the mean price negotiated with the customer was 50% lower than list. For transactions in the $5,000 range, the mean price Acme actually charged was 60% of the list price. This suggested that Acme could improve average prices by differentiating the pricing guidelines for transactions of different sizes – precluding deep discounts, for instance, on small transactions.



prices, fewer exceptions, and no loss in market share. If prices are under control but the company is losing market share, it might be a sign that Acme needs to review its pricing guidelines or the way sales reps are managing their territories. If the review group notices that a particular sales rep is frequently making Sales Error transactions, the rep's boss will take a closer look at how that person is negotiating. And if the review group sees that transactions of a particular size regularly require the pricing manager's approval, the group would instigate a reexamination of the pricing guidelines for that transaction size.

The Payoff

The initial goal of generating half a million dollars in incremental revenues in the first year was handily exceeded in only three months. More important, following a subsequent across-the-board list price increase, the average transaction price for the pilot product line went up by slightly more than the list prices; in other words, the increase was fully reflected in the top line. But other product lines realized less than half the increase. That list price increase, together with the tighter controls the Six Sigma team developed and implemented, resulted in the $5.8 million in incremental sales in just the first six months following implementation going straight to the bottom line.

From an organizational perspective, the Six Sigma approach has considerably reduced the friction inherent in the Pricing–Sales relationship. The exercise of systematically collecting and analyzing price transaction data gave pricing analysts hard evidence to counter the more intuitive claims that the sales staff had typically advanced in negotiating discounts. A frequent refrain, for instance, was: "My customers want just as high a percentage discount for a $3,000 transaction as they would get for a $300,000 one." Now that Pricing knows for certain that Acme's customers tend to accept lower discounts on smaller transactions and that some customers are willing to pay higher prices than others, analysts can more easily push back when negotiating price approvals with sales staff. They can respond confidently and authoritatively when sales reps ask questions like "Why is my authorized price higher than those in another market?" or "How come we don't authorize the same price for all customers?"

Salespeople, for their part, are less likely to feel that the negotiation with Pricing is driven by political motives or by a purely personal desire to assert control, and they can, of course, use the same data to press their own points. It became clear, for example, that some sales offices that had previously been under scrutiny for aggressive pricing practices had in fact been acting perfectly reasonably given their local market conditions.

In light of the project's success and its low cost, Acme is rolling out Six Sigma pricing across the entire organization. Other companies operating in competitive environments can also benefit from Acme's experience as they look for ways to exercise price control without alienating customers. They can transform the tenor of the relationship between their pricing and sales staffs from adversity to relative harmony by giving them a process for making joint decisions that are aligned with company objectives and based on solid data and analysis.

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Letters to the Editor

Ending the CEO Succession Crisis

Ram Charan's article "Ending the CEO Succession Crisis" (February 2005) raises many important points. However, it provides a distorted and damaging impression about the role of executive recruiters in the process. We at Spencer Stuart, the executive search firm, strongly agree that adding rigor and board leadership to CEO succession is a positive development for corporations around the world. In fact, executive recruiters have been leading the way in this effort.

The statement that "Too often, new leaders are plucked from the well-worn Rolodexes of a small recruiting oligarchy" is not only inaccurate, it is offensive. Spencer Stuart follows a rigorous process based on in-depth interviews with the board and, when appropriate, members of the management team. We develop specific and measurable selection criteria that drive our research effort, which is as comprehensive as it is exhaustive. We assess candidates against the criteria, perform financial analyses, review publicly available information, and, most important, gather confidential references for our candidates from as many as 15 to 20 independent and objective sources. We now also engage specialized investigative firms, which conduct due diligence to uncover any potentially devastating skeletons in the closet. On the basis of our three-year research effort on the best and worst leadership transitions, we are able to go well beyond the search to ensure that our placements achieve a successful first 100 days as well.

Charan's comment that "Just three recruiters control some 80% of the *Fortune* 100 CEO search market…and one or two people within those companies direct the most important searches" has some statistical truth to it, but it is dangerously misleading. Several members of our firm who are associated with CEO succession may be more visible, but our searches are always team efforts. We routinely have multiple partners working on major assignments. In one recent representative, high-profile CEO search, for example, no fewer than eight partners developed candidates around the world. Some of the successful outcomes we have helped bring about for our clients include placing Terry Semel at Yahoo, Jim Kilts at Gillette, and Ed Breen at Tyco International.

Finally, Charan makes a sweeping statement about "the trouble with outsiders," asserting that new leaders import new management teams, causing a collapse of morale, continuity, and momentum. This is simply not true. Most high-performing new CEOs do not blow up management teams. Witness Jim McNerney's revitalization of 3M and Ed Zander's similar feat at Motorola, both

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completed with the existing management teams. The right new CEO tailors his or her style to the situation, rejuvenates momentum, and causes morale to flourish. Of course, there are times when an overhaul is deemed necessary: Ed Breen decided to sweep out Tyco's entire corporate senior management team and board shortly after he arrived.

In crisis situations, the right succession solution may very well be an outsider. However, as demonstrated by the notable successes of A.G. Lafley at Procter & Gamble, Anne Mulcahy at Xerox, and Dick Parsons at Time Warner, transformation and revitalization can also come from within. We routinely incorporate internal candidates in our succession assignments, putting them through the same evaluation and referencing processes that we do for outsiders. Insiders are often the best solution, as was the case with Hugh Grant at Monsanto and Christopher McCormick at L.L. Bean.

The bottom line is that the most effective boards and search committees work with executive recruiters as trusted partners during a succession process. Spencer Stuart strives to add significant value over and above simply teeing up candidates, and we believe that our track record achieved over a half a century of hard work bears this out.

James M. Citrin
Senior Director
Spencer Stuart
Stamford, Connecticut

Charan's article proposes two good ideas: Companies should have better and deeper pools of successors, and there should be succession plans for CEOs (though I don't think the board alone should create them).

I would add that there also must be ongoing succession processes. People develop (or don't develop), and needs shift. Charan does not address the dynamic nature of these processes. He states that, in general, internal succession in accordance with a plan produces better results than an external appointment. But a review of the literature suggests that in certain instances (for example, during a period of rapid change in an industry), an appropriate outsider typically performs better than someone promoted from within. A succession plan – even one with carefully identified internal candidates – developed a mere 12 months earlier may simply no longer be the right one in the current environment.

Charan's third recommendation (that the board members be "exacting, informed drivers" of the process) is more problematic. I have seen and worked with boards that are intimately involved with succession planning and that do a great job. I have also seen boards that simply can't spend the time to do this well. Charan says that executive search firms often "wield disproportionate influence," relying on "boilerplate" criteria and the "usual-suspect bias." But if we do our jobs poorly because we've failed to understand a company's needs and challenges, then shame on us – and shame on the board for not demanding excellence in the process and in the result.

Charan and others misunderstand the role executive search firms can play in ending the succession crisis. We help our clients build enduring leadership teams. That means working with them (and often with outside strategy advisers) to develop and implement a leadership strategy that includes internal and external perspectives and competitive benchmarking. We often do our best work when we have already been involved in a relationship with the company and helped the board and the current CEO develop and continually update their succession plan.

Thomas J. Friel
Chairman and CEO
Heidrick & Struggles
Chicago

Should Nonprofits Seek Profits?

The question posed in the title of William Foster and Jeffrey Bradach's article "Should Nonprofits Seek Profits?" (February 2005) appears, on the surface, to be utterly reasonable. However, the article itself is another example of the story of the blind men who describe the different parts of an elephant but fail to convey its entirety.

Focusing on whether charities should or should not run businesses is asking the wrong question, and it leads to a tired, unproductive, academic debate. Suggesting that charities shun all commercial ventures is like telling all charities they should drop their direct-mail campaigns, telemarketing efforts, golf tournaments, awards dinners, and philanthropic development programs. Nonprofit groups need to evaluate all the ways in which they can generate revenue and choose those that are most appropriate for meeting their mission and financial goals.

To be sure, some groups might be better off getting rid of their businesses or their mailings, but creating commercial ventures, like sending direct mail, is a proven strategy. The more appropriate and meaningful questions that leaders in this field are asking are: Which nonprofits have the assets and capacity to succeed at commercial ventures? How do we replicate proven, successful strategies?

Given the financial challenges facing charities today – with foundation and government money decreasing and competition for donations increasing – why rule out commercial activities and business ventures that produce $300 billion annually in revenue for the nonprofit sector? Blanket suggestions to stop this activity ignore the importance of this revenue.

Nonprofit groups have run businesses for nearly 100 years. Goodwill thrift shops and museum gift stores have been part of the nonprofit landscape for decades. In virtually every city, job-training groups offset their program costs by running businesses – such as Ben & Jerry's ice-cream shops – that provide their clients an opportunity to gain real-world job skills.

Nonprofit groups hold different goals for their ventures. A job-training group might simply want its business to pay for the costs of recruiting and training its clients so that it doesn't have to expend energy on fund-raising activities. In other instances, the goal of the business is to generate profits that will support charitable programs in the long term. Measuring short-term profits is not enough to determine whether a business venture is good for a charity's long-term health. It is far more important to assess whether the venture is achieving a nonprofit's key objectives.

One of the more disturbing assertions in the article is that running a business overly distracts charities from carrying out their social missions. Most nonprofit businesses are connected to the organizations' charitable missions. In a recent nationwide survey our company conducted, 90% of nonprofit groups reported that their commercial enterprises were directly or closely related to their missions. These ventures provide nonprofit groups with opportunities to advance their missions in new and innovative ways.

Running a business is certainly not an easy way to make money; even the strongest proponents of nonprofit ventures know that it is not an appropriate option for many organizations. But the gap between the amount of money needed to solve our country's social problems and the limits of government and philanthropic resources is growing quickly. Now is the wrong time to tell charities to stop being entrepreneurial.

What makes our economy the envy of the world is its entrepreneurial drive. To deny nonprofit leaders the opportunity to better help society through active participation in that economy is flawed logic. The question is not whether but how best to help entrepreneurial nonprofit leaders succeed.

Evan Hochberg and Alfred Wise
Managing Directors
Community Wealth Ventures
Washington, DC

Foster and Bradach's characterization of the emerging field of social enterprise is flawed. Caution is fine, but the authors have erected an unwarranted stop sign.

Properly managed, nonprofit ventures represent one of the most effective and powerful means of addressing social objectives ranging from fighting homelessness to restoring economic vitality to communities affected by a flight of capital.

In any emerging field of endeavor that seeks public acceptance and support, the success stories are magnified. Even so, during my 13 years as a social entrepreneur, I've found that my colleagues rarely hold unrealistic expectations or waste resources. Hardly "passive bureaucrats," these nonprofit executives are willing to take calculated risks and demonstrate their ability to see the big-picture possibility of real social transformation.

Can misguided social ventures distract from a nonprofit's mission? Of course, but let's be clear: It isn't only earned-income ventures that pose a threat. We are all aware of the risks inherent in the nonprofit's pursuit of dollars. Consider the distractions caused by classic fund-raising activities–mail appeals, golf outings, and rubber chicken events.

Unlike other fund-raising activities, thoughtfully developed earned-income

Eager to reduce their dependence on fund-raising, more and more nonprofits are launching earned-income ventures – with disappointing results.

Should Nonprofits Seek Profits?

by William Foster and Jeffrey Bradach

TWENTY YEARS AGO, it would have been shocking for the Chicago Children's Choir to run a singing telegram business and a Ben & Jerry's Scoop Shop or for Shelter, Inc., of Contra Costa County, a California organization dedicated to serving the homeless, to launch a property management firm. Today, it seems routine. Promoted in books and articles, conferences and courses, earned-income initiatives are becoming accepted – even expected – throughout the nonprofit world. In a 2003 Bridgespan Group survey of U.S. nonprofits' executives, half of the respondents said they believed earned income would play an important or extremely important role in bolstering their organizations' revenue in the future.

What's driving nonprofits to pursue profits? The phenomenon is as much social as economic. The general enthusiasm for business, which reached a fever pitch during the booming 1990s, has had a profound impact on nonprofits and the institutions that support them. Like their

GREGORY NEMEC

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ventures restore a nonprofit's pursuit of mission. They are an important way of generating a long-term revenue stream free from the need to conform the nonprofit's services to the funder's agenda.

Finally, I agree that social enterprises must be accountable, but that applies to more than just the financial bottom line. Jed Emerson, cited approvingly by the authors for his "cautionary notes" about social enterprise, is better known for stressing the importance of measuring the social return of nonprofit ventures. It's not all about the money.

The rapidly growing field of social enterprise benefits from a vigorous debate about the risks and rewards of pursuing earned-income strategies. Since it's here to stay, let's avoid sweeping judgments and focus instead on what we know works best. The Social Enterprise Alliance was created by successful social enterprise practitioners for just that purpose.

Charles G. Lief
Chairman
Social Enterprise Alliance
Burlington, Vermont

Foster and Bradach rightly warn nonprofits about the pitfalls of starting an earned-income venture. It is true that too many organizations view revenue-generating activities as a panacea for their fund-raising challenges, without accounting for the true costs of such endeavors.

In my experiences as a board member of several venture-philanthropy organizations that combine business and social goals, including REDF in San Francisco, it was clear to me that enterprises stand the best chance of success when they serve the social mission of the parent nonprofit in ways that extend beyond just money. The authors' observation that "earned income's contribution grew substantially only among employment and community-improvement organizations" is not surprising, since social enterprise can be especially effective when used to provide real-life jobs and training opportunities for people in need.

The keys to success in social enterprise – even for a venture that is well aligned with a nonprofit's mission – are thoughtful and realistic business planning, strong organizational capacity, and access to patient and knowledgeable capital. Many foundations don't offer funding for these resources, and commercial banks are often cautious about lending to a business that bears the additional costs of employing people whom many consider "unemployable."

I hope that nonprofits will follow Foster and Bradach's advice to consider both the financial and the social bottom line when starting ventures. I also hope that more philanthropic organizations will consider providing appropriate and tailored support to nonprofits that are well suited to the social enterprise model. It can be a tremendously powerful tool in the battle against poverty.

Stuart Davidson
Managing Partner
Labrador Ventures
Palo Alto, California
Board Treasurer and Secretary
REDF
San Francisco

Foster and Bradach respond: Judging from the e-mails, letters, and phone calls we've received, "Should Nonprofits Seek Profits?" has clearly struck a chord. We believe that leaders in the nonprofit sector and their supporters will benefit greatly from this heightened attention to the potential and challenges of earned-income ventures.

What strikes us is that there is more agreement about the challenges to earned income than might appear. Our article does not argue that nonprofits should shun all commercial ventures. But we find that the hopefulness that surrounds earned income gives many nonprofits an overly rosy view of the impact such ventures will have on their financial outlooks and sometimes even their missions. Given the difficulty of raising funds from more traditional charitable sources, such optimism is not surprising.

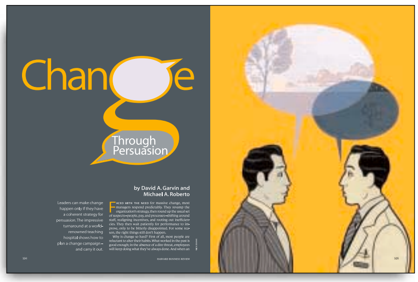
Our intent, therefore, was to outline the challenges so that neither nonprofit executives nor funders would view earned-income strategies as a magic bullet. Based on Bridgespan's experience in the field, earned-income ventures should be undertaken only after a clear-eyed assessment of the amount of funding they are likely to generate relative to the resources they require. And nonprofits must understand that the initiatives are most likely to succeed when they are closely linked to their organizations' missions. These are sentiments that almost all our readers seem to endorse. The real challenge is applying these principles.

It is important to note that we are not suggesting that nonprofits stop being entrepreneurial. Now, more than ever, talented leaders must address social problems in creative ways. However, it is a mistake to equate being entrepreneurial solely with efforts to generate earned income. In fact, some of the sector's greatest social entrepreneurs have secured resources and addressed problems in novel ways that do not involve earned income.

As interest in earned income continues to increase, nonprofit executives, board members, funders, and organizations like Bridgespan, Community Wealth Ventures, REDF, and the Social Enterprise Alliance should do everything possible to ensure that all involved have a realistic understanding of these ventures' financial potential and of the importance of maintaining a meaningful connection to mission.

Change Through Persuasion

I read David A. Garvin and Michael A. Roberto's article "Change Through Persuasion" (February 2005) with great interest. Having lived through a very bloody two-and-a-half year restructuring as a result of the collapsing technology bubble, I witnessed firsthand the



positive and negative effects of varying approaches to critical change.

During the course of our company's retrenchment, many things could have been done to smooth the transition, some of which were touched on in Garvin and Roberto's article. The most obvious factor that could have been improved upon was the amount of up-front time devoted to developing and clearly communicating a strategic vision that supported and defended the impending change. That vision also needed to be aligned with the company's long-term values, goals, and mission.

This is something that Paul Levy, the CEO described in this article, understood very well and took pains to ensure happened at Beth Israel Deaconess Medical Center. In our case, however, a major impediment to developing and implementing this important strategic step was an incumbent leadership team that had a vested stake in the success of the policies we were now trying to overcome. By contrast to the Levy example, our ongoing leaders were, at least in part, a root cause of the need for the massive restructuring effort.

Quickly shifting competitive and financial pressures, especially in a publicly traded corporation, can sometimes compel leaders to embrace poorly defined survival-at-any-expense approaches to change. The speed with which our restructuring began did not allow for the careful planning or execution of a strategy consistent with our values, vision, or goals. What it did do was create a meat-ax approach to tactical cost reduction as an on-the-fly proxy for a targeted strategic plan. This approach eventually led to the elimination of some positions and locations that would later, upon more careful thought, be seen as strategic to the renewed organizational pursuits.

Levy's use of a turnaround proposal as the framing device for helping Beth Israel's employees understand the journey they were about to take is an excellent example of the thoughtful use of and critical need for clear communication. By "reiterating points at every opportunity," Levy reinforced a consistent strategic message, which is a concept of paramount importance for any organization regardless of the perceived notion or need for change. In fact, I would suggest that relentless and thorough communication with an aligned adherence to the organization's values, vision, and goals might have reduced or even eliminated the very need for restructuring in the first place.

Bob Woodward
Author
Aligned Yellow Bricks
Charlotte, North Carolina

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FORETHOUGHT

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Book Reviews HBR reviews four books.

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HBR CASE STUDY

Fat Chance

Bronwyn Fryer and Julia Kirby

Sid Shawn is a ten-year veteran of NMO Financial Services and a mainstay of the pensions marketing group. He's been a good, consistent worker – garnering above-average performance reviews and regular pay raises – and an invaluable resource for the salespeople and consultant relations managers, many of whom have come to depend on him to outline their talking points and pitch books.

Sid also weighs 400 pounds. So when he is the only internal candidate for the customer-facing position of consultant relations manager, sales and marketing VP Bill Houglan feels that he has a tough hiring decision to make. No question, Sid knows the company's products backward and forward. But to succeed in the new job, he would have to impress the polished professionals at major benefits consultancies. What kind of image would Sid present in face-to-face sales situations? Could he keep up with the job's physical demands and fast pace? Does Sid's weight matter? Bill wonders.

With obesity reaching epidemic proportions in the United States, companies are feeling its impact on their insurance costs and their employees' health. They are increasingly compelled to adopt policies concerning overweight workers. Is obesity a form of disability that should be accommodated? Or is it the outcome of personal failings that an employer need not tolerate?

Offering expert advice on this fictional case study are Howard Weyers, CEO of Weyco, which has fired employees for smoking and is now targeting the issue of obesity at work; Sondra Solovay, a California attorney focusing on weight-related issues and the author of *Tipping the Scales of Justice: Fighting Weight-Based Discrimination;* Mark V. Roehling, a Michigan State University professor whose research has focused on issues of obesity in the workplace; and Amy Wilensky, author of *The Weight of It: A Story of Two Sisters.*

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FIRST PERSON

Back Where We Belong

Michael J. Critelli

If you were the CEO of Pitney Bowes, the postage meter maker, how would you envision the future of the business? The company has an undeniable core competence in the solutions it provides to high-volume postal service users. But with snail mail on the decline, some would say that core has about as much future as the buggy whip.

In this article, Pitney Bowes chairman and CEO Michael Critelli gives us a glimpse of how he leads his company's strategy development – and how that development has supported a counterintuitive return to the company's core after decades of diversification. He and others in the company begin the process by tapping into deeply knowledgeable people and organizations to understand key trends in the business and the rate at which change is occurring. Then, it's a question of the firm reshaping the environment in which it does business, whether through R&D investments or work with regulators and policy makers who influence market forces; this is especially important in emerging markets. Focusing on a core business area enables a company to find adjacent high-margin opportunities and to offer comprehensive solutions to customers. What stands out most sharply in this account, however, is the importance of having a strategist's mind-set. Whether Critelli is reading the day's news, visiting a key account, or spending an hour with his own people working in the context of a customer mail room, he is constantly extrapolating possible long-term competitive implications from the immediate facts.

Often inspired by strategic thinkers, Critelli believes that the greatest thing he can do for his organization is to shift the terms of the debate. "Rarely am I credited with sterling words or bold, symbolic actions," he writes. "Instead, I help people to see the business we are in differently and to reach a shared vision as to where we want to end up. And, little by little, things move in the right direction."

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Building Breakthrough Businesses Within Established Organizations

Vijay Govindarajan and Chris Trimble

Many companies assume that once they've launched a major innovation, growth will soon follow. It's not that simple. High-potential new businesses within established companies face stiff headwinds well after their inception. That's why a company's emphasis must shift: from ideas to execution and from leadership excellence to organizational excellence.

The authors spent five years chronicling new businesses at the New York Times Company, Analog Devices, Corning, Hasbro, and other organizations. They found that a breakthrough new business (referred to as NewCo) rarely coexists gracefully with the established business in the company (called CoreCo). The unnatural combination creates three specific challenges – *forgetting, borrowing,* and *learning* – that NewCo must meet in order to survive and grow.

NewCo must first forget some of what made CoreCo successful. NewCo and CoreCo have elemental differences, so NewCo must leave behind CoreCo's notions about what skills and competencies are most valuable.

NewCo must also borrow some of CoreCo's assets – usually in one or two key areas that will give NewCo a crucial competitive advantage. Incremental cost reductions, for example, are never a sufficient justification for borrowing.

Finally, NewCo must be prepared to learn some things from scratch. Because strategic experiments are highly uncertain endeavors, NewCo will face several critical unknowns. The more rapidly it can resolve those unknowns – that is, the faster it can learn – the sooner it will zero in on a winning business model or exit a hopeless situation. Managers can accelerate this learning by planning more simply and more often and by comparing predicted and actual trends.

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Your Company's Secret Change Agents

Richard Tanner Pascale and Jerry Sternin

Organizational change has traditionally come about through top-down initiatives such as hiring experts or importing best-of-breed practices. Such methods usually result in companywide rollouts of templates mandated from on high. These do little to get people excited.

But within every organization, there are a few individuals who find unique ways to look at problems that seem impossible to solve. Although these change agents start out with the same tools and access to resources as their peers, they are able to see solutions where others do not. They find a way to bridge the divide between what is happening and what is possible.

These *positive deviants* are the key, the authors believe, to a better way of creating organizational change. Your company can make the most of their methods by following six steps.

In Step 1, Make the group the guru, the members of the community are engaged in the process of their own evolution. Step 2, Reframe through facts, entails restating the problem in a way that opens minds to new possibilities. Step 3, Make it safe to learn, involves creating an environment that supports innovative ideas. In Step 4, Make the problem concrete, the community combats abstraction by stating uncomfortable truths. In Step 5, Leverage social proof, the community looks to the larger society for examples of solutions that have worked in parallel situations. In Step 6, Confound the immune defense response, solutions are introduced organically from within the group in a way that promotes acceptance. Throughout the steps, the leader must suspend his or her traditional role in favor of more facilitatory practices.

The positive-deviance approach has unearthed solutions to such complicated and diverse problems as malnutrition in Mali and human trafficking in East Java. This methodology can help solve even the most extreme dilemmas.

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Break Free from the Product Life Cycle

Youngme Moon

Most firms build their marketing strategies around the concept of the product life cycle – the idea that after introduction, products inevitably follow a course of growth, maturity, and decline. It doesn't have to be that way, says HBS marketing professor Youngme Moon. By positioning their products in unexpected ways, companies can change how customers mentally categorize them. In doing so, they can shift products lodged in the maturity phase back – and catapult new products forward – into the growth phase.

The author describes three positioning strategies that marketers use to shift consumers' thinking. *Reverse positioning* strips away "sacred" product attributes while adding new ones (JetBlue, for example, withheld the expected first-class seating and in-flight meals on its planes while offering surprising perks like leather seats and extra legroom). *Breakaway positioning* associates the product with a radically different category (Swatch chose not to associate itself with fine jewelry and instead entered the fashion accessory category). And *stealth positioning* acclimates leery consumers to a new offering by cloaking the product's true nature (Sony positioned its less-than-perfect household robot as a quirky pet).

Clayton Christensen described how new, simple technologies can upend a market. In an analogous way, these positioning strategies can exploit the vulnerability of established categories to new positioning. A company can use these techniques to go on the offensive and transform a category by demolishing its traditional boundaries. Companies that disrupt a category through positioning create a lucrative place to ply their wares – and can leave category incumbents scrambling.

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How Business Schools Lost Their Way

Warren G. Bennis and James O'Toole

Business schools are facing intense criticism for failing to impart useful skills, failing to prepare leaders, failing to instill norms of ethical behavior – and even failing to lead graduates to good corporate jobs. These criticisms come not just from students, employers, and the media but also from deans of some of America's most prestigious B schools.

The root cause of today's crisis in management education, assert Warren G. Bennis and James O'Toole, is that business schools have adopted an inappropriate – and ultimately self-defeating – model of academic excellence. Instead of measuring themselves in terms of the competence of their graduates, or by how well their faculty members understand important drivers of business performance, they assess themselves almost solely by the rigor of their scientific research. This scientific model is predicated on the faulty assumption that business is an academic discipline like chemistry or geology when, in fact, business is a profession and business schools are professional schools – or should be. Business school deans may claim that their schools remain focused on practice, but they nevertheless hire and promote research-oriented professors who haven't spent time working in companies and are more comfortable teaching methodology than messy, multidisciplinary issues – the very stuff of management.

The authors don't advocate a return to the days when business schools were glorified trade schools. But to regain relevancy, they say, business schools must rediscover the practice of business and find a way to balance the dual mission of educating practitioners and creating knowledge through research.

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BEST PRACTICE

Creating the Living Brand

Neeli Bendapudi and Venkat Bendapudi

It's easy to conclude from the literature and the lore that top-notch customer service is the province of a few luxury companies and that any retailer outside that rarefied atmosphere is condemned to offer mediocre service at best. But even companies that position themselves for the mass market can provide outstanding customer–employee interactions and profit from them, if they train employees to reflect the brand's core values.

The authors studied the convenience store industry in depth and focused on two that have developed a devoted following: QuikTrip (QT) and Wawa. Turnover rates at QT and Wawa are 14% and 22% respectively, much lower than the typical rate in retail.

The authors found six principles that both firms embrace to create a strong culture of customer service. *Know what you're looking for:* A focus on candidates' intrinsic traits allows the companies to hire people who will naturally bring the right qualities to the job. *Make the most of talent:* In mass-market retail, talent is generally viewed as a commodity, but that outlook becomes a self-fulfilling prophesy. *Create pride in the brand:* Service quality depends directly on employees' attachment to the brand. *Build community:* Wawa and QT have made concerted efforts to build customer loyalty through a sense of community. *Share the business context:* Employees need a clear understanding of how their company operates and how it defines success. *Satisfy the soul:* To win an employee's passionate engagement, a company must meet his or her needs for security, esteem, and justice.

Reprint R0505G

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TOOL KIT

Six Sigma Pricing

ManMohan S. Sodhi and Navdeep S. Sodhi

Many companies are now good at managing costs and wringing out manufacturing efficiencies. The TQM movement and the disciplines of Six Sigma have seen to that. But the discipline so often brought to the cost side of the business equation is found far less commonly on the revenue side.

The authors describe how a global manufacturer of industrial equipment, which they call Acme Incorporated, recently applied Six Sigma to one major revenue-related activity – the price-setting process. It seemed to Acme's executives that pricing closely resembled many manufacturing processes. So, with the help of a Six Sigma black belt from manufacturing, a manager from Acme's pricing division recruited a team to carry out the five Six Sigma steps:

- **Define what constitutes a defect.** At Acme, a defect was an item sold at an unauthorized price.
- **Gather data and prepare it for analysis.** That involved mapping out the existing pricing-agreement process.
- **Analyze the data.** The team identified the ways in which people failed to carry out or assert effective control at each stage.
- **Recommend modifications to the existing process.** The team sought to decrease the number of unapproved prices without creating an onerous approval apparatus.
- **Create controls.** This step enabled Acme to sustain and extend the improvements in its pricing procedures.

As a result of the changes, Acme earned $6 million in additional revenue on one product line alone in the six months following implementation – money that went straight to the bottom line. At the same time, the company removed much of the organizational friction that had long bedeviled its pricing process. Other companies can benefit from Acme's experience as they look for ways to exercise price control without alienating customers.

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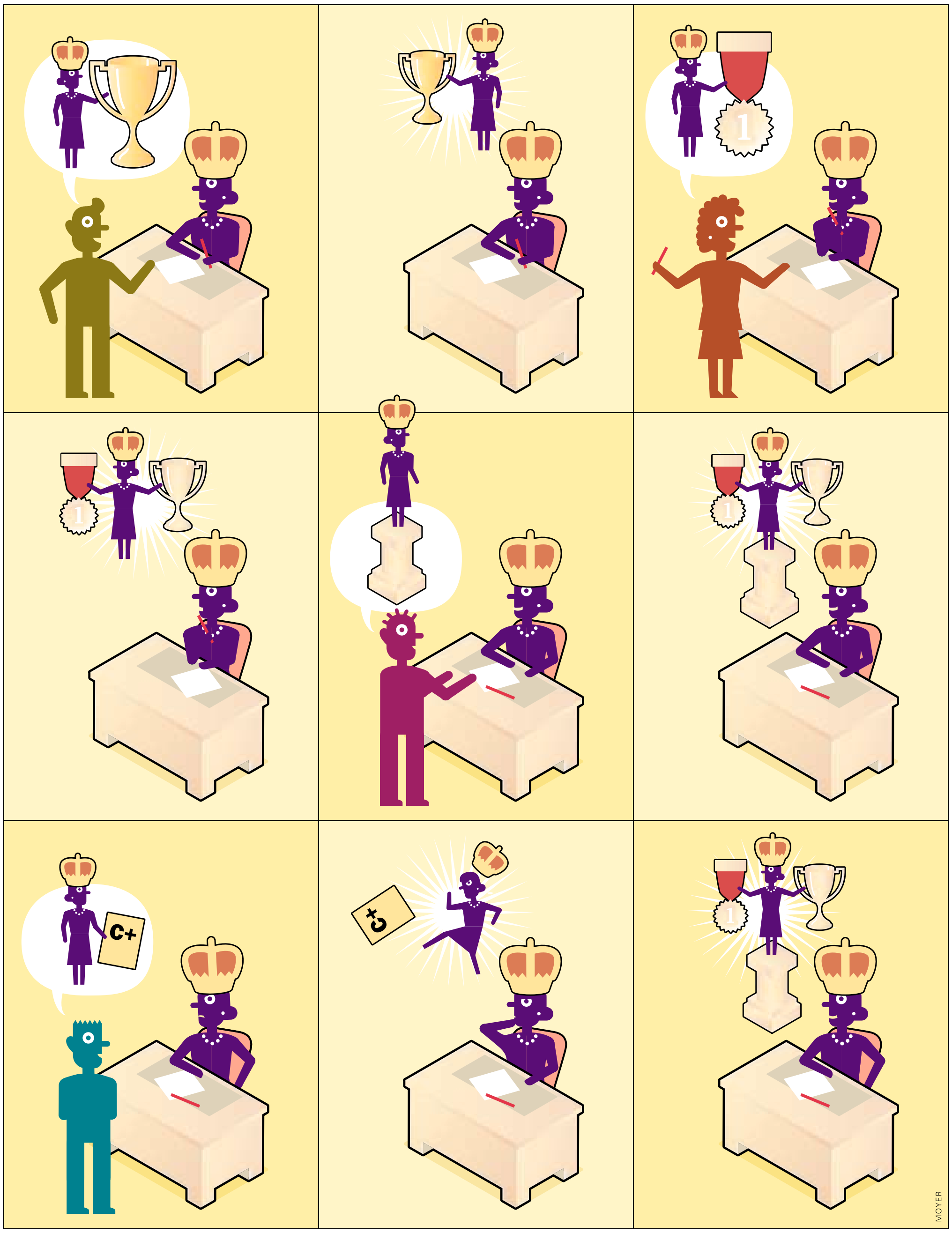
by Don Moyer



The Problem with Plaudits

Feedback and distortion go hand in hand. Electric-guitar players know that, and so does anyone whose boss ever leaned across the desk and asked, "So tell me honestly: How am I doing?"

Leaders have always been stroked by the led – and with good reason. Subordinates may not be well placed to judge a superior's actions. Praise is easier to deliver than criticism. And then there's that whole flattery-will-get-you-everywhere angle. But a little varnish can be a dangerous thing, as Lynn Offermann reminds us in her article, "When Followers Become Toxic" (HBR, January 2004). "Make sure there are people in your world you can trust to tell you what you need to hear," she warns, "no matter how unpopular or unpalatable it is."

So invite challenges in staff meetings. Assemble a kitchen cabinet of trusted advisers. Hire a corporate jester whose job it is to tell unpleasant truths. And remember, sometimes the hardest thing to downsize is your own ego.

Don Moyer can be reached at don@amsite.com.

Stephen L. Jen, Global Head of Currency Research

The only certainty is uncertainty.
Global currency in 2005.

Currency volatility will intensify in 2005…

Faster U.S. growth should support the dollar, but the widening current account deficit is USD negative; the tension between these opposing forces means more volatility. The euro is deep in overvalued territory, so the dollar's trend should be up. Against the yen, we see the dollar falling, while other Asian currencies should perform well if the U.S. economy stays strong.

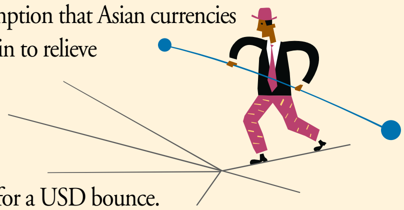
… but a weak USD won't fix the external deficits. The U.S. current account problem remains the dominant theme for 2005, but only time will help. The deficit reflects the U.S. quest for growth following the correction in 2000, as well as high savings rates in Asia. As the U.S. withdraws fiscal and monetary stimuli, domestic savings should gradually recover. To normalize the current account deficit, interest-rate adjustments are much more important than exchange-rate adjustments.

Moving too fast to rebalance the global economy will do more harm than good. "Nudging" the USD lower could be destabilizing. The lower it's pushed, the more aggressively Asian central banks will intervene — and the more a flat yield curve will buoy U.S. demand and therefore the current account deficit.

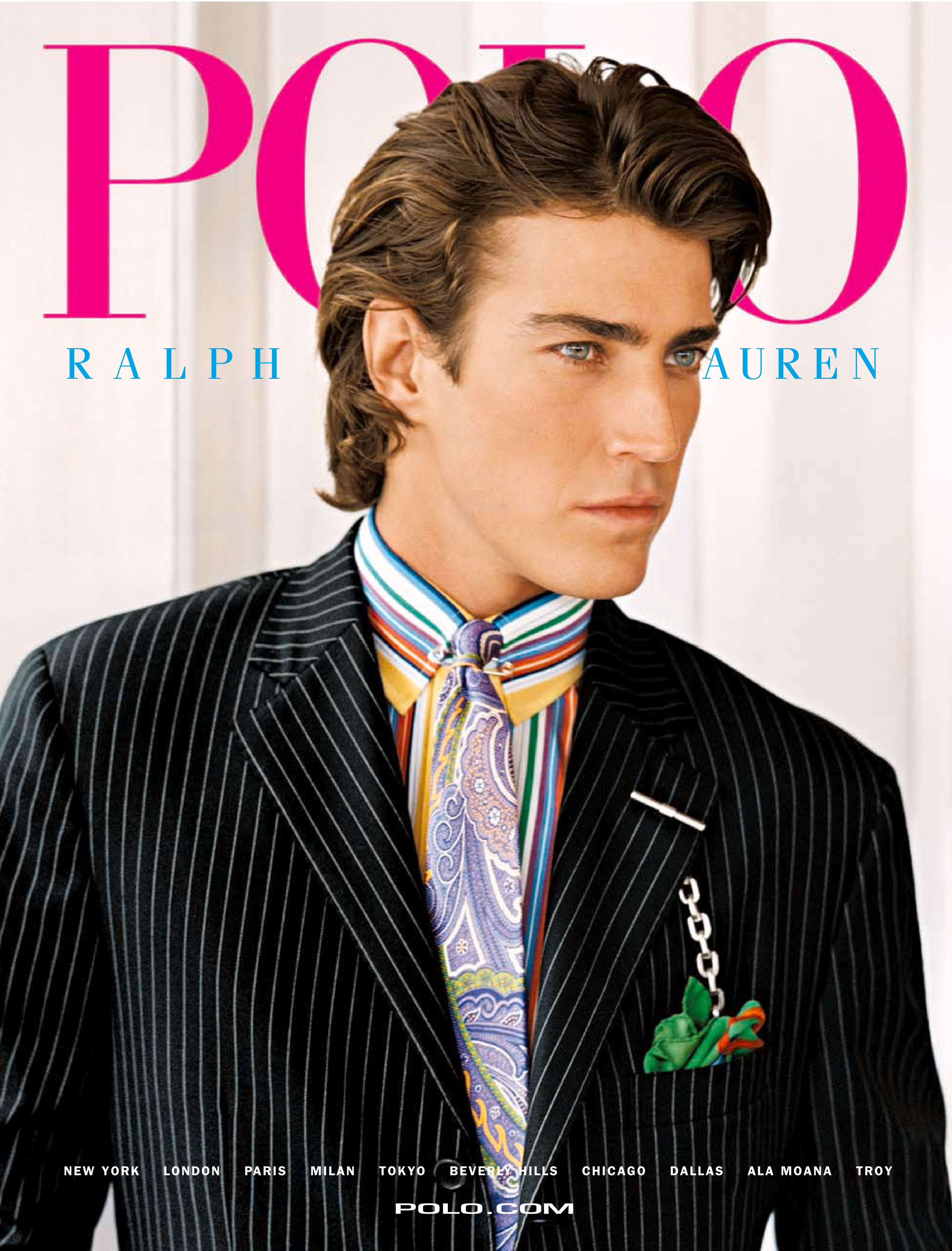
Currency politics will only become more important … Sentiment is critical when currencies depart from economic fundamentals. The Ministry of Finance in Japan could be less hawkish as long as headline growth remains positive and the Nikkei is supported. On the other hand, we expect Beijing to move to a float sometime during 2005, in response to protectionist pressures and G7 calls for a weaker USD/Asia. If push comes to shove, the ECB will intervene unilaterally to fight speculative capital flows and portfolio diversification moves, both of which would respond to its signals.

… as monetary policy cycles diverge. The Fed is one of the only major central banks in tightening mode. As long as it remains ahead of the curve, higher short-term yields and minimal capital losses on long bonds should support the dollar. As divergent inflation and growth trends play out, interest-rate differentials will reflect the cyclical factors that should prove positive for the dollar.

Five risks for 2005:



- China does not relax its currency peg, undercutting our assumption that Asian currencies will appreciate and begin to relieve structural imbalances.
- U.S. protectionism makes a comeback, damaging the chances for a USD bounce.
- An inflationary scare hurts the dollar as the markets see the Fed falling behind, as it did in 1994.
- U.S. growth falters as macroeconomic stimulus is withdrawn, instead of a virtuous cycle of Chinese growth slowing to a sustainable level and stronger U.S. growth supporting the markets.
- The fifth risk is a wild card unrelated to relative fundamentals: diversification away from the dollar. Even though we expect only very gradual shifts by central banks and no stampede, private investors have great scope to diversify…and generate powerful forces in currency markets.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