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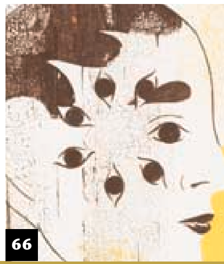

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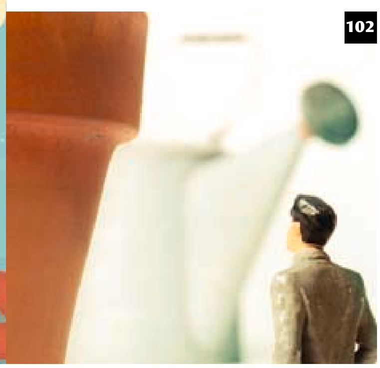

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April 2005

When Businesspeople Think

Business is always in a hurry. "History is more or less bunk," Henry Ford proclaimed. Speed is a source of competitive advantage. An ineffective businessperson is all talk and no action, while a successful businessperson gets things done. Indeed, the eminent psychologist Karl Weick advises leaders to leap before they look.

But spend some time with this issue of HBR first.

Start with "How Strategists Really Think: Tapping the Power of Analogy," by two rising stars in Harvard Business School's strategy unit, Giovanni Gavetti and Jan Rivkin. They've been studying executives' reasoning processes. They've found that more often than not, executives develop and test their strategic ideas by means of analogies. For example, Toys R Us was founded when Charles Lazarus figured that toy stores could be run like supermarkets.

Reasoning by analogy is highly efficient. It's faster than developing and sifting through mountains of data, it's less risky than trial and error, and it's highly persuasive. But analogies are perilous precisely because they are shortcuts and because they are powerful. If you know what you're doing, analogical thinking is a fabulous tool; Gavetti and Rivkin can show you how to know what you're doing. Not only will their article make you think, it will help you think better.

Another threat to clear thinking is selection bias, which occurs when people draw conclusions from a set of data without examining the sample itself to see if it is representative. Someone who has visited London only in the summer might believe it has a delectable climate, for example. In his article "Selection Bias and the Perils of Benchmarking," Stanford's Jerker Denrell points out that business research is riddled with selection bias – starting with the fact that almost none of it is performed on firms that no longer exist. It's interesting to know that a management practice such as empowerment is found in winning companies, but it could be that losers practice it, too.

Understanding how selection bias afflicts business research will make you a smarter consumer of business ideas. Take, for instance, the conventional wisdom about first-mover advantage. Conventional *wisdoms,* I should say, because there are two: that it is a great thing to be first to a market and that first-mover advantage is a will-o'-the-wisp. Both are hasty generalizations that obscure useful detail. In "The Half-Truth of First-Mover Advantage," Fernando Suarez and Gianvito Lanzolla, from Boston University and London Business School respectively, reveal the circumstances under which first-mover advantage is very real – and the instances in which only a fool would pursue it.

Consultant Nathaniel Mass digs into another piece of conventional wisdom in "The Relative Value of Growth." Among executives, there's an unspoken assumption that companies have to choose between managing for value and managing for growth. Mass disagrees. Profitable growth, he argues, is a grossly underestimated lever for creating value. His research ought to make you think twice about how you reach your strategic decisions.

In their eagerness for action, businesspeople commonly make two other kinds of mistakes. First, they let the urgent drive out the important. Nowhere is this more dangerous than in the area of risk. As consultants Adrian Slywotzky and John Drzik argue in "Countering the Biggest Risk of All," risk operates at the strategic level as well as at the tactical one where executives are used to meeting it. Second, businesspeople race through processes that can't be hurried. Two articles in this issue explore the theme of impetuosity. The Kellogg School's Ranjay Gulati has been curious about how companies become customer focused. His research led him to the surprising conclusion that all of the companies that succeed in this quest go through the same four stages in the same order. It's not a process you can leapfrog, Gulati and his coauthor James Oldroyd say in "The Quest for Customer Focus" – it's a journey you must complete one leg at a time. Something analogous happens with the development of leaders, the topic of "Seven Transformations of Leadership" by consultant David Rooke and professor William Torbert. As our adult minds and characters mature, we develop greater capacities for leadership. Often, though, a talented leader is promoted ahead of his or her maturation. The result can be disastrous – for the company *and* for the leader.

Business is, indeed, about action – but it ought to be about intelligence, too. We hope this issue will make you smarter.

Thomas A. Stewart

ROBERT MEGANCK

Peter Cincotti

Harvard Business Review

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

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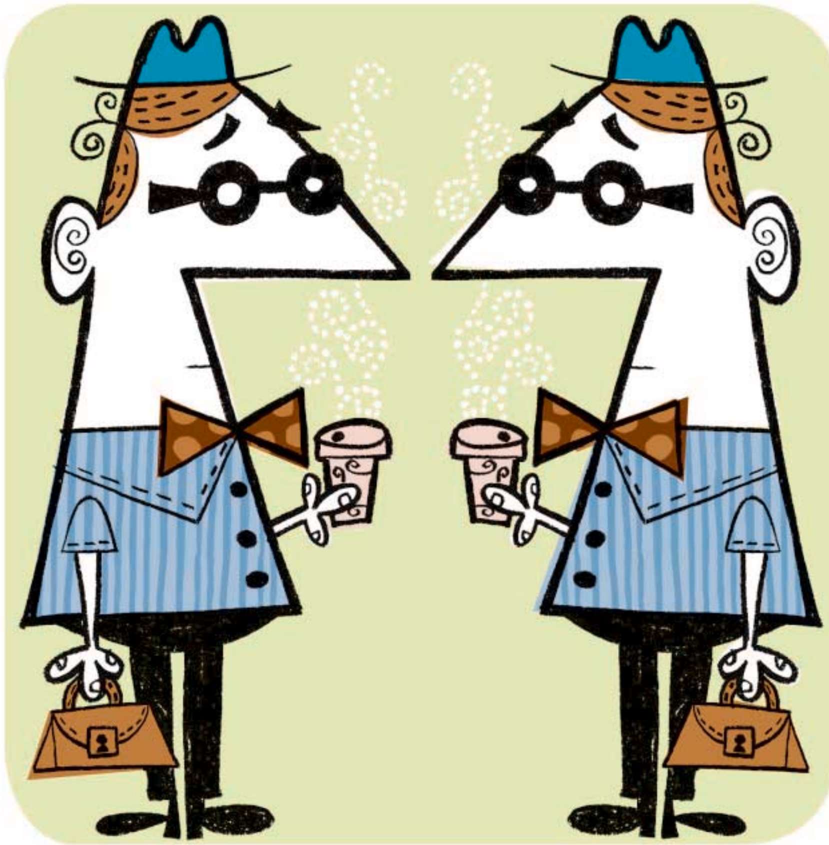

MELINDA BECK

GRIST

The Limits of Professional Behavior

Over the past 20 years, professional service firms (PSFs) have come to look a lot like their clients. Many, now corporations themselves, operate in multiple countries and have hundreds – even thousands – of employees. A small cadre of principals sets direction, while professional administrators impose budgets and other financial controls. Functions that were once deemed integral, such as research, are outsourced or delegated to paraprofessionals. The firms' proprietors, meanwhile, have overcome their qualms about advertising their services, not to mention themselves.

Less remarked upon is the reverse. Six years ago, a book by Tom Peters exhorted managers to "Transform Your 'Department' into a Professional Service Firm Whose Trademarks Are Passion and Innovation!" But traditional businesses have long been adapting PSFs' approaches to customers, talent, and knowledge. Makers of things, such as General Electric and IBM, have been methodically turning themselves into providers of services – and in the service category, PSFs add the most value and thus command the highest margins. They also possess few depreciating hard assets, while being enviably rich in knowledge workers who are continually upgrading their mental equipment.

In fact, the primacy of knowledge work may be the salient common feature of most progressive corporations. These companies wage wars for talented employees, from whom they increasingly expect mature managerial judgment. To encourage these knowledge workers to think like owners, progressive companies award options and grant stock; traditional professional service firms, of course, are owned and run by their partners. And these companies, like PSFs, are adept at knowledge codification and sharing: Law firms' file drawers, and now databases, are crammed with model pleadings that young associates regularly consult. What's more, forward-looking companies are committed to becoming customer-centric, an unmistakable echo of PSFs' sworn subservience to their clients' interests.

With so much talent at hand, professional service firms have always felt a responsibility to develop their own leaders. That's why they've been such prolific sources of executives, having launched the careers of Delta Air Lines' former CEO Leo Mullin, Morgan Stanley CEO Philip Purcell, and Citigroup CEO Charles O. Prince, among many others. The best-governed corporations do the same. Procter & Gamble has become so good at executive development, for other companies as well as itself, that it has established an alumni network along the lines of those maintained by up-and-out consulting and law firms. Inevitably, a bit of the service firm clings to these transplants, who prefer to hire people with MBAs – a degree that, like the JD and the MD, is supposed to bespeak mastery of a complex body of knowledge and adherence to strict ethical standards. Trained to be corporate managers, the top business-school graduates understandably gravitate instead to investment banks and consulting firms, the two most lucrative varieties of professional service firms.

Convergence in some areas is unimaginable, however. For example, service firms are supposed to offer a single standard of care to all their clients, regardless of their ability to pay, while corporations use dynamic pricing and customer relationship management to vary service quality according to spending power. But in general, the traits companies share with PSFs attest to those companies' health.

Still, organizations must take care when consulting a model that is itself changing – and not for the better. In fact, there is evidence that companies have learned about as much as they can from today's professional service firms. True partnerships remain "effective mechanisms for managing and motivating highly intelligent, highly autonomous knowledge workers," according to Laura Empson at the Clifford Chance Center for the Management of Professional Service Firms at Oxford University's Saïd Business School. But the larger PSFs that hire laterally instead of investing in homegrown talent; that favor ever-higher ratios of associates to proprietors; and that show greater concern for shareholders than for clients may no longer be worthy of emulation.

The leaders of today's large professional service firms, unlike their contemporaries running corporations, "are more concerned about their book of business than how the group does," asserts David Maister, a Boston-based consultant. Such firms resist accountability, refuse to stick

LEADERSHIP

Those Fertile HR Fields

Theoretically, generalist CEOs are better equipped than specialists to navigate the myriad functions inside, and the complex world outside, their companies' walls. In Japan, one of the best sources of generalists is human resource departments.

In his new book *The Embedded Corporation: Corporate Governance and Employment Relations in Japan and the United States* (Princeton, 2004), UCLA management professor Sanford M. Jacoby reports that in Japan HR departments have often been springboards to top executive postings – including CEO – as well as to board membership. Studies from the 1990s showed Japanese CEOs emerging from HR more frequently than from R&D, engineering, or overseas jobs. In addition, one-fifth of directors in Japanese manufacturing firms and one-third of those from other industries claimed past stints in HR.

HR managers in the United States become CEOs or directors only very rarely; so why have they reached the top of the charts in Japan? For one thing, the Japanese consider HR a good place to get to know leaders and managers throughout the organization. But more important, Jacoby explains, Japanese HR managers are often generalists who spend much of their careers in other functions, including accounting, finance, strategic planning, production, and sales. In other words, they are well-rounded, Jacoby says. Perceived as a narrow specialty in the United States, HR in Japan is a place to go to get ahead. – Leigh Buchanan

Reprint F0504B

to their stated strategies, and lack vision, drive, and commitment, he says.

In short, if companies have anything more to learn from professional service firms, it will be from those that operated in the era before PSFs attached Inc. or LLP to their names and developed the fear of clients' lawsuits that those letters betray. That means the era before PSFs became, in essence, profit-seeking companies themselves. – Ben Gerson

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HOW WE DO IT

The Spielberg Variables

by JOHN KASTENHOLZ

Companies want to believe that all advertising ideas – like the children of Lake Wobegone – are above average. But the bell curve dictates that only 30 out of every 100 television ads we test at consumer-products giant Unilever will be superior. Forty out of 100 will be just average, and, understandably, we don't want to put average ads on the air.

TV commercial effectiveness is hugely important at Unilever; last year, we spent $3.3 billion globally advertising our brands. Each year, we work with our agencies to produce a multitude of 30-second spots for the U.S. market at a cost of about $400,000 each, not including airtime. Many of those ads aren't absolute failures but still score low enough – consumers rate them as B players in quantitative research – that we would rather not entrust them with our brands. For the past few years, however, we've been using a diagnostic technique that allows us to reedit just-passable ads into great ones.

Working with Albuquerque, New Mexico–based Ameritest/CY Research, one of our two principal testing companies in the United States, we ask target audiences the usual questions about our ads: Do they stand out? Are they well branded? Do they motivate consumers to act? For the ads with mediocre scores, we then judge whether the problem lies with the concept (the ad looks great, but the idea isn't exciting enough) or with the execution (the idea is potentially wonderful, but something about the way the ad was put together is holding it back). If we determine that we have a big idea hobbled by flawed execution, we put "the Spielberg variables" to work.

That is, we ensure that each of our ads employs the same style and storytelling techniques used in feature films. Good movies win viewers' attention, propel the audience forward emotionally, and convey meaning. Good movies are also often born in the editing room. We believe the same is true of good ads, so our goal is to diagnose problems and then fix them with a new director's cut, as it were. That requires identifying flaws at each ad's narrative inflection points.

As a part of the process, each ad is deconstructed into frames that represent a change in tone or action – a cut to a new scene, for instance, or different body language displayed by a character in the ad. These images are randomized and shown to consumers, who have already viewed the ad in its entirety, as part of an online interview. The consumers provide three levels of feedback. First, they point out which frames they recall and which they don't. Second, the consumers describe how they felt emotionally (Mildly positive? Strongly negative? Neutral?) about the images they recall. And finally, they talk about the values (Convenience? Taste? Nutrition?) each image conveys.

The frames give us a visual vocabulary for probing how viewers respond to discrete elements of an ad. When those data are plotted in a "flow of attention" or "flow of emotion" graph we begin to see where things go wrong. We can tell if the ad hooks viewers right away. If it doesn't, we can pinpoint where their image recall – and hence their attention – starts to decline. Or we can see exactly where viewers shifted from a weak positive feeling to a strong one. If important information – particularly about the brand – does not appear at those points of peak attention, we are missing the boat. If viewers take away the message "cleans" when we are trying to sell them on "beauty," we can identify exactly which images aren't doing their jobs. Armed with this precise definition of the problem, our ad folks can make creative changes to achieve the desired effects.

Over the past two years, 60 ads from one of our health and beauty products units were approved for airing; 25 of them started out as average performers. After recutting on the basis of the Spielberg variables, those 25 ads tested in the superior range. This ability to optimize our advertising helps Unilever maximize ROI in what has traditionally been a nebulous and difficult area to measure.

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HEADQUARTERS

When Lean Isn't Mean

by MICHAEL GOOLD AND DAVID YOUNG

Most executives believe that corporations with large headquarters are bureaucratic, out of touch with customers, and slow to make decisions – and, so, perform poorly. That's why CEOs slash headquarters staff whenever they try to cut costs or improve performance. But do lean headquarters really perform better?

In collaboration with research partners around the world, we studied the size and financial performance of the headquarters of 600 companies in Europe, the United States, Japan, and Chile. We found a wide range of HQ sizes and composition. For instance, for companies with 10,000 employees, headquarters size

continued on page 18

by ROBERT B. REICH

Plenty of Knowledge Work to Go Around

Anxiety over outsourcing mounts as the jobs trekking overseas increasingly involve intellectual heavy lifting. Relatively modest knowledge work – back-office support, customer service, and data entry – was followed by more sophisticated tasks such as computer coding, insurance underwriting, claims processing, and medical transcription. Recently, we have been exporting jobs in X-ray diagnostics, software programming, software engineering, and even some research and development.

At this rate, won't most of the cerebral work American companies do be farmed out to lower-cost labor offshore? The short answer: Not a chance. The slightly longer – and even more upbeat – answer is that there is far more knowledge work in the United States today than there was a decade ago. In ten years, we can expect to see more.

Some of that work will even come from foreign-based corporations offshoring to the United States. Global companies deciding where to locate consider first where they can tap into the highest level of skill they need at the lowest cost. For that reason, the quality of America's top research institutions is a huge boon to the nation's knowledge workers. A mile from my home in Cambridge, Massachusetts, for example, a research and development zone plays host to loads of non-U.S. software and biotech firms eager to absorb some brainpower from Harvard and MIT. I assume those companies are paying a high price for such skills, and they're worth every penny.

At the same time, Siemens, Nokia, and General Electric, among others, are conducting manufacturing-related R&D in China, at a much lower cost. That work doesn't require a Harvard or an MIT, and it needs to be done close to where it will be implemented – in this case, China's sprawling manufacturing centers.

Yes, proximity to customers matters. And here's another big advantage for America's knowledge workers: They live near some of the richest and most sophisticated customers in the world. Furthermore, as more products become low-cost commodities, those customers are demanding – and paying more for – additional customization, special applications, and new designs and ideas. In other words, knowledge work. Because I can trade over the Internet, for example, I no longer rely on a stockbroker. But I do need advice from a financial consultant vho knows the market better han I do and understands my isk preferences and financial ıeeds. Searching for profits, BM progressed from hardware o software to services as each ›f those offerings in turn became commoditized. Today, the company's focus is on specialized solutions, consulting, and custom applications – the next points along the sophistication arc.

In sum, topflight research communities, and increasingly demanding American customers and their growing appetite for ever more sophisticated products and services, all spell more knowledge work in the United States, not less. Between 1999 and 2003 (the latest year for which we have data), the number of IT-related white-collar jobs in the United States actually increased. IT wages are rising, too (adjusted for inflation and the business cycle). The earnings of college graduates continue to outpace the earnings of those with only high school diplomas; the earnings of people with graduate and professional degrees are rising even faster. If demand for knowledge work were dropping, we'd expect the opposite.

This isn't a brief for complacency. Unless the United States invests large sums in education and in basic research and development – and invests wisely – it won't have enough knowledge workers to meet future demand. It won't even have the majority of the world's richest and most sophisticated customers. Decades from now, China and India may have surpassed the United States in high-value knowledge work.

A related challenge is to reverse the slide of Americans without college degrees, most of whom fall into the local service economy, with its low wages and vanishing benefits. The widening earnings gap between this group and America's knowledge workers undermines social solidarity and threatens democracy. Not every American can become a world-class knowledge worker, of course. But millions more can get the skills they need to be prosperous members of the world's wealthiest nation.

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varied from a low of ten staff members to a high of well over 1,000 people.

Most surprising, we found no evidence that a lean and mean headquarters is associated with superior financial performance. On the contrary, the companies that reported above-average profitability (measured by both the return on capital employed and total shareholder returns) had headquarters that were, on average, 20% larger than the headquarters of companies of similar size (in terms of total employees) and with similar influence over business decisions.

This could mean that bigger headquarters are more effective than smaller ones and enable companies to perform better. Alternately, it might imply that better performance allows companies to support bigger-than-average headquarters. While the latter is sometimes true, we found that, in many companies, large corporate staffs improved performance by creating value that more than paid for their costs. For example, pharmaceutical companies such as Pfizer have big corporate R&D departments, but this costly activity is central to the companies' strategies and essential to their market performance. Other companies use large HR functions at the center to develop management competencies that are especially valuable to their businesses. Unilever's HR function, for example, concentrates on developing internationally mobile managers with superb marketing skills in the area of fast-moving consumer goods. Because corporate centers add value in different ways depending on a company's strategy and the businesses in which it competes, the appropriate size and nature of staff functions are bound to differ, too.

The bottom line: There is no standard or ideal model or size for a successful headquarters. To achieve high performance, don't reflexively cut staff. Focus instead on matching headquarters' size and roles with corporate strategy.

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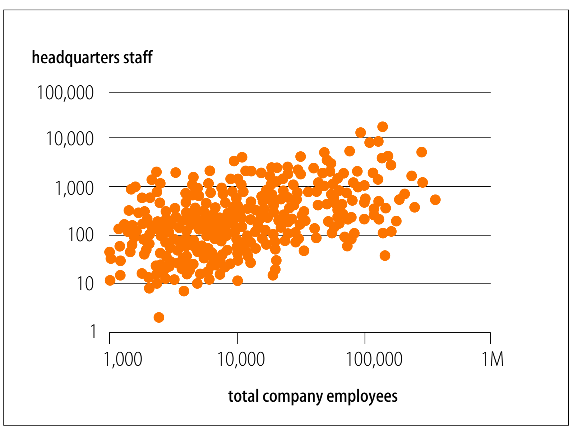
A Corporate Head Count

The size of a company's headquarters has little to do with how many employees the firm has. Companies with 10,000 employees, for instance, have headquarters ranging in size from ten to several thousand people.



MARKETING

How Big Is "Tall"?

by ARADHNA KRISHNA

To make their products stand out, or seem to deliver more value for their size, companies often invent evocative labels like Super Size, Value Size, Double Gulp, and Whopper. To discourage consumers from making direct brand comparisons, businesses also create ambiguous portion sizes like Tall, Sixteen, and Power. The question is, do these labels mean the same thing to everyone?

My colleagues – Nilufer Aydinoglu and Brian Wansink – and I have found that consumers do share a common understanding of product labels, placing many of the labels in unique and consistent positions relative to one another. In an initial study, we looked at consumers' perceptions of product sizes in two food categories. Within each category, we chose 14 common labels, some of which were conventional (such as small, medium, and large), others of which were invented by marketers (such as Super Quencher and Big Kids). Study participants were asked to arrange the labels in each category on a scale from smallest to largest, left to right. For many labels, the subjects' perceptions about the product sizes were significantly similar. For example, consumers agreed that "petite" is smaller than "short," that "single" falls between "small" and "medium," and that "tall" is larger than "medium" or "double." Super Quencher and Jumbo tied in consumers' minds (statistically) for sheer – apparent – size.

Because consumers form clear ideas about product size on the basis of labels, we wondered whether their perceptions of serving size – regardless of *actual* size –

would affect how much of a product they ate. In a separate study, we served Rotary Club members individually packed eight-ounce portions of eggs, labeled either medium or large. Those given medium portions ate, on average, 35% more than those whose portions were labeled as large. The Rotarians' perceptions had obviously influenced their behavior.

Companies should test whether their own views of their product labels match their customers' perceptions and whether the labels achieve what they're supposed to. Do you want to convey that even your small sizes are big? Then a label like "single" is better than a label like "petite." Starbucks understood this when it labeled its smallest coffee "tall." And don't assume that consumers think "extra large" is the biggest. Finally, consider how your labels can affect consumption: Would some

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of your customers buy two servings of your product if it were "regular" instead of "large"?

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CULTURE

Sweat the Small Stuff

In 1982, James Q. Wilson introduced his "broken windows" theory of neighborhood decline in the pages of *The Atlantic*. The criminologist famously argued that by leaving litter, graffiti, and other urban detritus unattended, authorities signal a lack of concern that tempts miscreants to commit more serious violations.

Now a business author is suggesting that companies are similarly vulnerable. A stained carpet in the office or a burned-out reading light on an airplane may seem inconsequential. But when management ignores such trivial irritations, it is effectively telling employees or customers that they don't matter. Such unconcern can depress morale or drive away business, says Michael Levine, who interviewed criminologists, management experts, and ordinary workers and consumers about how tiny offenses influence their perceptions of companies.

An organization's true priorities are revealed by the small stuff, explains Levine, whose book *Broken Windows for Business* will be published by Warner in the fall. The corporate manual may trumpet the message, "We are all one team," but the rank and file know better when they see broken vending machines going unrepaired while the executive dining room functions like a Michelin-starred restaurant. "There's a significant psychological impact to dingy surroundings – to stained carpets and broken toilets," says Levine, founder of a Los Angeles–based public relations firm. "You can't convince employees that you love and care about them if you're sending psychic signals that you don't."

Attention – or inattention – to detail affects service, too. Outsourcing, for example, is reviled for inflicting major pain on workforces; but it also causes plenty of minor injuries to customers, Levine

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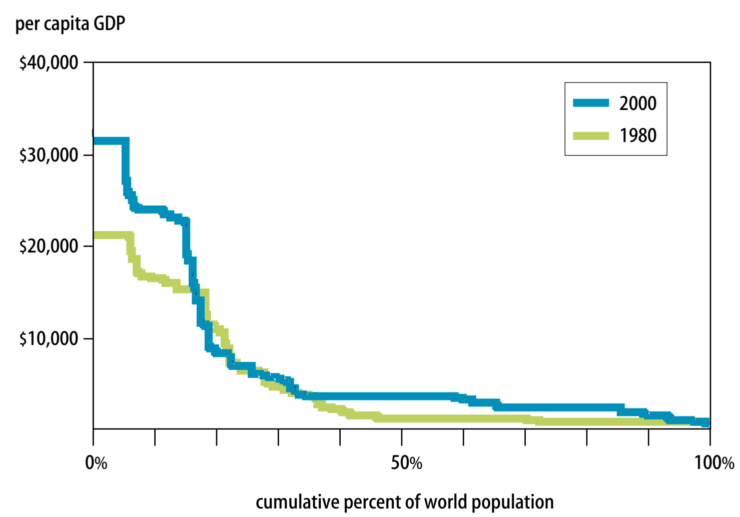
Data Point

The Rich (and Poor) Keep Getting Richer

by EDWARD E. LEAMER AND PETER K. SCHOTT

Fact Earnings are rising for the world's poorest and wealthiest but remain stagnant for those people in between.



In 1980, isolationist barriers in low-wage countries such as India and China prevented businesses in high-wage countries from employing the poorer nations' cheap labor. Many believed that eliminating these barriers would unleash a flood of outsourcing that would concentrate GDP growth in low-wage countries and reduce wages in developed countries. That hasn't happened. While the 60% of the world's people living in poorer countries have seen their earnings grow since 1980, so have the 20% who live in wealthy countries. It's the people in the world's middle-income countries – 20% of the world's population – whose earnings have stagnated.

Why is this? Media reports notwithstanding, global competition has not been very intense between the poorest and wealthiest countries. Few of the labor-intensive products made in India and China are also made in high-income countries. Consequently, workers in wealthy countries have not felt the force of competition from low-wage producers. Middle-income countries, however, have not escaped direct competition with these poorer nations. This is not likely to change anytime soon. Technological advances will continue to drive growth in the high-income countries, while middle-income and poor countries compete for the mundane work. In that competition, large, poorer nations – by virtue of their vast low-paid labor supply – will retain the upper hand. Businesses should weigh this continued dispersion of growth when setting their global strategies.

Send Data Point chart proposals to **Edward E. Leamer** *(Leamer.HBRgraph@anderson.ucla.edu). Leamer is a professor of management, economics, and statistics at the University of California, Los Angeles, and the director of the* UCLA Anderson Forecast.

Reprint F0504H

says. "You have a problem with your Internet provider, so you call the help line and you get Bangladesh," he says. "They don't speak English well; you can barely understand them. But call sales and you get a woman in Texas. That tells you what really matters to the company."

In fact, the worst broken windows are often broken people, Levine says. Customers who are ill-treated by a poorly trained associate, or employees working side by side with someone clearly incompetent, surmise that the business doesn't respect them. And their anger spreads outward: from the unacceptable employee to the manager who hired him, to the person who trained him, to the manager who hired the trainer, and so on.

Levine recommends that managers eject poor performers as quickly as possible, letting everyone affected know the problem has been dealt with. That may prove unpopular among some employees in the short run, but in time they will appreciate the improved environment. "When [former New York City mayor Rudolph] Giuliani went after the squeegee men and the turnstile jumpers, people called him a bully; they called him racist," Levine says. "But his actions had a positive impact on the quality of life in New York City."

Companies frying bigger fish – problems with earnings or ethics, for example – may be less sympathetic to such entreaties. But toilets and parking lots and waiting times matter, Levine insists. "Leaders who don't get that will never build truly great companies," he says. "Companies need to do whatever it takes to fix those bad little things before they become much, much bigger."

– Leigh Buchanan

Reprint F0504G

COMMUNICATION

Just My Type

by PAMELA W. HENDERSON

The one-picture-to-a-thousand-words ratio unjustly downplays the importance of typestyles. Academics and marketers have long known that the choice of font in logos and advertising copy greatly influences legibility, memorability, and public perception of the brand.

Companies need typestyles that suit their images and reflect their intentions. To help them choose the right fonts for their messages, my colleagues at Washington State University – Joan L. Giese and Joseph A. Cote – and I rounded up 210 typefaces and identified a half-dozen discrete design components in each. We then looked at how those components affect consumers' responses to a brand. Specifically, we asked consumers to what degree the fonts conveyed a message that was pleasing (likable, warm, attractive); engaging (interesting, emotional); reassuring (calm, honest, familiar); and prominent (strong, masculine).

The results should get marketers thinking about the messages their logos and ads are – perhaps inadvertently – sending and how they might better exploit typefaces to shape customers' perceptions.

Our research yielded six clusters of fonts that produced similar effects among consumers.

The first group comprises fonts that are considered likable, warm, attractive, interesting, emotional, feminine, and delicate. But they are not especially strong or reassuring. Such fonts have considerable aesthetic appeal but do not inspire great confidence. They include:

Scheherezade
Informal Roman
AncientScript
Enviro
Pepita MT

The second group comprises fonts we defined as interesting, emotional, exciting, and innovative. They are also unsettling and unfamiliar. They could put off some marketers but might be effective in edgier campaigns. These fonts include:

Baphomet
Edda
Chiller
Stonehenge
Paintbrush

The third group of fonts represents the worst of all worlds: disliked, cold, unattractive, uninteresting, and unemotional. But these typefaces aren't useless. Companies might, for example, use them to display characteristics or claims of a countercultural or competing brand. They include:

Playbill
Logan
Onyx
Industria Inline
StencilSet

The fourth group of fonts is strong and masculine. Their weighty lines suggest a forcefulness and solidity coveted by many brands. They include:

NewYorkDeco
Bandstand
SunSplash
Middle Ages
Fisherman

The fifth group gets high marks for being interesting, emotional, exciting, and informal. But these fonts are also considered dishonest, cold, and unattractive. They are good for conveying negative information or for targeting such niche markets as punk rock fans. These fonts include:

AluminumShred
BigDaddy
Integrity
Ransom
Amazon

The final group, which contains many common, highly readable fonts, makes up in comfort what it lacks in excitement. If you want to convey "stalwart of the community," these are your fonts:

Georgia
Verdana
Janson Text
Century Gothic
Times New Roman
Century Schoolbook

Most important, we demonstrate the trade-offs corporations must accept in choosing fonts. Not all the impressions an organization may want to create can be achieved at the same time. Some desirable traits – such as engaging and reassuring – are mutually exclusive. But companies can use an understanding of typestyle attributes to design their own fonts and, consequently, exert maximum control over their messages. That's what Disney and Hallmark did, and their fonts have become integral – and beloved – parts of their brands.

Reprint F0504J

HUMAN RESOURCES

Where's Your Pivotal Talent?

by JOHN W. BOUDREAU AND PETER M. RAMSTAD

As organizations increasingly compete through talent, their investments in human capital will determine their competitive positions. Yet HR's way of managing this key resource stands in sharp contrast to how other organizational functions operate. Marketing, finance, and most other functions have well-developed methodologies for generating the information managers need to make strategic decisions. HR, however, often focuses principally on its own performance, carefully measuring cost per hire, the ROI on its programs, and how its initiatives affect skills and attitudes. It's time for HR to shift its focus from what it does to the quality of the talent decisions it supports. HR needs to develop a systematic process for improving decisions, not just implementing them.

HR should be able to help leaders answer critical questions such as, Where does our strategy require talent that is better or more plentiful than our competitors'? In what new business ventures do we have a strategic advantage because of our talent? What talent gaps do we need to close in order to keep our competitive advantage? And, most important, Where would a change in the availability or quality of talent have the greatest impact?

HR should begin its transformation by applying the tools of segmentation, the

SAS INSTITUTE

Conversation

JAMES GOODNIGHT ON MEETINGS

The Beauty of an Open Calendar

When it comes to schedules, James Goodnight hates being fenced in. So the CEO of SAS Institute, a $1.5 billion maker of business software based in Cary, North Carolina, attends as few formal meetings as is humanly possible. He talked to us about why useless meetings proliferate and what he views as good alternatives.

Everyone hates meetings, but aren't they a necessary evil?
Most of them aren't necessary. Weekly meetings, in particular, in which you're seeing the same people and going over the same kinds of information are mostly a waste of time. Managers and leaders should be constantly having casual interactions with people at all levels, in elevators and hallways and just popping into one another's offices. The important thing is to be visible and accessible, which you're not when you're sitting behind a closed door in a conference room for the better part of your days.

Why are so many meetings a waste of time?
There's a tendency when you're looking at an issue to want to cover yourself. So you copy everyone on your e-mails or ask them to attend your meetings. And they feel like if they don't answer the e-mail or attend the meeting, that means they're not engaged or they're out of the loop. How do you tell your boss, "I don't need to be part of that discussion," without it sounding like you aren't important or you don't care? But if you're not part of it, and you spend that time doing something that's actually related to your job, your productivity goes way up.

We talk about the need for companies to be flexible, but what they're often not flexible about is people's time. People tend to think that a full calendar means they're working hard. What it really means is that they haven't given themselves time to explore new ideas or just visit with folks. And if they have to respond quickly to something, they have the additional headache of having to cancel a bunch of meetings. My best days are ones when there is nothing on my calendar.

By the way, not all meetings are a waste of time. At certain levels of the organization, it's appropriate to meet with your team on a regular basis to keep them on focus. Meetings can also be effective for brainstorming. But it's important to continually question: Will this meeting boost or bust productivity? How long will it really take to cover the issue? Who really *needs* to be there? Does every meeting need to last an hour because that was the default appointment in the electronic calendar?

How do you keep meetings short?
I have left many meetings once I stopped getting anything out of them.

– Leigh Buchanan

Reprint F0504L

widely accepted method for improving decisions in customer and financial markets. Do you use the same advertising mix for every product line or invest capital equally across divisions? No. Yet when it comes to managing talent, your HR department probably applies the same processes and programs to nearly everyone. And even when HR investments are differentiated, they're often designed to meet generic best practices ("assign everyone a mentor," for instance) or target broad groups of individuals (the top 20% of managers, for instance). Just as marketing systematically segments customers to target investments strategically, HR needs to segment talent to deploy human capital strategically.

Maybe you think you don't need a decision science to figure out where to concentrate your A-level talent. But our work with large companies shows that's not always the case. Corning, for example, has traditionally competed as an innovator. As the company expanded globally, it continued to invest its HR resources heavily in support of R&D scientists. But when Corning's HR leaders used talent-segmentation techniques to study the distribution of human capital in the organization, they discovered that the dearth of talent in manufacturing, not in product innovation, was slowing down the company's expansion into markets in some developing countries.

On closer examination, HR and business leaders in the company's Display Technologies division found that, in some regions, there were only a few production engineers with one type of critical manufacturing knowledge, a particular skill set that takes years to develop. The division made the case for shifting some HR assets out of R&D and into hiring and retaining enough of these key production engineers to meet the division's needs.

As Corning's experience suggests, talent decisions can be made with the same level of logic and rigor as decisions about money, customers, and technology – and they can be logically linked to strategy. The ball is in HR's court.

Reprint F0504K

FRONTIERS

Way Faster than a Speeding Bullet

by AMY SALZHAUER

Femtosecond lasers emit pulses of light that last just a millionth of a billionth of a second. These lasers enable surgery so precise that a single mitochondrion can be removed without harming the rest of the cell, and machining so controlled that structures can be micromachined within a piece of glass. Eric Mazur, a professor of applied physics at Harvard, likens these fast flashes to "bullets of light."

Once confined to physics research laboratories, femtosecond lasers are just now starting to be applied by medicine and industry. They are poised to revolutionize processes as diverse as drug creation and the disassembly of nuclear weapons.

Tech Talk: Just how fast is a millionth of a billionth of a second? It takes light only about a second to travel from the moon to earth. "In a femtosecond," Mazur says, "light travels about 300 nanometers" – or a fraction of the width of a human hair. That means a femtosecond laser lets users view phenomena previously impossible to observe because they occur in so short a time frame. It also means that while the amount of energy used to deliver the light is small, the intensity of light striking the target is high because the pulse is so quick. "The peak power of our laser pulses – that is, the energy they deliver per unit time – is about the same as that of all power plants in the United States combined," Mazur explains. "Imagine all of that power concentrated into a microscopically small volume. Of course, the laser pulse is very short, so we only deliver energy for a very short amount of time."

The brevity of femtosecond laser pulses prevents them from transferring significant heat or shock. As the laser pulses, the material it hits becomes an ionized plasma, while the surrounding material stays cool. As a result, femtosecond lasers are much more precise and can be used on much more fragile materials than can conventional lasers, diamond saws, water saws, or other cutting tools. Femtosecond lasers produce a smooth, clean cut. So while conventional lasers used in dentistry can cause cracks and ragged holes in teeth, for example, femtosecond lasers drill precise holes without collateral damage.

Why It Matters: Femtosecond lasers can remove material one atom at a time from substances as diverse as silicon, steel, and heart tissue; and they can machine very precise structures that range in size from a few microns to a few millimeters. They can also change the refractive properties of transparent materials, so they can be used to manufacture inexpensive optical devices, wave guides, and sensors. Chemical and drug manufacturers are starting to use the lasers to observe important chemical and biological reactions that last only femtoseconds, such as the interaction of carbon monoxide and myoglobin, which is critical for understanding how muscle cells carry oxygen. And the lasers "provide a much higher resolution for medical-imaging applications," says Melissa Love, of San Diego–based laser manufacturer Del Mar Ventures. Taken together, these applications will have a multibillion-dollar impact on a variety of industries.

In the Game: Invented at Bell Laboratories in the 1980s and driven by advances in fiber telecommunications, femtosecond lasers have long been used in academic labs, where scientists have often built their own. A growing number of small manufacturers have started to make easy-to-use tabletop lasers that cost only $15,000 to $30,000. The number of suppliers should grow with demand, as large companies catch on to the lasers' ability to create better, cheaper, and entirely new drugs, devices, and products.

Reprint F0504M

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Reviews

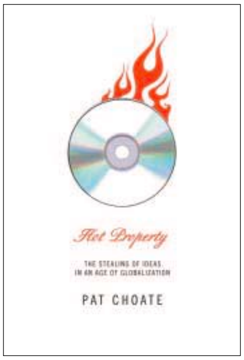
Hot Property

The Stealing of Ideas in an Age of Globalization

Pat Choate

(Alfred A. Knopf, 2005)

Innovation is not a pure act. Individuals and companies want to create, sure, but they also want to get paid. If they're not paid, then progress suffers, and countries built on innovation tremble to their very foundations. That dire situation is upon us, argues political economist Pat Choate in his book, *Hot Property.* Global intellectual-property theft not only hurts Disney's profits, it "threatens America's technological preeminence, its economic well-being, and its national security."



How great is the threat? Piracy, counterfeiting, and theft cost the United States $200 billion a year, Choate says, not including damage done to jobs, innovation, and safety. (The book takes a largely U.S.-centric view, although Choate acknowledges the toll on other developed countries.) *Hot Property* takes readers on a world tour of idea thievery: Almost all music sales in Pakistan are of illegally copied CDs. Cheap medicine flows across the border from Mexico, nearly 25% of it fake, contaminated, or even poisoned. That's nothing compared to China, which Choate says is "pursuing [a] national development strateg[y] based on the uncompensated, unapproved stealing of other nations' best ideas and technologies."

Choate does a fine job explaining the evolution of intellectual-property rights, a long-simmering issue that digital reproduction capabilities brought to a public boil. Chapters dedicated to Germany, Japan, and China show how each used – and abused – IP laws to catch up with cutting-edge technologies, keep out external competition, and eventually dominate whole industries. He is also persuasively critical of governments that sit by while their nation's intellectual wealth is plundered. Again the United States comes in for the greatest scrutiny; the author cites case after case in which it failed to protect the rights of companies and inventors. Only six employees in the Office of the U.S. Trade Representative concentrate on intellectual property. The government failed to pursue countless crimes for the sake of foreign relations. Indeed, the country that fought hard for international laws that strengthen IP protections hasn't filed a single case under those laws since 2000.

Unfortunately, Choate is less compelling when discussing solutions. Beyond the obvious (hire more customs inspectors, FBI agents, and federal prosecutors; educate the public) he suggests treating copyrights more like trademarks to move knowledge into the public domain faster while protecting the creator's rights. Otherwise, he presents little more concrete than a demand that the government be resolute. "What is missing is the will of the U.S. political leaders to confront those who are stealing U.S.-owned intellectual properties and with them the future of the American people," he pronounces. Yes, but are there also opportunities to rethink the entire IP system to make it compatible with new conditions? That would be innovative. And innovation, as Choate knows, is always worth encouraging.

– Eileen Roche

Blink: The Power of Thinking Without Thinking

Malcolm Gladwell

(Little, Brown, 2005)

We're taught to be skeptical of first impressions, but journalist Gladwell argues that those split-second summations are wiser than we know. Research has shown how studying a subject in-depth can introduce extraneous information. That information then crowds out factors that our unconscious mind had pegged as key at the start. Sometimes the unconscious gets the key factors wrong, as with ethnic stereotyping, but Gladwell insists we're better off teaching the brain to screen out these mistakes than dismissing our instincts. This superb book also offers insights on how service providers can relate better to their clients.

China, Inc.: How the Rise of the Next Superpower Challenges America and the World

Ted C. Fishman

(Scribner, 2005)

You won't find a more engagingly bullish brief on China's economic future. Fishman, a former commodities trader, explains how China's disciplined mastery of manufacturing has made it the Wal-Mart of world economies, forcing everyone to respond to its low-cost pressures. And with Chinese students and companies eagerly moving up to high tech, the country may soon compete and innovate along the entire value chain. But you'll have to go elsewhere for an in-depth look at the nation's precarious political and ecological situations.

Brand Sense: Build Powerful Brands through Touch, Taste, Smell, Sight, and Sound

Martin Lindstrom

(Free Press, 2005)

The eyes are the windows to the pockets, marketers have long assumed, and so they emphasize visual cues when packaging and promoting products. But Lindstrom, a consultant, urges companies to appeal to all the senses – especially when targeting younger consumers, who have more sensory acuity then their elders. Smell, for example, has a powerful influence on the unconscious, as McDonald's discovered when customers intrigued by its healthier menu items were put off by the restaurants' continued oily odor.

– John T. Landry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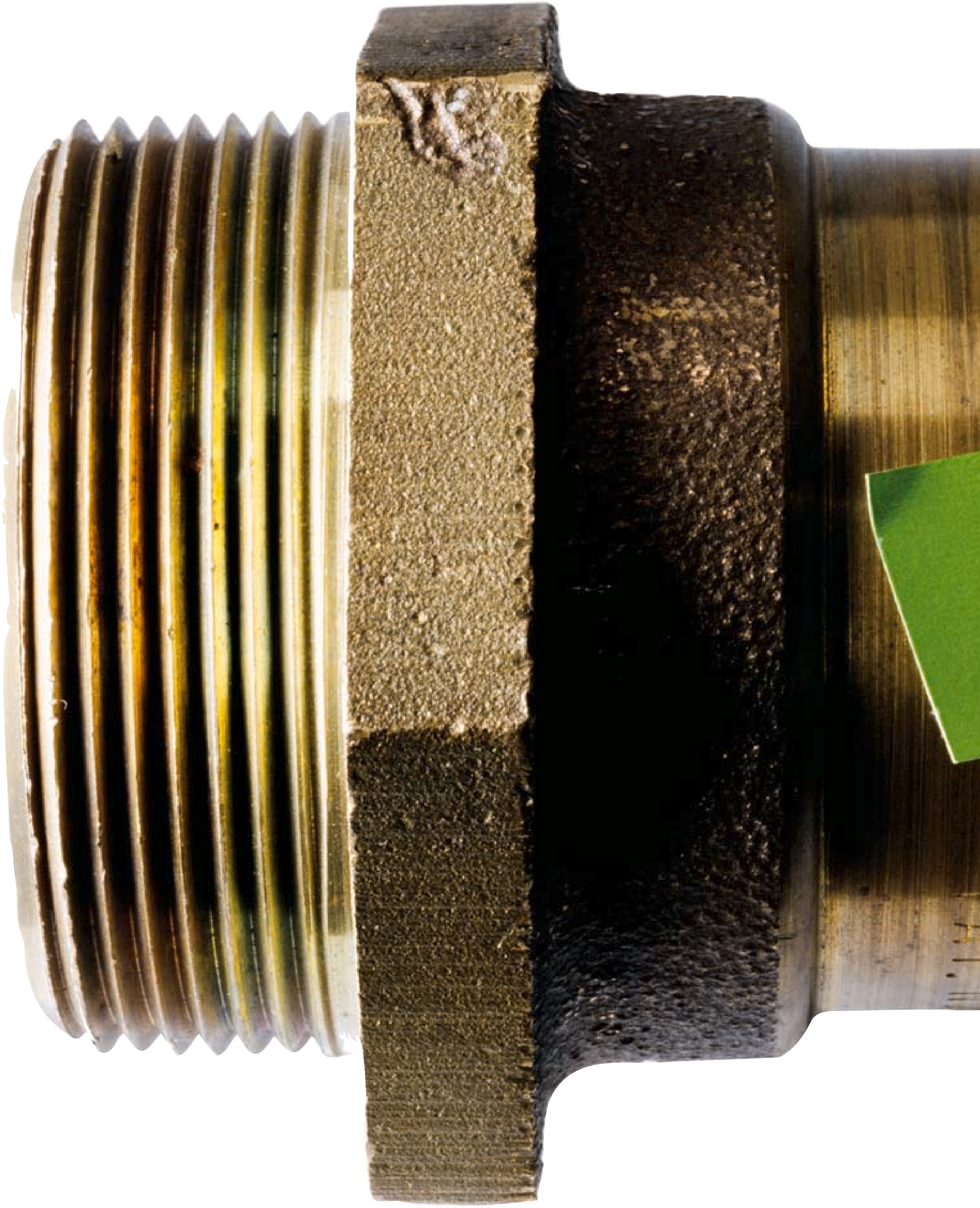


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WINNERS | 2004

[THE 46TH ANNUAL]

McKinsey Awards

RECOGNIZING EXCELLENCE IN MANAGEMENT THINKING

THEODORE LEVITT. Henry Mintzberg. Abraham Zaleznik. Michael E. Porter. Rosabeth Moss Kanter. Robert H. Hayes and William J. Abernathy. John J. Gabarro and John P. Kotter. Gary Hamel and C.K. Prahalad. John Seely Brown. Charles Handy. John Hagel III and Marc Singer. All of these world-class thinkers – and dozens more – have been singled out in the past for McKinsey Awards. *Harvard Business Review* assembles a distinguished group of judges from business, academia, and consulting to evaluate every article the magazine has published in the past year and select its two most significant. This year's winners are no exception to the tradition of excellence in thought-provoking management theory.

TO LEARN WHO THIS YEAR'S WINNERS ARE, TURN THE PAGE.

WINNERS | 2004

THE 46TH ANNUAL

McKinsey Awards

RECOGNIZING EXCELLENCE IN MANAGEMENT THINKING

Harvard Business Review is pleased to announce that Peter F. Drucker, the author of "What Makes an Effective Executive," and Ken Dychtwald, Tamara Erickson, and Bob Morison, the authors of "It's Time to Retire Retirement," have tied for the first-place 2004 McKinsey Award. The second-place winner is Hau L. Lee for "The Triple-A Supply Chain."

Since 1959, the McKinsey Foundation for Management Research has presented awards recognizing the two best articles published each year in *Harvard Business Review*. The awards, judged by an independent panel, commend outstanding works that are likely to have a major influence on executives worldwide.

TIE

FIRST-PLACE WINNERS

What Makes an Effective Executive

by Peter F. Drucker

Great managers may be charismatic or dull, generous or tightfisted, visionary or numbers oriented. But every effective executive follows eight simple practices.

An effective executive does *not* need to be a leader in the sense that the term is now most commonly used. Harry Truman did not have one ounce of charisma, for example, yet he was among the most effective chief executives in U.S. history. Similarly, some of the best business and nonprofit CEOs I've worked with over a 65-year consulting career were not stereotypical leaders. They were all over the map in terms of their personalities, attitudes, values, strengths, and weaknesses. They ranged from extroverted to nearly reclusive, from easygoing to controlling, from generous to parsimonious.

What made them all effective is that they followed the same eight practices:

- They asked, "What needs to be done?"
- They asked, "What is right for the enterprise?"
- They developed action plans.
- They took responsibility for decisions.
- They took responsibility for communicating.
- They were focused on opportunities rather than problems.
- They ran productive meetings.
- They thought and said "we" rather than "I."

The first two practices gave them the knowledge they needed. The next four helped them convert this knowledge into effective action. The last two ensured that the whole organization felt responsible and accountable.

Get the Knowledge You Need

The first practice is to ask what needs to be done. Note that the question is not "What do I want to do?" Asking what has to be done, and taking the question seriously, is crucial for managerial success. Failure to ask this question will render even the ablest executive ineffectual.

When Truman became president in 1945, he knew exactly what he wanted to do: complete the economic and social reforms of Roosevelt's New Deal, which had been deferred by World War II. As soon as he asked what needed to be done, though, Truman realized that foreign affairs had absolute priority. He organized his working day so that it began with tutorials on foreign policy by the secretaries of state and defense. As a result, he became the most effective president in foreign affairs the United States has ever known. He contained Communism in both Europe and Asia and, with the Marshall Plan, triggered 50 years of worldwide economic growth.

Similarly, Jack Welch realized that what needed to be done at General Electric when he took over as chief executive was not the overseas expansion he wanted to launch. It was getting rid of GE businesses that, no matter how profitable, could not be number one or number two in their industries.

The answer to the question "What needs to be done?" almost always contains more than one urgent task. But effective executives do not splinter themselves. They concentrate on one task if at all possible. If they are among those people – a sizable minority – who work best with a change of pace in their working day, they pick two tasks. I have never encountered an executive who remains effective while tackling more than two tasks at a time. Hence, after asking what needs to be done, the effective executive sets priorities and sticks to them. For a CEO, the priority task might be redefining the company's mission. For a unit head, it might be redefining the unit's relationship with headquarters. Other tasks, no matter how important or appealing, are postponed. However, after completing the original top-priority task, the executive resets priorities rather than moving on to number two from the

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JUNE 2004 59

What Makes an Effective Executive

Peter F. Drucker

June 2004

Peter Drucker's latest article for *Harvard Business Review* – and his seventh McKinsey Award winner – ponders a mystery. Effective leaders come in all shapes and sizes. They may be charismatic or dull, number crunchers or visionaries, generous or tightfisted. But none of those traits necessarily explains leaders' success. What does? According to Drucker, effective executives all follow the same eight practices. Among them: Focus on opportunities rather than problems. Run productive meetings. Think "we" rather than "I." Take responsibility. In this concise and wonderfully written article, Drucker distills the lessons of his 65-year academic and consulting career into an indispensable guide from which managers and professionals at all levels, and in all industries, can learn.

Peter F. Drucker *is the Marie Rankin Clarke Professor of Social Science and Management at the Peter F. Drucker and Masatoshi Ito Graduate School of Management at Claremont Graduate University in Claremont, California. He has written nearly two dozen articles for HBR.*

TIE

FIRST-PLACE WINNERS


Long-standing human resource practices invest heavily in youth and push out older workers. This must change – and public policy, too – or companies will find themselves running off a demographic cliff as baby boomers age.

It's Time to Retire Retirement

by Ken Dychtwald, Tamara Erickson, and Bob Morison

It's Time to Retire Retirement

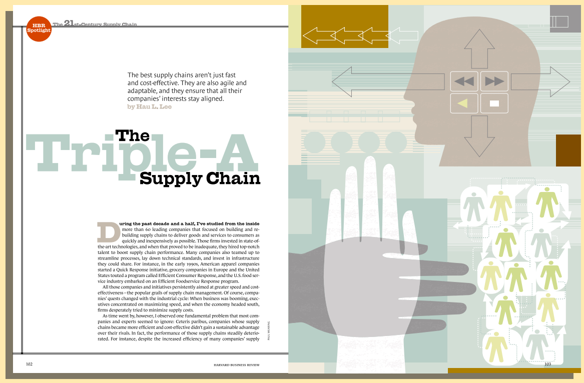
Ken Dychtwald, Tamara Erickson, and Bob Morison

March 2004

Within half a dozen years, baby boomers – some 76 million people, more than a quarter of all Americans – will start hitting their midsixties and contemplate retirement. And why not? Long-standing human resource practice is to invest heavily in youth and push out older workers. But this must change – and so must public policy – or companies will find themselves running off a demographic cliff as baby boomers age. That's the urgent message of this timely article, the result of a yearlong study of the business implications of population change. Workplace environments; management styles; hiring, training, and promotion practices; outsourcing; and the use of part-time and contingent workers – nearly every aspect of the people side of running a business – will be affected by the aging workforce. And companies don't just face a shortage of labor as boomers leave. Skills, knowledge, experience, and relationships walk out the door every time somebody retires. Companies must gain the loyalty of older workers, the authors argue. They offer innovative recommendations for creating a more flexible approach to retirement that allows people to continue contributing well into their sixties and seventies.

Ken Dychtwald *is the founding president and CEO of Age Wave, a San Francisco–based consulting firm focused on the maturing marketplace and workforce.* **Tamara Erickson** *is the executive officer and a board member, and* **Bob Morison** *is an executive vice president and the director of research, at the Concours Group, a management consulting firm based in Kingwood, Texas. They are all coauthors of a book about the impact of demographic shifts on the workplace forthcoming from the Harvard Business School Press in 2006.*

SECOND-PLACE WINNER


The best supply chains aren't just fast and cost-effective. They are also agile and adaptable, and they ensure that all their companies' interests stay aligned.

by Hau L. Lee

The Triple-A Supply Chain

The Triple-A Supply Chain

Hau L. Lee

October 2004

A strong supply chain is a strategic mandate for nearly every company today. But many firms build their supply chain improvements on a false equation: faster plus cheaper equals competitive advantage. In fact, supply chains that focus on speed and costs tend to deteriorate over time. That's the surprising insight of Hau L. Lee's authoritative article, based on his 15 years of studying the supply chains of more than 60 companies. Lee shows it's the businesses that create triple-A supply chains – those that are agile, adaptable, and aligned – that get ahead of their rivals. This article offers a rigorous look at the changes transforming modern supply chain management, the best practices of triple-A leaders, and the steps companies can take to build their own twenty-first-century supply chains.

Hau L. Lee *is the Thoma Professor of Operations, Information, and Technology at the Stanford Graduate School of Business in Stanford, California, and codirector of the Stanford Global Supply Chain Management Forum. He is coeditor (with Terry P. Harrison and John J. Neale) of* The Practice of Supply Chain Management: Where Theory and Application Converge *(Springer, 2003).*

JUDGES

McKinsey Awards

2004

HBR wishes to thank this year's esteemed panel of judges for all their work on behalf of the 2004 awards.

[THE 2004 PANEL OF JUDGES]

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Schering-Plough
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Bill Miller
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Legg Mason Capital Management
Baltimore

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Stern Stewart & Company
New York

Pamela Thomas-Graham
Chairman
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Chief Executive Officer
Carat Americas
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2005

HBR is pleased to announce the distinguished panel of judges for the 2005 awards.

[THE 2005 PANEL OF JUDGES]

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Stephen M. Ross School of Business
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Atlanta

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Human Genome Sciences
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IBM
Armonk, New York

Howard H. Stevenson
The Sarofim-Rock Professor of Business Administration
Harvard Business School
Boston

Ludo Van der Heyden
The Solvay Chaired Professor of Technological Innovation and Professor of Technology and Operations Management
Insead
Fontainebleau, France

Stuck with excess inventory, Neptune Gourmet Seafood is toying with the idea of launching a second, inexpensive product line. But if Neptune stoops to conquer, rivals might retaliate with price cuts, and the new line might end up cannibalizing the old.

Class – or Mass?

by Idalene F. Kesner and Rockney Walters

Jim Hargrove's startled expression would have been amusing had he not been in such a pitiable state. He was standing in the yacht's magnificently appointed galley, wondering if his stomach would be able to hold down the cola he was pouring into a crystal flute, when his colleague, Rita Sanchez, said something outrageous. Now the drink had spilled down the length of his pleated khakis, and he was sputtering. "You aren't seriously suggesting that we reduce prices by 50%. Are you?"

It had been a long day for Hargrove, marketing director of $820 million Neptune Gourmet Seafood, North America's third-largest seafood producer. When the firm's chairman and CEO, Stanley Renser, had invited his senior managers to sail with him to inspect one of Neptune's new freezer trawlers, Hargrove had demurred. He hated sailing on small boats–they made him sick, he told his boss. Renser had pointed out that the 120-foot yacht he owned wasn't exactly small. Besides, *Poseidon II* never rolled, even in a storm; the renowned Tommaso Spadolini had designed it. In fact, it was one of the last boats built by Italy's famous Tecnomarine boatyard! Eventually, Renser had won him over, and Hargrove had arrived that Friday morning as eager to see the yacht as he was to visit one of the state-of-the-art fishing vessels on which Neptune had bet its future.

Hargrove hadn't felt seasick all morning. There were no swells that day. Flat and glassy, the ocean glittered in shades of turquoise, silver, and gold. Aboard the freezer trawler, he had been fascinated by the technologies that allowed the vessel to catch fish in an environmentally sustainable way and to freeze them in a manner that gave Neptune an edge over rivals. But when the yacht had started to head back to Fort Lauderdale, Hargrove had crumpled. While his colleagues had made a beeline for the sundeck, he had spent the afternoon in the oak-lined main saloon, where he'd sunk into a leather sofa, clenching and unclenching his muscles to fight the ocean's incessant motion.

Tired of trying to take his mind off the problem by focusing on the distant horizon, Hargrove was exploring the galley when Sanchez, his counterpart in sales, had walked in.

"Hey, Jim. You better?" she had asked solicitously.

"I'll survive," Hargrove had grimaced. "We can't be too far from home now. But let's not talk about it. What's happening topside?"

DANIEL VASCONCELLOS

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

"Oh, nothing much. Stanley's showing people the garage where he parks the water scooters and Windsurfers," Sanchez informed him. She gave Hargrove a challenging look and added: "You want to hear something that'll really take your mind off your seasickness? I'm convinced that we have to drop our prices by 40% to 50% – and soon."

Big Fish in a Small Pond

Hargrove snatched a stack of cocktail napkins to mop up the cola, but his eyes never left Sanchez's face. He hoped she'd break into a smile to indicate that she was teasing him about the price cut. It had to be a joke, right? Seafood was a high-end business in North America, and Neptune was an upmarket – many believed the most upmarket – player in the $20 billion industry. During the past 40 years, the company had earned a reputation for producing the best seafood, and Neptune did everything it could to preserve that premium image among customers.

The company reached its consumers, who were extremely demanding, through various channels. Neptune generated about 30% of its revenues by selling frozen and processed fish products to U.S. grocery chains, like Shaw's Supermarkets, and organic food retailers, like Whole Foods Market, all along the eastern seaboard and in parts of the Midwest.

The Neptune's Gold line of seafood products, manufactured in two sophisticated plants near Cedar Key, Florida, and Norfolk, Virginia, dominated most segments in terms of quality, and therefore sold at premiums compared with other brands. For example, Neptune's Gold canned salmon, tuna, sardines, mackerel, herring, and pilchard enjoyed a 30% higher price point, on average, than other brands; and Neptune's Gold lump crabmeat, anchovies, clams, lobster meat, mussels, oysters, and shrimp commanded a 25% premium over rival products.

That wasn't the company's biggest market, though. Neptune had emerged as the supplier of choice to the best restaurants within 250 miles of its Fort Lauderdale headquarters as well as to the biggest cruise lines, which together accounted for a third of the company's sales. Another 33% came from wholesalers that distributed the company's products to restaurants all over the United States. In fact, sushi bars from New York to Los Angeles increasingly bought Neptune's frozen fish instead of buying fresh fish and freezing it themselves. And, befitting the humble origins of founder John Renser, approximately 4% of Neptune's sales came from a fish market outside Fort Lauderdale that the company owned and operated.

It wasn't easy to live up to the tagline "The Best Seafood on the Water Planet." Dogged by competition – especially from China, Peru, Chile, and Japan – as well as tough fishing laws, Neptune invested heavily to stay ahead of rivals. Stanley Renser, the company's largest shareholder, had recently expanded the firm's equity base, although doing so had shrunk his share to 10%. The capital infusion allowed Neptune to invest $9 million in six freezer trawlers of the kind Hargrove had visited. Those ships' autopilot mechanisms guided them to the best fishing grounds, manipulated fishing gear, landed catches, and reported data to shore. Other systems, along with new fishing equipment, ensured that only mature fish were caught and that the nets were not overfilled, thus reducing damage to the haul. As a result, Neptune increasingly landed only top-quality catches.

What's more, the freezer trawlers used a new technology to superfreeze fish to –70°F (instead of the usual –10°F or –23°F) within four hours of capture. The fish would freeze so quickly with this method that ice crystals couldn't form in them or on them. That allowed the fish to retain their original flavor, texture, and color; and when cooked, they tasted like they were fresh out of the water. Moreover, by packing the catch in snow made from dry ice and surrounding it with liquid nitrogen, the process increased shelf life by 50%. No wonder the gourmet magazine *Connoisseur's Choice* had rated Neptune's products foremost in quality for the tenth year in a row.

Against the Current

To Hargrove, the company's premium image, investments in new technologies, and obsession with quality made any price cut – let alone the notion of chopping prices in half – unthinkable. But Sanchez refused to back down. "I'm not kidding, Jim. It's pretty clear that we have a big inventory problem. We have to slash prices to get rid of those excess stocks."

Hargrove knew exactly what Sanchez was talking about. In the past three months, Neptune's finished goods inventory had shot up to 60 days' supply – twice the normal level and three times what it had been a year ago. Like many of his colleagues, Hargrove considered the inventory pileup a temporary phenomenon; stocks had risen because the company had added ships to the fleet and could process catches more efficiently than before. Surely, if Neptune sold some old ships and stuck to its plan of launching ready-to-eat, fish-based meals, its inventory would soon fall to normal levels.

Sanchez and her sales team, however, were convinced that they faced a more enduring situation. "I told you this a month ago, Jim, and I'll say it again. The new laws have reduced our access to fish near the coast and forced us to go farther out to sea. Because the fishing grounds are richer there, and because we're using new technologies, our catches have grown bigger on average. That's why, even in the past four weeks when we've seen demand reach an all-time high, our inventory has continued to grow."

"First of all, it makes no sense to me to cut prices when demand is rising,"

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Hargrove said, exasperatedly. "Besides, think about how customers would perceive a large price cut. If you slash prices by 50%, people will think there's something wrong with the fish – like it's rotten or full of mercury! It would destroy our premium image and permanently erode our brand equity."

Sanchez shook her head. "Customers recognize that we sell a perishable product and that the supply of fish fluctuates from day to day. They expect prices to vary. The prices of fruits, vegetables, and flowers change all the time, don't they? A few years ago, coffee bean prices plummeted when growers realized they'd be better off selling inventories than watching the beans rot. Since then, coffee prices have gone up again. No one seems to object when the prices of chicken, beef, or pork rise and fall because of changes in the marketplace. I'm not willing to leave money on the table by refusing to react to supply-and-demand fluctuations."

"But why do you want to cut prices so drastically? Why not just offer customers a 10% discount? I can see us doing that in the winter, when sales are slow, anyway," Hargrove pointed out.

Sanchez shook her head again. "It won't work, Jim. Our warehouses are so full that it's going to take a lot more than that to make a difference. And with $9 million tied up in the new ships, you know we won't be keeping them in harbor. Our inventories are going to keep growing unless we do something radical."

"Selling product at a loss is radical, all right," Hargrove muttered grimly. On many of its products, Neptune wasn't making enough profit after manufacturing costs to sustain a deep price cut. In fact, the company's margins had already shrunk by 10% in the past year because of rising costs and growing competition.

"You're talking about sunk costs," Sanchez shot back. "Selling product at a loss to generate some revenue is better than throwing it away. What I'm proposing, though – "

"Have you considered how our competitors will react?" Hargrove cut in. "If we do this, some of them are bound to retaliate with even deeper price cuts, and then we'll be in a price war none of us can afford – Neptune least of all, given our cost structure."

Sanchez held up a hand. "Of course, of course. But you're assuming it says 'Neptune's Gold' on the discounted product. I actually envision a new brand."

Hargrove exploded. "You don't create a new brand to deal with a temporary increase in supply! Besides, you won't fool anybody. Everyone will know who's responsible for flooding the market and eroding margins."

It was clear to Sanchez that she wasn't making much headway with Hargrove. "Look, Jim, this really isn't the place for this discussion, and perhaps I'm not being as clear as I should be. I want to put this issue on the MOC's agenda for Friday." The Marketing and Operations Council, which comprised Neptune's top executives, met twice per month.

"Fine, as long as Stanley is at the meeting, too. I'll go up on deck and talk to him right away," said Hargrove, his seasickness all but forgotten. "The sooner you stop thinking about a price cut, the better."

Swimming with the Sharks

As the week progressed, word spread about the solution that Sanchez had proposed to tackle Neptune's inventory problem. Both Hargrove and Sanchez were drawn into lively debates with their colleagues, and they soon realized that whether people were in favor of price cuts or against them, everyone had an opinion on the subject.

A day before the MOC meeting, Sanchez received an unexpected visitor. It was Nelson Stowe, the company's legal counsel and a longtime confidant of the Renser family, hovering at her door. "Ah, Rita. Got a minute?" Stowe asked in his mild-mannered fashion.

Realizing that this was no ordinary visit – Stowe had never called on her before – Sanchez quickly invited him into her office. After they had settled in, Stowe got slowly to the point. "I've been hearing that you want to launch a mass-market brand. Interesting! You know, before we opened the fish market, John Renser wanted to do something similar. He wanted to sell some of our fish at a low price so that more people would eat seafood. But that was a long time ago.

"I'm sure you're thinking through the implications of your strategy," he continued, "but one issue concerns me. Have you thought about how the Association will react?"

Stowe was referring to the powerful U.S. Association of Seafood Processors and Distributors, whose members, such as Neptune, accounted for 80% of America's seafood production. The ASPD influenced American and global policies related to the fishing industry and imposed quality standards on members. It also conducted surveys of wholesale and retail seafood prices and, twice a year, published benchmark prices that influenced the pricing policies of seafood producers and distributors.

"I don't know, Nelson," Sanchez sighed. "But I doubt that the Association can do anything."

"I wouldn't be so sure," said Stowe. "At the prices you're suggesting, you're likely to endanger our ASPD Gold Seal of Approval. We're the only company that has the seal on every product we sell. But the Association could easily change that."

"No!" Sanchez cried out. "It can't! Regardless of the prices we charge, our products will still meet the ASPD's quality standards. Besides, we're just selling the same fish under a different brand."

"Don't fool yourself, Rita. The Association has a great deal of discretion about who gets the Gold Seal and who doesn't. If it believes that our pricing strategy will cost the fishing industry a lot of money, it might withhold the seal on our low-end products – for starters. I'd like us to remember that the Association isn't going to stand by idly while we disrupt the industry," Stowe warned as he got up to leave. "Keep me posted, will you?"

A Pretty Kettle of Fish

At 8 AM on Friday, Sanchez walked into the conference room on Renser's heels. "How was Newfoundland?" she asked.

"Lousy," croaked Renser, who had returned late the previous night after delivering the keynote address at the Canadian Fish Producers' annual conference. "I caught a cold," he complained. "Happens every time I fly commercial."

"At least riding in planes doesn't make you feel nauseated," Hargrove quipped as he joined them. "That's more than I can say for riding in boats."

Once everyone had settled down, Hargrove got the meeting under way. "We have several routine items on the agenda," he began. "But Rita and I have added a topic we think is important, so I suggest we move to that first." When everyone nodded in agreement, Sanchez and Hargrove ran through the issues they had discussed on the yacht.

As they concluded their summaries, Bernard Germain, Neptune's COO, spoke up. "Do we know which of our rivals are considering price cuts? We aren't the only company facing overcapacity. It would be naive of us to believe that all our competitors will hold prices for the industry's good."

"I can't believe it!" Hargrove burst out. "You're in favor of price cuts?"

"I don't know yet, Jim. I'm trying to understand why Rita's suggestion that we introduce a low-priced seafood brand is so off-the-wall. Why can't we use a new brand to appeal to value-minded customers? Seems to me that we have the product; we can distribute it using our existing channels; and we can achieve a new positioning through packaging, advertising, and pricing. I don't see the difference between this strategy and what companies like Kellogg do with their private-label businesses. In fact, if we don't want to launch a second brand, we could think about supplying retailers with private-label products."

"I'm not suggesting that we get into the private-label business," Sanchez was quick to reply. "That can pose problems, as many consumer goods manufacturers have discovered. I feel we should create a mass-market brand called, say, Neptune's Silver."

"That's terrible!" snapped Hargrove. "By calling it Neptune's Silver, you're positioning the cheap product right next to Neptune's Gold in the eyes of consumers. Then they'll be more likely to try it and, once they do, they'll realize there's no difference in quality. We'll end up cannibalizing our own sales. Why would any company in a high-end segment do something so crazy?"

"I guess you don't remember what transpired in the wine industry a couple of years ago," responded Pat Gilman, the head of Neptune's institutional business, whose taste for high-end products was well known. "A California vintner, Bronco Wines, did something exactly that 'crazy.' It was the same kind of situation: a glut of grapes, huge inventories. They slapped a new brand name on the stuff and sold it through Trader Joe's for $1.99 a bottle. It's called Charles Shaw, but people nicknamed it Two-Buck Chuck."

"Not only do I know about it, but I've also tried it," Sandy McKain, head of the company's consumer business, piped in. "I can tell you, it's worth every penny. But Pat, I don't think the scenario is exactly the same. Even in Bordeaux, a lot of winemakers offer a premium wine and several cheaper wines, but they use grapes of different qualities to make the different grades. Would we be doing that?"

"In Bronco's case, it was the same grapes they'd been using for higher-priced wines," Gilman said. "As for Jim's point, I'm sure they had some customers migrate to the cheaper stuff. But think about the upside. In the United States, 88% of wine sold is consumed by 12% of the population –"

"Hey, Pat," Hargrove called out. "How much of that do you personally account for?"

Gilman joined in the laughter before continuing: "The point is, more people will opt for a bottle of wine with dinner if they can get a passable one on the cheap. Wine sales have grown at the expense of other beverages in recent years. The same thing could happen to us. Even with people eating healthier things, seafood sales lag behind those of beef, chicken, and pork. The way I see it, this isn't about reducing inventory. It's about introducing our products to a bigger market: the more budget-conscious consumer. And if it's like wine, the educated consumer will then trade up to Neptune's Gold."

A furious discussion followed about how hard it would be for Neptune to win shelf space in supermarkets for a new brand, particularly for a low-priced product that might go head-to-head with the grocers' own private-label offerings. The group was also divided about whether it should sell a second brand through the same channels or through different ones. Germain wondered aloud whether Neptune should target new geographic markets – like South America and Central America – with a low-priced offering.

"Hang on!" exclaimed a clearly frustrated Hargrove. "When we started, weren't we debating whether it made sense to launch a new brand to deal with a temporary inventory problem? That would mean we'd kill it once we solved that problem. I –"

"If customers like our new brand, it might constitute a better growth strategy," Sanchez interrupted. "The way I look at it, the second brand could prove to be a win-win proposition."

"I don't know if it's as simple as that," Germain said slowly. "Every luxury company I know of – Gucci, Mercedes-Benz, BMW, Tiffany, even Hyatt – has struggled to go mass without destroying its premium image. For that matter, when fashion designers like Isaac Mizrahi create an affordable line for a retailer like Target, I wonder if that adds to the brand's luster or tarnishes it?"

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Renser, who had been quiet until then, cleared his scratchy throat. His colleagues were starting to rehash territory they had already covered, and instead of sharpening their arguments, they seemed to be obfuscating them. On one hand, they appeared to agree that it would be important to keep the two brands separate. On the other hand, they were talking about migrating customers from the low-end brand to the high-end brand, which would mean linking the two. Renser knew that the group was waiting to hear where he stood, but he didn't yet know what to say. How long could he leave them hanging – along with his company's fortunes – between the devil and the deep blue sea?

Should Neptune launch a mass-market brand? • Five commentators offer expert advice.

(see next page)

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Rita Sanchez first suggests a drastic price cut as a temporary solution to Neptune's inventory problem. But, as Jim Hargrove points out, she later alters the terms of the debate. At the meeting with her colleagues, Sanchez argues that the company should launch a less expensive brand to tackle a permanent increase in supply. Although she doesn't realize it, the two suggested actions are miles apart. The price cut is reactive and would prove costly in terms of the responses it would elicit from rivals. Launching a new brand, however, is a long-term strategy that could enhance Neptune's profits without endangering its hard-earned brand equity.

Neptune's executives have failed to analyze the problem correctly because they've focused only on the supply side of the crisis. They need to shift their perspective 180 degrees to view the challenge from the market in–not from supply out. If the team views the problem from that angle, it will find that there's a tremendous upside to creating a new market segment. Indeed, Neptune has a great opportunity to launch a brand that will bring in new customers. Doing so could make the pie bigger for all companies in the seafood industry while giving Neptune a chance to carve out a generous slice for itself.

A new brand could make the pie bigger for all companies in the seafood industry while giving Neptune a chance to carve out a generous slice for itself.

Once Neptune's managers are clear about the opportunity at hand, they can develop an appropriate marketing mix. If Neptune were to try to gain market share through pricing alone, it would destroy value because competitors would feel obliged to meet the challenge. That would lead to a downward pricing spiral and take money off the table for everyone in the industry. Neptune must formulate strategies around price, product, promotions, and distribution. When Virgin Mobile launched its services in the United States, we could have set prices well below those of our competitors, thus making price our main differentiator. Instead, we priced at a level that was comparable to that of our competitors but used a new pricing model.

Neptune has successfully served the high-end of the market for decades. All the factors that have made that possible–the company's focus on quality, its investments in technology – underscore the folly of slapping the same brand on low-cost versions of its products. If Neptune does that, it may reduce some of its inventory, but it will drag its customers to a lower price point and spark a nasty price war. Rather than run that risk, Neptune should create a new brand with a totally new look and feel. Smart messaging would also help. For instance, Neptune could launch a campaign that positions the new brand as a delicious, value-driven alternative for everyday eating. Not only would that appeal to the right customer segment, but it would also demonstrate to companies in the seafood industry that Neptune has a desire to educate consumers for everyone's benefit.

Neptune should deliberately leave off the ASPD's quality seal to highlight the differences between the new brand and Neptune's Gold. It could label the package "Supplied by Neptune," which would provide an implicit quality assurance to consumers without muddying the firm's gourmet image. Taking another page from Virgin Mobile's strategy playbook, Neptune must place its new brand where entry-level customers shop. That means selling the new brand through mass-market national and regional supermarkets as well as through big box retailers that sell fresh-food offerings.

But can Neptune's culture absorb the change? Companies with established brands and cultures usually have a tough time entering new markets. The new brand will probably face opposition within the company, so Renser may want to create a separate division to manage the offering. Or, he could form a joint venture with a retailer or a consumer products company to launch the new brand and enter into a wholesale supply arrangement. That would add the distance from Neptune the new brand would need to succeed.

WENDY WRAY

European President Armando Zagalo de Lima says Xerox can rely on the French for innovative business practices.

You're in charge of Xerox across Europe. How does France fit into the picture?

Xerox France has consistently been one of our best performance units. It's been that way for a very long time.

What's the secret behind that success?

Strong leadership. There's always a link between senior leadership and success. Over the past 15 years, at least four of Xerox's heads of Europe have been French. Our French company has produced a very strong group of executives. They've instituted some highly innovative management practices and they've been extremely successful with them.

What sort of new thinking has your French unit come up with?

To give you just one example, there's the concept of concessionaires. That's a French word, by the way. It means we have a third-party company selling only Xerox solutions in exclusivity. It's quite a familiar idea in the car industry, but it's very original in our business. When our French unit came up with the concept 25 years ago, the rest of the company was extremely skeptical. But the French proved it could work. All of a sudden we had a network of people fully focused on our products and these people were making money. It's now become a business model for Xerox all over the world.

Xerox in France

- Over 4000 employees
- Over 140 concessionaires and more than 300 distributors
- Grenoble research facility is one of the four main Xerox innovation centers around the world

How would you sum up the French?

Creative, very open to doing things differently, to going after a big idea and thinking 'out of the box'. But at the same time, they like to work within a structure. That's a rare combination. France is a place where wild ideas can actually become reality. The French have that capacity to dream up a vision, build a plan to achieve it, then execute it.

What are they like to deal with?

The French have been very responsive to past criticism and are much more willing to conduct business in English. Communication is increasingly easy. French executives are very open and enjoy working face to face. They like people to come and say: "If there's a problem, call me and I'll be here." And they're loyal. Unless he's really disappointed, a French customer will stay committed to his supplier. I've always had the feeling I could rely on the French.

"France is a place where wild ideas can actually become reality. The French have that capacity to dream up a vision, build a plan to achieve it, then execute it."

Everyone knows what Xerox means. What does France stand for?

It's one of the world's great cathedrals of good taste. You feel that across the board. It's art, it's fashion, it's design, it's food and wine. And it's business too. I've always felt close to the French. You go to a lot of countries and you say, "I could do business here, but I'm not sure I want to live here." You don't say that in France. France is a place where you can do business and still appreciate the good things in life.

There has never been a better time to invest in France. To find out what the new France can do for your business, visit www.thenewfrance.com

THE NEW FRANCE. WHERE THE SMART MONEY GOES.

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As every CEO knows, it's better to keep the cannibal in the family.

Neptune should use a line-extension strategy to garner more market share, but it must proceed carefully to avoid getting embroiled with its rivals in a race to the bottom on price. By launching a new brand, the company will not only be able to address its immediate inventory problem but will also be able to deal with both the excess capacity in the industry and future competition.

Sanchez's idea of radically dropping Neptune's prices may seem like a viable solution, but it could have several adverse consequences. First, when a company lowers its prices, it signals to customers that it has been overcharging them in the past. So customers may react by taking their business elsewhere. Second, dropping prices gives legitimacy to other firms' offerings because, in price terms, Neptune will then have positioned its brand closer to competing brands. Finally, slashing prices could trigger a price war in the industry, which usually happens when supply increases. Thus, Sanchez's strategy may address short-term issues, but the firm will have to adopt additional measures to handle the permanent increase in supply.

One such measure would be to create another brand. Neptune should heed the concerns raised by Hargrove, but it should also leverage its reputation to expand the seafood market by using what I call the "sandwich strategy." FedEx used this approach to compete with a low-priced alternative, the U.S. Postal Service's Express Mail, which guaranteed the delivery of letters, documents, and merchandise by noon or 3 PM the next day in the United States. FedEx created a premium overnight priority delivery service for 10 AM and a standard overnight service for 3 PM as a "sandwich." That allowed it to attack Express Mail from both the upper and lower ends of the market. The company didn't dilute its reputation for reliability in the process, either. Rather, the strategy expanded the market by creating a lower-priced standard service.

Neptune could use the sandwich approach and resegment the market by adding a value-priced offering to its premium product. That would actually be a proactive strategy since low-priced offerings are bound to enter the market, given the trend of rising supply. The same thing happened in the U.S. airline industry and, consequently, low-cost carriers have become a headache for the big airlines. Since the airlines' approach set off a price war like the one Hargrove so wisely wishes to avoid, Neptune must be careful about how it launches the brand. The company should position it not as a low-priced product but as another quality offering directed at a new segment: customers who want a high-quality product but at a cheap price.

By adopting a two-brand strategy, Neptune will sustain its competitive advantage. Existing customers who have responded to Neptune's established brand will probably continue to pay a premium for that offering. Customers who are introduced to the firm's value-priced line may eventually migrate to its premium line. While launching the brand, Neptune should be careful not to jeopardize its reputation for quality; a hard-won reputation is easily lost through miscues. The firm must also avoid alienating existing customers as it expands the market. Finally, while Neptune must be mindful of cannibalization, losing a customer to your competitor hurts more than losing a customer to yourself. As every CEO knows, it's better to keep the cannibal in the family.

The sandwich strategy offers companies a chance to create and capture value for themselves and their customers, but successful implementation demands several conditions: leadership in cost, innovation, execution, market creation, and customer relationship management. Until now, Neptune has demonstrated strength in all those areas, which makes it a good candidate to deploy the sandwich strategy.

Oscar de la Renta

Alexander L. Bolen

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If Sanchez is right about fish production rising permanently, Neptune's inventory problem is the least of Renser's worries. He must first consider the impact of the supply change on the company's vertically integrated business model. Since there will be pressure on seafood prices because of the supply increase, Neptune must fashion a fresh strategy that will allow it to command a premium for its products even in the future. That's tough – but not impossible.

Neptune has invested heavily in state-of-the-art fishing vessels. With more seafood coming to market, Renser should determine if the firm's capital is best allocated in physical assets. If the company can easily secure supplies of high-quality seafood, say, by buying more from fish farms and independent fishing boats, then it should sell off its trawlers. Renser could then use the proceeds to bolster the Neptune's Gold brand.

Neptune's sales are concentrated in the eastern United States. Yet despite the company's regional presence, its products have been ranked best in quality nationwide. That ranking is an asset, and it should be a key plank of the company's future strategy. Neptune should expand into markets where it doesn't yet sell products, like the West Coast. Given the industry's fragmented nature, the company should contract with fishing boats and processors to supply areas that it can't service. Renser could fund the manufacturing and marketing activities in those regions with the proceeds from the trawler sales.

Oscar de la Renta label features garments that retail for more than $10,000 apiece. We adopted the second-brand strategy to capitalize on consumer awareness of our brand, which greatly exceeded our sales volume.

The challenge was to capitalize on the awareness of our name without sacrificing too much brand equity. After considering several strategies, such as dramatically lowering prices in the signature line (similar to Sanchez's thinking), we decided that establishing a less expensive label made sense. To minimize the negative impact on our existing brand, we decided not to offer O Oscar goods where Oscar de la Renta clothes were sold. Thus, customers wouldn't be tempted to trade down in any one store from the premium brand to the moderate label.

The creation of a second brand made sense for our company, but that approach won't work in all cases. Introducing a less expensive brand definitely dilutes the equity of the high-end line, is expensive, and takes time. In our case, those risks were acceptable because of the increase in profits we had forecast. But Neptune faces different challenges than we did. Given the risks to the company's existing brand, launching a lower-priced line would be an ill-advised response. In our situation, if our concern had been an oversupply of a raw material such as cashmere – a situation analogous to Neptune's – we would have acted differently. We would have simply sold premium products based on the additional raw material at a lower-than-usual price. That would have encouraged new customers to try our brand. Along those lines, Neptune should offer its wholesale customers – on a onetime basis – seafood they can sell as private-label products. The company will sacrifice profits, but that will have little long-term impact on its most productive asset: the premium Neptune Gold brand. And that should be the focus for Renser and his team.

With more seafood coming to market, Renser should determine if the firm's capital is best allocated in physical assets.

Renser must still cope with Neptune's excess inventory. Sanchez has recommended that Neptune establish a second brand positioned at a discount to Neptune's Gold. We do not agree with that strategy even though we launched a moderately priced line of women's clothing in August 2004 under the O Oscar label. Consumers can buy an O Oscar outfit for less than $100, while our signature

Neptune faces two distinct challenges. One is temporary: how to sell its excess inventory without undercutting established industry pricing structures. The other is more enduring: how to profitably exploit a supply increase. Both challenges, if handled properly, can become opportunities for the company to grow profitably.

Neptune's increasing inventory problem may prove to be costly because the company has neglected it for months. Offering deep discounts to move the company's products faster would be counterproductive, as Hargrove points out. Neptune's rivals, which have also experienced supply increases, would probably cut prices in response. If they did, Neptune's market share gain would be minimal. And since it is possible to store the firm's products, retailers might even buy forward. Thus, Neptune's current sales would rise mostly at the expense of future sales.

Moreover, if a 45% price cut moved, say, half the excess inventory during the next three months, the impact on Neptune's profits would be negative. Eliminating half the excess inventory over three months would mean boosting sales by the equivalent of five days of inventory per month. That's a 17% increase in sales, which isn't nearly enough to compensate for a 45% reduction in prices. Neptune's plight shows why it is rarely in the interest of market leaders to lead prices down.

A profitable solution to Neptune's inventory problem should drive additional sales without stealing share from rivals or from future sales, and it should also prevent depressing the margin on current sales. Restaurants, which buy two-thirds of Neptune's fresh fish, could drive consumption by adding more seafood items to their menus. To ensure that those sales were incremental, Neptune could offer restaurants and wholesalers a 50% rebate on purchases in excess of what they had purchased in previous months. The large discount would motivate Neptune's customers to buy more, and it would be less costly to the company than it would appear because it would apply only to additional sales.

If tactics like those don't adequately get rid of the inventory, the firm could recover something by contributing the excess to homeless shelters and other charities and taking a tax write-off. That's a better solution than trying to dump products in foreign markets where they are usually reimported to higher-priced home markets.

Neptune's more interesting and less risky opportunity entails exploiting increased volumes in the long run. If the company had been operating in a saturated market, its best bet would have been to create a lower-priced brand without the Neptune name. Fortunately, however, the company sells a product for which demand is growing – especially inland, where low quality has traditionally limited seafood consumption. It would therefore be better for Neptune to target new regions with its high-quality products.

Neptune's more interesting opportunity entails exploiting increased volumes in the long run.

To be sure, the first-year cost of entering a new region would be greater than launching a discount brand through existing channels. Finding upscale grocers willing to carry the brand, for example, would require stocking and promotional discounts, supported by advertising to tell Neptune's quality story. Eventually, however, consumer preference for the brand would enable the firm to reduce those promotional costs and enjoy its traditional margins. By contrast, the tiny margins associated with a low-priced brand would never rise.

My answers may not be right for every business. But they will work for Neptune because they protect and exploit its competitive advantage: the ability to deliver quality.

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Strategic Intensity

A Conversation with World Chess Champion Garry Kasparov

To be a chess champion, you have to be more than a chess genius. Winning is about putting yourself in your opponent's shoes – then throwing him off balance.

It's hard to find a better exemplar for competition than chess. The lawyer in the courtroom, the general on the battlefield, and the politician on the campaign trail have all at some point described their skirmishes in terms of the 64 black-and-white squares and 32 pieces that make up a chess game. Chess has become part of the everyday language of many executives: we checkmate our opponents, we are just pawns in a game, or we think three moves ahead.

Of course, chess is not the only game that businesspeople like to invoke. Many leaders draw inspiration from poker and team sports, such as baseball and football. But there is something peculiarly different about chess. The image of two brilliant minds locked in a battle of skill and will – in which chance plays little or no apparent role – is compelling. Even people who have no personal knowledge of the game instinctively recognize that chess is unusual in terms of its intellectual complexity and the strategic demands it places on players.

If chess is such a powerful form of competition, is there anything that strategists can learn from chess players about what it takes to win? To find out, HBR senior editor Diane L. Coutu talked with Garry Kasparov at the Lombardy Hotel in Manhattan. The world's number one player since 1984, Kasparov became the youngest world champion at the age of 22 and is considered today to be the most accomplished chess player of all time. Although Kasparov is a product of the Soviet Union's formidable chess system, which has dominated the game since the Second World War, he has never played the limited, even passive role traditionally expected of Russian celebrities – far from it. A committed political activist, Kasparov today continues to support Russia's struggling opposition.

Success in both chess and business, Kasparov believes, is very much a question of psychological advantage; the complexity of the game demands that players rely heavily on their instincts and on gamesmanship. In the course of a wide-ranging discussion with HBR, Kasparov explored the power of chess as a model for business competition; the balance that chess players have to strike between intuition and analysis; the significance of his loss to IBM's chess-playing computer, Deep Blue; and how his legendary rivalry with Anatoly Karpov, Kasparov's predecessor as World Chess Champion, affected his own success. Great champions, Kasparov argues, need great enemies. What follows is an abridged and edited version of the conversation.

After just three opening moves by a chess player, more than 9 million positions are possible. Now imagine all the possibilities faced by companies with a whole host of corporations responding to their new strategies, pricing, and products.

Chess has become a buzzword in everyday language.

It has. At one level, there's something rather frightening about the idea that a powerful politician might think of countries and their leaders as pieces on a chessboard. Might a president think of a small country as a pawn that could be sacrificed? Of course, that kind of concern doesn't really apply in the business context, and chess is certainly a good metaphor for business competition. There's a massive amount of uncertainty and almost boundless variety in terms of the moves you can make in both chess and business. Think about it: After just three opening moves by a chess player, more than 9 million positions are possible. And that's when only two players are involved in the game. Now imagine all the possibilities faced by companies with a whole host of corporations responding to their new strategies, pricing, and products. The unpredictability is almost unimaginable.

My one caveat would be that when businesspeople use chess as a metaphor, they may sometimes unintentionally sentimentalize what's involved in winning, because they see chess as a kind of clean, intellectual engagement. That's not the case at all. There is nothing cute or charming about chess; it is a violent sport, and when you confront your opponent you set out to crush his ego. The world chess masters with whom I have competed over the years nearly all share my belief that chess is a battleground on which the enemy has to be vanquished. This is what it means to be a chess player, and I cannot imagine that it is very different from what it takes to be a top-ranked CEO.

What do you think businesspeople can learn about winning from chess?

The first rule is: Never, ever, underestimate your opponent. Whenever I am playing at grand master levels, I always, always assume that my competitor is going to see everything I do – even when I plan to make an unexpected move in order to confuse him.

It's also critical to keep a psychological edge. I am not a big fan of pop psychology, but I do believe that getting the other guy off balance is a real skill. You have to go on fighting even if you are in a winning position – in fact, especially if you are in a winning position. In a long match of many games during which competitors regularly lose ten to 15 pounds, concentration is everything and it can be very easy to get off track. Your own body language, for example, can influence the way your challenger plays his game. Through your hesitations and pauses, you may communicate to your competitor that you are uncertain or just not ready. I lost a match to Vladimir Kramnik in 2000 because I was not psychologically prepared for his strategy and for his play, and he saw it. And I couldn't regroup during the match, despite the fact that I had prepared myself excellently for the game. Of course, some people do go to silly extremes in search of advantage. I believe that Dr. Vladimir Zukhar, who was Anatoly Karpov's psychologist, once tried to hypnotize an opponent of Karpov's during a match.

You also have to make yourself comfortable in the enemy's territory. I remember playing a match against Viktor Korchnoi in 1983. He tried everything to get me off-kilter. He played quiet positions, he traded pawns, and he did everything possible to prevent me from playing my bold, visionary game. I had no choice but to play like Korchnoi. I limited myself to small problems on the board and was able to hold on long enough to get Korchnoi to play the game my way. That can be a terrific tactic for CEOs as well. If you can convince your enemy that you're comfortable on their ground, then you can often trick them into moving into your own territory. That's just what happened with Korchnoi and me. I put myself in his shoes long enough to lure him into fighting the game on my territory, and so I won.

Would CEOs be better leaders if they played chess?

There are chess players and there are chess players. I don't think that the fact that you are a chess player would be any indication of how well you would succeed in business. Some chess players are very concerned with detail. Other chess players, including myself, look at the big picture. I expect that my archrival, Anatoly Karpov, would be very good as a manager because he excels at operating with small problems on the board; he would certainly maximize your resources. But Karpov dislikes taking risks, which might make him less effective in situations where the CEO has to take a gamble. Then you might want someone like me, who loves risk. The board positions that I try to build are both risky and complicated. I'm always ready to go into uncharted territories because I have full confidence in my ability to work out what people are going to do in response to my moves – maybe not better than a computer but certainly better than all my competitors.

Many people consider chess to be the ultimate in human logic, the height of human intellectual accomplishment. Is that the case?

People who see chess as a scientific pursuit played by some kind of human supercomputer may be surprised, but it takes more than logic to be a world-class chess player. Intuition is the defining quality of a great chess player. That's because chess is a mathematically infinite game. The total number of possible different moves in a single game of chess is more than the number of seconds that have elapsed since the big bang created the universe. Many people don't recognize that. They look at the chessboard and they see 64 squares and 32 pieces and they think that the game is limited. It's not, and even at the highest levels it is impossible to calculate very far out. I can think maybe 15 moves in advance, and that's about as far as any human has gone. Inevitably you reach a point when you've got to navigate by using your imagination and feelings rather than your intellect or logic. At that moment, you are playing with your gut.

Often, your gut will serve you better than your brains. I've been working now on a five-volume book called *My Great Predecessors,* which reviews the development of the game of chess by looking closely at the playing histories of the great players of the past 200 years. When analyzing their games together with a computer, I found something very interesting. It was often at the very toughest moments of their chess battles – when they had to rely on pure intuition – that these great players came up with their best, most innovative moves. Ironically, when the games were finished and the players had the luxury of replaying them at leisure and analyzing them for publication, they typically made many more mistakes than they did when actually competing. To me the implication is clear: What made these players great was not their analytic prowess but their intuition under pressure.

Speaking of analytic prowess, what was the significance of your famous matches with IBM's chess-playing supercomputer, Deep Blue?

For a start, they were a huge promotion for the game. Nothing made chess more popular than the match I won against Deep Blue in 1996 and the match I lost in 1997. The official Web site got 72 million hits during the six games of the second match in New York, which was a higher daily rate than the Atlanta Olympic Games Web site got in 1996.

But the matches meant a lot more than that to me. Competing with a computer was first and foremost a scientific experiment for me. I thought it was very important for society to start communicating with computers, and I knew that chess was the only field where man and machine could meet. You can't do it with mathematics or with literature. Chess, however, lies somewhere in between. I believed that it would be an ideal playing field for comparing human intuition with the brute force of a machine's calculation.

The yardstick of victory, I think, should be this: If the best human player – on his best day, at his peak – can still beat the best machine, then we can say that the chess master is superior to the machine. And for now, I believe that chess masters like me still have the upper hand. I can beat the machine unless I make a fatal unforced error. But when the chess master can no longer defeat the machine on his best day, then we will have to take a cold, hard look at issues such as artificial intelligence and the relationship between man and machine.

Unfortunately, I don't think everyone shared the same spirit of experiment. The day after the New York match against Deep Blue, the one I lost in 1997, IBM stock immediately jumped 2.5% to a ten-year high. It continued to rise dramatically for weeks. For some reason, Lou Gerstner did not invite me to the next IBM shareholders' meeting to take a bow! But seriously, I wish that IBM had accepted my offer for a tie-breaker. To my mind, IBM actually committed a crime against science. By claiming victory so quickly in the man-versus-machine contest, the company dissuaded other companies from funding such a complicated and valuable project again, and that's the real tragedy.

Intuition is the defining quality of a great chess player. It's often at the very toughest moments of their chess battles – when they had to rely on pure intuition – that great players came up with their best, most innovative moves.

Did it hurt your pride to be beaten by a computer?

No, not at all. Let me explain this by telling you a little anecdote. In 1769, the Hungarian engineer Baron Wolfgang von Kempelen constructed a chess-playing machine for the amusement of the Austrian empress Maria Theresa. It looked like a purely mechanical device, shaped like a person. And it played chess very well. But the machine was a fake. There was a chess master cleverly hidden inside the device who decided all the moves.

In some ways, Deep Blue was also a fake. The machine I played with in 1996 and 1997 had no history. Records of its past games were better guarded than top-secret documents at the Pentagon. And since IBM refused to release printouts of earlier games, it was impossible to prepare for the match. I couldn't feel badly about losing because I wasn't playing on a level playing field.

What, if anything, *did* we learn from your contests with Deep Blue?

We learned, of course, that we are very slow compared with the machine, like ants compared with a jet. But it's not just speed. Playing against a chess computer means facing something that doesn't have any nerves; it's like sitting across the table from an IRS agent during a tax audit. Chess between humans and computers is very different from chess between only humans. For one thing, human players have to cope with a lot of external pressures and distractions: you have a family, you write books, you give lectures, you get headaches, you have to earn money. There's a lot of stuff filling up your brain while you're playing. A machine, on the other hand, is completely without distractions. This shows the weakness, the shortcomings of the mortal mind, which is a daunting lesson for human beings. We just can't play with the same consistency as a computer. So it's all the more fortunate that we have our intuition to help us play better.

People often comment about the dominance of Russian players. Given what you've said about intuition, is there something in your national culture that nurtures chess genius?

A lot of people say that. But I don't think that there is anything mysterious about the way the Soviet Union dominated chess. I, for one, have always believed that talent is everywhere – wherever people live, whatever nationality they are. Essentially, the explanation lies in the system. The Soviet system offered very little opportunity for kids. Chess was one of the few pathways to big success – chess, ballet, music, some sports, maybe fundamental sciences. So parents pushed their kids in those directions. What's more, Soviet officials liked to use the country's success in chess as a tool to promote the intellectual superiority of the Communist regime over the decadent West. The result was that there were always millions of kids getting a good training in chess. And so they could easily find and develop people like Karpov, like me, like Spassky, like Botvinnik, like Petrosian, like Tal. In America, on the other hand, there were many other opportunities for advancement open to young people, and only a few chose to get deeply involved in chess – mostly on the East Coast, some in Chicago, and some in San Francisco. Essentially we are talking only about 50,000 to 100,000 kids. America was lucky to have one Bobby Fischer.

You were a child prodigy. What can you teach us about how to develop high performers?

You may be disappointed by my answer. I don't believe that there was any organizational secret to my success that you can replicate in a business. The truth is that my mother was really the driving force behind me. My father died when I was seven, and she didn't remarry. She devoted her entire life to helping me become a child prodigy. She was always convinced that I had the potential to become a powerful man. At the same time, she never felt that the chess world championship should be my only goal, and she was very creative in figuring out what would be important both for my career and for me as an individual. It was very important to her, for example, that I be a well-rounded person. So although the connection between chess and mathematics is very inviting, my mother recognized that fantasy and imagination were also essential, and she insisted that I study humanities in high school. To this day, I do not look for a mathematical solution when I play chess. I'm always trying to find something unconventional, even poetic – something more than just analytics.

You're now 41. What's the next challenge for you?

The greatest challenge for all successful people is to get past their own successes. It's especially hard when that success is extraordinary. In 1985, after winning game 24 against Anatoly Karpov, I became the youngest world champion in the history of chess. There was a huge celebration. I was feeling on top of the world. Then, in a quiet moment, Rona Petrosian, the widow of Tigran Petrosian, the ninth world champion and one of my great predecessors, came up to me and said, "Garry, I am sorry for you." I was incredulous. "I'm sorry for you," she said, "because the happiest and best day of your life is over." I was too young at the time to recognize the profundity of her words, but today I understand how wise she was. Where *does* a virtuoso go after he has accomplished everything that he's ever wanted to accomplish, even beyond his wildest imagination? This is the question for all world masters, whether they're in business, sports, or chess.

I call it the champion's dilemma, and it's a real problem for people and companies at the top of their game. In the end, I believe that there is only one answer: You must be lucky in your enemies. For me it was Karpov, Karpov, Karpov. If it were not for Karpov, I would probably be the victim of the same complacency that dooms most other people. But in Karpov I found my archenemy, whom I had to fight. He never gave me the time to enjoy my title. I was world champion at 22. For the first five years of my championship, I had to prove every year that I was still the best. And it set a pattern. I know that I can never stop competing. Competition is now in my blood. And as I look ahead, I see new enemies nipping at my heels, young people who are still too young to vote. And every day I am grateful for them because they push me to be passionate about staying at the top.

As someone who has faced the champion's dilemma, which successful CEO do you most readily identify with?

That is difficult to answer because I do not like details, and to some extent all CEOs must concern themselves with detail. I'm a visionary in the way I play chess. As I wrote in my autobiography, *Unlimited Challenge,* I love complex combinations, and I'm ruthless in breaking my own fixed patterns. I almost always succeed in avoiding the temptation to solve problems by using purely technical means. That was true at 24 and it is still true today. So I guess you could say that Steve Jobs is probably the CEO who is most like me, a visionary who likes to break the mold and who doesn't like to bury himself in the day-to-day tasks of management. He has also been lucky in his enemies. Without Bill Gates, Steve Jobs would surely not be the man he is today. If Karpov had not existed, you might not be talking to me today.

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How Strategists Really Think

Tapping the Power of Analogy

Much of the time, executives use analogies to make strategic choices. The best strategists know both the power and peril of such comparisons.

by Giovanni Gavetti and Jan W. Rivkin

STRATEGY IS ABOUT CHOICE. The heart of a company's strategy is what it chooses to do and not do. The quality of the thinking that goes into such choices is a key driver of the quality and success of a company's strategy. Most of the time, leaders are so immersed in the specifics of strategy – the ideas, the numbers, the plans – that they don't step back and examine how they think about strategic choices. But executives can gain a great deal from understanding their own reasoning processes. In particular, reasoning by analogy plays a role in strategic decision making that is large but largely overlooked. Faced with an unfamiliar problem or opportunity, senior managers often think back to some similar situation they have seen or heard about, draw lessons from it, and apply those lessons to the current situation. Yet managers rarely realize that they're reasoning by analogy. As a result, they are unable to make use of insights that psychologists, cognitive scientists, and political scientists have generated about the power and the pitfalls

JIM FRAZIER

of analogy. Managers who pay attention to their own analogical thinking will make better strategic decisions and fewer mistakes.

When Analogies Are Powerful

We've explained the notion of analogical reasoning to executives responsible for strategy in a variety of industries, and virtually every one of them, after reflecting, could point to times when he or she relied heavily on analogies. A few well-known examples reflect how common analogical reasoning is:

• Throughout the mid-1990s, Intel had resisted providing cheap microprocessors for inexpensive PCs. During a 1997 training seminar, however, Intel's top management team learned a lesson about the steel industry from Harvard Business School professor Clayton Christensen: In the 1970s, upstart minimills established themselves in the steel business by making cheap concrete-reinforcing bars known as rebar. Established players like U.S. Steel ceded the low end of the business to them, but deeply regretted that decision when the minimills crept into higher-end products. Intel's CEO at the time, Andy Grove, seized on the steel analogy, referring to cheap PCs as "digital rebar." The lesson was clear, Grove argued: "If we lose the low end today, we could lose the high end tomorrow." Intel soon began to promote its low-end Celeron processor more aggressively to makers and buyers of inexpensive PCs.

• Starting in the 1970s, Circuit City thrived by selling consumer electronics in superstores. A wide selection, professional sales help, and a policy of not haggling with customers distinguished the stores. In 1993, Circuit City surprised investors by announcing that it would open CarMax, a chain of used-car outlets. The company argued that the used-car industry of the 1990s bore a close resemblance to the electronics retailing environment of the 1970s. Mom-and-pop dealers with questionable reputations dominated the industry, leaving consumers nervous when they purchased and financed complex, big-ticket, durable goods. Circuit City's managers felt that its success formula from electronics retailing would work well in an apparently analogous setting.

• The supermarket, a retail format pioneered during the 1930s, has served as an analogical source many times over. Charlie Merrill relied heavily on his experience as a supermarket executive as he developed the financial supermarket of Merrill Lynch. Likewise, Charles Lazarus was inspired by the supermarket when he founded Toys R Us in the 1950s. Thomas Stemberg, the founder of Staples and a former supermarket executive, reports in his autobiography that Staples began with an analogical question: "Could we be the Toys R Us of office supplies?"

Each of these instances displays the core elements of analogical reasoning: a novel problem that has to be solved or a new opportunity that begs to be tapped; a specific prior setting that managers deem to be similar in its essentials; and a solution that managers can transfer from its original setting to the unfamiliar context. When managers face a problem, sense "Ah, I've seen this one before," and reach back to an earlier experience for a solution, they are using analogy.

Strategy makers use analogical reasoning more often than they know. Commonly, credit for a strategic decision goes to one of two other approaches: deduction and the process of trial and error. When managers use deduction, they apply general administrative and economic principles to a specific business situation, weigh alternatives, and make a rational choice. They choose the alternative that, according to their analysis, would lead to the best outcome. Trial and error, on the other hand, involves learning after the fact rather than thinking in advance.

It is extremely easy to reason poorly through analogies, and strategists rarely consider how to use them well.

Both deduction and trial and error play important roles in strategy, but each is effective only in specific circumstances. Deduction typically requires a lot of data and is therefore at its most powerful only in information-rich settings – for instance, mature and stable industries. Even where information is available, processing a great deal of raw data is very challenging, particularly if there are many intertwined choices that span functional and product boundaries. The mental demands of deduction can easily outstrip the bounds on human reasoning that psychologists have identified in numerous experiments. For this reason, deduction works best for modular problems that can be broken down and tackled piece by piece.

Trial and error is a relatively effective way to make strategic decisions in settings so ambiguous, novel, or complex that any cognitively intensive effort is doomed to fail. In altogether new situations, such as launching a radically new product, there may be no good substitute for trying something out and learning from experience.

Many, perhaps most, strategic problems are neither so novel and complex that they require trial and error nor so familiar and modular that they permit deduction. Much

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of the time, managers have only enough cues to see a resemblance to a past experience. They can see how an industry they're thinking about entering looks like one they already understand, for example. It is in this large middle ground that analogical reasoning has its greatest power.

Analogical reasoning makes enormously efficient use of the information and the mental processing power that strategy makers have. When reasoning by analogy, managers need not understand every aspect of the problem at hand. Rather, they pay attention to select features of it and use them to apply the patterns of the past to the problems of the present. Imagine, for instance, the challenge facing Charles Lazarus in the fast-changing, complex toy industry of the 1950s. Had he sat down and analyzed all of the interdependent configurations of choices in toy retailing – from marketing to operations, from human resource management to logistics – it is unlikely he would have come up with a strategy as coherent and effective as the one Toys R Us adopted. The analogy he drew to supermarkets was extraordinarily efficient from an informational and cognitive point of view. In one stroke, it gave Lazarus an integrated bundle of choices: exhaustive selection, relatively low prices, rapid replenishment of stock, deep investment in information technology, self-service, shopping carts, and so forth.

Analogical reasoning can also be a source of remarkable insight. Analogies lie at the root of some of the most compelling and creative thinking in business as a whole, not just in discussions of strategy. For instance, Taiichi Ohno, the foremost pioneer of Toyota's famed production system, supposedly invented the *kanban* system for replenishing inventory after he watched shelf-stocking procedures at U.S. supermarkets, and he devised the *andon* cord to halt a faulty production line after seeing how bus passengers signaled a driver to stop by pulling a cord that rang a bell.

Reasoning by analogy is prevalent among strategy makers because of a series of close matches: between the amount of information available in many strategic situations and the amount required to draw analogies; between the wealth of managerial experience and the need for that experience in analogical reasoning; and between the need for creative strategies and analogy's ability to spark creativity. Reflecting these matches, business schools typically teach strategy by means of case studies, which provide an abundance of analogies from which the students can draw. (See the sidebar "Strategic Decision Making and the Case Method.") Similarly, some of the foremost strategy consultants are famed for their ability to draw lessons from one industry and apply them to another. Thus we have ample reason to believe that analogical reasoning is a key implement in the toolbox of the typical real-world strategist.

How Analogies Fail

Though analogical reasoning is a powerful and prevalent tool, it is extremely easy to reason poorly through analogies, and strategists rarely consider how to use them well. Indeed, analogies' very potency requires that they be used wisely. To understand the potential pitfalls, consider for a moment the anatomy of analogy. Cognitive scientists paint a simple picture of analogical reasoning. An individual starts with a situation to be handled – the *target problem* (for Intel, the competition from makers of low-end microprocessors). The person then considers other settings that she knows well from direct or vicarious experience and, through a process of *similarity mapping,* identifies a setting that, she believes, displays similar characteristics. This setting is the *source problem* (the steel industry). From the source emerges a *candidate solution* that was or should have been adopted for the source problem (a vigorous defense of the low end). The candidate solution is then applied to the target problem.

In a variant of this picture, the solution seeking a problem, an individual starts with a source problem and a candidate solution, then uses similarity mapping to find a target problem where the solution would work well. Circuit City's managers, for instance, had an effective solution in consumer electronics retailing. They then found a new setting, used-car retailing, to which they believed their solution could be applied with success.

Dangers arise when strategists draw an analogy on the basis of superficial similarity, not deep causal traits. Take

Ford, for instance. In overhauling its supply chain, the automaker looked carefully at Dell's key strategic principle of "virtual integration" with its suppliers as a possible source for an analogy. On the surface, computer and auto production resemble one another. Both involve the assembly of a vast variety of models from a set of fairly standardized components. It is easy, however, to pinpoint differences between the two industries. In the PC business, for example, prices of inputs decline by as much as 1% per week – much, much faster than in the auto industry. To the extent that rapidly falling input prices play a role in Dell's success formula, overlooking this underlying difference could seriously undermine the usefulness of the analogy. Fortunately, Ford executives thought carefully about the differences between the auto industry and the PC business, as well as the difficulty of changing their existing supply chain, as they used the analogy.

The experience of Enron shows how a seductive but bad analogy can lead to flawed decisions. Many factors contributed to Enron's startling collapse, but headlong diversification based on loose analogies played an important role. After apparently achieving success in trading natural gas and electric power, Enron executives moved rapidly to enter or create markets for other goods ranging from coal, steel, and pulp and paper to weather derivatives and broadband telecom capacity. In a classic example of a solution seeking problems, executives looked for markets with certain characteristics reminiscent of the features of the gas and electricity markets. The characteristics included fragmented demand, rapid change due to deregulation or technological progress, complex and capital-intensive distribution systems, lengthy sales cycles, opaque pricing, and mismatches between long-term supply contracts and short-term fluctuations in customer demand. In such markets, managers were confident that Enron's market-creation and trading skills would allow the company to make hefty profits.

On the broadband opportunity, for instance, Enron Chairman Kenneth Lay told *Gas Daily,* "[Broadband]'s going to start off as a very inefficient market. It's going to settle down to a business model that looks very much like our business model on [gas and electricity] wholesale, which obviously has been very profitable with rapid growth." But Enron's executives failed to appreciate important, deeper differences between the markets for natural gas and bandwidth. The broadband market was based on unproven technology and was dominated by telecom companies that resented Enron's encroachment. The underlying good – bandwidth – did not lend itself to the kinds of standard contracts that made efficient trading possible in gas and electricity. Perhaps worst, in broadband trading, Enron had to deliver capacity the "last mile" to a customer's site – an expensive challenge that gas wholesalers didn't face.

The danger of focusing on superficial similarity is very real, for two reasons. First, distinguishing between a target problem's deep, structural features and its superficial characteristics is difficult, especially when the problem is new and largely unknown. In the earliest days of the Internet portal industry, for instance, it was far from clear what structure would emerge in the business. Players in the market adopted analogies that reflected idiosyncrasies of the management teams rather than deep traits of the evolving industry. The tech-savvy founders of Lycos, for instance, saw themselves competing on a high-tech battlefield and assumed that the company with the best search technology would win. Magellan's founders, the twin daughters of publishing magnate Robert Maxwell, aimed to build "the Michelin guide to the Web" and developed editorial abilities. The pioneers of Yahoo, seeing

Strategic Decision Making and the Case Method

The case method in business education has often been criticized, most recently by Henry Mintzberg, because it depicts management as an abstract theoretical exercise removed from the reality of managerial work. We believe this criticism misses the cognitive underpinnings of managerial decision making. In their role as strategists, managers often face situations in which thinking by analogy or by case has more power than other forms of reasoning. Thus, teaching managers with cases, and to reason from cases, is an appropriate and powerful approach. In fact, the case method has extraordinary potential to enable managers to draw better analogies, for two reasons.

First, the case method creates a large repertoire of secondhand experiences from which students can reason. During their managerial careers, former business students will seldom, if ever, encounter a situation exactly like one they discussed in the classroom. But having studied and debated hundreds of cases from diverse settings, managers can draw upon a large set of vicarious experiences as they make choices.

Second, the case method gives students extensive experience in deciding what is and what isn't important in a given business situation. This skill is crucial to analogical reasoning. The difference between a superficial and a deep similarity mapping is relevance. A superficial mapping focuses on irrelevant similarity (such as the home state of the president in the experiment described in the main text); a deep one emphasizes similarity along dimensions that truly drive business performance.

It is probably not surprising that two professors at Harvard, the bastion of the case method, would defend it. Yet our support comes with important reservations. Too often, students and managers alike reason loosely and fail to assess whether there is a clear causal mapping of their solution onto the problem. Students who are taught by the case method should be trained in the careful use of analogy – and that, we fear, occurs too rarely. Indeed, that fear was one of the factors that fueled our interest in analogical reasoning.

the portal industry as a media business, invested in the company's brand and the look and feel of its sites.

But this is only part of the picture. Not only is it difficult to distinguish deep similarities from surface resemblances in some contexts, but people typically make little effort to draw such distinctions. In laboratory experiments conducted by psychologists, subjects–even well-educated subjects–are readily seduced by similarities they should know to be superficial. In a study by psychologist Thomas Gilovich, students of international conflict at Stanford were told of a hypothetical foreign-policy crisis: A small, democratic nation was being threatened by an aggressive, totalitarian neighbor. Each student was asked to play the role of a State Department official and recommend a course of action. The descriptions of the situation were manipulated slightly. Some of the students heard versions with cues that were intended to make them think of events that preceded World War II. The president at the time, they were told, was "from New York, the same state as Franklin Roosevelt," refugees were fleeing in boxcars, and the briefing was held in Winston Churchill Hall. Other students heard versions that might have reminded them of Vietnam. The president was "from Texas, the same state as Lyndon Johnson," refugees were escaping in small boats, and the briefing took place in Dean Rusk Hall. Clearly, there is little reason that the president's home state, the refugees' vehicles, or the name of a briefing room should influence a recommendation on foreign policy. Yet subjects in the first group were significantly more likely to apply the lessons of World War II–that aggression must be met with force–than were participants in the second group, who veered toward a hands-off policy inspired by Vietnam. Not only were the students swayed by superficial likenesses, they were not even aware that they had been swayed.

The implications are unsettling. Thanks to his or her particular history and education, each manager carries around an idiosyncratic tool kit of possible sources of analogies. In choosing among tools or identifying new problems for old tools, the manager may be guided by something other than a careful look at the similarity between the source and the target.

The tendency to rely on surface similarity is made even worse by two other common flaws in how people reach judgments:

Anchoring. Once an analogy or other idea anchors itself in a management team, it is notoriously hard to dislodge. Psychologists have shown that this is true even when decision makers obviously have no reason to believe the initial idea. In a demonstration of this effect, Nobel Prize winner Daniel Kahneman and his coauthor Amos Tversky told experimental subjects they would be asked to estimate the percentage of African countries in the membership of the United Nations. A roulette wheel with numbers from zero to 100 was spun, and after it had stopped, the subjects were asked whether the actual percentage was greater or less than the number showing on the wheel. They were then asked to estimate the correct percentage. Surprisingly, the roulette wheel had a strong impact on final estimates. For instance, subjects who saw 10% on the wheel estimated the real percentage at 25%, on average, while those who saw 65% gave an average estimate of 45%. The roulette wheel knew nothing about the composition of the United Nations, obviously, yet it had a powerful influence on people's judgment. (The current answer: African nations make up 24% of the U.N.'s membership.)

The anchoring effect suggests that early analogies in a company, even if they have taken root casually, can have a lasting influence. This is especially true if decision makers become emotionally attached to their analogies. For years, Sun Microsystems has focused on delivering entire systems of hardware and software even as the computer industry has grown less and less integrated. CEO Scott McNealy often justifies his contrarian position by highlighting an analogy to the automotive industry. "You guys are all focusing on piston rings," he once told reporters. "Go and ask Ford about its strategy in piston rings. And carburetors. You don't. You talk about the whole car." Though Sun has suffered financially, McNealy has been reluctant to shift strategy, and, indeed, he continues to use the auto analogy. Perhaps that is inevitable for an individual whose father worked in the auto industry and whose sons are named after vehicle models–Maverick, Scout, Colt, and Dakota.

Strategists will seek evidence that their analogy is legitimate, not evidence that it is invalid. As a result, a company may continue to act on a superficial analogy for a long time.

Confirmation Bias. The anchoring effect is reinforced by another problem: decision makers' tendency to seek out information that confirms their beliefs and to ignore contradictory data. To some degree, this tendency arises simply because managers like to be right–and like to be seen as right. But there is evidence from psychology that people are better equipped to confirm beliefs than to challenge them, even when they have no vested interest in the beliefs.

Consider an illustration. Experimental subjects in Israel were asked during the 1970s, "Which pair of countries is more *similar,* West Germany and East Germany, or Sri Lanka and Nepal?" Most people answered, "West Germany and East Germany." A second set of subjects was asked, "Which pair of countries is more *different,* West Germany and East Germany, or Sri Lanka and Nepal?" Again, most people answered, "West Germany and East Germany." How can we reconcile the two sets of results? The accepted interpretation starts with the fact that the typical Israeli knew more about the Germanys than about Sri Lanka and Nepal. When asked to test a hypothesis of similarity, subjects sought evidence of similarity and found more between the Germanys than between Sri Lanka and Nepal. When asked to test a hypothesis of difference, they sought differences and found more of them between the Germanys. Subjects search for the attribute they are prompted to seek – similarity or difference – and do not look for evidence of the contrary attribute.

Together, anchoring and the confirmation bias suggest real problems for strategists who rely on analogies. Having adopted an analogy, perhaps a superficial one, strategy makers will seek out evidence that it is legitimate, not evidence that it is invalid. Intel's managers will tend to look for reasons that microprocessors really are like steel; Circuit City will try to confirm that consumer electronics and used cars truly are alike. Given the variety of information available in most business situations, anyone who looks for confirming data will doubtless find something that supports his or her beliefs. Thanks to the anchoring effect, any contradictory information may well be disregarded. As a result, a company may continue to act on a superficial analogy for a long time.

How to Avoid Superficial Analogies

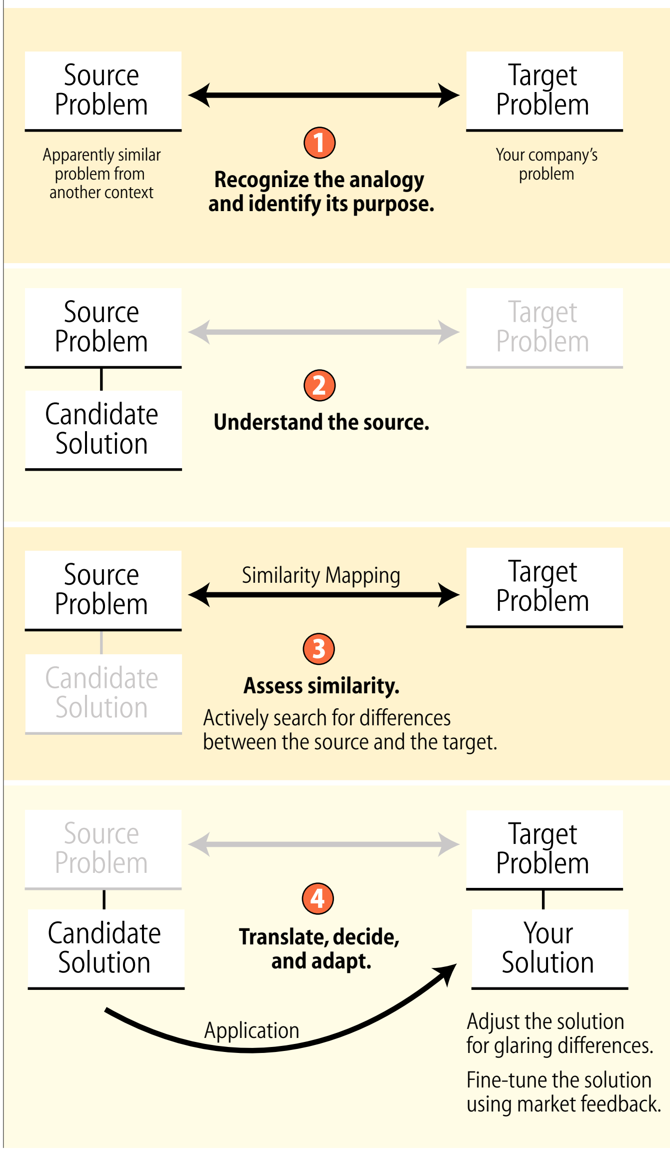
Reasoning by analogy, then, poses a dilemma for senior managers. On the one hand, it is a powerful tool, well suited to the challenges of making strategy in novel, complex settings. It can spark breakthrough thinking and fuel successes like those of Toys R Us and Intel. On the other, it raises the specter of superficiality. Can managers tap the power of analogy but sidestep its pitfalls? The bad news is that it is impossible to make analogies 100% safe. Managers are especially likely to rely on analogical reasoning in unfamiliar, ambiguous environments where other forms of thinking, like deduction, break down. In those settings, it's hard to distinguish the deep traits from the superficial. The good news is that four straightforward steps can improve a management team's odds of using analogies skillfully. (See the exhibit "Avoiding Superficial Analogies.")

Before laying out these steps, we must acknowledge our debt to political scientists, especially Harvard's Ernest May and Richard Neustadt, who found that analogical reasoning often leads policy makers astray. The approaches they developed to train such people to make better use of history have informed our thinking.

Recognize the analogy and identify its purpose. To defend against flawed analogies, a management team first must recognize the analogies it is using. Sometimes they are obvious. It is hard to forget that "digital rebar" is a reference to the steel industry, for instance. In other cases, influential analogies remain hidden. They often come from

Avoiding Superficial Analogies

It's often difficult to tell whether similarities between a familiar and an unfamiliar problem are deep or superficial. Managers facing strategic choices can improve their odds of using analogies well by following these four steps.



executives' backgrounds. Though Merrill Lynch's distinctive approach to retail brokerage owed much to the years that Charlie Merrill spent in the supermarket business, only occasionally did Merrill confess that "although I am supposed to be an investment banker, I think I am really and truly a grocery man at heart."

It's also important to identify *how* a company is using any analogies it recognizes. Managers use analogies for a variety of purposes, after all – to brainstorm, to communicate complexity, and to motivate employees, for example. (For thoughts on the uses of analogies, see the sidebar "A Versatile Tool.") Often, analogies are used to spark ideas and emotions. In such cases, creativity and impact may be more important than strict validity. But when a company moves from brainstorming to deciding, and when resources are at stake, managers need to ask tough, objective questions about whether the analogy is more than superficial. To answer these questions well, strategists must analyze chains of cause and effect. It is useful to break this task into three further steps.

Understand the source. Begin by examining why the strategy worked in the industry from which the analogy was drawn. The classic tools of strategy analysis are extremely useful here. Indeed, the key is to lay out in-depth analyses that are familiar to strategists, particularly analyses of the source environment, the solution or strategy that worked well (or that failed) in the original context, and the link between the source environment and the winning (or losing) strategy.

Consider Circuit City's effort to apply its retailing solution to the used-car business, and start by analyzing the source environment. When the company began its rise to prominence in the 1970s, the consumer electronics industry was dominated by mom-and-pop retailers of varying quality and efficiency. Burgeoning demand kept the retailers afloat, despite three negatives: Consumers were more committed to the national brands than to the retailers, the cost to switch from one retailer to another was low, and customers often feared that retailers were preying on their ignorance of high-tech products. The environment was marked by untapped efficiencies (for example, few economies of scale were exploited) and unmet customer needs (each store carried a limited selection of brands, and products were often out of stock).

Circuit City devised a highly effective strategy that took advantage of the opportunities and neutralized the threats in this setting. Key to the strategy was a series of fixed investments: large stores that could stock an exhaustive selection of consumer electronics, information technology that could track sales patterns closely, automated distribution centers that were tied to the sales-tracking technology, and brand-building efforts. The company differentiated itself from competitors on the basis of selection, availability, and consumer trust. It simultaneously drove down costs. Circuit City's low prices and its other strengths led to extraordinarily large sales volumes, which reduced unit costs. Those cost reductions permitted lower prices, which drove even greater volume, and so on in a virtuous cycle.

Note how well this strategy matched the demands of the external environment. By meeting consumer needs and by building a brand that shoppers valued, Circuit City made it less attractive for customers to switch from store to store. As Circuit City's brand rose to prominence, as sales volume grew, and as customers came to rely on the recommendations of Circuit City's salespeople, the company became far more powerful in negotiations with suppliers. Investments in branding, distribution, information technology, and large stores raised new barriers to entry. And scale-driven cost advantages gave the company a powerful way to overcome smaller rivals.

The preceding three paragraphs lay out a chain of cause and effect that explains why Circuit City's original strategy worked in the consumer electronics environment. The strategist's goal is to figure out whether the causal logic holds up in the target environment. In preparing to make that analysis, the strategy maker will find it useful to compile two lists of industry features: those that play a crucial role in the causal logic and those that don't. In the Circuit City example, the list of crucial elements

A Versatile Tool

This article focuses on the use of analogy as a tool for choosing among possible solutions to strategic problems, but managers also use analogies for other purposes. Most important, analogies can be catalysts for generating creative options. Seeking outside-the-box ways to speed customers through gas stations, for instance, Mobil executives looked far afield – at the operations of race-car pit crews. And to improve service, they examined the world-class operations of the Ritz-Carlton hotel chain. Similarly, a management team might choose a company it deeply admires in a distant business and ask itself, "What would it mean to be the Wal-Mart or GE or Dell of our industry?" We see little danger in using analogies this way – as long as managers test any analogy carefully when they move from generating options to choosing among them.

Analogies are also powerful tools for communicating complex messages quickly. When the executives turning around Ducati began to speak of the legendary Italian motorcycle maker as an entertainment company comparable to Disney, they made it clear, to insiders and outsiders, that they planned to invest more in the experiential aspects of the brand and less in the physical product. Chosen well, analogies have an emotional impact that can rally a management team. By referring to cheap PCs as "digital rebar," Andy Grove sharpened his colleagues' fears that Intel could go the way of U.S. Steel. Sports and military analogies are often used in this way, to motivate teams.

includes the following features of the pre–Circuit City electronics retailing industry:

- unsatisfied customer needs, especially for product selection, product availability, and trustworthy retailers;
- untapped economies of scale and latent, but largely unrealized, barriers to entry;
- a fragmented base of rivals, many of them weak;
- unexploited opportunities to apply information and distribution technologies for better inventory management;
- branded, powerful, reliable suppliers;
- modest switching costs among consumers; and
- an absence of goods that are close substitutes at the high end of the market.

At least one notable feature of the industry appears *not* to have played a major role in the causal logic, according to our analysis. Demand for consumer electronics was growing rapidly when Circuit City became a success, but the industry growth rate does not loom large in the causal story. The sheer size of the industry plays a role – without a critical mass of demand, economies of scale cannot be tapped – but the growth rate does not seem critical.

Assess similarity. The strategist now maps similarities between the source and the target and determines whether the resemblance is more than superficial. The understanding of the source that he or she has built up is crucial in this step. Rather than wrestling with the entire target problem, which is much less familiar than the source, the strategist can focus on the key features of the causal logic. The question is whether the source and the target are similar or different along these features.

Similarities usually spring to mind quickly. But the team must also *search actively for differences,* seeking evidence that each essential feature of the source problem is absent in the target. This process rarely comes naturally – it is often thwarted by the confirmation bias. The team should also do something else that doesn't come naturally: *ask whether the similarities are largely superficial.* The list of industry features that are *not* crucial in the causal logic is very useful in this step. If many of the similarities are on this list rather than the list of crucial correspondences, the management team should sound an alarm. The analogy may be based on superficial similarity.

Circuit City's entry into the used-car market illustrates the process of assessing similarity. In many ways, the target industry in the 1990s resembled the consumer electronics retailing industry of the 1970s:

- Many customers were unsatisfied with, and distrustful of, current retailers.
- Economies of scale and barriers to entry were limited.
- The industry was fragmented.
- Information and distribution technologies remained fairly primitive, even though the inventory was highly diverse.
- Consumers incurred few costs if they switched from one retailer to another.

Note that all of these similarities match crucial elements of the causal logic in electronics retailing. This bodes well for the analogy. On the other hand, there were important differences:

- In consumer electronics, Circuit City could rely on a large base of dependable, reputable suppliers. In contrast, most used-car dealers bought their autos from individual sellers or from wholesalers, some reliable and some not.
- The inventory of used cars was even more diverse than that of consumer electronics. It would be difficult to keep a predictable range of products in stock. This might make it hard for CarMax to detect sales trends quickly and adjust its inventory to meet demand. Moreover, the distribution expertise Circuit City had developed might not be useful in the used-car industry.
- It was not clear whether economies of scale existed or barriers to entry could be built in auto retailing.
- The used-car retailing market had an important substitute at the high end of the market: new-car dealers.

Translate, decide, and adapt. The final step is to decide whether the original strategy, properly translated, will work in the target industry. This step requires, first, that the management team say clearly what the strategy would look like in the new setting. Precisely what would it take to be the Circuit City of the used-car industry or the supermarket of toys? This requires some adjustment. Even the best analogies involve some differences between

Background of the Work

Field research sparked our interest in analogical reasoning. While exploring the origins of strategies in the Internet portal industry, we were struck by the prevalence of analogies. Discussions with managers and academic colleagues, along with personal reflections, led us to recognize the broader significance of analogical reasoning in strategy making. This recognition fueled a series of efforts, including a review of the literature on analogy in psychology, cognitive science, political science, and linguistics; an initiative to examine and improve the use of analogical reasoning in the MBA classroom; and development, with Wharton's Daniel Levinthal, of a simulation in which computer-modeled "managers" use analogical reasoning to solve strategic problems. Perhaps the crucial ingredient in the research is that we – the authors of this article – come from very different academic backgrounds. One of us was raised within Wharton's behavioral approach to management, which emphasizes the limits on human reasoning, and the other comes from Harvard's strategy tradition, which stresses the power of rational economic choice. Analogical reasoning lies in the middle ground between the two of us. It is a form of reasoning that is potent because it makes the most of bounded cognitive abilities.

the source and the target settings. By now, executives have a sense of the most important differences, and, in translating the strategy, they try to make adjustments that deal with them. After the translation comes a go-no-go decision on whether to pursue the analogy in the marketplace. This involves a clearheaded assessment of whether the translated strategy is likely to fare well in the new context. If executives opt to pursue the analogy, they face another round of adjustment – adapting in the marketplace in response to feedback from customers, rivals, suppliers, and others. It is here, in the market, that managers truly learn how good their analogies are.

Circuit City's translated strategy bore a close resemblance to the company's electronics retailing operation. On lots of up to 14 acres, each CarMax superstore offered an unusually broad inventory of 200 to 550 vehicles. CarMax went to special lengths to foster customers' trust. It sold cars at fixed, posted prices, with no haggling. It hired salespeople with retailing experience, but *not* auto retailing experience, and gave them extensive training. CarMax compensated salespeople with a flat fee per vehicle sold rather than a fraction of the revenue they generated. The company also put in place a sophisticated inventory tracking system that mirrored the electronics retailing system, and it offered money-back guarantees and warranties that resembled those in Circuit City stores.

At the same time, CarMax adjusted the Circuit City formula to reflect the differences between the two settings. This required, for instance, that the company find reliable sources of used cars. Toward this end, CarMax placed well-trained buyers in each of its stores and offered to buy used cars directly from consumers, even those who did not intend to buy a vehicle from CarMax. The company started to sell new cars at some sites, in part to generate used cars from trade-ins. By 2002, individual consumers were CarMax's single largest source of used cars. Regardless of source, all CarMax used cars were thoroughly inspected and reconditioned before they were resold.

The diverse inventory of used cars presented a new challenge. No single used-car lot could show the full array of vehicles in CarMax's inventory. So CarMax developed a computer system that allowed consumers to peruse the company's full inventory. The system told customers what was available nationwide and what it would cost to transfer a desired car to the customer's locale.

CarMax was neither an immediate nor an unmixed success. It took Circuit City most of a decade to tailor its formula to the used-car market. The company built some stores that were too large and adopted an overly ambitious rollout plan, and price wars in the new-car market and expansion by other used-car superstores occasionally hurt its stock price. Nonetheless, the effort to reproduce Circuit City's success in the used-car industry has produced a viable company with revenue of $4.6 billion in fiscal year 2004, a return on sales of 2% to 3%, a multibillion-dollar market capitalization, and equity whose returns have roughly matched the S&P 500's since the IPO in 1997. This positive outcome reflects the close resemblance between the electronics retailing industry and the used-car industry, especially in features pertinent to the causal logic of the original success. It also reflects the company's careful attention to the essential differences between the industries – or at least the company's ability to adapt to those differences.

A critical question in this final step is how much a company should translate the candidate solution, on the basis of forethought alone, before launching it in the marketplace. In studying the transfer of best practices within companies, say from one bank branch to another, Insead's Gabriel Szulanski and Wharton's Sidney Winter have found that managers overestimate how well they understand cause and effect relationships and, accordingly, adjust too much on the basis of forethought. This lesson applies to analogies, too. It makes sense to adjust a candidate solution beforehand to account for glaring differences between the target and the source. But in novel, uncertain environments, where strategists rely the most on analogies, it is often wise to hold off on fine-tuning the solution until the market can give its guidance.

Toward Better Strategic Choices

Analogies lie on a spectrum. At one end lie perfect analogies, where the source and target are truly alike on the dimensions that drive economic performance. The toy retailing industry of the 1950s deeply resembled the grocery business, much to the benefit of Toys R Us, and the demands on Toyota's kanban system closely mirrored those related to supermarket reshelving. At the opposite end of the spectrum are profoundly problematic analogies, such as Enron's comparison of broadband and natural gas trading, that are based on superficial similarities yet plagued by underlying differences. The vast majority of analogies fall somewhere in between – they're imperfect but useful. The challenge is to get the most out of them. In our experience, the best users of analogy harness deduction and trial and error to test and improve the analogies that lie in the middle of the spectrum. Intel's analogy involving the steel industry, for instance, was supported by a deductive theory of cause and effect – Clayton Christensen's ideas about disruptive technologies. It also drew strength from trial-and-error experiments that gradually refined Intel's approach to the low end of the microprocessor market, much as Circuit City's adjustments served to fine-tune CarMax's strategy. Managers who wish to tap the great power of analogy and sidestep its pitfalls must master multiple modes of thought.

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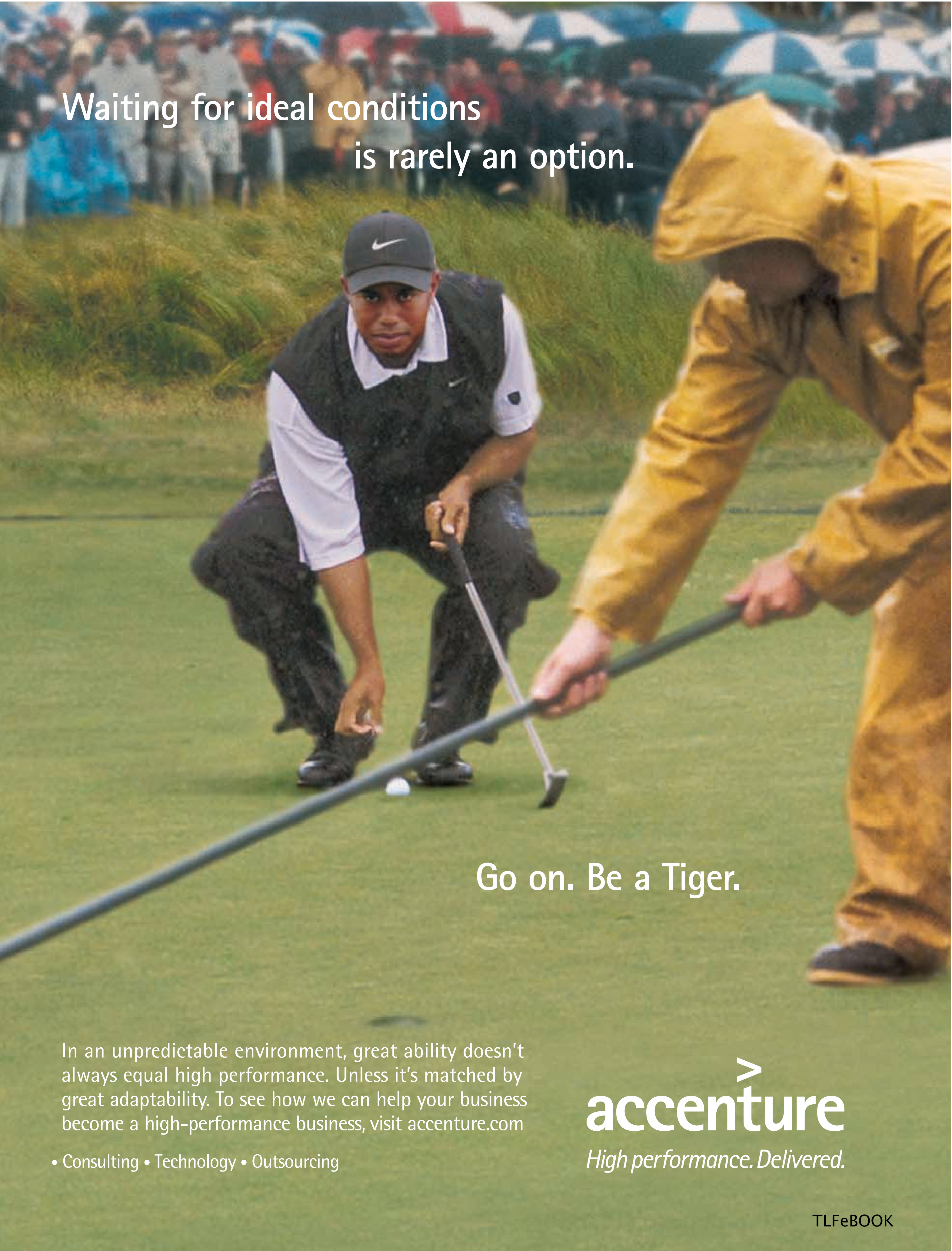

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Leaders are made, not born, and how they develop is critical for organizational change.

7 Transformations of Leadership

by David Rooke and William R. Torbert

Most developmental psychologists agree that what differentiates leaders is not so much their philosophy of leadership, their personality, or their style of management. Rather, it's their internal "action logic" – how they interpret their surroundings and react when their power or safety is challenged. Relatively few leaders, however, try to understand their own action logic, and fewer still have explored the possibility of changing it.

They should, because we've found that leaders who do undertake a voyage of personal understanding and development can transform not only their own capabilities but also those of their companies. In our close collaboration with psychologist Susanne Cook-Greuter – and our 25 years of extensive survey-based consulting at companies such as Deutsche Bank, Harvard Pilgrim Health Care, Hewlett-Packard, NSA, Trillium Asset Management, Aviva, and Volvo – we've worked with thousands of executives as they've tried to develop their leadership skills. The good news is that leaders who make an effort to understand their own action logic can improve their ability to lead. But to do that, it's important first to understand what kind of leader you already are.

BRIAN CRONIN

The Seven Action Logics

Our research is based on a sentence-completion survey tool called the Leadership Development Profile. Using this tool, participants are asked to complete 36 sentences that begin with phrases such as "A good leader…," to which responses vary widely:

"…cracks the whip."

"…realizes that it's important to achieve good performance from subordinates."

"…juggles competing forces and takes responsibility for her decisions."

By asking participants to complete sentences of this type, it's possible for highly trained evaluators to paint a picture of how participants interpret their own actions and the world around them; these "pictures" show which one of seven developmental action logics – Opportunist, Diplomat, Expert, Achiever, Individualist, Strategist, or Alchemist – currently functions as a leader's dominant way of thinking. Leaders can move through these categories as their abilities grow, so taking the Leadership Development Profile again several years later can reveal whether a leader's action logic has evolved.

Over the past 25 years, we and other researchers have administered the sentence-completion survey to thousands of managers and professionals, most between the ages of 25 and 55, at hundreds of American and European companies (as well as nonprofits and governmental agencies) in diverse industries. What we found is that the levels of corporate and individual performance vary according to action logic. Notably, we found that the three types of leaders associated with below-average corporate performance (Opportunists, Diplomats, and Experts) accounted for 55% of our sample. They were significantly less effective at implementing organizational strategies than the 30% of the sample who measured as Achievers. Moreover, only the final 15% of managers in the sample (Individualists, Strategists, and Alchemists) showed the consistent capacity to innovate and to successfully transform their organizations.

To understand how leaders fall into such distinct categories and corporate performance, let's look in more detail at each leadership style in turn, starting with the least productive (and least complex).

The Opportunist

Our most comforting finding was that only 5% of the leaders in our sample were characterized by mistrust, egocentrism, and manipulativeness. We call these leaders Opportunists, a title that reflects their tendency to focus on personal wins and see the world and other people as opportunities to be exploited. Their approach to the outside world is largely determined by their perception of control – in other words, how they will react to an event depends primarily on whether or not they think they can direct the outcome. They treat other people as objects or as competitors who are also out for themselves.

Opportunists tend to regard their bad behavior as legitimate in the cut and thrust of an eye-for-an-eye world. They reject feedback, externalize blame, and retaliate harshly. One can see this action logic in the early work of Larry Ellison (now CEO of Oracle). Ellison describes his managerial style at the start of his career as "management by ridicule." "You've got to be good at intellectual intimidation and rhetorical bullying," he once told Matthew Symonds of the *Economist.* "I'd excuse my behavior by telling myself I was just having 'an open and honest debate.' The fact is, I just didn't know any better."

Few Opportunists remain managers for long, unless they transform to more effective action logics (as Ellison has done). Their constant firefighting, their style of self-aggrandizement, and their frequent rule breaking is the antithesis of the kind of leader people want to work with for the long term. If you have worked for an Opportunist, you will almost certainly remember it as a difficult time. By the same token, corporate environments that breed opportunism seldom endure, although Opportunists often survive longer than they should because they provide an exciting environment in which younger executives, especially, can take risks. As one ex-Enron senior staffer said, "Before the fall, those were such exciting years. We felt we could do anything, pull off everything, write our own rules. The pace was wild, and we all just rode it." Of course, Enron's shareholders and pensioners would reasonably feel that they were paying too heavily for that staffer's adventure.

The Diplomat

The Diplomat makes sense of the world around him in a more benign way than the Opportunist does, but this action logic can also have extremely negative repercussions if the leader is a senior manager. Loyally serving the group, the Diplomat seeks to please higher-status colleagues while avoiding conflict. This action logic is focused on gaining control of one's own behavior – more than on gaining control of external events or other people. According to the Diplomat's action logic, a leader gains more enduring acceptance and influence by cooperating with group norms and by performing his daily roles well.

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Seven Ways of Leading

Different leaders exhibit different kinds of action logic – ways in which they interpret their surroundings and react when their power or safety is challenged. In our research of thousands of leaders, we observed seven types of action logics. The least effective for organizational leadership are the Opportunist and Diplomat; the most effective, the Strategist and Alchemist. Knowing your own action logic can be the first step toward developing a more effective leadership style. If you recognize yourself as an Individualist, for example, you can work, through both formal and informal measures, to develop the strengths and characteristics of a Strategist.

Action Logic	Characteristics	Strengths	% of research sample profiling at this action logic
Opportunist	*Wins any way possible.* Self-oriented; manipulative; "might makes right."	Good in emergencies and in sales opportunities.	5%
Diplomat	*Avoids overt conflict.* Wants to belong; obeys group norms; rarely rocks the boat.	Good as supportive glue within an office; helps bring people together.	12%
Expert	*Rules by logic and expertise.* Seeks rational efficiency.	Good as an individual contributor.	38%
Achiever	*Meets strategic goals.* Effectively achieves goals through teams; juggles managerial duties and market demands.	Well suited to managerial roles; action and goal oriented.	30%
Individualist	*Interweaves competing personal and company action logics.* Creates unique structures to resolve gaps between strategy and performance.	Effective in venture and consulting roles.	10%
Strategist	*Generates organizational and personal transformations.* Exercises the power of mutual inquiry, vigilance, and vulnerability for both the short and long term.	Effective as a transformational leader.	4%
Alchemist	*Generates social transformations.* Integrates material, spiritual, and societal transformation.	Good at leading society-wide transformations.	1%

In a support role or a team context, this type of executive has much to offer. Diplomats provide social glue to their colleagues and ensure that attention is paid to the needs of others, which is probably why the great majority of Diplomats work at the most junior rungs of management, in jobs such as frontline supervisor, customer service representative, or nurse practitioner. Indeed, research into 497 managers in different industries showed that 80% of all Diplomats were at junior levels. By contrast, 80% of all Strategists were at senior levels, suggesting that managers who grow into more effective action logics – like that of the Strategist – have a greater chance of being promoted.

Diplomats are much more problematic in top leadership roles because they try to ignore conflict. They tend to be overly polite and friendly and find it virtually impossible to give challenging feedback to others. Initiating change, with its inevitable conflicts, represents a grave threat to the Diplomat, and he will avoid it if at all possible, even to the point of self-destruction.

Consider one Diplomat who became the interim CEO of an organization when his predecessor died suddenly from an aneurysm. When the board split on the selection of a permanent successor, it asked the Diplomat to carry on. Our Diplomat relished his role as a ceremonial figurehead and was a sought-after speaker at public events. Unfortunately, he found the more conflictual requirements of the job less to his liking. He failed, for instance, to replace a number of senior managers who had serious ongoing performance issues and were resisting the change program his predecessor had initiated. Because the changes were controversial, the Diplomat avoided meetings, even planning business trips for the times when the senior team would meet. The team members were so frustrated by the Diplomat's attitude that they eventually resigned en masse. He "resolved" this crisis by thanking the team publicly for its contribution and appointing new team members. Eventually, in the face of mounting losses arising from this poor management, the board decided to demote the Diplomat to his former role as vice president.

The Expert

The largest category of leader is that of Experts, who account for 38% of all professionals in our sample. In contrast to Opportunists, who focus on trying to control the world around them, and Diplomats, who concentrate on controlling their own behavior, Experts try to exercise control by perfecting their knowledge, both in their professional and personal lives. Exercising watertight thinking is extremely important to Experts. Not surprisingly, many accountants, investment analysts, marketing researchers, software engineers, and consultants operate from the Expert action logic. Secure in their expertise, they present hard data and logic in their efforts to gain consensus and buy-in for their proposals.

Experts are great individual contributors because of their pursuit of continuous improvement, efficiency, and perfection. But as managers, they can be problematic because they are so completely sure they are right. When subordinates talk about a my-way-or-the-highway type of boss, they are probably talking about someone operating from an Expert action logic. Experts tend to view collaboration as a waste of time ("Not all meetings are a waste of time – some are canceled!"), and they will frequently treat the opinion of people less expert than themselves with contempt. Emotional intelligence is neither desired nor appreciated. As Sun Microsystems' CEO Scott McNealy put it: "I don't do feelings; I'll leave that to Barry Manilow."

It comes as no surprise, then, that after unsuccessfully pleading with him to scale back in the face of growing losses during the dot-com debacle of 2001 and 2002, nearly a dozen members of McNealy's senior management team left.

The Achiever

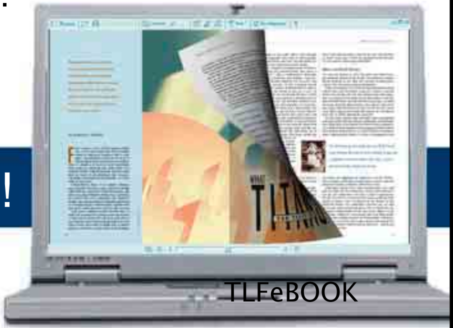
For those who hope someday to work for a manager who both challenges and supports them and creates a positive team and interdepartmental atmosphere, the good news is that a large proportion, 30%, of the managers in our research measured as Achievers. While these leaders create a positive work environment and focus their efforts on deliverables, the downside is that their style often inhibits thinking outside the box.

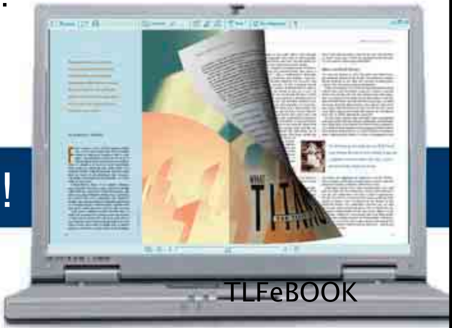
Achievers have a more complex and integrated understanding of the world than do managers who display the three previous action logics we've described. They're open to feedback and realize that many of the ambiguities and conflicts of everyday life are due to differences in interpretation and ways of relating. They know that creatively transforming or resolving clashes requires sensitivity to relationships and the ability to influence others in positive ways. Achievers can also reliably lead a team to implement new strategies over a one- to three-year period, balancing immediate and long-term objectives. One study of ophthalmologists in private practice showed that those who scored as Achievers had lower staff turnover, delegated more responsibility, and had practices that earned at least twice the gross annual revenues of those run by Experts.

Achievers often find themselves clashing with Experts. The Expert subordinate, in particular, finds the Achiever leader hard to take because he cannot deny the reality of the Achiever's success even though he feels superior. Consider Hewlett-Packard, where the research engineers tend to score as Experts and the lab managers as higher-level Achievers. At one project meeting, a lab manager – a decided Achiever – slammed her coffee cup on the table and exclaimed, "I *know* we can get 18 features into this, but the customers want delivery some time this century, and the main eight features will do." "Philistine!" snorted one engineer, an Expert. But this kind of conflict isn't always destructive. In fact, it provides much of the fuel that has ignited – and sustained – the competitiveness of many of the country's most successful corporations.

The Individualist

The Individualist action logic recognizes that neither it nor any of the other action logics are "natural"; all are constructions of oneself and the world. This seemingly ab-





stract idea enables the 10% of Individualist leaders to contribute unique practical value to their organizations; they put personalities and ways of relating into perspective and communicate well with people who have other action logics.

What sets Individualists apart from Achievers is their awareness of a possible conflict between their principles and their actions, or between the organization's values and its implementation of those values. This conflict becomes the source of tension, creativity, and a growing desire for further development.

Individualists also tend to ignore rules they regard as irrelevant, which often makes them a source of irritation to both colleagues and bosses. "So, what do you think?" one of our clients asked us as he was debating whether to let go of one of his star performers, a woman who had been measured as an Individualist. Sharon (not her real name) had been asked to set up an offshore shared service function in the Czech Republic in order to provide IT support to two separate and internally competitive divisions operating there. She formed a highly cohesive team within budget and so far ahead of schedule that she quipped that she was "delivering services before Group Business Risk had delivered its report saying it can't be done."

The trouble was that Sharon had a reputation within the wider organization as a wild card. Although she showed great political savvy when it came to her individual projects, she put many people's noses out of joint in the larger organization because of her unique, unconventional ways of operating. Eventually, the CEO was called in (not for the first time) to resolve a problem created by her failure to acknowledge key organizational processes and people who weren't on her team.

Many of the dynamics created by different action logics are illustrated by this story and its outcome. The CEO, whose own action logic was that of an Achiever, did not see how he could challenge Sharon to develop and move beyond creating such problems. Although ambivalent about her, he decided to retain her because she was delivering and because the organization had recently lost several capable, if unconventional, managers.

So Sharon stayed, but only for a while. Eventually, she left the company to set up an offshoring consultancy. When we examine in the second half of this article how to help executives transform their leadership action logics, we'll return to this story to see how both Sharon and the CEO might have succeeded in transforming theirs.

Initiating change, with its inevitable conflicts, represents a grave threat to the Diplomat, and he will avoid it if at all possible, even to the point of self-destruction.

The Strategist

Strategists account for just 4% of leaders. What sets them apart from Individualists is their focus on organizational constraints and perceptions, which they treat as discussable and transformable. Whereas the Individualist masters communication with colleagues who have different action logics, the Strategist masters the second-order organizational impact of actions and agreements. The Strategist is also adept at creating shared visions across different action logics – visions that encourage both personal and organizational transformations. According to the Strategist's action logic, organizational and social change is an iterative developmental process that requires awareness and close leadership attention.

Strategists deal with conflict more comfortably than do those with other action logics, and they're better at handling people's instinctive resistance to change. As a result, Strategists are highly effective change agents. We found confirmation of this in our recent study of ten CEOs in six different industries. All of their organizations had the stated objective of transforming themselves and had engaged consultants to help with the process. Each CEO filled out a Leadership Development Profile, which showed that five of them were Strategists and the other five fell into other action logics. The Strategists succeeded in generating one or more organizational transformations over a four-year period; their companies' profitability, market share, and reputation all improved. By contrast, only two of the other five CEOs succeeded in transforming their organizations – despite help from consultants, who themselves profiled as Strategists.

Strategists are fascinated with three distinct levels of social interplay: personal relationships, organizational relations, and national and international developments. Consider Joan Bavaria, a CEO who, back in 1985, measured as a Strategist. Bavaria created one of the first socially responsible investment funds, a new subdivision of the investments industry, which by the end of 2001 managed more than $3 trillion in funds. In 1982, Bavaria founded Trillium Asset Management, a worker-owned company, which she still heads. She also cowrote the CERES Environmental Principles, which dozens of major companies have signed. In the late 1990s, CERES, working with the United Nations, created the Global Reporting Initiative, which supports financial, social, and environmental transparency and accountability worldwide.

Here we see the Strategist action logic at work. Bavaria saw a unique moment in which to make ethical investing a viable business, then established Trillium to execute her plan. Strategists typically have socially conscious business ideas that are carried out in a highly collaborative manner. They seek to weave together idealist visions with pragmatic, timely initiatives and principled actions. Bavaria worked beyond the boundaries of her own organization to influence the socially responsible investment industry as a whole and later made the development of social and environmental accountability standards an international endeavor by involving the United Nations. Many Achievers will use their influence to successfully promote their own companies. The Strategist works to create ethical principles and practices beyond the interests of herself or her organization.

The Alchemist

The final leadership action logic for which we have data and experience is the Alchemist. Our studies of the few leaders we have identified as Alchemists suggest that what sets them apart from Strategists is their ability to renew or even reinvent themselves and their organizations in historically significant ways. Whereas the Strategist will move from one engagement to another, the Alchemist has an extraordinary capacity to deal simultaneously with many situations at multiple levels. The Alchemist can talk with both kings and commoners. He can deal with immediate priorities yet never lose sight of long-term goals.

Alchemists constitute 1% of our sample, which indicates how rare it is to find them in business or anywhere else. Through an extensive search process, we found six Alchemists who were willing to participate in an up-close study of their daily actions. Though this is obviously a very small number that cannot statistically justify generalization, it's worth noting that all six Alchemists shared certain characteristics. On a daily basis, all were engaged in multiple organizations and found time to deal with issues raised by each. However, they were not in a constant rush – nor did they devote hours on end to a single activity. Alchemists are typically charismatic and extremely aware individuals who live by high moral standards. They focus intensely on the truth. Perhaps most important, they're able to catch unique moments in the history of their organizations, creating symbols and metaphors that speak to people's hearts and minds. In one conservative financial services company in the UK, a recently appointed CEO turned up for work in a tracksuit instead of his usual pinstripes but said nothing about it to anyone. People wondered whether this was a new dress code. Weeks later, the CEO spoke publicly about his attire and the need to be unconventional and to move with greater agility and speed.

A more celebrated example of an Alchemist is Nelson Mandela. Although we never formally profiled Mandela, he exemplifies the Alchemist action logic. In 1995, Mandela symbolized the unity of a new South Africa when he attended the Rugby World Cup game in which the Springboks, the South African national team, were playing. Rugby had been the bastion of white supremacy, but Mandela attended the game. He walked on to the pitch wearing the Springboks' jersey so hated by black South Africans, at the same time giving the clenched fist salute of the ANC, thereby appealing, almost impossibly, both to black and white South Africans. As Tokyo Sexwale, ANC activist and premier of South Africa's Gauteng province, said of him: "Only Mandela could wear an enemy jersey. Only Mandela would go down there and be associated with the Springboks… All the years in the underground, in the trenches, denial, self-denial, away from home, prison, it was worth it. That's all we wanted to see."

Evolving as a Leader

The most remarkable – and encouraging – finding from our research is that leaders can transform from one action logic to another. We have, in fact, documented a number of leaders who have succeeded in transforming themselves from Experts into Achievers, from Achievers into Individualists, and from Individualists into Strategists.

Take the case of Jenny, one of our clients, who initially measured as an Expert. She became disillusioned with her role in her company's PR department and resigned in order to, as she said, "sort out what I really want to do." Six months later, she joined a different company in a similar role, and two years after that we profiled her again and she still measured as an Expert. Her decision to resign from the first company, take a "sabbatical," and then join the second company had made no difference to her action logic. At that point, Jenny chose to join a group of peer leaders committed to examining their current leadership patterns and to experimenting with new ways of acting. This group favored the Strategist perspective (and the founder of the group was profiled as an Alchemist), which in the end helped Jenny's development. She learned that her habit of consistently taking a critical position, which she considered "usefully objective," isolated her and generated distrust. As a result of the peer group's feedback, she started a series of small and private experiments, such as asking questions rather than criticizing. She realized that instead of seeing the faults in others, she had to be clear about what *she* could contribute and, in doing so, started the move from an Expert to an Achiever. Spiritually, Jenny learned that she needed an ongoing community of inquiry at the center of her life and found a spiritual home for continuing reflection in Quaker meetings, which later supported (and indeed signaled) her transition from an Achiever to an Individualist.

Two years later, Jenny left the second job to start her own company, at which point she began profiling as a Strategist. This was a highly unusual movement of three action logics in such a short time. We have had only two other instances in which a leader has transformed twice in less than four years.

As Jenny's case illustrates, there are a number of personal changes that can support leadership transformation. Jenny experienced loss of faith in the system and feelings of boredom, irritability, burnout, depression, and even anger. She began to ask herself existential questions. But another indication of a leader's readiness to transform is an increasing attraction to the qualities she begins to intuit in people with more effective action logics. Jenny, as we saw, was drawn to and benefited hugely from her Strategist peer group as well as from a mentor who exhibited the Alchemist action logic. This search for new perspectives often manifests itself in personal transformations: The ready-to-transform leader starts developing new relationships. She may also explore new forms of spiritual practice or new forms of centering and self-expression, such as playing a musical instrument or doing tai chi.

External events can also trigger and support transformation. A promotion, for example, may give a leader the opportunity to expand his or her range of capabilities. Earlier, we cited the frustration of Expert research engineers at Hewlett-Packard with the product and delivery attitude of Achiever lab managers. Within a year of one engineer's promotion to lab manager, a role that required coordination of others and cooperation across departments, the former Expert was profiling as an Achiever. Although he initially took some heat ("Sellout!") from his former buddies, his new Achiever awareness meant that he was more focused on customers' needs and clearer about delivery schedules. For the first time, he understood the dance between engineers trying to perfect the technology and managers trying to deliver on budget and on schedule.

Changes to a manager's work practices and environment can also facilitate transformation. At one company we studied, leaders changed from Achievers to Individualists partly because of simple organizational and process changes. At the company's senior manager meetings, for example, executives other than the CEO had the chance to lead the meetings; these opportunities, which were supported by new spirit of openness, feedback, and frank debate, fostered professional growth among many of the company's leaders.

Planned and structured development interventions are another means of supporting leadership transformation. We worked with a leading oil and gas exploration company on developing the already high-level capabilities of a pool of future senior managers; the managers were profiled and then interviewed by two consultants who explored each manager's action logic and how it constrained and enabled him or her to perform current and recent roles. Challenges were discussed as well as a view of the individual's potential and a possible developmental plan. After the exercise, several managers, whose Individualist and Strategist capabilities had not been fully understood by the company, were appreciated and engaged differently in their roles. What's more, the organization's own definition of leadership talent was reframed to include the capabilities of the Individualist and Strategist action logics. This in turn demanded that the company radically revisit its competency framework to incorporate such expectations as "sees issues from multiple perspectives" and "creates deep change without formal power."

Now that we've looked generally at some of the changes and interventions that can support leadership development, let's turn to some specifics about how the most common transformations are apt to take place.

From Expert to Achiever

This transformation is the most commonly observed and practiced among businesspeople and by those in management and executive education. For the past generation or more, the training departments of large companies have been supporting the development of managers from Experts into Achievers by running programs with titles like "Management by Objectives," "Effective Delegation," and "Managing People for Results." These programs typically emphasize getting results through flexible strategies rather than through one right method used in one right way.

Observant leaders and executive coaches can also formulate well-structured exercises and questions related to everyday work to help Experts become aware of the different assumptions they and others may be making. These efforts can help Experts practice new conversational strategies such as, "You may be right, but I'd like to understand what leads you to believe that." In addition, those wishing to push Experts to the next level should consider rewarding Achiever competencies like timely delivery of results, the ability to manage for performance, and the ability to implement strategic priorities.

Within business education, MBA programs are apt to encourage the development of the more pragmatic Achievers by frustrating the perfectionist Experts. The heavy workloads, use of multidisciplinary and ambiguous case studies, and teamwork requirements all promote the development of Achievers. By contrast, MSc programs, in particular disciplines such as finance or marketing research, tend to reinforce the Expert perspective.

Still, the transition from Expert to Achiever remains one of the most painful bottlenecks in most organizations. We've all heard the eternal lament of engineers, lawyers, and other professionals whose Expert success has saddled them with managerial duties, only to estrange them from the work they love. Their challenge becomes working as highly effective Achievers who can continue to use their in-depth expertise to succeed as leaders and managers.

From Achiever to Individualist

Although organizations and business schools have been relatively successful in developing leaders to the Achiever action logic, they have, with few exceptions, a dismal record in recognizing, supporting, and *actively* developing leaders to the Individualist and Strategist action logics, let alone to the Alchemist logic. This is not surprising. In many organizations, the Achiever, with his drive and focus on the endgame, is seen as the finish line for development: "This is a competitive industry–we need to keep a sharp focus on the bottom line."

The development of leaders beyond the Achiever action logic requires a very different tack from that necessary to bring about the Expert-to-Achiever transformation. Interventions must encourage self-awareness on the part of the evolving leader as well as a greater awareness of other worldviews. In both business and personal relationships, speaking and listening must come to be experienced not as necessary, taken-for-granted ways of communicating predetermined ideas but as intrinsically forward-thinking, creative actions. Achievers use inquiry to determine whether they (and the teams and organization to which they belong) are accomplishing their goals and how they might accomplish them more effectively. The developing Individualist, however, begins to inquire about and reflect on the goals themselves–with the aim of improving future goals. Annual development plans that set new goals, are generated through probing and trusting conversation, are actively supported through executive coaching, and are carefully reviewed at the end of the cycle can be critical enablers at this point. Yet few boards and CEOs appreciate how valuable this time in-

What sets Alchemists apart from Strategists is their ability to renew or even reinvent themselves and their organizations in historically significant ways.

vestment can be, and it is all too easily sacrificed in the face of short-term objectives, which can seem more pressing to leaders whose action logics are less developed.

Let's go back to the case of Sharon, the Individualist we described earlier whose Achiever CEO wasn't able to manage her. How might a coach or consultant have helped the CEO feel less threatened by Sharon and more capable of supporting her development while also being more open to his own needs and potential? One way would have been to try role-playing, asking the CEO to play Sharon while the coach or consultant enacts the CEO role. The role-playing might have gone as follows:

"Sharon, I want to talk with you about your future here at our company. Your completion of the Czech project under budget and ahead of time is one more sign that you have the initiative, creativity, and determination to make the senior team here. At the same time, I've had to pick up a number of pieces after you that I shouldn't have had to. I'd like to brainstorm together about how you can approach future projects in a way that eliminates this hassle and gets key players on your side. Then, we can chat several times over the next year as you begin to apply whatever new principles we come up with. Does this seem like a good use of our time, or do you have a different perspective on the issue?"

Note that the consultant in the CEO's role offers clear praise, a clear description of a limitation, a proposed path forward, and an inquiry that empowers the CEO (playing Sharon) to reframe the dilemma if he wishes. Thus, instead of giving the CEO one-way advice about what he should do, the coach enacts a dialogic scenario with him, illustrating a new kind of practice and letting the CEO judge whether the enacted relationship is a positive one. The point is not so much to teach the CEO a new conversational repertoire but to make him more comfortable with how the Individualist sees and makes sense of the world around her and what feedback may motivate her to commit to further learning. Such specific experiments with new ways of listening and talking can gradually dissolve the fears associated with transformational learning.

To Strategist and Beyond

Leaders who are moving toward the Strategist and Alchemist action logics are no longer primarily seeking personal skills that will make them more effective within existing organizational systems. They will already have mastered many of those skills. Rather, they are exploring the disciplines and commitments entailed in creating projects, teams, networks, strategic alliances, and whole organizations on the basis of collaborative inquiry. It is this ongoing practice of reframing inquiry that makes them and their corporations so successful.

The path toward the Strategist and Alchemist action logics is qualitatively different from other leadership development processes. For a start, emergent Strategists and Alchemists are no longer seeking mentors to help them sharpen existing skills and to guide them toward influential networks (although they may seek spiritual and ethical guidance from mentors). Instead, they are seeking to engage in mutual mentoring with peers who are already part of their networks (such as board members, top managers, or leaders within a scientific discipline). The objective of this senior-peer mentoring is not, in conventional terms, to increase the chances of success but to create a sustainable community of people who can challenge the emergent leader's assumptions and practices and those of his company, industry, or other area of activity.

We witnessed just this kind of peer-to-peer development when one senior client became concerned that he, his company, and the industry as a whole were operating at the Achiever level. This concern, of course, was itself a sign of his readiness to transform beyond that logic. This executive–the CEO of a dental hygiene company–and his company were among the most successful of the parent company's subsidiaries. However, realizing that he and those around him had been keeping their heads down, he chose to initiate a research project – on introducing affordable dental hygiene in developing countries–that was decidedly out of the box for him and for the corporation.

The CEO's timing was right for such an initiative, and he used the opportunity to engage in collaborative inquiry with colleagues across the country. Eventually, he proposed an educational and charitable venture, which the parent company funded. The executive was promoted to a new vice presidency for international ventures within the parent company – a role he exercised with an increased sense of collaboration and a greater feeling of social responsibility for his company in emerging markets.

Formal education and development processes can also guide individuals toward a Strategist action logic. Programs in which participants act as leaders and challenge their conventional assumptions about leading and organizing are very effective. Such programs will be either long term (one or two years) or repeated, intense experiences that nurture the moment-to-moment awareness of participants, always providing the shock of dissonance that stimulates them to reexamine their worldviews. Path-breaking programs of this type can be found at a few universities and consultancies around the globe. Bath University in the UK, for instance, sponsors a two-year master's degree in responsibility and business practice in which students work together during six one-week get-togethers. These programs involve small-learning teams, autobiographical writing, psychodrama, deep experiences in nature, and a yearlong business project that involves action and reflection. Interestingly, many people who attend these programs report that these experiences have had the transformative power of a life-altering event, such as a career or existential crisis or a new marriage.

Leadership Teams and Leadership Cultures Within Organizations

So far, our discussion has focused on the leadership styles of individuals. But we have found that our categories of leadership styles can be used to describe teams and organizations as well. Here we will talk briefly about the action logics of teams.

Over the long term, the most effective teams are those with a Strategist culture, in which the group sees business challenges as opportunities for growth and learning on the part of both individuals and the organization. A leadership team at one of the companies we worked with decided to invite managers from across departments to participate in time-to-market new product teams. Seen as a risky distraction, few managers volunteered, except for some Individualists and budding Strategists. However, senior management provided sufficient support and feedback to ensure the teams' early success. Soon, the first participants were promoted and leading their own cross-departmental teams. The Achievers in the organization, seeing that others were being promoted, started volunteering for these teams. Gradually, more people within the organization were experiencing shared leadership, mutual testing of one another's assumptions and practices, and individual challenges that contributed to their development as leaders.

Sadly, few companies use teams in this way. Most senior manager teams operate at the Achiever action logic–they prefer unambiguous targets and deadlines, and working with clear strategies, tactics, and plans, often against tight deadlines. They thrive in a climate of adversity ("When the going gets tough, the tough get going") and derive great pleasure from pulling together and delivering. Typically, the team's leaders and several other members will be Achievers, with several Experts and perhaps one or two Individualists or Strategists (who typically feel ignored). Such Achiever teams are often impatient at slowing down to reflect, are apt to dismiss questions about goals and assumptions as "endless philosophizing," and typically respond with hostile humor to creative exercises, calling them "off-the-wall" diversions. These behaviors will ultimately limit an Achiever team's success.

The situation is worse at large, mature companies where senior management teams operate as Experts. Here, vice presidents see themselves as chiefs and their "teams" as an information-reporting formality. Team life is bereft of shared problem-solving, decision-making, or strategy-formulating efforts. Senior teams limited by the Diplomat action logic are even less functional. They are characterized by strong status differences, undiscussable norms, and ritual "court" ceremonies that are carefully stage-managed.

Individualist teams, which are more likely to be found in creative, consulting, and nonprofit organizations, are relatively rare and very different from Achiever, Expert, and Diplomat teams. In contrast to Achiever teams, they may be strongly reflective; in fact, excessive time may be spent reviewing goals, assumptions, and work practices. Because individual concerns and input are very important to these teams, rapid decision making may be difficult.

But like individual people, teams can change their style. For instance, we've seen Strategist CEOs help Individualist senior teams balance action and inquiry and so transform into Strategist teams. Another example is an Achiever senior team in a financial services company we worked with that was emerging from two years of harsh cost cutting during a market downturn. To adapt to a changing and growing financial services market, the company needed to become significantly more visionary and innovative and learn how to engage its workforce. To lead this transformation, the team had to start with itself. We worked with it to help team members understand the constraints of the Achiever orientation, which required a number of interventions over time. We began by working to improve the way the team discussed issues and by coaching individual members, including the CEO. As the team evolved, it became apparent that its composition needed to change: Two senior executives, who had initially seemed ideally suited to the group because of their achievements, had to be replaced when it became clear that they were unwilling to engage and experiment with the new approach.

During this reorientation, which lasted slightly more than two years, the team became an Individualist group with emergent Strategist capabilities. The CEO, who had profiled at Achiever/Individualist, now profiled as a Strategist, and most other team members showed one developmental move forward. The impact of this was also felt in the team's and organization's ethos: Once functionally divided, the team learned to accept and integrate the diverse opinions of its members. Employee surveys reported increased engagement across the company. Outsiders began seeing the company as ahead of the curve, which meant the organization was better able to attract top talent. In the third year, bottom- and top-line results were well ahead of industry competitors.

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The leader's voyage of development is not an easy one. Some people change little in their lifetimes; some change substantially. Despite the undeniably crucial role of genetics, human nature is not fixed. Those who are willing to work at developing themselves and becoming more self-aware can almost certainly evolve over time into truly transformational leaders. Few may become Alchemists, but many will have the desire and potential to become Individualists and Strategists. Corporations that help their executives and leadership teams examine their action logics can reap rich rewards.

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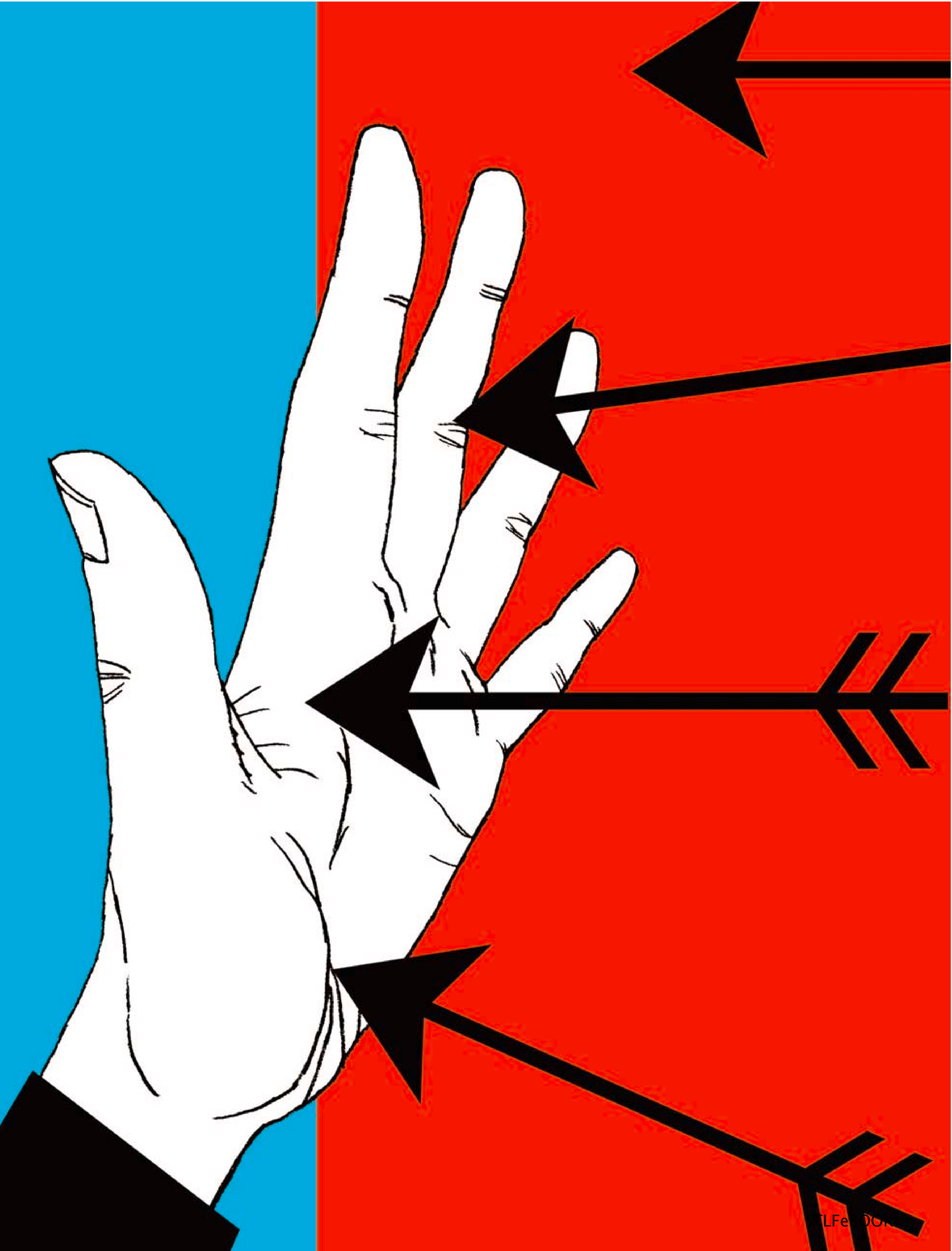
You're insured and hedged against many risks – but not the greatest ones, the strategic risks that can disrupt or even destroy your business. Learn to anticipate and manage these threats systematically and, in the process, turn some of them into growth opportunities.

Countering the Biggest Risk of All

by Adrian J. Slywotzky and John Drzik

WHATEVER YOUR BUSINESS, consider for a moment the remarkable turnaround over the past decade in the U.S. banking industry. In the early 1990s, the industry – rocked by the Latin American debt crisis, a major real estate bust, and economic recession – suffered massive loan losses, erratic earnings, and the highest rate of bank failures since the Depression. A decade later, as much of the economy reeled from the dot-com bust and another recession, banks were generally flourishing. The number of bad loans was down, earnings were relatively stable, and the banking industry was outperforming the market as a whole.

MARK DANIELSON



The turnaround occurred in large part because banks were able to develop new tools and techniques to counter risk, in the process giving birth to an entirely new discipline of financial risk management. Sophisticated credit-scoring measures reduced banks' credit losses. New forms of options, futures, and counterparty agreements allowed banks to redistribute their financial risks. In fact, banking regulations now require companies to employ financial models that quantify their market risks.

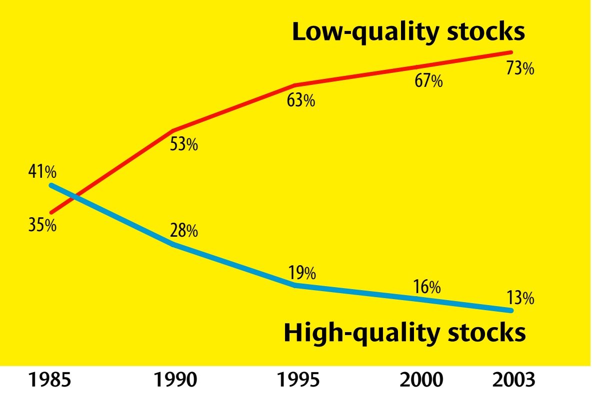
We cite this example because the risks that plagued banks 15 years ago are emblematic of the challenges that companies across *all* industries increasingly face today. What if these companies could also employ tools and techniques that would provide some protection against a broad set of high-stakes risks?

These looming threats form a category we call *strategic risk* – that is, the array of external events and trends that can devastate a company's growth trajectory and shareholder value. The evidence of strategic risk is becoming ever more apparent. In the past 20 years, there has been a dramatic decrease in the number of stocks receiving a high quality rating by Standard & Poor's and a dramatic increase in the number of low-quality stocks. (See the exhibit "A Hazardous Environment.") And our own analysis indicates that from 1993 through 2003, more than one-third of *Fortune* 1,000 companies – only a fraction of which were in volatile high-technology industries – lost at least 60% of their value in a single year.

So how should a company respond to threats of this magnitude? The answer lies in devising and deploying a systematic approach to managing strategic risk.

A Hazardous Environment

One measure of the increased strategic risks companies face is the sharp drop in the percentage of the 3,000 S&P-rated stocks receiving a high quality rating (based on S&P's assessment of a company's ability to achieve long-term, stable earnings growth) and the increase in the percentage of stocks receiving a low quality rating. High-quality stocks include those rated A+, A, and A–. Low-quality stocks include those rated B, B–, C, and D. (B+ stocks are omitted.)



Broadening the Focus

The discipline of risk management has made considerable progress in recent years. Corporate treasurers and chief financial officers have become adept at quantifying and managing a wide range of risks: financial (for example, currency fluctuations), hazard (chemical spills), and operational (computer system failures). They defend themselves against these risks through now tried-and-true tools such as hedging, insurance, and backup systems.

Spurred by the banking industry's success in financial risk management and by Sarbanes-Oxley's rigorous standards for corporate governance, some firms have been adopting the practice of "enterprise risk management," which seeks to integrate available risk management techniques in a comprehensive, organization-wide approach.

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Many of these early adopters are at a rudimentary stage, in which they treat enterprise risk management as an extension of their audit or regulatory compliance processes. Other companies are at a more advanced stage, in which they quantify risks and link them to capital allocation and risk-transfer decisions. Even among these more advanced practitioners, however, the focus of enterprise risk management rarely encompasses more than financial, hazard, and operational risks. Most managers have not yet systematically addressed the strategic risks that can be a much more serious cause of value destruction. (A method for assessing and responding to the strategic risks your company faces is presented in the sidebar "A Manager's Guide to Strategic Risk.")

Strategic risks take a variety of forms that go beyond such familiar challenges as the possible failure of an acquisition or a product launch. A new technology may overtake your product. (Think of how ACE inhibitors and calcium channel blockers stole share in the hypertension drug market from beta-blockers and diuretics.) Gradual shifts in the market may slowly erode one of your brands beyond the point of viability. (Recall the demise of the Oldsmobile brand.) Or rapidly shifting customer priorities may suddenly change your industry. (Consider how quickly baby boomer parents migrated from station wagons to minivans, catching most automakers off guard.)

The key to surviving strategic risks is knowing how to assess and respond to them. Devoting the resources to do this is well worth it. Many companies already commit themselves to meticulously managing even relatively small risks–for instance, auditing their invoices to comply with new corporate governance regulations. These firms can realize even greater value by taking a disciplined and systematic approach to mitigating the strategic risks that can make or break them. Of course, no company can anticipate *all* risk events: There will always be unpreventable surprises that can damage your organization–which makes it all the more important to manage those risks that can be prevented.

Taking this stance promises benefits beyond just protecting your company's value. When a risk is common to all companies in an industry, taking early steps to mitigate it can put your business in a much stronger competitive position. Moreover, many strategic risks mask growth opportunities. By managing strategic risk, you can position your company as a risk *shaper* that is both more aggressive and more prudent in pursuing new growth. Such benefits make strategic-risk management a crucial capability both for chief financial officers who need to protect the stability of their companies and for any senior managers looking for sources of sustainable growth.

An Array of Risks and Countermeasures

We categorize strategic risk into seven major classes: industry, technology, brand, competitor, customer, project, and stagnation. Within each class, there are different types of risks. We will describe a particularly dangerous risk from each category and how individual companies have – or have not – deployed countermeasures to neutralize the threat and, in many cases, capitalize on it. (For a list of these risks and countermeasures, see the exhibit "Preventive Measures.")

Industry Margin Squeeze. As industries evolve, a succession of changes can unfold that threaten all companies in the sector. For example, it can become very costly to conduct R&D, as has happened in pharmaceuticals: The industry has experienced decreasing yield rates for new drugs, and companies are targeting more new therapies for chronic rather than acute diseases, which requires larger and longer clinical trials. It can become costly to make capital expenditures, as has occurred in semiconductor fabrication: Costs have risen because of greater purity requirements, larger scale, and more complex equipment. An industry may go through rapid deregulation, like that experienced by airlines, which sharpens price competition among companies with high cost structures. Suppliers may gain power over their customers because of consolidation, which occurred among suppliers of flat-panel displays, or because of the suppliers' direct marketing to end users, which Intel did with its Intel Inside campaign. The industry may become subject to extreme business-cycle volatility, something experienced in telecommunications. Perhaps the greatest risk is that, because of a combination of these and other factors, such as overcapacity and commoditization, profit margins will be gradually destroyed for all players, and the entire industry will become a no-profit zone.

The most effective countermeasure to this squeeze on margins is *shifting the compete/collaborate ratio* among the relevant firms. When an industry is growing and margins are fat, companies can afford to compete on nearly all fronts and eschew collaboration. But this 100:0 ratio of competition to collaboration should rapidly shift when margins start to erode. Collaboration can take many forms without violating antitrust laws: the sharing of back-office functions, coproduction or asset-sharing agreements, purchasing and supply chain coordination, joint research and development, and collaborative marketing. Most companies, though, fail to respond to changes in the economics of an industry quickly enough, and collaboration begins too late to make a difference. Witness the recent history of airlines, utilities, textile manufacturers, steel makers, music production companies, and automakers.

Two notable exceptions to this too-little-too-late phenomenon are the Airbus consortium of European aircraft manufacturers and the Sematech consortium of U.S. semiconductor manufacturers, which played critical roles in helping their members regain market share and improve shrinking margins. Of course, both of these initiatives involved government participation, but that shouldn't be allowed to cloud the issue. The dispute between the United States and the European Union over whether Airbus has received unfair government subsidies, for example, has tended to overshadow the tremendous efficiencies the partnership has made possible. And there are numerous examples of collaboration with no government involvement. The Visa and MasterCard networks allow member financial institutions to share payment-processing and marketing services that are much more efficient than any one bank could hope to create on its own. The True Value organization gives independent hardware retailers access to marketing, purchasing, and loyalty programs that allow them to compete against national giants.

Contrast the success of those collaborations with the plight of major music production companies. After file sharing emerged and enabled the widespread downloading of music, the recording companies collectively suffered a decline in sales at an annual rate of 6.5% from 2000 through 2003. Collaboration became an economic imperative, but the music companies offered only a fragmented response. Universal and Sony launched a joint venture for selling music online called Pressplay, while Bertelsmann, EMI, and Warner Music Group worked with RealNetworks to launch MusicNet. The two services refused to license songs to each other, which reduced their

A Manager's Guide to
Strategic Risk

Your organization faces a unique set of strategic risks based on factors such as your industry, competitive position, sources of revenue and profit, and brand strengths. You can mitigate such risks by systematically identifying, assessing, and responding to them. This process can be conducted on its own or as the fourth component of an enterprise risk management system, alongside similar processes for managing financial, hazard, and operational risks.

Step 1

Identify and assess your risks. Consider the key risks you face in the seven main categories of strategic risk – industry, technology, brand, competitor, customer, project, and stagnation – as well as the risks that may be specific to your industry or business model. For each type, consider:

- **Severity.** What percentage of your company's value could be affected by the risk? Consider previous analogous events in your industry or in other industries, as well as factors specific to your business that could increase or reduce the risk's impact – say, your organization's ability to adapt to external change.
- **Probability.** What's the likelihood of the risk occurring? Consider previous cases of companies affected by this risk; input from key customers, leading-edge customers, and other external influencers; and external data about probability rates.
- **Timing.** Can you determine when the risk is likely to occur? Maybe the timing has been predetermined, as in the case of patent expirations or regulatory changes. Or maybe you can estimate the time period during which the risk's impact will be greatest.
- **Changing probability over time.** Can you determine whether the likelihood of the risk is increasing, decreasing, or constant? For instance, the risk of a sharp decline in sales volume often increases in the fifth year of a business-cycle expansion. By contrast, the risk that a project will fail decreases as successive milestones for the project are met.

Step 2

Map your risks. Having identified and assessed your main risks, map them so you can see your profile at a glance. The exhibit "A Strategic Risk Map" lays out the risks faced by a hypothetical manufacturing and services firm. (You can fill in the blank lines with risks specific to your business.)

Step 3

Quantify your risks. Risks should be comprehensively measured in a common currency – for instance, cash flow at risk, earnings at risk, economic capital at risk, or market value at risk. Companies will then be able to compare and aggregate the risks and link them to decisions regarding capital allocation, pricing, and risk transfer.

Step 4

Identify the potential upside for each risk. What could happen if a key risk is reversed? For example, while your company could lose big by not double betting as technology changes, making two well-placed bets could create significant growth opportunities. Your company can develop a plan to identify and maximize the upside for each item listed in the strategic risk map.

Step 5

Develop risk mitigation action plans. For every major risk identified, there should be a team responsible for preparing a formal mitigation plan. This document will outline the risk assessments made in earlier steps (nature of the risk, root causes, percentage of market value that would be affected, and so on) and assign responsibility for executing countermeasures. The team will often need to be multifunctional. A brand risk, for example, may need to be managed by a team that includes representatives from marketing, customer service, and manufacturing.

Step 6

Adjust your capital decisions accordingly. After drawing up an explicit profile of the risks it faces, a company may want to change its capital calculations in two ways. First, business units and certain major projects that face greater levels of risk may warrant a higher cost of capital, one that's closer to venture-capital discount rates than typical corporate capital rates. Second, the company may need to change its capital structure depending on the way the risk level of the overall portfolio is changing over time. For instance, a company entering a period of greater volatility might need to become more conservative about capital, lowering its customary debt levels on its balance sheet or using joint ventures or other partnerships to spread the costs of a major new project.

A Strategic Risk Map

The threats faced by a hypothetical manufacturing and services firm

Type of risk	Severity (% of earnings at stake)	Probability	Expected timing in years 1	2	3	4	5	Changing probability over time
Industry								
Margin squeeze	80%	20%						Increasing
Rising R&D/capital expenditure costs	10%	40%						Increasing
Overcapacity								
Commoditization								
Deregulation								
Increased power among suppliers								
Extreme business-cycle volatility								
Other:								
Technology								
Shift in technology	60%	20%						Increasing
Patent expiration	10%	100%						Constant
Process becomes obsolete								
Other:								
Brand								
Erosion	40%	20%						Increasing
Collapse	70%	10%						Constant
Other:								
Competitor								
Emerging global rivals	40%	20%						Increasing
Gradual market-share gainer								
One-of-a-kind competitor	30%	5%						Increasing
Other:								
Customer								
Customer priority shift	20%	60%						Increasing
Increasing customer power	10%	50%						Increasing
Overreliance on a few customers								
Other:								
Project								
R&D failure	10%	80%						Constant
IT failure								
Business-development failure								
Merger or acquisition failure								
Other:								
Stagnation								
Flat or declining volume	20%	80%						Increasing
Volume up, price down								
Weak pipeline								
Other:								

appeal to customers, and neither captured enough paying customers to be viable. This left the field open to Apple's iTunes online music store. It convinced the recording companies not only that it had a workable copyright-protection scheme but that customers wanted to buy, not rent, individual songs. In its first eight months, iTunes grabbed more than one-third of the overall revenues from song downloads from the fractious recording companies.

Technology Shift. Risks involving technology – for example, the probability that a product will lose its patent protection or that a manufacturing process will become outdated – can have a major effect on corporate performance. But when a new technology unexpectedly invades a marketplace, specific product and service offerings may actually become obsolete in short order. Think, for example, of the way in which digital imaging has shifted market share away from film-based photography.

Of course, you often don't know how and when a technology will win acceptance in the marketplace or which version of a new technology will ultimately prevail. That's why risk-savvy managers faced with an unpredictable situation insure against technology risk by *double betting* – that is, investing in two or more versions of a technology simultaneously so they can thrive no matter which version emerges as the winner. Betting on both the OS/2 and the Windows operating systems positioned Microsoft to be a winner, regardless of which one prevailed. Intel's double bet on both RISC and CISC chip architectures improved the firm's chances of succeeding in the semiconductor industry. By contrast, Motorola's failure to pursue both analog and digital cellular-phone technology opened the door for Nokia to supplant it as the industry leader.

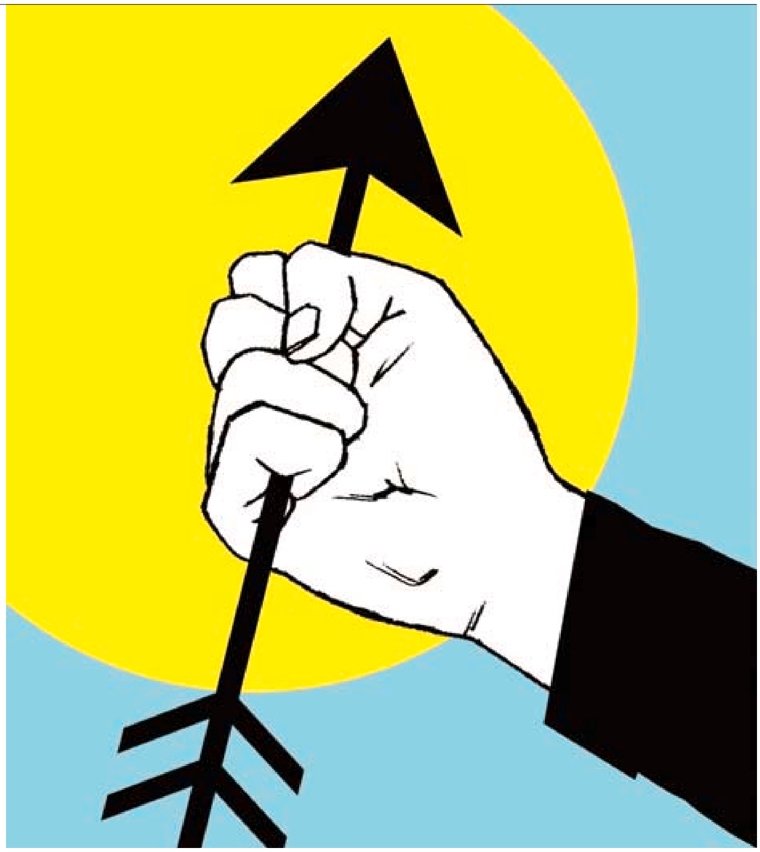
In fact, the cell phone market has experienced a series of technology shifts over the past decade, each posing a fresh challenge to the established companies. In 2002, for example, Nokia decided to concentrate on high-end smart phones and directed 80% of its R&D budget toward this market – failing to double bet on moderately priced phones. Rival Samsung capitalized on this and invested heavily in midrange phones as part of its broad portfolio of products. Midrange handsets took off in 2003 while smart phones fizzled, and Samsung enjoyed 32% sales growth for the year, compared with 6% growth for the overall cell phone market. Nokia's failure to double bet in this case has presented the company with a new strategic challenge against a powerful and committed rival, increasing the overall risk level of Nokia's market position.

Of course, double betting often requires significant short-term investments, so *how* you double bet is crucial. In the late 1990s, the Internet's growth posed a classic double-bet problem for financial services firms. Some companies, such as Bank One, invested large sums in building Internet banking channels, only to discover that very few of their customers – and even fewer profitable customers – wanted online-only service. Because the Web sites were poorly coordinated with the companies' traditional service departments, customers weren't able to easily move from one channel to another, and the banks' investments were largely wasted. Contrast that ineffective double betting with how discount brokerage firm Charles Schwab managed its Internet hedge. Schwab in-

Preventive Measures

Companies face an array of strategic risks. Even the most serious, though, can be mitigated through the use of effective countermeasures.

Strategic risk	Countermeasures
Industry margin squeeze	Shift the compete/collaborate ratio.
Technology shift	Double bet.
Brand erosion	Redefine the scope of brand investment. Reallocate brand investment.
One-of-a-kind competitor	Create a new, non-overlapping business design.
Customer priority shift	Create and analyze proprietary information. Conduct quick and cheap market experiments.
New-project failure	Engage in smart sequencing. Develop excess options. Employ the stepping-stone method.
Market stagnation	Generate "demand innovation."



tegrated its new eSchwab portal into its existing service network, giving investors the freedom to move from one channel to another – from the Web to phones to personal visits with their brokers – as they accessed account information and performed transactions. Subsequent market changes have challenged Schwab's business model, but during the 1990s the company was able to ride the wave of Internet-driven growth because it double bet on competing customer channels.

Brand Erosion. Brands are subject to an array of risks, some predictable and some not, that can sharply reduce their value. In some cases, the risk can appear overnight and threaten the brand with outright collapse. When some of Perrier's bottled water was found to be contaminated, the company experienced a rapid and significant drop in market share. And when some Firestone tires were deemed defective, parent company Bridgestone suffered an 80% drop in net income over one year. In other cases, the relevance and attractiveness of a brand may erode because of underinvestment or misdirected investment. Think of the gradual decline of GM's Saturn brand when, after a successful launch, the company failed to develop new models fast enough to satisfy customers.

One of the most effective countermeasures to brand erosion is *redefining the scope of brand investment* beyond marketing, taking into account other factors that affect a brand, such as service and product quality. Another effective countermeasure involves the continuous *reallocation of brand investment* based on early signs of weakness identified through constant measurement of the key dimensions of the brand.

That is how American Express averted the risk of brand erosion over the past decade. A pioneer in the charge card industry, Amex came under competitive attack in the late 1980s from Visa and several major banks, which began to take market share from Amex worldwide by challenging consumer perceptions of the Amex brand. Visa, in its advertising, emphasized merchants' wider acceptance of its card ("…and they don't take American Express"), while the banks emphasized incentive programs that rewarded frequent usage. Amex's brand, built on prestige and service, was becoming too narrowly focused and less relevant in customers' eyes.

So Amex made a series of investments, some of them unrelated to conventional marketing, to strengthen and broaden the brand. To increase the number of service establishments accepting its cards, Amex invested in its relationships with merchants – reducing their transaction fees, speeding up payments, and increasing support for their advertising. The cut in transaction fees alone reduced Amex's revenues by about $170 million annually, but higher charge volumes more than made up for the loss. Amex also invested heavily in its Membership Miles rewards program, paying more to participating airlines and expanding the program to include five major hotel chains. This reallocation of investments arrested the brand's slide early and contributed to the company's dramatic growth in market value over the past decade.

One-of-a-Kind Competitor. A company's competitors, existing and potential, clearly are one of the main sources of business risk, whether the threat stems from a rival's new product or the emergence of global competitors with lower cost structures. Perhaps the most serious competitive risk, though, is that a one-of-a-kind competitor will appear and seize the lion's share of value in a market. It is vitally important to constantly scan the horizon to identify and track as early as possible the companies that, whether in your industry or not, could become such a rival. When you've identified one, the best response is a rapid *change in business design* that minimizes your strategic overlap with the unique competitor and allows you to establish a profitable position in an adjacent economic space.

Any retailer tracking the proliferation of Wal-Mart stores on a map of the United States during the 1980s and 1990s would have been able to predict precisely when this retailing tidal wave, driven by Wal-Mart's unique business model, would wash through its home territory. Many major retail chains failed to do so. A handful, however, did respond in time, maintaining and growing their value by shifting their business designs to capture their own distinct slices of the market. Discount retailer Target, in the early 1990s, identified the need to offer a unique product selection to compete with Wal-Mart's. In response, it recrafted itself from a conventional discounter to a low-price but style-conscious retailer that appeals to a different customer set than Wal-Mart's. By contrast, Family Dollar stores have driven steady growth by targeting low- and fixed-income households, offering basic household items, food, and apparel in small, bare-bones stores throughout neighborhoods that are too down-market, too rural, or too urban for Wal-Mart.

Customer Priority Shift. Many strategic risks involve customers – a shift in the balance of power toward them and away from companies, for example, or companies' overreliance on a small number of customers. But perhaps the biggest risk is the shift – suddenly and dramatically or gradually and almost invisibly – in customers' preferences. Such shifts happen all the time; the magnitude of the risk depends on its speed, breadth, and depth.

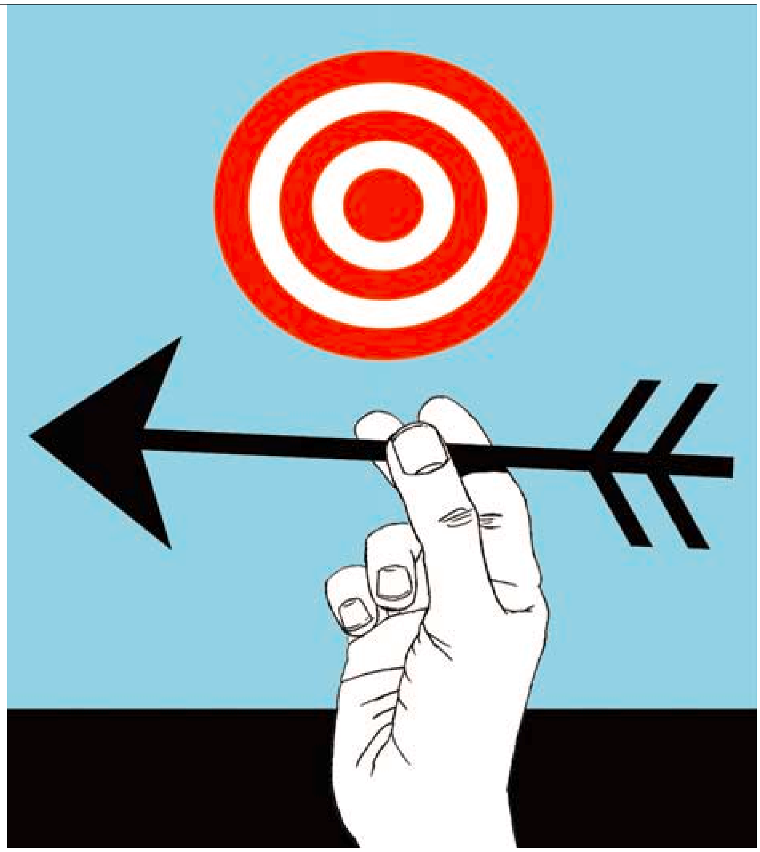
Two powerful countermeasures for managing this risk are the continuous *creation and analysis of proprietary information,* which can detect the next phase of customer priorities, and *fast and cheap experimentation,* which helps managers to quickly home in on the right product variations to offer different customer microsegments. These methods can help companies retain and grow their customer bases – even as customers' preferences evolve – and, over time, increase revenue per customer and overall profitability.

One company that has rapidly become proficient in these methods is Coach, which makes high-quality leather goods. When Coach was spun off from Sara Lee in 2000, it trailed competitors Gucci and LVMH in revenue, profitability, and market capitalization. This was also a period of unanticipated growth and change at the sector's middle-market level, where purses, handbags, and briefcases sell, at retail, in the $200 to $400 range. Known for its conservative styling, Coach faced a high-risk situation as it tried to discern how long its existing customers would stick with the company if it ventured down the more trendy fashion paths that would allow it to expand its customer base. In the past four years, Coach has managed this risk well enough to surpass Gucci in revenue growth rate, profit margin, and market capitalization.

Some of this success can be attributed to Coach's aggressive in-market testing of new products – customer interviews (more than 10,000 a year), in-store product tests, and market experiments that record the effect of changing such variables as price, features, and offers by competing brands. Based on the proprietary information it gathers, Coach quickly alters product designs, drops items that test poorly, creates new lines in a wider range of fabrics and colors, changes prices, and tailors merchandise presentations to fit customer demographics at specific stores. Several years ago, Coach had customers preview its Hampton satchel and learned that they would willingly pay $30 more than the company had thought. In the case of another bag, Coach solicited customer feedback on the design and, learning that customers found it "tippy," responded by widening the base of the bag. As a result of such close and continuous customer contact, Coach has avoided numerous market misfires and has been able to maintain its popularity among its traditional fans while simultaneously attracting a new, younger generation of customers.

Although 10,000 individual customer interviews and the several million dollars a year that Coach spends on in-market testing may seem excessive, the investment of time and money represents a low-cost form of insurance against getting blindsided by customers' shifting priorities. And Coach isn't alone in its generation and smart use of proprietary customer data. A number of companies have developed information systems that keep them plugged in to the microsegments and constant microshifts of their customers. Those firms include Capital One, which conducts 65,000 in-market experiments per year to identify ever smaller customer segments in the credit

You can **position your company as a risk shaper** that is both more aggressive and more prudent in pursuing new growth.



card market, and Japanese video and music distributor Tsutaya, which analyzes customer spending patterns through point-of-sale data, surveys, and databases.

New-Project Failure. Any project involves countless risks. A new product or service venture faces the chance that it won't work technically, that it will fail to attract profitable customers, that competitors will quickly copy it and poach market share, or that its growth will be too slow or too costly. There are also major financial and opportunity risks associated with a new marketing campaign, a major IT or R&D project, or a company acquisition. Indeed, the tough reality is that some four out of five new business projects fail.

The best protection against this risk begins with a clear-eyed assessment of a project's chance of success before it is launched – something that, as everyone knows from experience, often doesn't take place for any number of personal or organizational reasons. Once this evaluation is completed – for example, by reviewing data on past company projects or by collecting external data on the success rate of similar projects – three approaches can help a company systematically improve a project's odds. These are *smart sequencing,* which means undertaking the better-understood, more-controllable projects first; *developing excess options* when planning a project in order to improve the chances of eventually picking the best one; and *employing the stepping-stone method,* which means creating a series of projects that lead from uncertainty to success.

An example of a company using smart sequencing is semiconductor equipment maker Applied Materials, which has carefully focused on the stages of the chip-making process and mastered each stage before moving to another one. Chip making involves at least 15 different stages and some 450 discrete steps. Most equipment suppliers are involved in just one or two stages of the chip-making process. While no supplier is yet capable of providing all the tools needed to create a state-of-the-art semiconductor fabrication system, Applied Materials comes close. It started by selling equipment for one stage, chemical vapor deposition. Based on its understanding of that part of the chip-making process – including the economics of the process and the preferences of key decision makers – Applied Materials added capabilities in adjacent or related stages, such as ion implantation and etching. The company now makes products for 13 chip-making stages and is the leading company in most of its product markets. The risk of taking each step was reduced by the knowledge and customer relationships the company developed in the previous stage. Investors have rewarded Applied Materials for its smart sequencing: While the company's share of the semiconductor equipment industry's revenues is below 40%, its share of the industry's market value has remained between 50% and 60%.

Project failures loom large in the automotive industry, where enormous investments are required to retool plants and develop worldwide marketing, sales, and maintenance programs around a new vehicle. Hence the significance of Toyota's use of excess options in developing its gas-electric hybrid, the Prius. Toyota's process for creating the Prius was a seemingly wasteful one. As recounted by Jeffrey K. Liker in *The Toyota Way,* the company "over-invested" in the Prius by generating a proliferation of design options and then sifting through them to find the best ones. Rather than quickly focusing on a handful of good alternatives, the Prius team simultaneously tested 20 different suspension systems and examined 80 different hybrid engine technologies before focusing on four designs, each of which was then tested and refined in exhaustive detail.

Toyota also took a stepping-stone approach to rolling out the vehicle, a method well-known in the software industry, in which version 1.0 is full of errors, version 2.0 shows great improvement, and version 3.0 is a market success. Version 1 of the Prius, launched in Japan in 1997, was good enough to appeal to a solid base of customers eager to try hybrid technology. Version 2, launched in

2002, featured improved styling, interior space, handling, and fuel economy. There's still a months-long waiting list to buy version 2 of the Prius, which has captured 80% of the world hybrid automobile market, and Toyota now has other hybrid vehicles in development, including a version of the Lexus RX330, that promise to offer even better performance for customers.

Market Stagnation. Countless great companies have seen their market value plateau or decline as a result of their inability to find new sources of growth. In some cases, they face a slowdown in volume growth in a mature market. In others, despite strong volume growth, prices fall and produce weak earnings. Even when the market is strong, an individual company's weak pipeline of products can produce persistent lackluster results.

The most effective countermeasure to the perennial problem of stagnating volume growth is *demand innovation.* This involves redefining your market by looking at it through the lens of the customers' economics and expanding the value you offer your customers beyond product functionality–that is, helping them reduce their costs, capital intensity, cycle time, and risk in order to improve their profitability.

During the past ten years, Air Liquide, a century-old, tradition-bound supplier of industrial gases, was able to pursue demand innovation in a flagging industry. The company, based in Paris, had always excelled at technical innovation. But by the late 1980s, its revenue and operating income were flat, and technical innovation was leading nowhere, until the company redirected its innovation efforts to help improve customers' systems economics.

In the early 1990s, Air Liquide developed technology that allowed customers to establish small gas production facilities on-site rather than rely on large centralized plants and tanker shipments for their energy. One important side effect of on-site production was the higher level of interaction between customers and the Air Liquide staff. The on-site teams soon discovered that their industrial customers had a variety of pressing needs that Air Liquide might be able to address–for example, minimizing the risk of environmental and safety violations and improving their production processes. Senior management began to see how the firm's R&D and production knowledge, which it had struggled to turn into meaningful product differentiation, could be harnessed to improve customers' industrial processes.

Air Liquide gradually expanded from its core commodity gas business to offer a set of new services that included chemicals management, supply chain services, environmental consulting, and the licensing of software tools and systems. By seizing these new opportunities, the company has expanded its potential markets, gained a greater share of its customers' spending, and improved customer profitability and loyalty. As a result, Air Liquide has delivered strong and consistent financial results since the mid-1990s.

The Upside of Risk

Basketball star Bill Russell was a great rebounder, seizing control of the ball after an opposing player missed a shot. While rebounding is considered a defensive skill, Russell always insisted that "rebounding is the start of the offense." By the time Russell grabbed the ball, he was already thinking about the teammate to whom he would pass and, ultimately, the shot he was setting up. He was constantly turning a defensive move into an offensive opportunity.

Similarly, strategic risk management allows managers to move from defense to offense. People typically focus on the perils of risk, and the managerial response is to seek ways to minimize exposure to it. But the pursuit of growth requires companies to take risks, to place bets on specific products, channels, customer segments, and new business models. Strategic risk management, besides limiting the downside of risk, helps managers improve the odds of success behind those bets by forcing them to think more systematically about the future and helping them to identify opportunities for growth.

In fact, the greatest opportunities often are concealed within the defensive countermeasures we've discussed. For Airbus, shifting to a collaborative model as a way for its member companies to escape shrinking margins enabled it to gain market share until it became a true rival to Boeing. For American Express, the fundamental change in its brand investment mix, in response to threats from other bank cards, set off a decade of value growth at the firm. For Target, shifting its focus to a customer segment that was different from Wal-Mart's not only helped it sidestep the Wal-Mart juggernaut but also sparked profitable growth that is the envy of other retailers.

A new view of the relationship between risk and reward is thus emerging. While managers often see a trade-off between the two, creative risk management combined with a good business model can allow a company to improve in both areas. This shift is analogous to the evolution of thinking about the relationship between cost and quality. Thirty years ago, managers believed there was a trade-off in which higher quality meant higher cost. Pioneering Japanese manufacturers turned that thinking around by showing that improving the system could actually reduce costs while simultaneously raising standards of quality.

Similarly, the challenge for managers today is to help their companies move to a position of lower risks but higher financial returns. With the right mind-set and timely deployment of countermeasures such as those described here, companies can manage the full spectrum of risks they face and find that risk/reward sweet spot.

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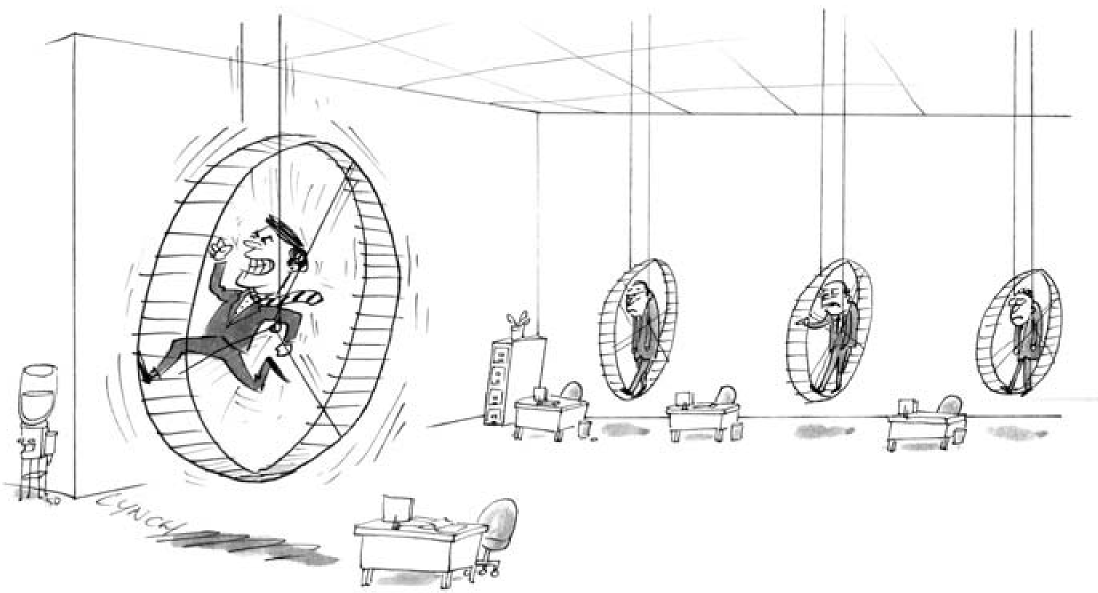
To order, see page 135.

Destination: Anywhere

"Rowing harder doesn't help if the boat is headed in the wrong direction."

Kenichi Ohmae
"Companyism and Do More Better"
Harvard Business Review
January–February 1989

"I've become much more decisive thanks to the rock, paper, scissors technique."



"New guy."

MARC BILGREY, DAVE CARPENTER, LEO CULLUM, MIKE LYNCH, AND P.C. VEY

"You've demonstrated some fine leadership skills, but have you forgotten we hired you to be a follower?"

"Since when did yelling 'C'mon, mama, baby needs a new pair of shoes' become part of our quarterly projections?"

"I try thinking out of the box, but my mind just wanders all over the place."

Every company wants to get close to its customers, but wishing doesn't make it so. New research identifies four stages of customer focus and maps the organizational changes necessary to navigate from one stage to the next.

The Quest for Customer Focus

by Ranjay Gulati and James B. Oldroyd

MORE AND MORE CEOs are hoping a stronger customer focus will be the antidote to escalating commoditization pressures. But as the frustrations of myriad companies can attest, getting closer to customers is not just a matter of installing a better CRM system or of finding a more effective way to measure and increase customer satisfaction levels. Tools and technology are important. But they're not enough. That's because getting close to customers is not so much a problem the IT or marketing department needs to solve as a journey that the whole organization needs to make. The companies that do it well follow a surprisingly similar path, passing the same milestones and, in many cases, struggling with the same problems. The journey can be arduous, it takes a long time – years, not months – but there are rewards all along the way. And for those organizations that have gone the distance, the payoff is remarkable.

For Continental Airlines, the journey began when the company was emerging from bankruptcy and needed to know more about the profitability of its individual customers. One of the first things it uncovered was a service mess that was costing the airline millions of dollars every year.

Continental took a systematic look at how passengers were treated when a plane was significantly delayed, when they were bumped from a flight, or during some other unfortunate event. What it found was that compensation was offered on an arbitrary basis by the gate agent, and, somehow, the lowest value customers were, on average, receiving the highest compensation. Worse, some passengers were finding ways to be doubly compensated; a customer who was bumped from a flight might first approach a gate agent, pick up a voucher for a free flight, and then minutes later telephone the airline and ask for

JOHN UELAND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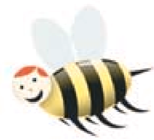
another. The representative answering the phone would have no way of knowing that the same request had just been filled.

It was only when the company began to look at customer information in a more holistic fashion – gathering, consolidating, and analyzing all of its customer interaction information in a single pool – that it was able to correct such inefficiencies. Now everyone who is delayed for, say, nine hours gets the same compensation, and when a gate agent hands a passenger a flight voucher, that transaction is reflected immediately in the customer information database. The passenger will be denied a second voucher even if he gets to a phone within a few seconds.

For Royal Bank of Canada (RBC), the quest for customer focus began when the company discovered that it knew much less about the needs of its customers than it thought. RBC is Canada's largest financial institution, with more than 12 million personal, business, and public-sector clients and offices in some 30 countries worldwide. In 1996, like most financial institutions at the time, RBC had been investing heavily in making banking as convenient as possible, on the assumption that this would attract new customers and increase loyalty. It extended banking hours. It built new branches and installed more ATMs. It added online access. It created insurance, investment, and other new services. But to the company's surprise, a survey of more than 2,000 current and potential customers revealed that people didn't choose a bank on the basis of how convenient it was. RBC scored very well on that measure. But, as the survey clearly showed, that was merely table stakes. Instead, what customers wanted was a bank that demonstrably cared about them, valued their business, and recognized them as the same individuals no matter what part of the bank they did business with.

Based on this insight, RBC set a goal to systematically manage all of its customers at every one of the millions of points at which they came in contact with the bank – a prospect that was daunting, to say the least. To its credit, over the last nine years RBC has learned how to reorient the focus of its entire organization away from products and distribution and toward the real needs of its customers. The results are telling. Dividends swelled from 68 cents per share (in Canadian dollars) in 1996 to $1.72 per share in 2003, driven by a 20% increase in high-value customers and a 13% rise in average customer profitability between 1997 and 2001. Between 2000 and 2004, the percentage of customers that purchased the bank's high-margin packages of bundled products and services doubled, from 35% to 70%, and the success rate of sales leads driven from promotion events rose to 45%. (Compare this against the 2% to 5% response rate typical of standard marketing programs.) Along the way, RBC has won a host of information technology awards for its innovative customer-facing computer systems.



> Getting close to customers is not so much a problem the IT or marketing department needs to solve as a journey the whole organization needs to make.

The Continentals and RBCs of this world are as exceptional as their exceptional results. But they are not unique. What are they, and others like them, doing right? To answer that question, we spent two years conducting an in-depth study of 17 companies that have made substantial progress toward becoming more customer focused. This diverse set of businesses ranges from financial institutions like RBC, to the gaming giant Harrah's Entertainment, to the massive telecom carrier SBC Communications. What we found, at a high level, was that customer-focused companies consistently embrace three concepts.

First, they know they can become customer focused only if they learn everything there is to learn about their customers at the most granular level, creating a comprehensive picture of each customer's needs – past, present, and future. Second, they know that this picture is useless

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if employees can't or won't share what they learn about customers, either because it's inconvenient or because it doesn't serve their interests. Finally, they use this insight to guide not only their product and service decisions but their basic strategy and organizational structure as well.

Over time, these companies enable and enforce coordination between internal units at progressively more sophisticated levels, they find new ways to manage the flow of information, they develop routines for decision making that incorporate customer preferences, and, ultimately, they shift the locus of their customer-focused efforts away from a centralized hub to a more disbursed set of activities that spans the entire enterprise.

Each company we have studied has followed a strikingly similar path in its journey, a path that runs through four distinct stages. Skipping stages might appear to speed up the process, but in the end it denies the organization the sure foundation it needs to build a lasting customer-focused mind-set. By understanding the journey, managers will be able to anticipate the challenges ahead and invest organizational resources, including their own time, in those activities that matter most while avoiding the high-cost, low-return measures that have plagued so many companies.

STAGE 1
Communal Coordination

The journey begins with the creation of a centralized repository of customer information, which records each interaction a customer has with the company. Creating this repository is a two-step process. First, organizations bring together and standardize information drawn from customer touch points throughout the firm into a single pool. Second, they organize this information by customer; that is, they make the customer – rather than the account, the purchase, the product, or the location – the fundamental unit of analysis.

The definition of a customer may not always be obvious. For Continental Airlines, for instance, customers could be defined as travel agents, corporations, or consumers. For a pharmaceutical company introducing a new prescription medicine for children, the customers might be physicians, but they could also be parents, their children, and their insurance companies. As a result, organizations may have to manage and collate their interactions with several interrelated customers together.

Gathering, standardizing, and organizing customer information that comes from all across the organization requires companies to establish a coordination infrastructure. The amount of coordination called for in this stage can be substantial, but it is not necessarily complicated; we call it *communal coordination.* Organizational units need not contact one another directly. Instead, each group contributes its information to the communal pool separately from the others and then taps into it as needed. In the companies we studied, a neutral entity like IT typically controls and oversees the pooling process. That's for two reasons. First, employees of a neutral entity like IT have the technical skills to normalize and cleanse information as it comes into the common repository. Second, and more important, such staff tends to be free of operational biases. Unlike sales, marketing, and other groups that create and use customer information, neutral entities like IT don't concern themselves with the actual value of the information; they care only that it is accurate, clean, and easily accessible. However, ownership of this process requires employees of the neutral entity to possess a unique mix of skills – an understanding of both the technology and the business needs of all the different groups that rely on customer information to make key business decisions. Such talent is not commonly found in most organizations.

The concept of a communal information source is relatively simple, but it requires a substantial investment in both time and technology to make it useful. There is, of course, the challenge of overcoming political boundaries, as people often resist sharing information – and resist losing control over it even more. But at this stage of the journey, it's simply the sheer volume of customer information that tends to make the pooling process so long. At Continental Airlines, it took more than four years. Just for a start, it took six to nine months to properly clean and aggregate the information as it came in from the finance, marketing, operations, and other units. Often, the devil was in the most mundane of the proverbial details–in one case, information might be captured as day/month/year; in another, as month/day/year. Such discrepancies had to be identified and corrected, often manually.

The need to capture information at a granular level is another reason the process is so time-consuming. Continental's database includes as fine a level of detail as a customer's choice of seats and preferred methods of booking; the number of times his flight departed on time, was delayed, or was canceled; and any time his luggage was lost.

If the task is onerous, the payoff is high: The goal of collecting information at so comprehensive a level is that Continental no longer needs to know in advance what business questions it might wish to ask. The repository has within it the potential to answer just about any question.

Pooling the data took even longer at Harrah's Entertainment: six years. Unlike Continental, which was taking over a set of processes that had been previously outsourced, Harrah's had to overhaul internal customer information management systems already in place in numerous properties scattered across the United States. When Harrah's began this process in 1991, competition in the gaming industry was local. Casinos in Las Vegas competed with rivals along the Strip, making ever more costly upgrades to woo customers to their tables from the tables next door. But initial research, which the pooled data confirmed, indicated that customers weren't really choosing among competitors on that basis. What they really wanted was to be properly recognized and rewarded when they visited Harrah's in another market. So Harrah's sought to shift its strategy away from focusing on competitors toward standardizing and improving its customer experience in all of the company's properties, thereby creating a national brand. (Harrah's customer database is described in detail in Gary Loveman's May 2003 *Harvard Business Review* article, "Diamonds in the Data Mine.")

Creating a single view of customers is valuable in its own right: it generates opportunities for cross selling, it reveals glaring errors in customer service, and it can point the way to efficiencies that reduce costs. But more important still, consolidation sets the stage for the next steps on the journey toward customer focus – in two important ways.

First, as individual business or functional units are forced to share information, companies begin to see a shift in mind-set. Employees in one business unit learn to recognize that "their" customers are shared assets, valuable to other units as well. This limited amount of coordination lays the groundwork for much higher levels of coordination to come.

Second, the central repository of customer information itself serves as a building block for the next stages. Continental Airlines in the mid-1990s had 35 to 40 domestic databases and another 50 international databases; more than half of them were dedicated to customer information, but nearly all of them housed some important customer data. Now it has two databases, one for customer analytics and modeling, and one for operational data. Previously, the different information repositories often produced different answers to the same question. There was no consensus within the company as to who the highest value customers were, for instance. The answer varied depending on whether you were looking at miles flown or at ticket price paid. Now there's no ambiguity – both miles and ticket price are factored in.

STAGE 2
Serial Coordination

In stage two, companies go beyond just assembling customer information to drawing inferences from it. Coordinating gets a little trickier as the centralized coordination role expands to manage not only the continued collation of data but also a sequence of tasks performed by certain functional units so that information can be analyzed and the resulting insights shared throughout the company. We call such a coordination architecture *serial coordination.* The sequence typically starts when the collated information from stage one passes to business analytics experts (who frequently reside either in marketing or in a separate unit of their own). They analyze the information and then pass along their results to users in the business units, who identify how best to apply it in marketing efforts, building on their knowledge of the local markets. The handoff from one unit to another may not occur spontaneously; one of the organizational units may need to take a leadership role to ensure that the entire sequence of steps is accomplished and properly coordinated.

In some organizations, the information is employed for more than sales and marketing activities, to analyze and improve a broad range of enterprise operations. For example, Continental was able to mine its customer information to configure its flight network more efficiently. Previously, the airline could analyze only the profitability over time of each route separately by tracking the number of passengers on each flight and the average fare they paid. It did not know whether those passengers were coming or going or what routes they'd previously flown. Now, with the data pooled from all organizational units, the route optimization teams can examine the total revenue generated by each passenger and the pattern of that individual's travel. Viewed in that context, a flight that was previously considered unprofitable – and, consequently, a target for elimination – might turn out to be a key connection between airports used by a substantial pool of very profitable customers. In short, Continental can now maximize the profitability of the whole flight network rather than the profitability of each independent segment.

Learning to use the communal data in this way requires substantial coordination. Employees in Continental's planning and scheduling group managed the overall process to ensure that the serial coordination actually occurred. In this instance, as they began their analysis, the members of the group realized they needed input from several different areas of the business, including operations, pricing, sales, marketing, and finance. They approached each one in turn for its input into the analysis of the flight network. The operations group provided information about how scheduling changes would affect when and in what way airplanes were serviced. Pricing then added information on how changes in ticket prices might influence customers' choices. Sales subsequently assessed what channels would best suit the offering. Marketing got involved to plan the launch of new flight segments. And, finally, finance made sure the assets of the organization were being put to the best use.

The Royal Bank of Canada saw similarly powerful benefits from analyzing its pooled data. In one instance, RBC was examining the effectiveness of one particular service offering. The package combined a checking account, credit card, and some other services, like the ability to pay bills at its ATMs. It was popular, but RBC's analytics team found that nearly 60% of the time these packages were unprofitable. In the past, that discovery might have forced the bank to discontinue a product that customers liked or

Understanding the Customer Focus Journey

	STAGE 1 Communal Coordination	STAGE 2 Serial Coordination	STAGE 3 Symbiotic Coordination	STAGE 4 Integral Coordination
The primary organizational objective	collation of information	gaining insight into customers from past behavior	developing an understanding of likely future behavior	real-time response to customer's needs
The coordination requirement	communal coordination between a neutral information owner and the sources of customer information	serial coordination between the neutral collator of information, analytics experts, and line organizations	symbiotic coordination between the neutral collator of information, analytics experts, and line organizations	integral coordination among all of the company's employees across divisions, geographies, and other boundaries
The locus of leadership	corporate strategy leaders and information technology	corporate strategy leaders, the neutral entity that collates information (such as IT), analytics experts, and marketing	corporate leaders, customer segment managers, and/or pivots that move information vertically and horizontally within the organization	corporate leaders and cross-business integrators

to raise fees for the package, either of which might have solved the bank's problem but not the customers'. With its transaction-level data, however, the company could pinpoint the source of the problem: The ATM bill-paying process wasn't automated. Bank employees had to take the paperwork from the envelopes inserted into the ATM and enter the transactions in by hand.

Serial coordination was overseen by the marketing and strategy group, which initiated the project. The analytics group provided the analysis, the product management group reevaluated the content and pricing of the product bundle, and the finance group studied the impact of the various options on the company's performance. In the end, after considering the input from all of these groups, the bank kept fees the same but added low-cost telephone and online bill-paying services to the original package. Happy customers began using these convenient options of their own volition. And a year later, 90% of these packages were profitable.

Serial coordination is not spontaneous and is fraught with obstacles. Traditional roles and structures create natural barriers to spreading information and lessons learned throughout the company. Some changes to a company's social and organizational structure will be required to overcome them. One of the most significant barriers can be a lack of trust between the group that collates the information, the analytics experts who manage it, and those who apply it in the line organizations.

The best way to whittle down those barriers and build trust is to show some early successes. For example, when RBC began using customer information to target sales activities more precisely, the central analytics team began creating much shorter lists of customers for bankers in the individual branches to contact with new offers. The bankers were initially – and understandably – skeptical of the effort when they started getting 20 names instead of the 300 they were accustomed to, and they hesitated to use the pared-down lists. But they quickly recognized that the new lists yielded much better response rates. That gave the bankers far more confidence in the analytics team.

Leaders of the coordination effort must carefully design the tasks involved at this stage and set up the links between units in such a way as to minimize conflict. For instance, when the centralized analytics group at telecom provider SBC develops a model for assessing, say, a given customer's profitability or usage pattern, the model is handed off to the IT department, which uses it to generate a score for each customer on that measure. The score is then passed to marketing, which uses it to determine which customers to target in promotional campaigns such as outbound calling and direct mail. In the end, yet another group looks at how much revenue each campaign has generated to measure its success. Handing information off from one unit to another in this structured way, at least once a month, helps make the coordination between units ever more seamless.

The second stage in the quest for customer focus usually uncovers critical gaps in employees' skills. Most people are unaccustomed to having so much customer information to work with. Often, those with statistical skills lack business savvy; those with operational knowledge are not comfortable analyzing data. It's difficult to find people who can be "bilingual." John Boushy, Harrah's senior vice president and chief integration officer, and the one responsible for the customer data warehouse, recalled telling his CEO: "I feel a lot like I've built an F-14 and I have Piper Cub pilots to fly them, and what I'm most concerned about…is that they're either going to inadvertently crash and burn, or, worse yet, they're going to fire a missile and…take down a friendly airplane."

In general, we found that best-practice companies centralize this analytic capability because it's not possible or practical to hire people with PhDs in statistics for every unit of the company. With the entry of COO Gary Loveman and his new leadership team in 1998, for instance, Harrah's created a central marketing-analytics team tasked with interacting with the various casinos and ensuring that all of them used the customer data effectively. This arrangement was not something that everyone in the corporate organization or the individual properties was good at or comfortable with, which led to some turnover in both units.

STAGE 3
Symbiotic Coordination

Stage three is a step jump in terms of complexity and the need for coordination because it requires that companies shift their focus from an analysis of past customer interactions to anticipating, and even shaping, the future. They begin to ask questions like: Which customers will be likely to switch to a competitor? Which are most likely to buy a new product or service in the future? Which are most likely to pose an unacceptable credit risk? Addressing these questions requires organizations to move away from the one-way information flow that characterized the previous stage toward a dynamic give-and-take. We call this *symbiotic coordination:* Information and decisions flow back and forth between central analytics units, operating units, and marketing, sales, and other organizational units–and even laterally among the organizational units themselves.

In this stage, companies embrace an experimental process comprising four discrete sets of activities: creating models to predict customer behavior; experimenting with various interventions designed to alter customer behavior; measuring the results of these interventions; and using feedback from the front line to improve the models and subsequent campaigns. In true scientific fashion, companies often set aside a control group and compare the activities of those customers who received an intervention with those who did not. By repeatedly altering the experiments and carefully measuring the results, companies learn over time which alternatives have the greatest impact on customer behavior.

For example, SBC wanted to decrease the number of customers that might defect to the competition. So using the analysis done in stage two of virtually every interaction between the company and its millions of customers, SBC created various defection models to predict the likelihood that an individual would switch to another telecom carrier. It then developed and experimented with various marketing interventions designed to hold on to those at-risk customers. In one instance, SBC learned that people who subscribed to the company's SBC Yahoo! DSL service were significantly less likely to switch their local phone service from SBC to another vendor. Using propensity-to-buy models generated from its information pool, SBC then identified customers with the greatest likelihood of purchasing DSL. This in turn allowed product managers to identify and target only those individuals who would be profitable in a 12-month period. In one campaign alone, SBC was able to reach only its most profitable potential DSL subscribers, without significant marketing expense.

At Continental, the analytics group uses feedback from the company's 49,000 frontline employees to continually develop new hypotheses and interventions aimed at retaining and expanding the company's customer base. The dialogue occurs formally in "think tank" sessions and in training meetings conducted by a group of "ambassadors" from marketing charged with increasing the customer focus of the organization. In these sessions, flight directors, managers, and flight attendants, both domestic and international, come together to relay their firsthand experience to the corporate training officers. The customer-focused group, in turn, relays the information back to the modelers. The modelers then modify and enhance their predictive models, hypotheses, and interventions. So, for example, in one case the company tested different responses to customers who had been inconvenienced in some way, such as when a flight was delayed. Some customers were sent nothing (the control group), some received a letter of apology from the CEO, others got a letter and a flight coupon, and still others got a letter with a club lounge pass. Each group's subsequent purchase patterns were

The customer focus journey takes years, not months, but there are rewards all along the way, and for those organizations that have gone the distance, the payoff is remarkable.

measured, and it turned out that although all of the interventions were beneficial, the letter alone was as effective as the other, more costly offers. Frontline employees also contribute ideas based on their own experiences as travelers. These meetings have been very successful, yielding over 600 ideas for using customer information to improve service. One such idea: Add some of the knowledge the President's Club staff had about frequent travelers – such as their favorite drink – into the database.

Many companies get stuck at this stage because symbiotic coordination requires people in several units who have no formal reporting relationship to interact in spontaneous and unsystematic ways through a constant give-and-take. Work is not handed off serially from one group to another; people are learning together in real time. Pulling this off typically calls for some major structural changes. Most companies take one of two approaches to creating the needed links: They reorganize the entire company by customer segments that cut across product, technology, and geographic boundaries. Or they add new organizational units whose job is to ensure coordination between the centralized IT and analytics experts and the front line. Either way, it's a big job.

Royal Bank of Canada took the former approach. The bank was previously structured around products; employees attended to "mortgage" customers or "deposit" customers rather than to "RBC" customers. Now the company is structured around three customer segments: premium, standard, and foundation customers, each of which cuts across all of the product lines. To preserve a degree of accountability for sales, RBC also created a matrix structure, laying product segments over the customer segments, rather than obliterating the product segments altogether. As expected, the matrix structure engendered some tension between the customer and product organizations; employees focused on products are interested in selling their own products; employees focused on customers are rewarded for maximizing the value of all customers to the organization as a whole. To avoid confusion, RBC's leaders have made it explicit that customer segment employees have the final say in all of the product-oriented staff's customer-related budget decisions.

It takes patience and time to make such dramatic changes. RBC Banking vice chairman Jim Rager waited nearly five years after beginning the customer focus journey before undertaking this reorganization. To make the change more palatable, he wanted employees first to see some early successes with the new customer-focused approach.

Harrah's took the other tack. It created a core marketing-leadership team and an analytics group responsible for building scientific-learning capabilities. Then it made the frontline casino property managers responsible for implementing these new methods in their markets, within guidelines that offered "several degrees of freedom." Under this system, the core leadership team gives each marketing group in the region a specific performance goal for each customer segment but also gives it leeway to take its knowledge of local markets into account when determining how to achieve the objective. The idea is to foster a test-and-learn culture. To ensure proper coordination between the groups, the company created a new division structure, organized geographically: East, Central, and West. Each division head acts as a pivot, relaying strategy and directives to the individual casinos and reporting back to the leadership team on subsequent performance and problems on the front line. It helped that COO Gary Loveman was also the de facto chief marketing officer; having marketing and operations staff report to the same person enhanced the connections. SBC, too, created a new marketing group that cuts across geographies and units. Restructuring the company by customer segment would have been cost-prohibitive because the firm operates from many, many locations, and employees would have spent too much time traveling to achieve symbiotic coordination.

STAGE 4
Integral Coordination

If in the symbiotic stage, companies shift their focus from the past to the future, in the integral coordination stage, they focus on bringing a now-sophisticated understanding of their customers into the present, incorporating that understanding into all of their day-to-day operations. Companies start to move past discrete, formal initiatives to weave customer focus into the informal values and daily behavior of all employees. Customer focus begins to define the organization and pervade its every aspect. In one example, a Continental flight attendant approached a passenger and apologized for a flight delay he had experienced less than 16 hours earlier. In another, a ramp agent – an individual who works on the tarmac loading luggage – noticed that the airline had lost the bag of a high-value customer on a previous flight. That customer was currently on board, so the agent notified her personally that her bag had been loaded onto the plane.

Shifts in attitude cannot be forced.

Employees can only be nudged, pressured, coaxed – and provided incentives.

Whereas previously, central marketing, IT, and analytics groups were the primary drivers of customer-focused initiatives, now activities are extended down into the line organization, where employees are given the autonomy and latitude they need to focus on the customer in virtually every action. Continental, for instance, allows nearly all employees in the company access to its customer information – and it also provides them with access to the experts who can help them analyze and use it. Technology director Anne-Marie Reynolds observes that nearly half of her department's time is spent helping employees access and understand customer information.

At this stage, companies are coordinating key activities across vertical and horizontal boundaries, which are in many cases irrelevant to customers. We call this *integral coordination.* Companies can build informal overlays that transcend organizational boundaries, bringing together people with a passion for some particular customer-focused activity into centers of excellence. At RBC, for example, a data warehouse steering committee, with representatives from all of the bank's lines of business – RBC Investments, Insurance, RBC Banking, and Commercial Banking – establishes priorities and the order in which customer information projects will be funded, making sure that these projects are aligned with overall strategic objectives and that existing corporate roles and structures do not prohibit learning transfer.

Harrah's has created a similar organization for marketing, technology, and operations. The marketing council, which Loveman, now CEO, chairs, includes the core leadership team, representatives from technology, and leaders from each division. Marketing presents ideas to this larger council to elicit its feedback, thus involving the company at large in generating ideas for, and becoming committed to, the customer-focused effort.

When customer focus becomes institutionalized in this way, technology can not only support but even automate decisions. At Harrah's, for instance, technology helps employees to more productively allocate its scarcest resource: its hotel rooms, which run at 95% occupancy year-round. Customers spend more when they stay at the hotel than when they just visit the casino, so Harrah's wants to be able to put customers with the highest potential into the rooms. A new system that can match up customer profitability measures with occupancy predictions helps employees book rooms in a way that dynamically optimizes profitability. Very profitable customers could be given rooms for free, while unprofitable customers could be charged the highest rate. The results of this and other customer-focused programs have been outstanding; profit per available room increased 30% between 1999 and 2003, which equates to more than $20 million a year added to the bottom line despite a significant increase in costs, as the number of rooms in the network has expanded.

Integral coordination is a continual process that needs to be constantly revitalized. SBC conducts training exercises on a large scale to keep customer initiatives at the forefront of everyone's mind. The company's marketing department, which consists of 1,200 people and which turned out 1,700 campaigns in 2002, offers its employees programs like "Campaign List Generation 101" and "Campaign ROI 101." Even Harrah's, a company widely feted for its use of customer information, recognized in 2003 that, owing to natural attrition and turnover, the customer-oriented skill sets it needed weren't necessarily understood or developed throughout the organization. Late that year, it launched an enterprisewide marketing-training program that educated the head of marketing, the director of marketing, and finance officers for each property. In all, more than 100 leaders went through the training in 2004. Harrah's also spent more money on its marketing-related IT investments last year than it ever had before. David Norton, senior vice president of relationship marketing, explains: "We are now reaching for branches higher up the tree, so it is only getting harder. But because we have had so much success, there is a great appetite to invest further and create even greater differentiation between us and our competitors."

While companies can and should distinguish between more and less desirable customers, they should not forget that lower-value customers may over time become more profitable. Indeed, very few of the companies we studied tried to get rid of lower-value customers. Rather, we observed, they sought to understand such customer segments, to identify profitable characteristics in seemingly less-profitable customers. For instance, Harrah's Total Rewards program recognizes people based on their annual value so that lower-but-steady spenders can aspire to perks that high rollers enjoy, such as shorter lines at restaurants. Harrah's then modified Total Rewards in 2003 to allow customers to carry over points from year to year so that they were treated according to their true long-term value.

Similarly, at SBC, the Small Business Group's philosophy is that whatever works for General Motors is also likely to work for small businesses. As Cathy Coughlin, the president of business communication services, explains: "They want the same saving; they want to know if a new product has been introduced that could benefit them."

The challenges in this stage are monumental, primarily because integral coordination requires a major shift in attitude on the part of so many employees. As it began this stage, Royal Bank of Canada found that some of its product employees would pay lip service to the customer-focused approach and then revert to working in ways that undermined the new strategy. Harrah's senior vice president of business development, Rich Mirman, talks about the "huddle after the huddle," a reference to the words of basketball coach Pat Summitt. Summitt would call the huddle and then call the play, but when the team members got onto the court, they would huddle again themselves and change the play. At Harrah's, says Mirman, "we call a play, but the [people from the] individual properties go back and say, 'That doesn't pertain to our market.' All of a sudden, you're spending 25% of your time trying to get people to run the play."

Similarly, the credit card division at RBC, which had always operated as a separate group, agreed in principle with the customer-focused approach but continued its independent marketing activities. The group came around only after it did its own analysis and found that, as the customer-focused strategy was advocating, current bank customers were much more likely to add credit card services than noncustomers. Still, even now, not all of RBC's employees use the centralized customer information repository in their work, and the bank acknowledges that it will probably never see 100% adoption. Even so, the strategy has had a big impact on the business.

Shifts in attitude cannot be forced. Employees can only be nudged, pressured, coaxed – and provided incentives. Harrah's invested $40 million in 2004 alone to reward those employees who according to their managers had delivered outstanding customer service. And after changing its incentive structure and providing comprehensive training, Harrah's showed how seriously it took its customer focus initiative by eliminating the recalcitrant resisters. As a result of these efforts, Harrah's increased the share of its customers' gaming wallet from 36% in 1998 to 43% in 2003. SBC and Royal Bank of Canada have also had to change their incentive structures so that they not only reward sales but also encourage cross-unit cooperation and client-focused behavior.

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Much has been written and said about customer relationship management, and companies have poured an enormous amount of money into it, but in many cases the investment hasn't really paid off. That's because getting closer to customers isn't only about building an information technology system. It's a learning journey – one that unfolds over four stages, each with its own obstacles, and each requiring people and units to coordinate in ever more sophisticated ways. Companies that recognize this will invest their customer relationship dollars much more wisely – and will see their customer-focusing efforts pay off on the bottom line.

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"I used to play myself, when I was younger."

PATRICK HARDIN

THE RELATIVE VALUE OF GROWTH

Does the real potential for shareholder value lie in more growth or extra margin? Here's a way to determine what the market will reward – CEOs should keep this tool at their fingertips.

by Nathaniel J. Mass

Over the past year, I've been conducting a simple, informal survey of friends and colleagues in business, consulting, and investment banking. I ask just one question: "Which do you believe is more valuable for your company – achieving an extra percentage point of growth or gaining a percentage point of margin?"

On the face of it, a point of margin looks much more valuable: 100% of extra margin drops to the bottom line, while, most respondents agree, only 7% to 8% of an extra point of growth turns to profit – and that's assuming the profit margin is sustained. But experienced businesspeople also know that growth has a compounding effect over time that amplifies the long-term benefit. So most of the 30 or so people I spoke with concluded by estimating that a point of growth and a point of margin probably contribute about equally to shareholder value.

I admit that my survey is not scientific. Nevertheless, I find it striking that experienced business leaders and advisers don't have

STEPHEN WEBSTER

a clear sense of the relative impact that growth and extra margin have on shareholder value. My more formal research suggests that growth and margin are anything but equivalent. Growth often is far more valuable than managers think. And it's a mistake to assume that profitability always has to be sacrificed to achieve growth (though there certainly are cases where it does). For some companies, convincing the market that they can grow by just one additional percentage point can be worth six, seven, or even ten points of extra margin.

In practice, the choice of whether to adopt a growth strategy or a margin improvement strategy is seldom obvious and depends very much on industry and company-specific factors. Some firms routinely underweight the value of growth and therefore risk compromising their performance and sustainability. Others pull growth levers when shareholder value is best served by boosting margins and cash flow. And some doggedly fight the last war, staying with an approach whose time has passed. If managers are to make the right decisions in allocating their resources and energies across growth projects and margin improvement initiatives, they will need to better understand the relative value of growth. With that information, they can identify the appropriate targets for their companies and build the right organizational skills to achieve those goals.

In the following pages, I present a new metric, called the relative value of growth (RVG), and the analytic framework that supports it. First, I will examine the RVGs of several well-known companies and explain why the numbers differ and what they say about the strategies of those companies. As these analyses will show, many organizations would benefit more from giving the market reason to expect extra growth than from improving their cost structures. Next, I will address the unspoken assumption that growth and profitability are incompatible over the long term and show that many companies are effective at delivering both. Finally, I will show how managers can use the RVG framework to help them define strategies that balance growth and profitability for their organizations at both the corporate and business-unit levels.

Measuring the Relative Value of Growth

The RVG metric expresses the value of an extra percentage point of growth as a multiple of the value of a percentage point increase in a company's operating profit margin. The higher the multiple, the more valuable growth is to a company. A multiple of 6, for example, means that a firm would generate six times more shareholder value from adding 1% of growth than it would from boosting operating margin by 1%. RVGs for quoted companies can be estimated entirely on the basis of publicly available data. The process takes six steps:

Step 1: Calculate the company's weighted average cost of capital. This requires using standard balance sheet and income sheet data to determine the company's debt-to-equity ratio and cost of debt. I usually estimate cost of debt from the P&L and from contractual interest rates sometimes presented in 10-K reports. The cost of equity can be estimated from historical share-price data using the standard capital asset pricing model (CAPM).

Step 2: Build a basic discounted cash flow (DCF) valuation model. This involves determining a company's sustainable cash flow, a number that captures the ongoing earnings power of the business. The sustainable cash flow number is undistorted by onetime charges or by unsustainable balance sheet changes (like delaying payments to creditors to free up cash) and ideally is adjusted for industry cyclicality. Next, reverse engineer the growth expectations of shareholders by combining the DCF model with the current stock price. This will yield an equation in which the expected growth rate is the only unknown.

Step 3: Use standard algebra to solve the equation to determine the expected growth rate.

Step 4: Taking that growth rate as a starting point, calculate the gain in shareholder value that would result if you increased the growth rate by an additional percentage point.

Step 5: Calculate the impact an additional point of margin would have on shareholder value.

Step 6: Determine the relative value of growth by dividing the value of growth by the value of margin.

Let's look at a simplified example in which I calculate the RVG for a real (but disguised) company in the financial services sector. The company has a market capitalization of $700 million, and the value of its outstanding debt is $300 million, giving it a total enterprise value of $1 billion and a debt-to-equity ratio of 3:7. Annual revenues in the past year were $400 million, and earnings before interest and taxes (EBIT) were $68 million, implying an operating margin of 17%. The company's cash flow available for distribution to shareholders was $40 million (EBIT on an after-tax basis, plus depreciation, less capital expenditures). A summary of the six-step RVG calculation for the company is shown in the exhibit "Calculating the Relative Value of Growth."

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Calculating the Relative Value of Growth

Managers need a clear understanding of the relative impact of growth and extra margin on shareholder value in order to make appropriate strategic choices. The tool presented here allows managers to measure the relative value of growth (RVG) for their own companies–and for their competitors. Using basic balance sheet and income sheet data, as well as standard financial tools, managers first determine the rate of growth that the market expects a company to deliver. Next, they calculate the relative value of growth: the extent to which one extra percentage point of growth affects shareholder value as compared with one additional point of margin.

Company Data:

Enterprise value (EV)	\$1B
Market cap	\$700M
Debt	\$300M
Debt-to-equity ratio	3:7
Revenues	\$400M
EBIT	\$68M
Cash flow (CF)	\$40M
Cost of equity	12.5%
Cost of debt	6%

Step 1: Weighted Average Cost of Capital

Determine the weighted average cost of capital using the formula:

Cost of debt × (*1* – *tax rate*) × *debt ratio* + (*cost of equity* × *equity ratio*)

$6\% \times (1 - 35\%) \times (30\%) + (12.5\% \times 70\%) = 10\%$

>> WACC = 10%

Step 2: Discounted Cash Flow Model

Build a basic perpetuity growth model to determine shareholders' average growth expectation over time:

$$EV = \frac{CF}{WACC - g}$$

>> Where g = expected growth rate

Step 3: Expected Growth

Use standard algebra to solve for g:

$$\$1B = \frac{\$40M}{10\% - g}$$

>> $g = 6\%$

Step 4: Value of Growth

Calculate the value of one additional percentage point of growth using the valuation model from Step 2:

$$EV = \frac{\$40M}{10\% - (6\% + 1\%)} = \$1.333B$$

>> Value of growth = \$1.333B – \$1B = \$333M

Step 5: Value of Margin Improvement

Calculate the value of a 1% operating margin improvement on revenues of \$400M (adjusted for the corporate tax rate):

Increase in cash flow = $\$400M \times (1\%) \times (1 - 35\%) = \$2.6M$

>> Value of margin improvement $= \dfrac{\$2.6M}{10\% - 6\%} = \$65M$

Step 6: Relative Value of Growth

Determine the relative value of growth:

RVG = *value of growth* ÷ *value of margin improvement*

$$= \frac{\$333M}{\$65M} = 5.1$$

$\boxed{RVG = 5.1}$

The first step in determining RVG is to apply the CAPM formula. This gives us a cost of equity for the company of 12.5%. We determine the cost of debt to be an average of 6% (calculated from the debt cost on the P&L and reflecting the maturities of the company's debt). With a 3:7 debt-to-equity ratio, and assuming a standard corporate tax rate of 35%, these numbers give us a weighted average cost of capital of 10%. (See Step 1 of the exhibit.)

In Step 2, we build a simple discounted cash flow model that enables us to infer what growth rate the market expects of this company. For simplicity's sake, we will use a standard perpetuity formula, in which a company's enterprise value equals its cash flow discounted by the weighted average cost of capital (WACC) minus the expected growth rate, or g. Using the assumptions given above, we arrive at the following valuation equation: \$1 billion = \$40 million ÷ (10% – g). In Step 3, we solve this equation, giving us an expected growth rate of 6%.

Now we are ready to calculate the value of an extra point of growth (Step 4). We simply add a percentage point to our expected growth rate and feed it back into our valuation equation to see what impact it has on enterprise value. We divide \$40 million by 3% (10% less 7%), which gives us an enterprise value of \$1.333 billion. The extra point of growth, therefore, generated \$333 million in enterprise value, of which 70% (remember that the debt-to-equity ratio is 3:7) is equity value, yielding \$233 million.

Moving on to Step 5, we calculate the value of an extra percentage point of margin. With revenues of \$400 million, an extra point of margin is worth \$4 million before taxes. Adjusting for a 35% tax rate leaves us with a net increase in cash flow of \$2.6 million a year. We now use our basic DCF model to see what that cash flow represents in terms of added enterprise value. We discount the \$2.6 million at the cost of capital less the expected growth rate (\$2.6 million ÷ 4%), giving us \$65 million in added enterprise value or \$45.5 million in shareholder value (again reflecting the 3:7 debt-to-equity ratio).

The final step is to calculate the company's RVG by dividing the value derived from growth (Step 4) by the value derived from margin (Step 5). The RVG of 5.1 tells us that one extra point of growth yields as much in value as 5.1 extra points of margin.

This calculation is a simple way to assess the relative value of growth for your company and also to provide a quick "outside-in" view of any public company. There are, of course, numerous and more precise ways to get to the number. For example, it is sometimes valuable to extend the basic perpetuity growth model to a more complex DCF model that distinguishes near-term versus long-term growth prospects. Or, company data on cost of capital and growth-return prospects for specific business units can be incorporated. It is also possible to break down the market's expected growth rate into numbers that reflect acquisition-driven growth on the one hand and organic growth on the other. But in my experience, the simple approach is usually quite revealing. Based on the data, you can make important decisions about your firm's strategy. And by using publicly available information, you can look at any number of different companies on more or less the same terms and thus establish a sound basis for comparison. The exhibit "The Corporate Growth Parade" shows the RVGs for a number of leading publicly listed U.S. companies, including some mentioned in this article, and highlights interesting discontinuities between where the real value lies for some companies and their strategies.

For some companies, convincing the market that they can grow by just one additional percentage point can be worth six, seven, or even TEN POINTS OF MARGIN IMPROVEMENT.

What RVG Tells Us

Calculating RVGs gives managers insights into which corporate strategies are working to deliver value and whether companies are pulling the most powerful levers for value creation. Let's now consider four well-known companies to see what their RVGs tell us about them. The analysis in these examples is not precise, but it does suffice to indicate where these companies' managers should be looking for value – and how successful they currently are at extracting it.

Procter & Gamble. Until the announcement of its $57 billion takeover of shaving giant Gillette, P&G was best known as a turnaround story. In 2001, the company eliminated 9,600 jobs and carried out its first overhead reduction in more than five years. Capital spending was also reduced by 1.5% of sales as part of the company's effort to achieve operating efficiencies. The market seemed to reward these initiatives handsomely. Over the past four years, P&G's market capitalization increased by around $70 billion.

But look at the numbers closely and you'll see that Procter & Gamble's success had a lot more to do with the company's growth initiatives than with its cost-cutting measures. P&G's stock price (around $55 at the time of this writing) implied that investors expected the company to grow approximately 4.4% a year. (I used the perpetuity growth model shown in Step 2 of the RVG methodology to derive the expected growth rate, assuming an enterprise value of $157 billion, a sustainable cash flow of $5.6 billion, and a weighted average cost of capital of 8%.) This was well below recent quarters' average earnings growth rate of around 10% but well above GNP growth, indicating that investors expected P&G to generate real earnings growth over the long haul. More than half of P&G's market capitalization reflected these expectations about the company's growth prospects. At the time of the Gillette announcement, P&G's enterprise value due to current performance equaled the $5.6 billion cash flow divided by its 8% cost of capital, yielding $70 billion. The remaining $87 billion of enterprise value, roughly 55% of the $157 billion total, reflected investors' growth expectations. By contrast, four years ago (when, to use July 2000 data in the perpetuity formula, enterprise value was $85 billion, WACC was nearly 7.7%, and cash flow for the previous 12 months was $5 billion), investors were expecting the company to grow by just 1.7%, and less than 25% of the market value could be attributed to expectations about growth. That means investments in growth have delivered over 90% of the more than $70 billion increase in P&G's enterprise value, while the much touted operational improvements have accounted for less than 10%.

What did Procter & Gamble do to elevate share price performance over the past four years? While it did execute several large-scale (and high-premium) acquisitions including those of Clairol and Wella, the real source of P&G's added value was probably the company's reinvigorated commitment to product innovation and its success in building larger business platforms. A good illustration is the company's expansion of its oral care business, which was initially driven by organic innovation in Crest Whitestrips and then reinforced by the small acquisition of Dr. John's Spinbrush, whose revenues P&G was able to grow dramatically thanks to its marketing clout. The creation of additional new product categories, such as Mr. Clean AutoDry Carwash, also added to P&G's luster as a growth company.

The results from the RVG calculations suggest that P&G should continue on the same track. If P&G were to improve the combined company's margin by just a single point, the result would be about $7.35 billion in added shareholder value – a solid boost of nearly 5% to total enterprise value. But if management can convince the market to expect an extra point of revenue growth from P&G, the company will create more than $52 billion in added shareholder value – boosting current enterprise value by a full 34%. The RVG of 7.2 means that P&G would have to wring out 7.2 points of additional operating margin (giving the company an operating margin of 25%) in order to deliver the benefits of just one more point of growth. That would constitute a huge, if not impossible, execution challenge. Delivering value through raising growth expectations is clearly the easier option.

On the face of it, therefore, the acquisition of Gillette looks like a move in the wrong direction. Reverse engineering Gillette's stock price just prior to the acquisition yields an embedded growth rate of 3.1%, more than a full point below P&G's existing rate. However, if the current expectations for Gillette's growth are poor, the value to be unlocked from raising those expectations is anything but. Thanks to the company's already strong profit margins and cash flow, Gillette has an RVG of 10.4, more than three points above P&G's. An additional point of growth would add over $20 billion to Gillette's enterprise value – roughly four times the nominal acquisition premium of $5 billion. In other words, if P&G can apply its marketing skills to boost growth from Gillette's operations by just a third of a percentage point – hardly an impossible task, given the company's success with its own operations – the deal will pay off for P&G's shareholders. And that, of course, does not take into account the margin benefits that P&G can easily squeeze out of the deal by eliminating redundancies across both companies after the deal's completion. Indeed, if P&G improves margins by just one point, delivering $2 billion in value, then all it needs to do to cover the acquisition premium is deliver less than 0.2% a year of additional growth, worth $3 billion.

Procter & Gamble also provides a striking illustration of another advantage of growth – that it has a multiplying

The Corporate Growth Parade

I studied a number of well-known U.S. companies to determine what their relative value of growth (RVG) numbers say about their stated or implied strategic priorities. The higher the RVG, the more valuable growth is to a company as compared with margin. In this sample, some companies, like Pfizer, are clearly on the right track, while others, like Merrill Lynch and Office Depot, show potentially alarming disconnects between their strategies for improving shareholder value and where the real potential lies.

Company	RVG	Stated or Apparent Strategy
Mercury Interactive	14.5	Growth
Pfizer	12.8	Growth
General Electric	11.4	Growth
Merrill Lynch	10.5	Margin
Wells Fargo	10.4	Growth
Computer Associates	9.0	Growth
MBNA	8.1	Growth
American Express	7.4	Margin/Growth
Procter & Gamble	7.2	Growth
Danaher	5.1	Margin/Growth
Kellogg	5.0	Margin
Dell	4.4	Growth
Washington Mutual	4.3	Margin
Capital One	3.7	Growth
IBM	3.5	Growth
BMC Software	3.0	Margin/Growth
General Motors	2.4	Margin
Exxon Mobil	2.1	Margin
UnitedHealthcare	2.1	Growth
Aetna	1.7	Margin
Wal-Mart	1.6	Growth
Lubrizol	1.5	Growth
Allstate	1.4	Margin
CIGNA	1.3	Margin
Hewlett-Packard	1.2	Growth
WellPoint	1.0	Growth
EDS	0.7	Margin/Growth
BJ's Wholesale Club	0.7	Growth
Office Depot	0.7	Growth

effect on value. The value of two extra points of growth is about three times the value of the first point. That's not the case with margin, where the value of two extra points is just twice the value of one point, the value of three extra points is three times the value of one point, and so on. In other words, increases in growth have a compounding effect on value while improvements in margin have a linear effect. For all the publicity around its cost-cutting and efficiency initiatives (both before and after the Gillette announcement), P&G's continued investments in growth and innovation capacity will be the real driver of value creation at the company.

Exxon Mobil. This company has nearly $250 billion in global energy-related sales, including a chemicals division that is the same size as DuPont. Over long periods of time, the total return to shareholders has exceeded both the Dow and the S&P indexes, even though Exxon Mobil's revenue growth has been below the average of other major oil companies. I estimate that the company's cost of capital is around 7.2% – nearly a point below P&G's, even though Exxon Mobil essentially uses no debt to reduce its cost of capital. Enterprise value is around $260 billion.

Estimating Exxon Mobil's sustainable cash flow yields a range for the company's embedded growth rate of 1.8%. I find that less than 25% of Exxon Mobil's valuation is driven by expectations of future growth. These results reinforce the image of a company with extremely strong cash flow that has grown earnings slowly but consistently through intense bottom-line discipline.

Shareholders clearly benefit from a continued focus on the bottom-line. Each point of margin improvement is worth about $28.5 billion in shareholder value, which is nearly an 11% boost to enterprise value. But shareholders would benefit much more if the company were to raise investors' growth expectations. My calculations show that expectations of an added point of corporate growth would be worth nearly $59 billion, adding 22.5% to enterprise value. Exxon Mobil's relative value of growth is thus 2.1. Two extra points of growth would add more than $150 billion in shareholder value, close to a 60% boost – once again showing how increasing growth is increasingly valuable.

Exxon Mobil shouldn't change its stripes overnight and definitely shouldn't move away from operational excellence, but the company could clearly add a growth goal to its core management metrics. Perhaps that's why Exxon Mobil chairman Lee Raymond recently said he wanted to raise the company's growth rate to around 3%. Upgrading growth performance by 1.2 points would contribute shareholder value equivalent to nearly three points of margin improvement – making growth a compelling option given that the company's current operating profit margin of 12% is already healthy for the sector.

Kellogg. An RVG analysis of Kellogg reveals a striking case of potentially misdirected strategic effort by the cereal and snack giant. Over the past year, the company's stock price has risen by 20%, comfortably outperforming its competitors'. The gain has been driven by Kellogg's investment of time and effort into improving operations.

Impressive as it sounds, this performance should be put into perspective. The company's stock price is only back to where it was about five years ago after a rocky few years. Moreover, the RVG formula reveals that Kellogg has barely 0.4% of annual growth built into shareholder expectations – even after the recovery in the share price. As a result, fully 91.5% of Kellogg's market capitalization can be accounted for by currently generated cash flows, and only 8.5% is attributable to growth expectations. Clearly, Kellogg's investors do not see the company as a growth stock.

Continuing the RVG calculation reveals that an extra point of operating margin is worth $1.05 billion to Kellogg, conferring a respectable 6.2% boost in market capitalization. But that number pales in comparison with the $5.3 billion in additional value that would be generated by a point of growth, implying a 31.3% boost to market value and an RVG of 5.04.

This mismatch between the company's potential value creation from growth and market expectations indicates that something is amiss with the company's strategy. Kellogg has been acclaimed for its "Volume to Value" strategy of upgrading to higher-margin products; for cutting excess capacity; and for strengthening direct store delivery (DSD), especially through its Keebler acquisition. But it looks as if investors believe that Kellogg has strengthened operations more than it has invigorated growth capacity. The company needs to reenergize the growth levers of R&D, product mix, and innovative distribution to deliver a more compelling growth story for investors.

EDS. An RVG analysis tells companies not only when to invest in growth, but also when not to. EDS is a $21 billion player in the IT and business-process-outsourcing industry, historically a growth sector driven by economies of scale and scope in managing complex and geographically dispersed networks.

CEO Michael Jordan recently ignited controversy when he announced a plan to cut 20,000 jobs as part of an initiative to shave the company's cost structure by 20%. Critics argued that the aggressive cost takeout would impair the company's ability to compete in a growth market against the likes of Accenture and IBM Global Solutions. As one industry analyst opined, "In the services business, your people are your assets…so [Jordan] is reducing his chances for future growth…he doesn't seem to understand what business he is in."

Investors, however, disagree. Despite a run-up in the share price following Jordan's cost cuts, investors still do not expect that the company will be able to grow very much; the implied growth rate is just 0.2% a year. That means 98% of EDS's market value can be attributed to prevailing profits and cash flow. The fact that the company participates in an ebullient industry has no effect on the market's perception of EDS. Turning to the future, the numbers show that EDS could gain about $1.45 billion in market cap for an extra point of operating margin improvement, compared with $1 billion for an additional point of growth, implying an RVG of 0.69.

EDS, the numbers suggest, is among those companies that need to earn the right to grow. The company has a razor-thin operating margin (around 3.5% of sales) and a relatively high cost of capital compared with its embedded growth rate. Without first boosting margin and cash flows and creating a more scalable growth model, EDS risks destroying shareholder value by attempting to grow revenues. I estimate that EDS needs to add about two and a half points of extra margin to achieve an RVG of 1, at which point a balanced strategy of growth and profit improvement would become appropriate. Jordan is on the right track, but he has further to go. Not least among his challenges will be changing the company's ingrained bias toward investment in growth.

The Drivers of RVG

What are the drivers of a company's RVG? Why, for instance, is Exxon Mobil's RVG just 2.1 while Procter & Gamble's is 7.2? Different RVGs result from variations in four key areas: margin, capital intensity, expected growth rate versus cost of capital, and the synergistic effect of all three of these elements combined. Knowing the drivers of your RVG compared with those of other companies can influence the strategic choices you make.

The first driver is margin; growth cannot create value unless it is profitable. With an average operating margin of 18%, P&G has a clear advantage over Exxon Mobil, which has a margin of 12%. If both companies grow without reducing their margins, each point of growth will be more valuable for P&G than it will be for Exxon Mobil. My calculations indicate that the operating margin effect alone accounts for 1.49 points of difference between the two companies' RVG numbers.

Another source of difference between the two companies' RVGs is that Procter & Gamble's business is less capital intensive than Exxon Mobil's and requires lower levels of working capital (turning Tide into liquid Tide costs a lot less than building an oil rig in the Gulf of Mexico). Thus, it costs Procter & Gamble less to get an extra point of growth than it costs Exxon Mobil. By my calculation, the capital intensity effect means that P&G's business generates $.023 more cash flow per dollar of sales than Exxon Mobil's does. This translates into 0.78 extra points of RVG.

Adding a point of sustainable growth may be harder to achieve than improving your company's margin, but the largest profits usually go HAND IN HAND WITH THE FASTEST GROWTH.

The third factor favoring Procter & Gamble is that it has a higher expected growth rate relative to its cost of capital, which reduces the rate at which future cash flows are discounted into value. So even though Exxon Mobil's cost of capital is 0.9 percentage points lower than P&G's, by my estimates, its expected growth rate – that is, the level of growth that investors believe is sustainable – is 2.6 percentage points lower. This means that Exxon Mobil's cash flows are being discounted at a larger net interest rate than P&G's. In terms of RVG, this is worth 1.38 points for P&G.

In calculating the impact of these three factors, I changed only the variable under review in each case. So in estimating the value of a lower discount rate, for example, I did not assume a higher margin, which allowed me to isolate the impact on value of that variable. But these individual calculations ignore the fact that there are considerable synergies between the three factors. These synergies represent the fourth factor differentiating the RVGs of two companies. The fact that P&G enjoys a higher operating margin plus lower asset intensity plus a lower net discount rate makes the combined value of these advantages more than the sum of their parts. If a company can capitalize a higher operating margin at a lower growth-adjusted discount rate, then the higher margin is all the more valuable. To ascertain the value of the synergy between the lower discount rate and the higher growth rate, I calculated the impact on value of changing both variables together and then subtracted the effect of the two single changes, which I had already estimated. I carried out the same exercise to estimate the synergy value of the lower discount rate and capital intensity and the synergy between capital intensity and growth. Finally, I used essentially the same approach to estimate the synergy value of all three factors changing together. I estimated that the net synergies among P&G's specific economic advantages contribute an extra 1.5 points to its RVG advantage.

Rejecting the Growth–Margin Trade-Off

By now it should be clear that, for most companies, investing in growth generates more shareholder value than cost cutting does. So why aren't more companies aggressively pursuing growth strategies?

Part of the reason, clearly, is the one I highlighted at the beginning of this article: Few executives have a clear measure of their companies' relative value of growth. And that makes it very unlikely that many of them will have compensation packages that are linked to profitable growth targets. Another reason is that the companies that have earned (through financial discipline) the right to grow often lack the management skills to invest in growth. Anyone who has tried to turn around a declining company knows firsthand that taking out costs is challenging, but it's still much easier than reviving growth, which is harder to execute and requires different skills.

For both these reasons, companies often fail to allocate the right quality and quantity of resources to growth programs. This activates a vicious dynamic. If growth programs are not being pursued purposefully and diligently under the eye of top-level management, confidence in the programs erodes, and the organization doesn't build a solid experience base. As a result, growth projects fail to deliver on their promises, reinforcing the perception that profitable growth is too difficult to achieve. I frequently hear CEOs expressing relief that they didn't dedicate their best people to their companies' failed growth programs, not realizing the self-fulfilling nature of the decision.

But my experience as a senior executive suggests that there is a third, even more deeply rooted, obstacle to profitable growth. This is the widespread belief that managers have to choose between growth and profitability, that the two goals are somehow incompatible. As with many ingrained beliefs, there is an element of truth in the idea. The two goals often do clash in the short term. If you build a new plant, for instance, especially in a new geographic market, it is virtually certain that your return on capital will be low for several years. It's hardly surprising that managers under pressure to produce good quarterly numbers find that profits and growth make uncomfortable bedfellows.

To get to the bottom of the matter, I've analyzed company performance in a number of industries characterized by the perception that companies must trade margin for growth. Let's look closely at one of these industries – specialty chemicals, a mature, slow-growth business. As the exhibit "Growth and Performance in Specialty Chemicals" shows, profitability and growth are not necessarily conflicting goals. Many companies perform well on both counts. Valspar, for instance, a high-tech industrial and consumer coatings company, has grown profits by nearly 14% a year while maintaining positive EVA (mainly driven by strong margin). What's more, all the companies that have succeeded at growth have preserved good profitability. In other words, no company in this study had to sacrifice acceptable profitability in order to grow.

The exhibit does show that a number of companies chose to forgo growth in return for better margins. An analysis of their share-price performance reveals that these companies were generally punished by the markets for making this choice. Lubrizol, for example, consistently earns about 3.5 points above its cost of capital. You would expect Lubrizol to have a relatively high market valuation, but in fact it carries pretty much the same valuation multiple as Eastman, one of the laggards with both low growth and low margins. This emphasizes once again how much importance investors, if not managers, place on growth.

Balancing Growth and Margin

Strategy, then, is not an either-or decision of whether to grow or to concentrate on margins. To create the most value for shareholders, companies must define more ambitious and ambidextrous strategies to achieve the right balance between cost control and growing revenues. The RVG framework can help managers achieve this balance. Consider the case of a leading enterprise software player I recently advised.

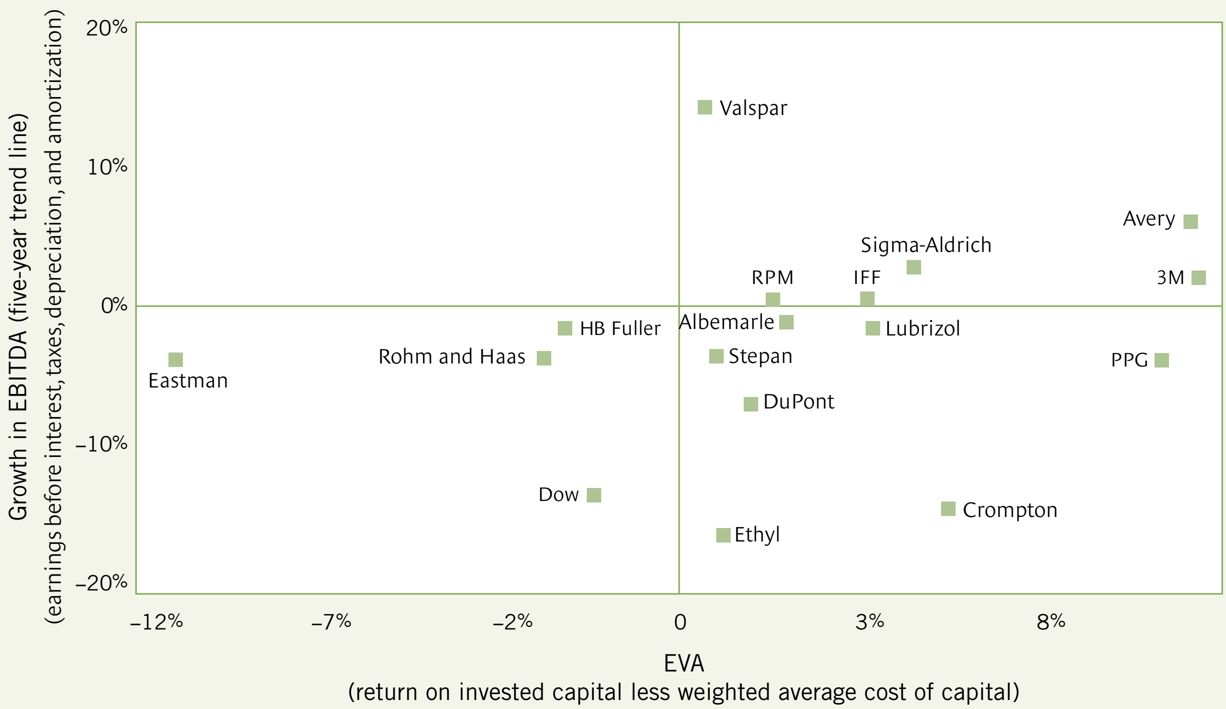
An RVG of 3.5 suggested that the market was treating the company as a growth investment. But in analyzing its RVG, the company realized that the growth expectation of 5% built into its stock price exceeded its near-term capacity to grow organically. Once the market saw that the company had not, in fact, earned the right to grow, a collapse in the share price was inevitable. To achieve the growth necessary to sustain its stock price, the company needed to build a solid growth platform. Managers understood that the problem stemmed largely from the fact that the company's R&D cost structure was bloated by the high support costs required to maintain and tailor older products. This prevented the company from generating a fast enough flow of new products. So the firm took steps to trim R&D costs and accelerate the commercialization of new products. The changes have not only made a target organic growth rate of 7% – which will push the stock price up by 15% – look achievable, they have also increased the value of future growth by pushing the RVG up to 3.8 through a more efficient business model.

Determining the balance between cost management and revenue growth also needs to be done at the product

Growth and Performance in Specialty Chemicals

The misguided notion that companies must sacrifice margin for growth can have disastrous implications for companies looking to create long-term value. This chart illustrates that even in a mature, slow-growth industry like specialty chemicals, profitability and growth can go hand in hand.

I looked at the performance of a variety of specialty chemical companies in terms of their growth rates and margins. I examined five-year average annual growth rates of EBITDA (the usual proxy for cash flow) on the one hand, and EVA, which mainly reflects margin (since asset intensity and cost of capital are fairly stable over even a five-year period) on the other. As this chart shows, companies like Valspar and Avery were able to both grow and maintain positive EVA due to strong margins. What's more, no company had to accept subpar profitability in return for growth. Particularly striking is the absence of companies in the upper left quadrant of the chart (with good growth but poor profitability), in contrast to the multiple high performers in the upper right quadrant (with both good growth and profitability).



level. Here again the RVG framework can help. A particularly useful analytic tool is the value equivalence map (VEM), which allows executives to see how various products should be managed in order to sustain or increase the company's share price.

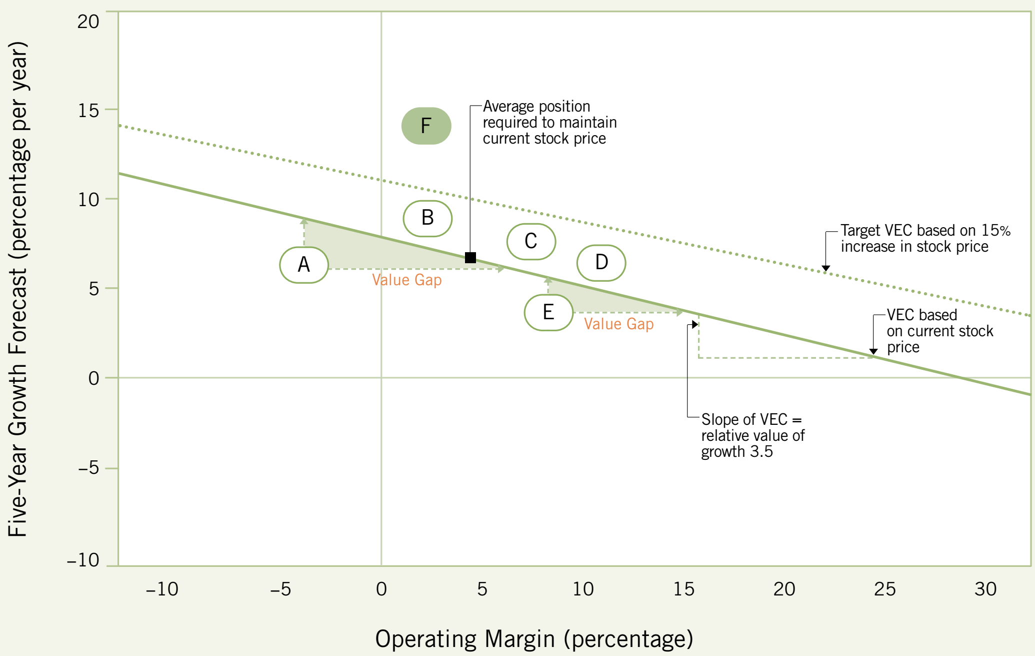
The VEM for the software company in our example is shown in the exhibit "The Value Equivalence Map." Products are placed on the map according to their projected growth and the operating margins they deliver. The diagonal lines, or value equivalence curves (VECs), display the margin and growth rate combinations that will deliver given values for the company's stock price. The slope of the line is the RVG, telling you how many points of margin are equivalent in value to a point of growth. The solid line is the value equivalence curve for the software company's current stock price and RVG, and the dotted line shows the combinations that would deliver the company's targets of a stock price 15% higher and a growth rate of 7% as opposed to 5%.

As the chart shows, of the software company's five main product lines, products A and E have serious value gaps and are detractors for the company. Managers need to intervene if these product lines are to become value neutral and, eventually, higher-value contributors.

The Value Equivalence Map

Companies can use the value equivalence map to better understand how individual parts of their businesses balance margin and growth relative to the company's strategic goals. It can also provide insight into the value creation potential of new business opportunities.

In the software company example shown here, managers place products on the map by plotting their projected growth and the operating margins they deliver. The diagonal lines, or value equivalence curves, display the various margin and growth rate combinations that will deliver given values for the company's stock and RVG. As the exhibit shows, products A and E have serious value gaps. Managers need to intervene if these product lines are to contribute value to the company's portfolio. Introducing product F, with its attractive underlying growth rate, will dramatically improve the company's share price.



The VEM analysis can also help managers better understand how new business opportunities would affect share price. Consider product F in the exhibit. At 3.25%, this potential product has a below-average margin for the company, but an extremely attractive underlying growth rate. If the company were to make an investment in F and bring product lines A and E to the same level as B, C, and D, then it could achieve a share price increase of more than 15%, the company's near-term objective. By continuing to upgrade the portfolio's organic growth to at least 7% per year and by using its strong cash flow to acquire complementary businesses, the company should be able to fuel larger increases in share price over time. Currently, the company is launching product F in concert with the product performance improvements, and it has already seen the 15% boost in share price.

• • •

The relative value of growth framework should be part of every top manager's strategic tool kit. RVG analysis can provide managers with both a sound understanding of where their shareholders expect them to focus their energies and a report card on their performance. In particular, it will help managers avoid the trap of underestimating the potential of growth as a source of value. Adding a point of sustainable growth may be harder to achieve than improving your company's margin, but as many companies have found, the largest profits usually go hand in hand with the fastest growth. It's time we put an end to the idea that the two are incompatible.

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TLFeBOOK

Impressive studies show that following best practices, focusing on the core, and building a strong culture are among the secrets of business success. But beware: These and other received ideas may also be the secrets of failure.

Selection Bias and the Perils of Benchmarking

by Jerker Denrell

Managers learn by example. They – and the consultants they pay for advice – study the methods and tactics of successful companies in search of the magic formulas for business prosperity. What could make more sense?

What could be more dangerous. Looking at successful firms can be remarkably misleading. I once listened to a presentation about the attributes of top entrepreneurs. Drawing on a wealth of impressive case studies, the speaker concluded that all of these leaders shared two key traits, which accounted for their success: They persisted, often despite initial failures, and they were able to persuade others to join them.

That sounded reasonable enough to most people in the audience. The only trouble was, the speaker failed to point out that these selfsame traits are necessarily the hallmark of spectacularly unsuccessful entrepreneurs. Think about it: Incurring large losses requires both persistence in the face of failure and the ability to persuade others to pour their money down the drain.

Here's the problem about learning by good example: Anyone who tries to make generalizations about business success by studying existing companies or managers falls into the classic statistical trap of selection bias – that is, of relying on samples that are not representative of the whole population they're studying. So if business researchers study only successful companies, any relationships they infer between management practice and success will be necessarily misleading.

The theoretically correct way to discover what makes a business successful is to look at both thriving and floundering companies. Then business researchers will correctly identify the qualities that separate the successes from the failures. Researchers might conclude – as many have – that the strength of a company's culture is associated with success because many successful companies have strong cultures. But if they were to study bankrupt companies as well, they might find that many of those also had strong cultures. They might then be moved to hypothesize that the *nature* of a company's culture is at least as important as its *intensity* and then look more deeply into the whole issue of culture.

Similarly, if we want to examine effective leadership traits, we cannot look only at excellent managers. We must also consider managers who failed to be promoted, were demoted, or were fired. Perhaps their styles of leadership were equally visionary – or humble. Without looking, we cannot tell.

The Blinding Light of Success

Selection bias is a difficult trap for business scholars and practitioners to avoid because good performance is rewarded by survival. Any sample of current managers will contain more successes than failures, if firms' internal selection systems work properly. Similarly, poorly performing firms tend to fail and disappear, and so any sample of existing companies by definition consists largely of successful ones.

For that reason, managers are less likely to be infected with selection bias if they're working in an emerging industry. The evidence of failure is all around them. During the Internet boom, for instance, scores of new companies came into and went out of business.

GEOFF GRANDFIELD

What's more, many were able to stay afloat for some time with little, or even no, revenue. Managers trying to evaluate the merits of the various strategies at that stage of the online sector's evolution could work off a relatively unbiased data set.

Of all managers, venture capitalists are perhaps the least likely to suffer from selection bias. Since only about 10% of all investments they make will become profitable, VCs invest in many different ventures in the hope that large returns on the few successes will compensate for the numerous losses. So VCs observe many failures, and their base of experience is almost completely unskewed by success.

It is when an industry matures and the failure rate falls off that selection bias becomes a problem. After the dot-com crash, poorly performing companies finally went out of business, and fewer firms entered, which meant that not as many subsequently failed. At the same time, companies like Amazon, Google, and eBay grew larger, and even profitable, attracting more attention. Going forward, it is likely that only a few large firms will dominate in this industry, and the myriad companies that have followed similar strategies but failed will be forgotten.

The effect of bias is almost certainly larger than most people think because the winnowing process in most industries is so dramatic. Some studies have shown that 50% of all new businesses fail during their first three to five years. Consider, for example, the U.S. tire industry. After a period of rapid growth, the number of firms peaked in 1922 at 274. By 1936, there were just 49 survivors, a decline of more than 80%. So anyone studying the industry in the 1930s would have been able to observe just a very small sample of the population that had originally entered.

That's not to say that established companies don't fail. They do, especially in the wake of radical shifts in technology or demand. But the fact is that people who work in established companies in mature industries are the most susceptible to selection bias. A regional marketing manager in a corporation like Coca-Cola or Procter & Gamble spends most of her time administering a successful brand and product line. She may have failed in implementing a new marketing practice at some time or another, but she will only ever have led the introduction of two or three new products and will probably never have started up a new business. In other words, her experience will be heavily biased toward success.

Selection bias isn't just an issue for individual companies. Judgments about general management practices are also colored by it. A new quality program in one company may not work out as promised and be discontinued. Other firms in the same industry may succeed with the program and keep it. Unless you find out about the programs that failed, you will be able to observe only the successful cases.

I don't mean to suggest that managers and analysts never study failures. But the ones they look at tend to be the really spectacular fiascoes or those, like Enron, that provoke strong moral outrage. And even then, it's usually only in the moment. How many managers spend their time studying the corporate collapses of the 1980s? Yet they still read books about the manufacturing strategies of the Japanese innovators of that time.

Where the Dangers Lie

What kinds of traps do managers fall into when they rely on biased data? Three are likely.

Perhaps the most prevalent mistake is to overvalue risky business practices. The problem is easy to see in the exhibit "The Effects of Bias," which illustrates what happens when trends are drawn from incomplete data fields.

The graphs plot the relationship between engaging in a risky organizational practice and subsequent corporate performance. The first graph records data from all companies that have ever implemented the risky practice, while the second one excludes companies that failed. As you might expect, the performance of firms that do not employ the practice at all is relatively stable. But the greater the degree to which firms engage in the practice, the wider the gap between the successful and unsuccessful companies becomes, as performance either spikes or plummets. On average, though, as the trend line shows, engaging in the risky practice somewhat *reduces* performance.

Now suppose that we observed this industry only after many of the worst-performing companies had gone out of business or had been acquired by other firms. In that case, we would have seen the successes but few of the failures associated with the risky practice. As a result, the observed association between the risky practice and performance would be *positive,* as the second graph shows – the reverse of the true association.

Lee Fleming aptly illustrates this dynamic in his *Harvard Business Review* article "Perfecting Cross-Pollination" (September 2004). Fleming finds that, on average, the value of innovations coming out of diverse, cross-functional teams is lower than the value of innovations produced by teams of scientists whose backgrounds are similar to one another. But the innovations that the more heterogeneous teams produce tend to be either breakthroughs or dismal failures. In fact, the distribution of the innovation values as the diversity of team members increases looks quite similar to what we see in our first graph.

In most instances, however, data on failed projects are not available, at least about failed projects in other companies, so most managers would be able to observe just the distribution pattern we see in our second graph. As a result, they would overestimate the value of cross-functional teams. Only by collecting data on both successes and failures, as Fleming did, could they spot the risks involved in using cross-functional research teams. (Another example of the same dynamic is described in the sidebar, "How Wrong Can You Get?")

A second trap for unwary managers arises from the fact that performance often feeds on itself, so that current accomplishments are unfairly magnified by past achievements. To see how this works, imagine that a company is a runner competing against other runners. If the runner wins ten independent races, he is probably better than the others, who can learn from him. But suppose instead that the outcome of one race affects subsequent races. That is, if the runner wins by one minute in the first race, he gets a one-minute head start in the next race, and so on. Clearly, winning ten such races is less impressive, since a victory in the first race gives the runner a higher chance of winning the second, and an even higher chance of winning the third, and so on.

Many industries work the same way. For example, a telephone company or a software firm that had a large market share in 2004 will probably also have a large market share in 2005, owing to customer inertia and switching costs. Thus, even if managers do a poor job in 2005, such a company might still turn in high profits, as managers coast on their past accomplishments or good luck.

Focusing on stock market returns instead of profits mitigates this problem, since changes in stock prices, in a well-functioning market, do reflect changes in performance. But defining success by stock market returns introduces other problems. As Wharton professor Sidney Winter has pointed out, a company's stock price will hold steady when one excellent CEO succeeds another. However, the share price will increase when the company exchanges an inferior CEO for a better, but still substandard, CEO. Maintaining excellence, in other words, might be less well rewarded than becoming merely mediocre.

A third problem with looking only at high performers for clues to high performance is the issue of reverse causality. Data may, for instance, reveal a strong association between the strength of a company's culture and its performance. But does a strong culture lead to high performance or the other way around? The chicken-and-egg problem is especially knotty in this instance since high performance in itself affects corporate culture in several ways. To begin with, it's probably easier to build a team-based culture in a healthy firm than in a failing one, where workers are likely to be demoralized and disloyal. High-performing companies also can afford to institute programs and practices that low-performing firms cannot. Some of these expensive and time-consuming activities might actually reduce performance at struggling companies.

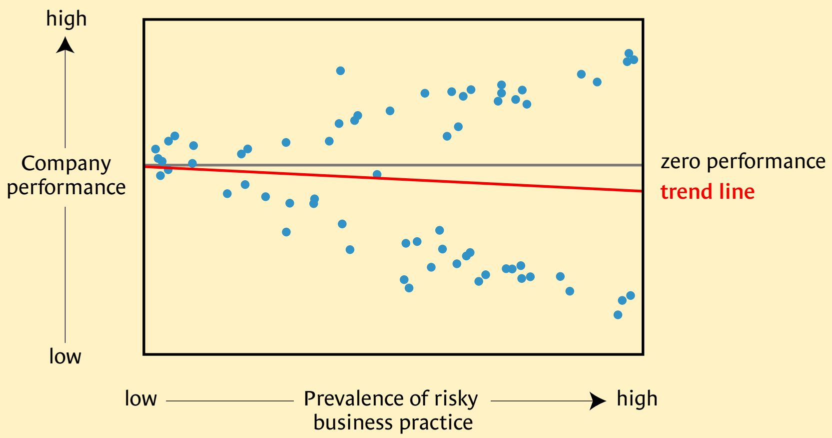
How many managers study the corporate collapses of the 1980s? Yet they still read about the Japanese manufacturing strategies of that time.

Jerker Denrell *is an assistant professor of organizational behavior at Stanford Graduate School of Business in Stanford, California. A more-detailed discussion of the concepts in this article can be found in his paper, "Vicarious Learning, Undersampling of Failure, and the Myths of Management,"* Organization Science, *May–June 2003.*

The Effects of Bias

What happens when people draw conclusions from incomplete data? Suppose you are investigating the relationship between corporate performance and a particular risky business practice, such as using cross-functional teams. If you plotted the results of all companies that engaged in this practice (or any such practice), you would find that the more widespread the practice, the more volatile company performance, and your graph would look like this:

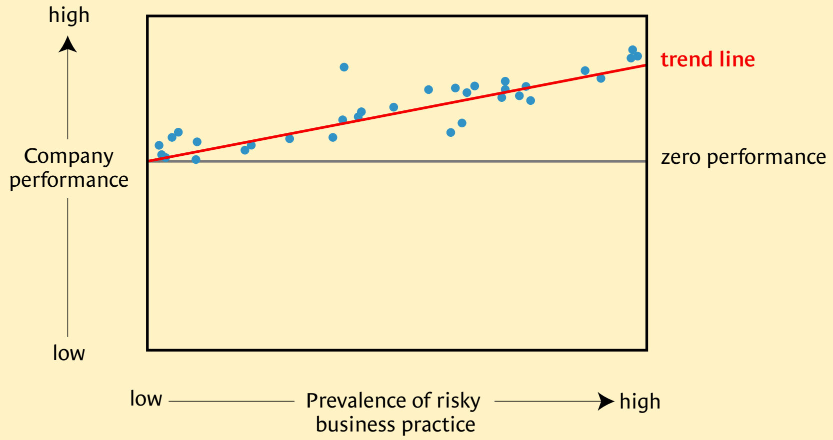
All Companies



On average, as the trend line indicates, any such risky practice is correlated somewhat negatively with performance.

But suppose that you looked only at existing companies and excluded all those that had gone out of business while engaged in this practice. Then your graph would look like this:

Only Existing Companies



Now the trend line will indicate a positive correlation, which of course is not the case. Thus selection bias will cause you to draw precisely the wrong conclusion.

What's more, managers' expectations of performance may influence their choice of strategies and thus confound interpretations of the effect those choices have. As William Boulding and Markus Christen observed in "First-Mover Disadvantage" (HBR, October 2001), companies that have innovative products and strong distribution capabilities often choose to enter new markets early. Their strong products and capabilities produce high returns. As a result, however, their managers associate early entry with high performance in all cases, even when there is a first-mover disadvantage.

Bias, Bias Everywhere

Many of the popular theories on performance are riddled with selection bias. One of the most enduring ideas in management, for instance, is the notion that successful firms are those that focus most of their resources on one area or technology rather than diversifying. Books such as *In Search of Excellence, Built to Last,* and *Profit from the Core* all recommend that managers "stick to their knitting" and "focus on the core."

Typically, the research studies behind these books look only at existing companies or – even more narrowly – only at highly successful companies. As a result, their authors overestimate the benefits of focus. Consider, for example, Chris Zook and James Allen's finding in *Profit from the Core* that 78% of all high-performance firms focused on one set of core activities while only 22% of lower-performance firms did. The study comprised some 1,854 companies, judging high-performance according to share price returns, sales, and profit ratios, but it included only businesses that survived throughout the study period. It did not, therefore, consider any company that started with a focused strategy but then failed.

Including those failures would have changed the picture substantially. According to Zook and Allen, 13% of all firms achieved high performance, of which 78% – or 188 firms – focused on the core. If in that period just 200 other companies with focused strategies that had gone out of business had been included in the sample, then the true relationship between focus and performance would be the precise opposite of the one Zook and Allen infer.

Another fond notion often lauded by management gurus and the popular press is that CEOs should be bold and take risks. Indeed, many stories in the business press celebrate the intuition of certain great leaders. No less an authority than Jack Welch entitled his autobiography *Straight from the Gut.* Some leaders – notably Sony's Akio Morita – have gone so far as to eschew market research altogether, believing their instincts are a better guide to market changes.

It's certainly true that companies can be handsomely rewarded when their CEOs take big risks. Suppose you are operating in an industry – fashion, say, or consumer electronics – where first movers have an advantage but where there is also considerable uncertainty regarding consumer preferences. To gain first-mover advantage, a company must act quickly. The top-performing companies will be those that, led largely by the instincts of their senior managers, are lucky enough to launch products that happen to appeal to customers.

But the worst-performing companies will also be those that act on hunches – and happen to launch products that don't appeal to customers. Since few people advertise their failures, and many of these unfortunate firms cease to exist, we hear mainly about the success of decisions based on gut feelings and little about the countless "visionaries" who similarly tried to revolutionize industries but did not.

The point here is not that all the popular theories about performance are wrong. I don't know. There may be a genuine link between success and focus. In some industries, the strength of a culture may matter regardless of its nature. And the instincts of some managers may be as sound a basis for strategic decision making as any amount of analysis. But what I do know is that no managers should accept a theory about business unless they can be confident that the theory's advocates are working off an unbiased data set.

Fixing the Problem

The most obvious step to take to guard against selection bias is to get all the data you can on failure. Within your organizations, you must insist that data on internal failures be systematically collected and analyzed. Such information can otherwise easily disappear because the people responsible may leave the organization or be unwilling to talk. Looking outside your company, you should extend your benchmarking exercises to include less-than-successful firms. Industry associations can help you collect data about failures of new practices and concepts.

Despite your best efforts, it's unlikely you can ever be completely confident that your data are unbiased. Fortunately, you do have some backup, because economists and statisticians have developed a number of tools to correct for selection bias. These tools, however, are grounded in certain assumptions, which may be more or less realistic, depending on the context.

Suppose, for example, that we want to estimate the average return on equity of all companies in a given industry, but we have available only the ROE data of surviving firms. Since low-profit businesses are more likely to fail, just taking the average ROE of all surviving firms would lead to too high an estimate. But suppose we assume that ROE is distributed along a standard bell curve and that all businesses with a negative ROE will fail. Then we can use the data we have to estimate the average ROE for all firms because the information on hand is enough to tell us how steep the curve is, how broad, and what the average is.

This approach can be used to correct for bias in any situation in which we can apply formal statistical tools. For instance, let's say we suspect that in a particular industry, the more training a company's sales staff gets, the higher the average salesperson's performance will be and the more consistent the entire sales staff's performance will be. Suppose further that we have detailed

How Wrong Can You Get?

During World War II, the statistician Abraham Wald was assessing the vulnerability of airplanes to enemy fire. All the available data showed that some parts of planes were hit disproportionately more often than other parts. Military personnel concluded, naturally enough, that these parts should be reinforced. Wald, however, came to the opposite conclusion: The parts hit least often should be protected. His recommendation reflected his insight into the selection bias inherent in the data, which represented only those planes that returned. Wald reasoned that a plane would be less likely to return if it were hit in a critical area and, conversely, that a plane that did return even when hit had probably not been hit in a critical location. Thus, he argued, reinforcing those parts of the returned planes that sustained many hits would be unlikely to pay off.[1]

1. The Wald story is one of the most widely cited anecdotes in the statistical community. To find out more about it, see W. Allen Wallis, "The Statistical Research Group, 1942–1945," *Journal of the American Statistical Association,* June 1980, and M. Mangel and F.J. Samaniego, "Abraham Wald's Work on Aircraft Survivability," *Journal of the American Statistical Association,* June 1984.

data on the investments in training made by most firms currently operating in the industry. If we can safely assume that performance follows some specified distribution pattern, we can in principle use the data we have to obtain an unbiased estimate of how investments in training actually do influence the average level and variability of sales staff performance, even if we do not have data on firms that failed. Essentially, what we are doing is inferring the shape of a particular iceberg by observing its tip and making (we hope) a reasonable assumption about the relationship between the tips of icebergs and the rest of them.

The pioneer of these statistical methods was James Tobin, winner of the 1981 Nobel Prize in economics. His work was later built upon by James Heckman, who himself received a Nobel Prize in 2000 for his contributions in this area. In recent years, management scholars have applied these methods to correct for selection bias in their own research and have started to advocate for their use in the broader managerial community. In "Getting the Most out of All Your Customers" (HBR, July–August 2004), for instance, Jacquelyn S. Thomas, Werner Reinartz, and V. Kumar demonstrate how such tools can be used to improve the cost-effectiveness of marketing investments.

Cautionary words and counsels of failure, I know, are seldom well received. Managers crave certainties and role models from business literature, and to some extent they have to. They live in a fast-paced world, and they often cannot afford to postpone action until they get better data. But there really is no excuse for ignoring the glaring traps we've described in these pages. Success may be more inspirational, but the inescapable logic of statistics dictates that managers in pursuit of high performance are more likely to attain their goal if they give the stories of their competitors' failures as full a hearing as they currently do the stories of their successes.

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The Half-Truth of First-Mover Advantage

by Fernando Suarez and Gianvito Lanzolla

First-mover advantage is more than a myth but far less than a sure thing. Here's how to tell when it's likely to occur – and when it's not.

BRETT RYDER

Some management concepts have such intuitive appeal that their validity is almost taken for granted. First-mover advantage is one such concept. Although the fate of its most-convinced adherents, the dot-coms, offers a cautionary lesson, managers' faith that first-mover status brings important competitive advantages, even when network effects are not available to accelerate and entrench it, remains undiminished. Business executives from every kind of company maintain, almost without exception, that early entry into a new industry or product category gives any firm an almost insuperable head start.

But for every academic study proving that first-mover advantages exist, there is a study proving they do not. While some well-known first movers, such as Gillette in safety razors and Sony in personal stereos, have enjoyed considerable success, others, such as Xerox in fax machines and eToys in Internet retailing, have failed. We have found that the differences in outcome are not random – that first-mover status can confer advantages, but it does not do so categorically. Much depends on the circumstances in which it is sought.

One possible explanation for Sony's success is that its strong brand name, substantial financial resources, and excellent marketing skills allowed it to make the most of its first-mover status. But Xerox, too, had a great brand name, deep pockets, and many valuable skills. And Sony, despite its brand and marketing muscle, could not translate being the first mover in home VCRs into anything approaching its success with the Walkman. Yes, a firm's resources – and luck – are important, but certain other factors and conditions can be decisive as well.

Our research, based on a thorough examination of the literature on first-mover advantage, as well as an analysis of more than 30 cases of early entry into new product spaces, has enabled us to identify situations in which companies are likely to gain first-mover advantages and those in which such advantages are less likely. Specifically, we identified two factors that powerfully influence a first mover's fate: the pace at which the technology of the product in question is evolving and the pace at which the market for that product is expanding. Knowing how fast or slow the technology and the market are moving will allow you to understand your odds of succeeding with the resources you possess.

First-mover status can confer advantages, but it does not do so categorically. Much depends on the circumstances.

What Kind of First-Mover Advantage?

A first-mover advantage can be simply defined as a firm's ability to be better off than its competitors as a result of being first to market in a new product category. We find it useful to distinguish between durable first-mover advantages, which improve a firm's market share or profitability over a long period, and those that are short-lived. Although no advantage lasts forever, firms that succeed in building durable first-mover advantages tend to dominate their product categories for many years, from a market's infancy until well into its maturity. Coca-Cola in soft drinks and Hoover in vacuum cleaners unmistakably demonstrate both the value and longevity of early success.

But even when a company cannot build a durable first-mover advantage, it may obtain some benefits from early entry. The pioneering efforts of Netscape, the first to market an Internet browser, briefly produced enormous gains for shareholders until the stock price plummeted in 1997 following the rise of Microsoft's browser, Explorer. Apple declined more gradually – it was profitable for several years before pressure from Microsoft and Intel took a toll, forcing it to restructure in the early 1990s. Whether the end comes suddenly or slowly, profits can be great enough to make a short-lived first entry a worthwhile investment – and perhaps to make it a strategic objective. Of course, a business is free to choose not to enter a new market at all. But even a runner-up's margins may look good compared to the opportunity cost of staying out of a new market.

Industry Dynamics Are Crucial

Most students of first-mover advantages have concentrated on *how* firms achieve them. One of the three main ways is by creating a technological edge over competitors. By starting earliest, first movers have more time than later entrants to accumulate and master technical knowledge. The second way is by preempting later arrivals' access to scarce assets – for example, a location on a city's main street, talented employees, or key suppliers. The third is by building an early base of customers who would find it inconvenient or costly to switch to the offerings of later entrants.

What has been largely ignored is the conditions under which those three tactics are most likely to succeed or fail. Just as a swimmer's ability to cross the English Channel depends as much on the water's roughness as on his or her own skill and experience, an early entrant's prospects depend as much on background factors as they do on the firm's resources and capabilities. The two most important factors – the pace of technology evolution and the pace of market evolution – are typically beyond the control of any single firm.

There can be enormous variation in the rates at which products' underlying technologies advance. For example, the first manufactured glass dates back to about 3500 BC, when Middle Eastern

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artisans heated crushed quartz to make glazes for ceramic vessels. But it took three millennia for the next important technological change, glassblowing, to arise, and 1,600 years more before Englishman George Ravenscroft invented lead glass. No other important technological change occurred until Alastair Pilkington invented the float-glass process in the twentieth century. By contrast, a computer today bears little resemblance to one made even ten years ago.

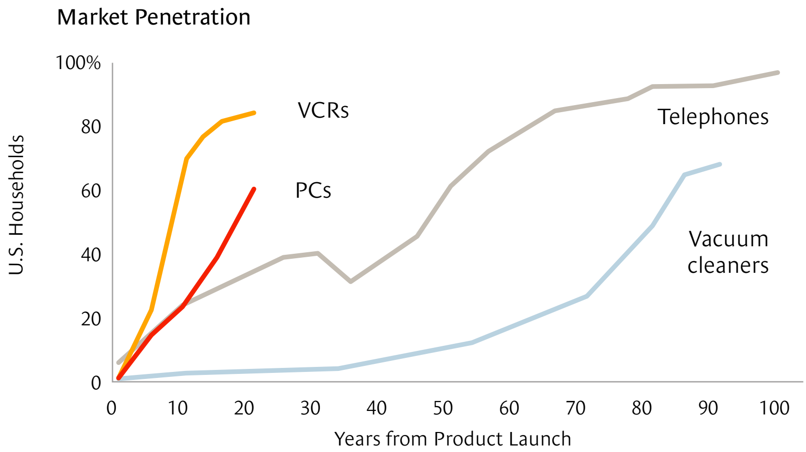
Some technologies, such as computer processors, evolve in a series of incremental improvements; others evolve disruptively, creating a break from the norm, as was the case when digital photography began to displace film. The faster or more disruptive the evolution of technology, the greater the challenge for any one company to control it. Even in product markets dominated by firms with large R&D budgets, new entrants and other competitors tend to drive technological progress.

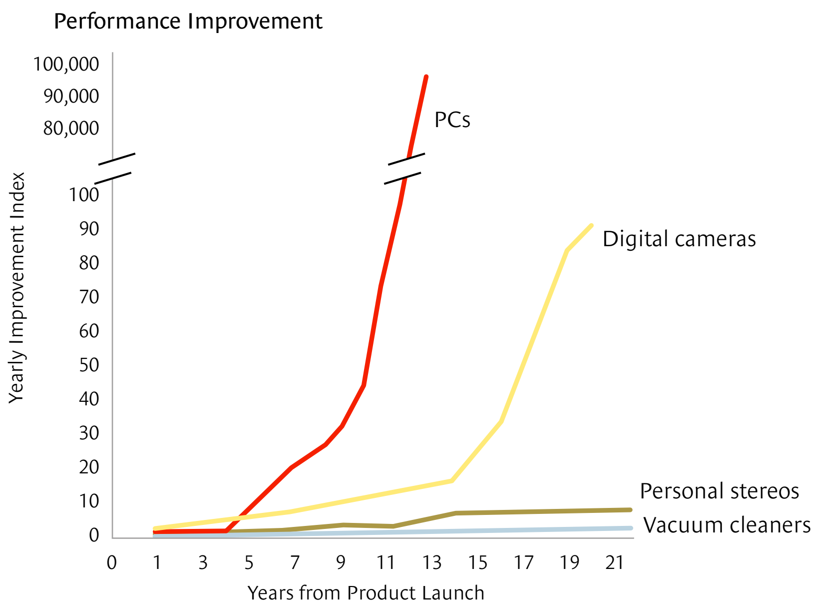
The pace of market evolution can vary as markedly as the pace of technological evolution. For example, the markets for automobiles and fixed telephones developed much more slowly than, say, the markets for VCRs and cellular telephones. Fixed telephones needed more than 50 years to reach a household penetration of 70%; cellular telephones achieved the same level in less than two decades.

The greater a new product's or category's departure from existing products or categories, the more uncertain will be the pace of the market's growth and its eventual shape–how many segments the market will divide into, for example. Nokia launched the N-Gage, a gaming and music platform that includes a phone, in October 2003. Despite a

The Pace of Change

The market penetration and performance improvement of most new product categories follow similar trajectories–they progress slowly at first, pick up speed, then level off. But the rate at which they change varies dramatically. Telephones and vacuum cleaners became widespread slowly, but VCRs caught on almost overnight. PCs improved rapidly, while personal stereos remained little changed for years.





The yearly performance improvement index shows the factor by which each product's technical performance has multiplied each year.

massive marketing campaign, positive comment from experts and the public, a superb brand, and market dominance in the related category of mobile phones, the company shipped in 2004 only a fraction of the "several million" devices it said it would.

The exhibit "The Pace of Change" shows how the rate of technology and market evolution can vary across product categories. The trajectories of both technological improvement within a product category and that category's expansion in the market are roughly S-shaped – slow progress at the beginning yields to rapid progress and then a flattening in the growth rate. But the precise shape of the S varies from one category to the next.

The Likelihood of a First-Mover Advantage

Think about a new product category your company recently entered. Are innovations continually popping up? Or do they appear infrequently enough that you can stay current? Now consider the market for that product. Is it growing so fast that you can hardly keep up with demand, or is it expanding only gradually, giving you and others in the industry plenty of time to plan and reach new customers?

The exhibit "The Combined Effects of Market and Technological Change" illustrates the four possible combinations of slow and rapid technology and market evolution. We use the term "calm waters" for the upper left cell of the matrix, where the technology and the market are evolving gradually. In the upper right, technological change is modest while the market grows rapidly–thus the market expands faster than the technology evolves. In the lower left, the technology leads – performance improvement is rapid compared with the evolution of the market. The lower right is the "rough waters" area, where both the technology and the market evolve quickly.

When the Waters Are Calm

Gradual evolution in both technology and markets provides first movers with the best conditions for creating a dominant position that is long lasting. The vacuum cleaner industry protected its first mover by evolving slowly and smoothly. In 1908, in Ohio, William Henry Hoover produced the first commercial bag-on-a-stick upright vacuum cleaner, but it made little headway. As late as 1930, fewer than 5% of households had purchased one. The technology changed as slowly as the market. When innovation did occur, the change was enduring. In 1935, Hoover designer Henry Dreyfuss encased the vacuum cleaner's components in a streamlined canister, creating a technological blueprint that more or less persists to this day. In such a benign environment, Hoover had little trouble keeping up-to-date technologically and meeting demand. The company's machines became the reference point within the category. The British even turned the brand into a verb–"to hoover."

A gradual pace of change in the technology makes it hard for later entrants to differentiate their products from those of the first entrant. Even if competitors discover some means of doing so, the differences are not rapid enough or drastic enough to prevent the first mover from mastering them and folding them into its product line in a timely fashion, as Hoover did with the relatively few minor innovations introduced by competitors Electrolux and Eureka. (With globalization, however, the vacuum cleaner market has fragmented, creating niches for European makers, such as Miele, that Hoover and other mass-market manufacturers are now trying to occupy as well.)

An initially slow pace of market growth also tends to favor the first mover by giving it time to cultivate and satisfy new market segments. Though devastating to most businesses, the Great Depression was kind to Scotch Tape, which was invented by 3M's Richard Drew in 1930. At first, Drew thought the product would be used in industrial settings – perhaps to seal cellophane wrapped around baked goods. Instead, it was taken up by ordinary people, who were looking to repair items that in more affluent times they might have discarded. The gradual growth of Scotch Tape's appeal gave 3M time to organize production and distribution. Technological change was similarly modest, enabling 3M to keep up-to-date and preventing later entrants from both introducing superior versions and "inventing around" 3M's patent. Indeed, the product remained basically unchanged until 3M released the

The Combined Effects of Market and Technological Change

The pace of change in a technology and a market can have a profound effect on a company's chances of achieving a first-mover advantage. Four possible scenarios face a would-be first mover.

Pace of Technological Evolution \ Pace of Market Evolution	Slow	Fast
Slow	**Calm Waters** Scotch Tape	**The Market Leads** Sewing machines
Fast	**The Technology Leads** Digital cameras	**Rough Waters** Personal computers

almost-invisible Magic Transparent Tape in 1961. As with Hoover, Scotch Tape so dominated its category it became synonymous with it.

The combination of a slowly changing market and a slowly changing technology makes company resources less critical than they would be in the other technology-and-market environments. By "resources" we mean the skills or capabilities and the assets that organizations develop over time. Among the most important capabilities are product development, production, and marketing. One important asset is brand recognition. Others are physical assets, such as strategic locations, and financial resources. Of course, having the most abundant resources and the most valuable skills is always desirable, but in calm waters, a first entrant lacking those advantages may still have the latitude and the means to defend its product against later competitors.

When the Market Leads and Technology Follows

Consider the Walkman, the first product in a clever new category – the personal stereo. The Walkman, pioneered by Sony in 1979, used mature technologies readily available at the time, and its basic technical design remained unchanged for a decade. By contrast, its market grew abruptly, with sales reaching some 40 million units in less than ten years. Indeed, the personal stereo is often cited among the most successful consumer-electronics innovations of our time. Given the market's enormous expansion rate and potential size, one might think that only a short-term advantage should have been available to the first mover. Yet Sony's market share was close to 48% even ten years after the Walkman's launch, thanks to its superior resources – in particular its design skills, marketing muscle, and strong brand.

A first entrant with limited resources and skills would probably have to settle for a short-term first-mover advantage, however. Boston's Elias Howe introduced the first commercial sewing machine in the late 1840s, but the machines

made by Isaac Singer, a later entrant with greater resources, were soon able to find more customers than Howe's. The basic sewing machine changed little over the next half-dozen years, but demand increased to such an extent that Singer began expanding into Europe. (Although Howe could not achieve a durable first-mover advantage in the product category, the patents he owned on competitors' products allowed him to extract substantial rents for some time.)

When Technology Leads and the Market Follows

What happens in the reverse situation, in which technology changes abruptly but the market is slow to accept the new product category? A short-lived first-mover advantage is very unlikely here. Early entrants face many years of flat sales and operating losses and, consequently, the skepticism of stock market analysts. At the same time, the furious pace of technological change brings in new competitors, who think their improvements will draw customers away from the incumbent and its dated products. A durable advantage, for most early entrants as well as most later arrivals, is also unlikely.

Only a company with very deep pockets could enter such a market first, survive in its hostile environment, and withstand a considerable delay before obtaining durable first-mover advantages. Deep pockets allow a firm to wait until the pace of technological change slows, or the fundamentally new technology its product line embodies becomes the new standard, and the market takes off. Of course, the company also needs a superb R&D capability to keep it at the technological forefront in the meantime.

In 1981, Sony launched the first digital camera, the Mavica. Sales of digital cameras did not begin to gather momentum for at least ten years, and sales continued to be modest for another decade, during which the relentless pace of technological improvement rendered products obsolete within a year. A key area of improvement was the density of information a digital image could handle. In the early 1980s, a high-end camera could produce images with up to 60,000 pixels. By 2000, the pixel count had reached 5 million. Sony's considerable financial resources and world-famous technological capabilities allowed it to stay on top of the category and grab a commanding share of the slowly evolving market. In 2003, Sony was still the leader in the U.S. market, with about a 22% market share.

When the Waters Get Rough

Sometimes, both technological innovation and consumer acceptance advance rapidly, leaving first movers highly vulnerable. AT&T and Netscape are examples of companies capsized by the rapid churning of technology and markets. AT&T was the first company to deploy a cellular telephone system in the United States. It built a prototype in 1977 and a year later held the system's first public trial, involving 2,000 customers in Chicago. However, in 1983, Ameritech, not AT&T, offered commercial analog cellular operations after they were authorized by the FCC. As for Netscape, Marc Andreessen, a co-developer of Mosaic, teamed up with Jim Clark in 1994 to invent Netscape's

Is a First-Mover Advantage Likely?

Your company's odds of succeeding with the resources it possesses depend on how well you understand the market and the technology. Use this chart to match your company's skills and resources with the environment you face in a particular situation.

The Situation Your Company Faces	First-Mover Advantage: Short-Lived	First-Mover Advantage: Durable	Key Resources Required
Calm Waters	**Unlikely** Even if attainable, advantage is not large.	**Very likely** Moving first will almost certainly pay off.	Brand awareness helpful, but resources less crucial here
The Market Leads	**Very likely** Even if you can't dominate the category, you should be able to hold onto your customer base.	**Likely** Make sure you have the resources to address all market segments as they emerge.	Large-scale marketing, distribution, and production capacity
The Technology Leads	**Very unlikely** A fast-changing technology in a slow-growing market is the enemy of short-term gains.	**Unlikely** Fast technological change will give later entrants lots of weapons for attacking you.	Strong R&D and new product development, deep pockets
Rough Waters	**Likely** A quick-in, quick-out strategy may make good sense here, unless your resources are awesome.	**Very unlikely** There's little chance of long-term success, even if you are a good swimmer. These conditions are the worst.	Large-scale marketing, distribution, production, and strong R&D (all at once)

browser, which kicked off the era of widespread Internet access. Yet Netscape today survives only as a small unit of Time Warner.

Neither AT&T nor Netscape was able to make a profit in the new product spaces due to the strength of later entrants' offerings. Our research suggests that a good part of the reason was the type of waters both had stepped into. Cellular telephones and Internet browsers would fall in the lower right cell of the matrix, with both the technology and the market evolving rapidly (irregularly for cell phones, smoothly for browsers). In such conditions, it is very difficult for companies to gain durable first-mover advantages.

If a product's underlying technology changes very rapidly, the item quickly becomes obsolete. More often than not, such products are overtaken by versions from new entrants, which aren't burdened by maintaining and servicing older product lines and can innovate without fear of cannibalizing prior investments. Some researchers have used the term "vintage effects" to characterize the tendency of new generations of technology to usher in winning entrants. One can observe vintage effects in many product categories. In the gaming console market, which Magnavox Odyssey entered in 1972, at least six generations of technology emerged in rapid succession, each pushing forward a new winner. The same thing happened in hard drives and laptop computers. The Osborne 1, generally considered to be the first commercially available, truly portable computer, weighed 24 pounds and was soon superseded by lighter models. But laptop technology evolved so quickly that each successor, after briefly achieving dominance, was soon supplanted itself.

A fast-growing market adds to a first mover's challenges by opening attractive new competitive spaces for later entrants to exploit. The incumbent tends to be at a disadvantage, since it often lacks the production capacity or marketing reach to serve a rapidly expanding customer base.

A rapid pace of market evolution makes long-term dominance unlikely, but it does not necessarily bar a first mover from achieving worthwhile short-term gains – provided it has an acute sense of when to exit. Consider once more the Internet browser market. In 1994, the Internet started growing extremely quickly. Within two years, the number of Web sites had increased 50-fold. This frantic pace enabled later entrants, chief among them Microsoft, with its enormous resources, to find plenty of space in which to grow. But before competitors could destroy Netscape's business, Netscape arranged to be acquired by AOL in an amazing $10 billion deal.

Achieving a durable advantage under such conditions is not, however, impossible. Here is where a firm's resources can make a big difference. Only a first mover with mighty resources, far superior to those of competitors, has any chance of achieving longer-term first-mover advantages when both technology and markets are moving rapidly. For instance, all else being equal, a first entrant with a very strong brand name will tend to be more successful in locking in customers than one without a recognized brand name. A good example of a firm today that makes the best of its endowments in the most difficult of circumstances is Intel. By putting all its technical and marketing muscle behind its product development process and being "paranoid" about competition, Intel has been able to dominate a product category in which markets keep expanding and technology keeps changing at a furious pace.

But do not take the possession of substantial resources as a guarantee of winning. When IBM, for example, introduced the hard drive in the late 1950s, it was the largest computer maker in the world. Since then, a sequence of fast-growing markets for minicomputers, personal computers, and laptops has generated relentless demand for new versions of the device. Despite a superb brand name and plenty of resources, IBM could not stay atop the hard-drive industry for long. Neither could opportunistic later entrants.

We expect Apple's iPod to face similar rigors. Famously strong in marketing, R&D, and design, Apple launched the iPod in October 2001 and by 2003 had around 70% of the market for digital music players containing hard drives. In the first quarter of 2004 alone, the company sold more than 800,000 units; by the third quarter, it had increased its share of the retail market to 82%. However, the iPod mini has already improved upon its predecessor, and Dell is offering price cuts and a 12-hour battery for its 20-gigabyte player. Even though the mini is Apple's own invention, Apple will be hard-pressed to stay the leader for long.

A rapid pace of market evolution does not necessarily bar an incumbent first mover from achieving worthwhile short-term gains – provided it has an acute sense of when to exit.

To Be or Not to Be First?

The four scenarios in the matrix place premiums on very different sets of assets and capabilities. Large-scale marketing, distribution, and production capacity is key in situations where the market leads; R&D, new product development, and deep pockets are key in situations where the technology leads. If you step into a given environment with the wrong type of resources, you can expect a rough time (see the exhibit "Is a First-Mover Advantage Likely?"). Polaroid, for instance, had a great brand name in photography and excellent access to distribution channels in the early 1990s, but it was relatively weak in R&D and new product development. Indeed, its leading product back then, the instant camera, embodied a 15-year-old design. After almost two decades of fruitless diversification, the company had to file for bankruptcy protection. Even if Polaroid had been the first mover into digital cameras, a category it wanted to dominate, our analysis suggests its fate would have been the same. It didn't have the wherewithal to triumph over or even survive furious technological change, rapid and frequent product obsolescence, and a slow market takeoff.

Right now, Symbian is contending with Microsoft to establish the operating system for the new product category of "smart phones" – cellular phones capable of multimedia and wireless broadband. Symbian's total revenues for 2003 were slightly more than $100 million, whereas Microsoft spent $7 billion just on R&D. Although the leaders in the handset market, including Nokia and Siemens, organized Symbian to keep Microsoft at bay, margins are so thin in their industry that they could very well choose Microsoft's operating system over Symbian's if Microsoft were to provide it for free or very little. Already Motorola, a Symbian founder, has chosen Microsoft's OS. It remains to be seen whether Symbian and its backers will be able to stand up to Microsoft's superior resources in a fast-growing market for a fast-moving technology.

New product categories are constantly emerging around us. In most instances, companies struggle not with whether to enter a new product category altogether but with whether to enter early or later. Sometimes executives wonder if it would be wise, for example, to wait until the companies in the first wave have been weakened by competition and seen their technological edge dulled. But by that point, there might not be enough time left to master the technology in question. Still, in some situations, it may not make a lot of sense to try to be the first mover. In environments where a first mover's advantage is likely to occur only after years of losses, and then to be short-lived, discretion would probably be the better part of valor. After all, first-mover advantage occurs not when you enter a market, but when you start making real money in it.

To make real money in an evolving market, you need to analyze the kind of environment that surrounds the new category; to assess the character and depth of your resources, comparatively speaking; and then to decide on the type of first-mover advantage – short-term or durable, immediate or delayed – that is most achievable, if indeed any is. Remember, once you've gone into the water, you have no choice but to swim.

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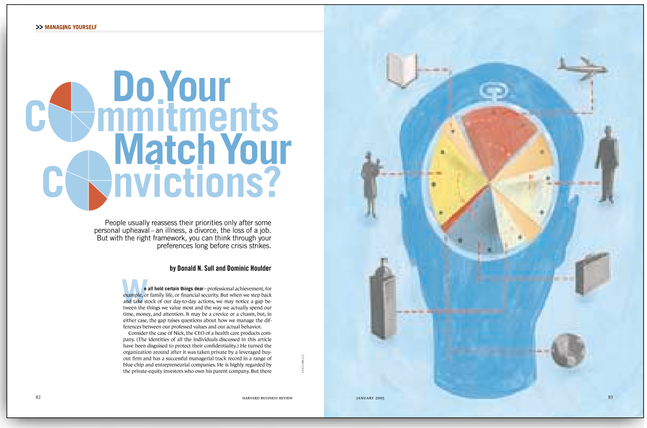
To order, see page 135.

Do Your Commitments Match Your Convictions?

In their article "Do Your Commitments Match Your Convictions?" (January 2005), Donald N. Sull and Dominic Houlder give a convincing account of how people's small, quickly made decisions can lead them away from their deeply held convictions. Sull and Houlder offer a beautifully simple tool for uncovering these gaps between people's habitual actions and what they



value most. But the authors do not extend their framework to helping managers improve their leadership skills. We admire leaders whose commitments match their convictions and who constantly uncover and promote specific and appropriate cultural values (or convictions) in their companies. Jack Welch's constant development and promotion of GE values is a case in point. Lorenzo Zambrano at Cemex is another.

To identify personal gaps, the Sull-Houlder framework forces you to get specific about your convictions. You can't simply say you value money and family; you have to say *how much* money and *what in particular* about family is important. Similarly, for leaders to find gaps between their commitments and their convictions, they need to get specific about their leadership values. They must ask themselves, "Do I mainly see people as good and bad? Then I'll want to lead justly and spread fairness." "Do I see people as fulfilled or in despair? Then I'll want to promote harmony and create teams." "Do I see people as smart or stupid, claims as true or false? Then I'll want to lead analytically and create a world of right answers." If a leader's convictions are not aligned with his actions or the needs of the corporation, then some form of change – either organizational or individual – is in order.

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Springboard to a Swan Dive?

The February 2005 case study "Springboard to a Swan Dive?" by Ajit Kambil and Bruce Beebe captures very nicely several contemporary issues. While the four commentators did an excellent job of grappling with those issues, two further considerations warrant attention. These points relate specifically to Benchmark's apparent intention to make John Clough its audit committee chair and to designate him as an "audit committee financial expert" (ACFE). (Incidentally, contrary to what the case suggests, Sarbanes-Oxley does not require audit

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committees to have an ACFE but does require disclosure if there isn't one.)

The first consideration concerns the requirements for ACFE designation. In assessing an audit committee member's eligibility to serve as an ACFE–a term of art under the final SEC rule–the board must deal with five separate requirements, and a prospective designee must meet all five. While Clough undoubtedly has an understanding of GAAP and financial statements (one of the requirements), he would also be required to have (i) experience preparing, auditing, analyzing, or evaluating financial statements that present accounting issues that are generally comparable to those raised by the issuer's financial statements or (ii) experience actively supervising others who are engaged in such activities. Clough's involvement in financial-statement preparation for NetRF (a small technology company) presumably did not present accounting issues comparable to those raised by Benchmark (a *Fortune* 500 packaged-goods company). If Clough falls short on that experience requirement, and if the directorship invitation depends on his designation as an ACFE, Benchmark might withdraw the directorship offer. Regardless, Clough should not accept the ACFE designation.

The second consideration pertains to ACFE designations in general. The conventional wisdom in corporate America appears to be that having an ACFE on board is essential. (Some boards even designate every committee member as a financial expert!) As a consequence, public companies now proliferate with ACFEs who, like Clough, probably do not meet all five requirements. That will be the case until the proverbial whipping cream hits the fan again; that is, until we hear about the next accounting cause célèbre in which the class-action bar hammers (and embarrasses, if not worse) the unsuspecting ACFE who does not qualify. The point here is that the John Cloughs of the world should be alerted to the five demanding ACFE requirements and should carefully assess their own qualifications. Whether they wish to take on this as yet undefined role, assuming that they do qualify, is another issue for another commentary.

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America's Looming Creativity Crisis

I was amazed to see that Robert Clarebrough's letter (January 2005), which was based on such simplistic arguments, managed to get past the editor's critical eye.

As a former Fulbright student to the United States, I am a particular admirer of this great country. The nation's greatness certainly does not need to be underlined by hyping its achievements at the expense of other countries. Surely, Bill Gates and Sam Walton are outstanding businessmen, though in the same fields, the Albrecht brothers of Aldi supermarkets and the founders of SAP have also created new, successful, and profitable businesses–all while having to cope with much smaller home markets. In Asia, consider Sony's Akio Morita or Formosa Plastics' Yung-Ching Wang, who arguably needed greater entrepreneurial skills than Jack Welch to create their multinational companies from scratch.

The greatest irony in Clarebrough's letter, though, is his use of the image of a Ferrari stuck on a Los Angeles freeway. Clarebrough conjures this analogy to highlight the notion that in Europe or Asia there might be enormous potential but little chance to demonstrate it. That Clarebrough tries to illustrate the superiority of the American spirit through the image of a high-powered European car – the brainchild of an entrepreneurial Italian family – stuck in an American traffic jam strikes me as more than a little odd.

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Director
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None of Our Business?

The commentaries in response to Roberta A. Fusaro's case study "None of Our Business?" (December 2004) all sailed past an obvious flaw. KK Incorporated's plan to increase sales using radio frequency identification tags is dependent not only on technology but also on store personnel welcoming customers by name and steering them to preferred items, as stated in the piece. The store personnel described in the case do not strike me as up to the task. Perhaps KK would get more bang for its buck, as well as fewer ethical or legal entanglements, by tackling its staff motivation and incentive problems.

Kathlene Collins
Publisher
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Overloaded Circuits: Why Smart People Underperform

I read with interest Edward M. Hallowell's article, "Overloaded Circuits: Why Smart People Underperform," in the January 2005 issue. The author's term "attention deficit trait," or ADT, reminds me of what we in the IT industry used to call "thrashing."

In the world of computers, parallel processing is performed by a central processor that switches back and forth quickly among several tasks, doing a little bit of each task one at a time. This action is performed so rapidly that, to the observing eye, it appears as if the computer is performing several tasks simultaneously. In the old days, a mainframe computer's hard drive could get so overloaded with jobs that it could end up spending all of its time switching between tasks without processing any of them, resulting in thrashing. This phenomenon could bring an entire system to a grinding halt.

Colleagues in my old IT department used to measure each other's personal thrashing levels. The simplest solution, as with our old mainframe computer systems, was quite obvious: Take on fewer tasks, or delegate more to others. ADT sufferers who want to cut down on their thrashing levels would do well to try this approach.

Steve O'Hearn
Vice President
Sysorex
Vienna, Virginia

April 2005

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FORETHOUGHT

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Book Reviews. HBR reviews four books.

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HBR CASE STUDY

Class – or Mass?

Idalene F. Kesner and Rockney Walters

Jim Hargrove, the marketing director of $820 million Neptune Gourmet Seafood, is having a bad week. Neptune is the most upmarket player in the $20 billion industry, and the company is doing everything it can to preserve its premium image among customers. But Neptune's recent investment in state-of-the-art freezer trawlers, along with new fishing regulations, is resulting in catches that are bigger than ever. Though demand is at an all-time high, the company is saddled with excess inventory – and there's no relief in sight.

Neptune's sales head, Rita Sanchez, has come up with two strategies that Hargrove feels would destroy the company's premium image: cut prices or launch a new mass-market brand. Not many executives in the company are in favor of cutting prices, but it's clear that Sanchez is gaining ground in her bid to launch a low-priced brand. Reputation worries aside, Hargrove fears that an inexpensive brand would cannibalize the company's premium line and antagonize the powerful association of seafood processors. How can he get others to see the danger, too?

The commentators for this fictional case study are Dan Schulman, the CEO of Virgin Mobile USA, a wireless voice and data services provider; Dipak C. Jain, a professor of marketing and the dean of the Kellogg School of Management at Northwestern University; Oscar de la Renta, chairman, and Alexander L. Bolen, CEO, of Oscar de la Renta Limited, the New York–based luxury goods manufacturer; and Thomas T. Nagle, the chairman of the Strategic Pricing Group, a Massachusetts-based management consultancy that specializes in pricing.

Reprint R0504A

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DIFFERENT VOICE

Strategic Intensity: A Conversation with World Chess Champion Garry Kasparov

It's hard to find a better exemplar for competition than chess. The image of two brilliant minds locked in a battle of skill and will – in which chance plays little or no apparent role – is compelling. Even people who have scant knowledge of the game instinctively recognize that chess is unusual in terms of its intellectual complexity and the strategic demands it places on players.

Can strategists learn anything from chess players about what it takes to win? To find out, HBR senior editor Diane L. Coutu talked with Garry Kasparov, the world's number one player since 1984. Kasparov believes that success in both chess and business is very much a question of psychological advantage; the complexity of the game demands that players rely heavily on their instincts and on gamesmanship.

In this wide-ranging interview, Kasparov explores the power of chess as a model for business competition; the balance that chess players strike between intuition and analysis; the significance of his loss to IBM's chess-playing computer, Deep Blue; and how his legendary rivalry with Anatoly Karpov, Kasparov's predecessor as World Chess Champion, affected his own success.

Kasparov also shares his solution to what he calls the champion's dilemma, a question for all world masters, whether they are in business, sports, or chess: Where *does* a virtuoso go after he has accomplished everything he's ever wanted to, even beyond his wildest imagination? If you are lucky, says Kasparov, your enemies will push you to be passionate about staying at the top.

Reprint R0504B

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How Strategists Really Think: Tapping the Power of Analogy

Giovanni Gavetti and Jan W. Rivkin

Leaders tend to be so immersed in the specifics of strategy that they rarely stop to think how much of their reasoning is done by analogy. As a result, they miss useful insights that psychologists and other scientists have generated about analogies' pitfalls. Managers who pay attention to their own analogical thinking will make better strategic decisions and fewer mistakes.

Charles Lazarus was inspired by the supermarket when he founded Toys R Us; Intel promoted its low-end chips to avoid becoming like U.S. Steel; and Circuit City created CarMax because it saw the used-car market as analogous to the consumer-electronics market. Each example displays the core elements of analogical reasoning: a novel problem or a new opportunity, a specific prior context that managers deem to be similar in its essentials, and a solution that managers can transfer from its original setting to the new one.

Analogical reasoning is a powerful tool for sparking breakthrough ideas. But dangers arise when analogies are built on surface similarities (headlong diversification based on loose analogies played a role in Enron's collapse, for instance). Psychologists have discovered that it's all too easy to overlook the superficiality of analogies. The situation is further complicated by people's tendency to hang on to beliefs even after contrary evidence comes along (a phenomenon known as anchoring) and their tendency to seek only the data that confirm their beliefs (an effect known as the confirmation bias).

Four straightforward steps can improve a management team's odds of using an analogy well: Recognize the analogy and identify its purpose; thoroughly understand its source; determine whether the resemblance is more than superficial; and decide whether the original strategy, properly translated, will work in the target industry.

Reprint R0504C; HBR OnPoint 9661; OnPoint collection "Why Bad Decisions Happen to Good Managers" 9653

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Seven Transformations of Leadership

David Rooke and William R. Torbert

Most developmental psychologists agree that what differentiates one leader from another is not so much philosophy of leadership, personality, or style of management. Rather, it's internal "action logic"–how a leader interprets the surroundings and reacts when his or her power or safety is challenged. Relatively few leaders, however, try to understand their action logic, and fewer still have explored the possibility of changing it. They should, because leaders who undertake this voyage of personal understanding and development can transform not only their own capabilities but also those of their companies.

The authors draw on 25 years of consulting experience and collaboration with psychologist Susanne Cook-Greuter to present a typology of leadership based on the way managers personally make sense of the world around them. Rooke and Torbert classify leaders into seven distinct action-logic categories: Opportunists, Diplomats, Experts, Achievers, Individualists, Strategists, and Alchemists–the first three associated with below-average performance, the latter four with medium to high performance. These leadership styles are not fixed, the authors say, and executives who are willing to work at developing themselves and becoming more self-aware can almost certainly move toward one of the more effective action logics. A Diplomat, for instance, can succeed through hard work and self-reflection at transforming himself into a Strategist.

Few people may become Alchemists, but many will have the desire and potential to become Individualists and Strategists. Corporations that help their executives and leadership teams to examine their action logics can reap rich rewards.

Reprint R0504D

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Countering the Biggest Risk of All

Adrian J. Slywotzky and John Drzik

Corporate treasurers and chief financial officers have become adept at quantifying and managing a wide variety of risks: financial (for example, currency fluctuations), hazard (chemical spills), and operational (computer system failures). To defend themselves, they use tried-and-true tools such as hedging, insurance, and backup systems. Some companies have even adopted the concept of enterprise risk management, integrating available risk management techniques in a comprehensive, organization-wide approach. But most managers have not addressed in a systematic way the greatest threat of all–*strategic risks,* the array of external events and trends that can devastate a company's growth trajectory and shareholder value.

Strategic risks go beyond such familiar challenges as the possible failure of an acquisition or a product launch. A new technology may overtake your product. Gradual shifts in the market may slowly erode one of your brands beyond the point of viability. Or rapidly shifting customer priorities may suddenly change your industry. The key to surviving these strategic risks, the authors say, is knowing how to assess and respond to them.

In this article, they lay out a method for identifying and responding to strategic threats. They categorize the risks into seven major classes (industry, technology, brand, competitor, customer, project, and stagnation) and describe a particularly dangerous example within each category. The authors also offer countermeasures to take against these risks and describe how individual companies (American Express, Coach, and Air Liquide, among them) have deployed them to neutralize a threat and, in many cases, capitalize on it.

Besides limiting the downside of risk, strategic-risk management forces executives to think more systematically about the future, thus helping them identify opportunities for growth.

Reprint R0504E; HBR OnPoint 977X

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The Quest for Customer Focus

Ranjay Gulati and James B. Oldroyd

Companies have poured enormous amounts of money into customer relationship management, but in many cases the investment hasn't really paid off. That's because getting closer to customers isn't about building an information technology system. It's a learning journey–one that unfolds over four stages, requiring people and business units to coordinate in progressively more sophisticated ways.

The journey begins with the creation of a companywide repository containing each interaction a customer has with the company, organized not by product, purchase, or location, but by customer. *Communal coordination* is what's called for at this stage, as each group contributes its information to the data pool separately from the others and then taps into it as needed.

In the second stage, one-way *serial coordination* from centralized IT through analytical units and out to the operating units allows companies to go beyond just assembling data to drawing inferences.

In stage three, companies shift their focus from past relationships to future behavior. Through *symbiotic coordination,* information flows back and forth between central analytic units and various organizational units like marketing, sales, and operations, as together they seek answers to questions like "How can we prevent customers from switching to a competitor?" and "Who would be most likely to buy a new product in the future?"

In stage four, firms begin to move past discrete, formal initiatives and, through *integral coordination,* bring an increasingly sophisticated understanding of their customers to bear in all day-to-day operations.

Skipping stages denies organizations the sure foundation they need to build a lasting customer-focused mind-set. Those that recognize this will invest their customer relationship dollars much more wisely–and will see their customer-focusing efforts pay off on the bottom line.

Reprint R0504F; HBR OnPoint 9645; OnPoint collection "Customer Data–Use It or Lose 'Em" 9637

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The Relative Value of Growth

Nathaniel J. Mass

Most executives would say that adding a point of growth and gaining a point of operating-profit margin contribute about equally to shareholder value. Margin improvements hit the bottom line immediately, while growth compounds value over time. But the reality is that the two are rarely equivalent. Growth often is far more valuable than managers think. For some companies, convincing the market that they can grow by just one additional percentage point can be worth six, seven, or even ten points of margin improvement.

This article presents a new strategic metric, called the relative value of growth (RVG), which gives managers a clear picture of how growth projects and margin improvement initiatives affect shareholder value. Using basic balance sheet and income sheet data, managers can determine their companies' RVGs, as well as those of their competitors. Calculating RVGs gives managers insights into which corporate strategies are working to deliver value and whether their companies are pulling the most powerful value-creation levers.

The author examines a number of well-known companies and explains what their RVG numbers say about their strategies. He reviews the unspoken assumption that growth and profits are incompatible over the long term and shows that a fair number of companies are effective at delivering both. Finally, he explains how managers can use the RVG framework to help them define strategies that balance growth and profitability at both the corporate and business unit levels.

Reprint R0504G

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HBR AT LARGE

Selection Bias and the Perils of Benchmarking

Jerker Denrell

To find the secrets of business success, what could be more natural than studying successful businesses?

In fact, nothing could be more dangerous, warns this Stanford professor. Generalizing from the examples of successful companies is like generalizing about New England weather from data taken only in the summer. That's essentially what businesspeople do when they learn from good examples and what consultants, authors, and researchers do when they study only existing companies or – worse yet – only high-performing companies. They reach conclusions from unrepresentative data samples, falling into the classic statistical trap of selection bias.

Drawing on a wealth of case studies, for instance, one researcher concluded that great leaders share two key traits: They persist, often despite initial failures, and they are able to persuade others to join them. But those traits are also the hallmarks of spectacularly unsuccessful entrepreneurs, who must persist in the face of failure to incur large losses and must be able to persuade others to pour their money down the drain.

To discover what makes a business successful, then, managers should look at both successes and failures. Otherwise, they will overvalue risky business practices, seeing only those companies that won big and not the ones that lost dismally. They will not be able to tell if their current good fortune stems from smart business practices or if they are actually coasting on past accomplishments or good luck.

Fortunately, economists have developed relatively simple tools that can correct for selection bias even when data about failed companies are hard to come by. Success may be inspirational, but managers are more likely to find the secrets of high performance if they give the stories of their competitors' failures as full a hearing as they do the stories of dazzling successes.

Reprint R0504H

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BEST PRACTICE

The Half-Truth of First-Mover Advantage

Fernando Suarez and Gianvito Lanzolla

Many executives take for granted that the first company in a new product category gets an unbeatable head start and reaps long-lasting benefits. But that doesn't always happen. The authors of this article discovered that much depends on the pace at which the category's technology is changing and the speed at which the market is evolving. By analyzing these two factors, companies can improve their odds of succeeding as first movers with the resources they possess.

Gradual evolution in both the technology and the market provides a first mover with the best conditions for creating a dominant position that is long lasting (Hoover in the vacuum cleaner industry is a good example). In such calm waters, a company can defend its advantages even without exceptional skills or extensive financial resources.

When the market is changing rapidly and the product isn't, a first entrant with extensive resources can obtain a long-lasting advantage (as Sony did with its Walkman personal stereo); a company with only limited resources probably must settle for a short-term benefit. When the market is static but the product is changing constantly, first-mover advantages of either kind – durable or short-lived – are unlikely. Only companies with very deep pockets can survive (think of Sony and the digital cameras it pioneered).

Rapid churn in both the technology and the market creates the worst conditions. But if companies have an acute sense of when to exit – as Netscape demonstrated when it agreed to be acquired by AOL – a worthwhile short-term gain is possible.

Before venturing into a newly forming market, you need to analyze the environment, assess your resources, then determine which type of first-mover advantage is most achievable. Once you've gone into the water, you have no choice but to swim.

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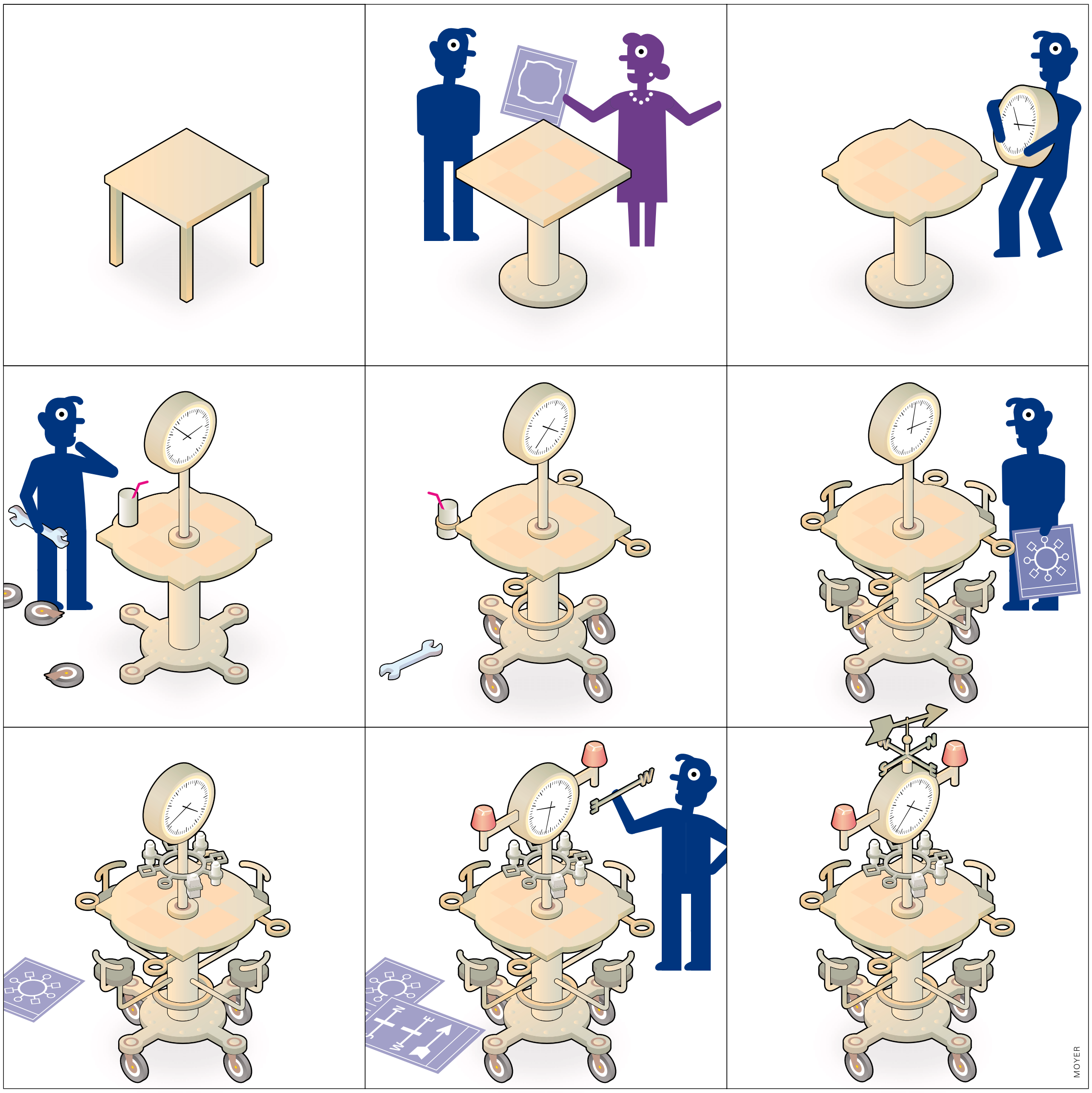
by Don Moyer



Evil Unnecessaries

Parents want their children to be special; companies want their products to be premium. Where's the glory in competing on price when you can compete on how powerful, fast, accurate, tangy, plush, or greaseless your offering is? As Theodore Levitt reminded us in his 1983 classic *The Marketing Imagination:* "Everybody – whether producer, fabricator, seller, broker, agent, merchant – engages in a constant effort to distinguish his offering in his favor from all others."

One way to differentiate a product is to add stuff to it. When the stuff is useful, we praise it as "functionality." When the stuff is just stuff, we dismiss it as "bells and whistles" (which are actually pretty useful if you happen to be in the locomotive or steamship business). Excessive features confound buyers with complexity. Useless features anger them, especially if they detect a trade-off with economy, portability, or convenience.

A mousetrap isn't better because it includes an electronic rodent counter or a cheese freshness gauge. It's better because it does a superior job catching mice.

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