



SUMMER 2006: **Strategy**

Findings from Faculty Research at Columbia Business School

Focus on Strategy

Intelligent Adaptation: Strategy for a Dynamic World

In today's business environment, strategy is no longer about getting from point A to point B.

Based more on politics than military strategy, George Washington's decision to defend New York in the summer of 1776 nearly cost America its independence. With no warships, the rebels were powerless against the British armada. Washington had worried about how to defend the city without a navy, but he underestimated the danger that his army might get trapped on Manhattan or Long Island. After a disastrous four-month campaign, the rebels cut their losses and escaped across the Hudson River to New Jersey, narrowly avoiding annihilation by superior British forces.

To Washington's credit, he learned from his mistake. Just a few weeks after the retreat from New York he made a bold move that saved the Revolution. He needed a win to rally his troops and show the civilian population that independence wasn't a lost cause. And he needed it soon: his soldiers were enlisted only through the end of the year, and most planned to go home to their farms as soon as the year was out. Washington's brilliant attack on Hessian mercenary troops at Trenton on Christmas night stunned the Hessians—and their British employers—and convinced Washington's men to reenlist.

The frustration Washington felt during the summer of 1776 may be familiar



to business executives who have made similar blunders, entering markets where they were competing at a hopeless disadvantage against a dominant rival. So how can you stake out an advantageous position, especially in today's rapidly changing marketplace?

COMPETITIVE PRAGMATISM: FIGHT BATTLES YOU CAN WIN

The lesson Washington learned that summer was the same one Columbia MBA students learn each spring in Professor **Bruce Greenwald's** Economics of Strategic Behavior class: Don't get into a market where you're an ant competing with an elephant. (Read an excerpt from Greenwald's book *Competition Demystified* on page 6.)

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One company that ignored Greenwald's maxim was AT&T. In the 1990s, it entered the data processing business, in spite of being at a disadvantage against IBM and other large companies with captive customers and extensive software expertise. The move, which Greenwald calls the worst strategic mistake by an American company in the past 30 years, had disastrous consequences for the former telecom giant. It remains to be seen whether the new AT&T—formed through a merger with a former subsidiary—can recoup the billions of dollars in shareholder value that the old AT&T squandered.

Similarly, Apple set itself up for failure when it tried to dominate both the hardware and software segments of the personal computer market, an impossible goal given the size of the market and the strength of firms like

and advertising expenses for the iPod are spread over such a large number of unit sales, its competitors will be hard-pressed to catch up.

In Jack Welch's best-selling book *Winning* (Harper Business, 2005), the retired General Electric CEO offers a three-step formula for effective business strategy. The first step is to "come up with a big aha for your business—a smart, realistic, relatively fast way to gain sustainable competitive advantage."

German military analyst Carl von Clausewitz used the French term *coup d'oeil* to describe the "big aha" concept, which he considered a key element of Napoleon's success. A big aha isn't a completely new idea but rather a new combination of things that have worked in other settings, explains Professor **William Duggan**. (See "Strategic Intuition: The Key to Innovation" on page 8.)

Great strategists look for ways to apply successful ideas to new situations. And the best military strategists don't pursue territorial goals, as Washington did at New York; instead, they look for opportunities to win battles, as Washington did at Trenton. The former approach puts plan-

ning before strategy, while the latter approach lets you respond to a dynamic environment. The same principle applies in business.

"GE had a whole system for stealing—legally stealing—ideas within the company and outside the company and combining them to make things work," Duggan says. "To do that, though, you

have to have what von Clausewitz calls presence of mind, and you have to give up your preconceptions about what the combination was going to be and where it was going to take you. That's hard for many people to do. The opposite idea, that first you set your goal and then you figure out how to get there, is very deeply rooted."

In other words, if you set a goal before you've found a winning combination for reaching it, you're likely to get stuck in an ant-versus-elephant scenario. If you want to be an elephant, you set your goal after you've found a big aha, not before. Both the goal and the means of achieving it are part of the strategy process. The planning process, which comes later, just fills in the details.

Professor **Willie Pietersen**, who ran large divisions of several major companies before joining Columbia's faculty, notes that many companies confuse strategy and planning. He explains the distinction using a simple metaphor: "Strategy is about where to lay the railroad tracks, and planning is about making the trains run on time. You can't run a railroad without doing both of those things extremely well, but the one is not a substitute for the other."

Companies that are great at strategy have rigorous, separate processes for strategy and planning, says Pietersen, and they always do strategy first. "Planning is about numbers and budgeting and forecasting. Strategy is about developing insights about the external environment and using those insights to make intelligent choices about how to use the scarce resources of the organization for competitive advantage."

DYNAMIC STRATEGY: TAKE ADVANTAGE OF CHANGE

Michael Porter's Five Forces model—the dominant business strategy framework since the 1980s—is still useful, says Professor **Rita Gunther McGrath**, but it's too focused on the holy grail of "sustainable competitive advantage." Today's world requires a more dynamic approach. "The Porter approach was basically, create a position of advantage, throw up entry barriers like crazy and

The lesson Washington learned that summer was the same one Columbia MBA students learn each spring in **Bruce Greenwald's Economics of Strategic Behavior** class: Don't get into a market where you're an ant competing with an elephant.

IBM and Microsoft. Apple's fortunes revived when it finally took on a battle it could win: its iPod has captured 80 percent of the market for personal digital music players, and that success has spurred sales of its other products. Since 2005 the company's profits are up almost fourfold, and its stock price has nearly doubled. Because Apple's R&D

then try to ride that wave for a long, long time,” says McGrath. “In strategy today, we’re much more aware of temporary advantages.”

In *Marketbusters* (Harvard Business School Press, 2005), McGrath and coauthor Ian MacMillan present five “lenses” for identifying opportunities in a dynamic environment.

1. Dramatically change the customer experience. A Bellevue, Wash., company called Coinstar came up with a convenient way to process loose change. Instead of having to roll coins and take them to the bank, you can use a machine at your local supermarket that counts your change and gives you a receipt that you take to the cashier. Coinstar’s 2005 revenues were \$459.7 million, and its sales are growing at a rate of almost 50 percent.

2. Reconfigure your products or services to appeal to particular customer segments. The fastest-growing hotel segment in the United States consists of hotels that have stripped out amenities that business travelers don’t care about and replaced them with features that these customers value. This reconfiguration allows the hotels to offer more attractive pricing than their conventional counterparts.

3. Change the metrics by which you define your product and measure its success. Recognizing that no customer gets really excited about buying cement, Mexico’s largest cement company, Cemex, changed its business model. Instead of selling commodity cement and competing on price, the company now sells ready-mix concrete with guaranteed on-time delivery.

4. Spark a disruption in your industry, react to a disruption in an advantageous way or exploit changes in related industries. Google capitalized on the availability of inexpensive data storage and transmission by entering the e-mail business with its Gmail offering. Similarly, these two factors have allowed Google to

pursue advertising dollars in a way that is extremely disruptive to traditional advertising.

5. Pay attention to slow but powerful demographic and cultural changes and find ways to take advantage of emerging capabilities and needs. In 1954, Swanson introduced the TV dinner, profiting from the convergence of rising television sales and American housewives’ growing demand for convenience.

But a strategy, no matter how brilliant it is, is going to take you nowhere without effective leadership, because you have to win the hearts and minds of everybody behind the strategy if you’re going to operationalize it.

In spite of the shifting competitive landscape, today’s business environment presents executives with a predictable set of challenges, McGrath says. How can you turn those challenges into opportunities?

First, think carefully about the timing of your strategic moves and investments. In particular, McGrath notes, it’s increasingly important to link together your financial strategy and your product market strategy.

Second, when a new product or venture doesn’t work out as planned, manage that disappointment in a productive way. Failure can have a devastating effect on morale. But if you properly manage the people side of your business, a failed project can be a rich source of information that contributes to the success of future initiatives.

Third, when you succeed, pay close attention to emerging trends to avoid getting stuck in a competence trap. The Victor Talking Machine Company, which made Victrolas, had deep expertise in moving parts and gears. But when radio arrived on the scene, requiring a completely different set of skills, Victor couldn’t make the transition.

Finally, in spite of the day-to-day demands of running a business, remember to step back and look at the bigger picture. “The strategy process requires time,” McGrath says. “And I’m seeing in organizations that are increasingly time stressed that they’re not very good at marshaling the kind of time you need to think strategically in an appropriate way.”

**STRATEGIC LEARNING:
CREATE A CYCLE OF
RENEWAL**

Perhaps because of time constraints, many companies approach strategy as an ad hoc exercise instead of an embedded business process. As a

result, they don’t get enough practice to become really good at creating and implementing strategy, says Pietersen. “The way that work happens in organizations is through business processes. And whenever you’re doing something truly important, the way you make things happen is by having a business process.”

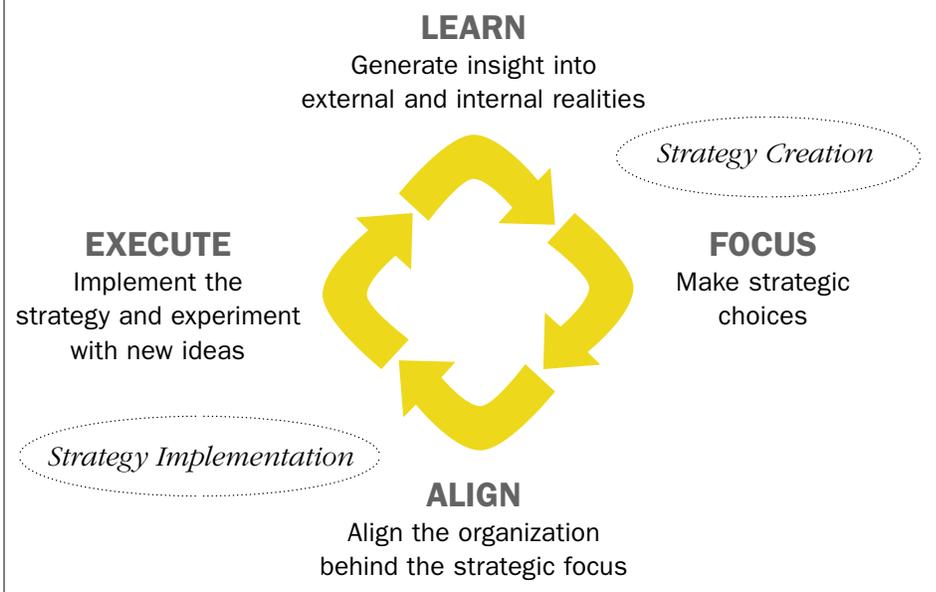
Pietersen has developed a process called the Strategic Learning Cycle, which builds on the work of Arie de Geus, Peter Senge and David Garvin. Those scholars advocate a Darwinian approach to strategy: in a dynamic world, only organizations that continuously adapt will survive and thrive. The missing element in that approach is strategic focus, Pietersen says. Adaptive learning doesn’t automatically lead to the right outputs.

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The Strategic Learning Cycle fills in that gap, offering a systematic method for turning insights into results.

- 1. Conduct a situation analysis** of your firm's external and internal realities. The first step in developing a competitive advantage is to understand the changing environment better than your competitors do. Breakthrough strategies are based on unique insights into customers, competitors, your firm's own strengths and weaknesses, industry dynamics and the broader environment.
- 2. Use key insights** from the situation analysis to define your strategic focus. Strategic choices include your customer focus (which customers you will serve and what you will offer them); your winning proposition (what you will do better than your competitors to create greater value for your customers); and your five key priorities (the handful of things that will make the biggest difference).
- 3. Align the organization** behind your focus. Your measurements and rewards system, organizational structure and company culture must all support your strategic focus. Above all, your people must embrace it. Make the case for change in clear, simple language. The biggest mistake you can make at this stage is to overwhelm and confuse people with a complicated strategy.
- 4. Execute today** while experimenting for tomorrow. In a dynamic environment, you can't separate strategy creation from strategy implementation. The execution phase should include a set of experiments that provide fresh information and insights for the situation analysis.
- 5. Repeat steps 1 through 4** over and over again. The ability to continuously learn, focus, align and execute creates a cycle of renewal that separates adaptive organizations from those destined to become obsolete.

THE STRATEGIC LEARNING CYCLE



"Sustainable competitive advantage in a dynamic world is not a product and it's not a service," says Pietersen. "Those things have shorter and shorter shelf lives. Sustainable competitive advantage is an organizational capability to be adaptive. And it's what I call intelligent adaptation, which is adaptation driven by learning."

No matter how good your strategy is to begin with, you have to be flexible enough to amend it in response to new information and changing conditions. The trick is figuring out when to make midcourse corrections, says Robert Amen '73, former president of International Paper. "You don't start changing course five minutes out of the harbor."

Companies should examine all outcomes—successes and failures—using the same rigorous process, Amen says. International Paper based its process on the U.S. Army's procedure for analyzing outcomes: "What drove the outcome? Was it strategy? Was it execution? Was it resources?"

When Amen thinks about strategy, he likes to visualize the battlefield at Gettysburg, scene of one of the most important conflicts of the U.S. Civil War. "Did you have the good ground?

Were you able to hold your ground? Were you short on men or ammunition? In business, if you had a leading position and you lost it, was it because you didn't have the technology? Was it because you were arrogant and weren't paying attention to your customers? Was it because the market moved away from you?"

STRATEGIC LEADERSHIP: WIN HEARTS AND MINDS

Leadership is such an integral part of strategy that after Pietersen's first year at Columbia he told the dean that he refused to teach the two subjects separately. "No leader can lead effectively without a clear and compelling strategy to provide direction," Pietersen says. "But a strategy, no matter how brilliant it is, is going to take you nowhere without effective leadership, because you have to win the hearts and minds of everybody behind the strategy if you're going to operationalize it."

For the past two years Pietersen has been assisting the Girl Scouts of America with a major transformation. Because of social changes affecting both the girls and the volunteer troop leaders, the organization found itself stuck in

an obsolete business model. After a thorough situation analysis, the leadership team arrived at a new mission statement: “We are a leadership development organization for girls.”

Once the organization decided that it was in the leadership development business—that its purpose was not just to organize fun activities for girls—the next step was to build a leadership development model. An important element of that model is community service. The change is now in the execution phase, and while significant work lies ahead, the new strategy has generated tremendous energy and excitement within the organization.

“The hallmark of effective leadership is the ability to give people a stunningly clear and simple strategy that they can align with,” Pietersen says. “There’s no excuse for making it complicated. Organizations are paralyzed by complexity.”

that leaders must be much more visible during times of organizational change. “The work back at the office still continues, but you’ve got to do that on weekends and nights,” says Tucci, who has led turnarounds at Wang Global and EMC. “In your daytime hours you have to be out there with customers and out there with the troops, leading from the front.” (See “Decision Brief: EMC Turnaround” on page 12.)

During any major change, Tucci says, about 20 percent of the people will immediately buy into the new strategy, 60 percent will be skeptical and the other 20 percent will be cynical. “There’s nothing better than converting a skeptic,” he says. “And they’re looking to be converted. So what you’ve really got to do is shoot the cynics, give a quick kiss to the guys that came right on the bus and spend your time with the skeptics. The skeptics are actually your

So it’s a pure democracy, in a way. The people in the company have to want to follow you. And if you don’t think you have to earn that, you’re going to fail.”

For information about upcoming Executive Education programs led by Rita McGrath and Willie Pietersen, go to page 17.

Read More

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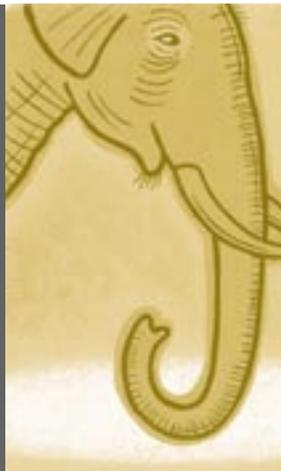
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Pietersen emphasizes that alignment starts at the beginning of the strategic learning process. “You can’t complete everything and say, ‘Hey, go do this,’ particularly with a lot of volunteers.” The Girl Scouts process had a high level of participation from the outset, and the findings from each phase were communicated through an interactive Web site.

Joe Tucci ’84, president and CEO of information-storage giant EMC, notes

best ally, because you always need to be challenged. No idea is perfect.”

Despite the influence Tucci enjoys by virtue of his title, he sees corporations as democracies. “The real leadership comes when you say, ‘I want to follow that person, and not because that person demands it, but because he *commands* it,’” Tucci says. “I have put in managers and they’ve failed miserably because they just never won over their people.

Competition Demystified

In an excerpt from their 2005 book, Bruce Greenwald and Judd Kahn present a radical improvement to Michael Porter's strategy framework.

Anyone running a business knows that competition matters and that strategy is important. But although most experienced businesspeople recognize that these two critical elements of business are associated, few understand their essential natures or the direct relationship between them.

Executives often confuse strategy with planning. Essentially, any plan that answers the question "How can we make money?" is considered strategic. As a result, too many leaders end up fighting wars they cannot win while failing to protect and exploit the advantages that are the real bases for their success.

Strategies are indeed plans for achieving and sustaining success. But they are not just any ideas for how to make a product or service and sell it profitably to customers. Rather, strategies are those plans that specifically focus on the actions and responses of competitors.

At its core, strategic thinking is about creating, protecting and exploiting competitive advantages. In a market open to all competitors on equal terms, competition will erode the returns of all players to a uniform minimum. Therefore, to earn profits above this minimum, a company must be able to do something that its competitors cannot. It must, in other words, benefit from competitive advantages. The appropriate starting point of any strategic analysis is a careful assessment of those economically advantageous aspects of a firm's market situation that cannot be replicated by its competitors or, at most, can be reproduced by only a handful of them.

The existence or absence of competitive advantages forms a kind of continental divide when it comes to strategy. On one side are the markets in which no firms benefit from significant competitive advantages. Anything that

one firm does to improve its position can and will be immediately copied. In these markets, the sensible course is not to try to outmaneuver the competitors but rather to simply outrun them by operating as efficiently as possible.

On the other side of the divide are the markets where strategy is critically important. In these markets, incumbents have competitive advantages, and the race for profitability is shaped by how well companies manage the competition among their peers and how effectively they are able to fend off potential entrants. A focus on outsiders lies at the heart of business strategy.

WHAT IS STRATEGY?

For at least the last half century, strategy has been a major focus of management concern. Over the decades, definitions of strategy have changed, and the processes for developing it have undergone endless modifications and revolutions. Yet within all of this flux, one feature of strategy has stood out to distinguish it from other management responsibilities.

Strategy is big. Unlike tactical choices, everyone knows strategic decisions mean long-term commitments for the organization. They require large allocations of resources.

But big, whether measured by financial commitments or hours spent in planning, or even outcomes, is not the same thing as strategic. In our view, strategic decisions are those whose results depend on the actions and reactions of other economic entities. Tactical decisions are ones that can be made in isolation and hinge largely on effective implementation. Understanding this distinction is key to developing effective strategy.

Strategic choices are outward looking. They involve two issues that every company must face. The first issue is selecting the arena of competition, the market in which to engage. The second strategic issue involves the management

of those external agents. In order to devise and implement effective strategy, a firm has to anticipate and, if possible, control the responses of these external agents.

ONE SINGLE FORCE

Thanks to Michael Porter's groundbreaking work *Competitive Strategy*, published in 1980, strategic thinking increasingly has come to recognize the importance of interactions among economic actors. By concentrating on external agents and how they behave, Porter clearly moved strategic planning in the right direction. But, for many people, identifying the many factors in Porter's complex model and figuring out how they will play off one another has proven to be frustratingly difficult.

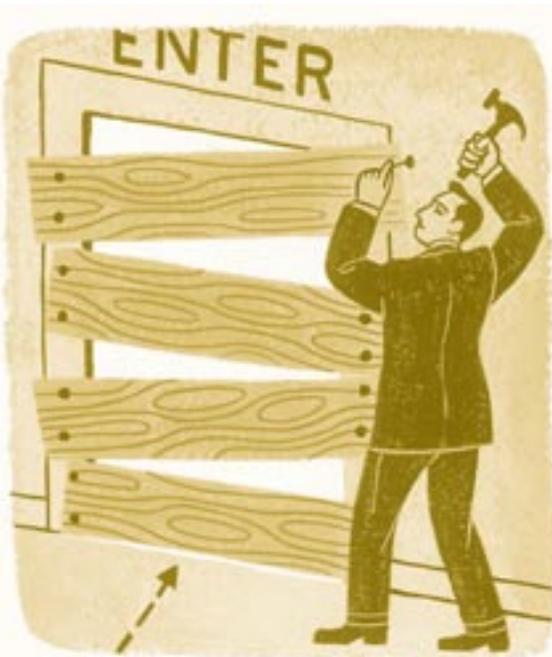
We agree with Porter's view that five forces—Substitutes, Suppliers, Potential Entrants, Buyers and Competitors within the Industry—can affect the competitive environment. But we do not think that those forces are of equal importance. One of them is clearly much more important than the others. It is so dominant that leaders seeking to develop and pursue winning strategies should begin by ignoring the others and focus only on it. That force is *barriers to entry*—the force that underlies Porter's "Potential Entrants."

If there are barriers, then it is difficult for new firms to enter the market or for existing companies to expand. Essentially there are only two possibilities. Either the existing firms within the market are protected by barriers to entry (or to expansion), or they are not. No other feature of the competitive landscape has as much influence on a company's success as where it stands in regard to these barriers.

If there are no barriers to entry, then many strategic concerns can be ignored. The company does not have to worry about interacting with identifiable competitors or about anticipating and influencing their behavior. There are simply too many of them to deal with. Life in an unprotected market is a game played on a level playing field. In these

markets, only the very best players will survive and prosper, and even they have to be continually on their toes.

The existence of barriers to entry means that incumbent firms are able to do what potential rivals cannot. Thus barriers to entry and incumbent competitive advantages are simply two ways of describing the same thing. Entrant competitive advantages, on the other hand, have no value. By definition, a successful entrant becomes the incumbent. It then is vulnerable to the next entrant. So it is only in the presence of incumbent competitive advantages that strategy, in our sense of the term, comes to the fore.



Like most other recent authors on strategy, we owe a debt to Michael Porter. We have simplified his approach by concentrating first on the one force that dominates all the others: barriers to entry. Our purpose is not to ignore Porter's forces but to prioritize and clarify them. Simplicity and clarity are important virtues of strategic analysis, provided we keep in mind Einstein's admonition that "everything should be made as simple as possible, but not simpler."

WHICH COMPETITIVE ADVANTAGES?

Strategic analysis should begin with two key questions: In the market in which the firm currently competes or plans to enter, do any competitive advantages actually exist? And if they do, what kind of advantages are they?

The analysis is made easier because there are only three kinds of genuine competitive advantage:

Supply. These are strictly cost advantages that allow a company to produce and deliver its products or services more cheaply than its competitors. Sometimes the lower costs stem from privileged access to crucial inputs. More frequently, cost advantages are due to proprietary technology that is protected by patents or experience—know-how—or some combination of both.

Demand. Some companies have access to market demand that their competitors cannot match. This access is not simply a matter of product differentiation or branding, since competitors may be equally able to differentiate or brand their products. These demand advantages arise because of customer captivity that is based on habit, on the costs of switching or on the difficulties and expenses of searching for a substitute provider.

Economies of Scale. If costs per unit decline as volume increases, because fixed costs make up a large share of total costs, then even with the same basic technology, an incumbent firm operating at large scale will enjoy lower costs than its competitors.

Beyond these three basic sources of competitive advantage, government protection or, in financial markets, superior access to information may also be competitive advantages, but these tend to apply to relatively few and specific situations. The economic forces behind all three primary sources of competitive advantage are most likely to be present in markets that are local either geographically or in product space.

LOCAL CHAMPIONS

In an increasingly global environment, with lower trade barriers, cheaper transportation, faster flow of information

and relentless competition from both established rivals and newly liberalized economies, it might appear that competitive advantages and barriers to entry will diminish. But this macro view misses one essential feature of competitive advantages—that competitive advantages are almost always grounded in what are essentially "local" circumstances.

Competitive advantages that lead to market dominance, either by a single company or by a small number of essentially equivalent firms, are much more likely to be found when the arena is local—bounded either geographically or in product space—than when it is large and scattered. That is because the sources of competitive advantage tend to be local and specific, not general and diffuse.

Paradoxically, in an increasingly global world, the key strategic imperative in market selection is to think locally. If the global economy follows the path of the more developed national economies, service industries will become increasingly important and manufacturing less significant. The distinguishing feature of most services is that they are produced and consumed locally. As a consequence, opportunities for sustained competitive advantages, properly understood, are likely to increase, not diminish. The chances of becoming the next Walmart or Microsoft are infinitesimal, but the focused company that understands its markets and its particular strengths can still flourish.

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Read More

Greenwald, Bruce, and Judd Kahn. *Competition Demystified: A Radically Simplified Approach to Business Strategy*. New York: Portfolio, 2005.

Bruce Greenwald is the Robert Heilbrunn Professor of Finance and Asset Management and director of the Heilbrunn Center for Graham & Dodd Investing at Columbia Business School.

Strategic Intuition: The Key to Innovation

Combining ideas from military history, cognitive psychology and modern neuroscience, strategic intuition offers a four-step method for identifying and capturing opportunity.

Several years ago, Professor **William Duggan** was intrigued to learn that while most common English words date back to at least the 15th or 16th century, the word *strategy* entered the language only in 1810. He set out to discover why. It turned out that in 1810 Napoleon Bonaparte was at the height of his power, and in that year Carl von Clausewitz began his classic treatise *On War*, which attempts to explain Napoleon's military success. "Von Clausewitz describes something as the essence of strategy that he calls *coup d'oeil*, which in French means 'glance,'" Duggan says. "And it occurred to me that it seemed an awful lot like modern research on expert intuition."

That connection led Duggan to a concept he calls *strategic intuition*—a framework for understanding how great strategists set and achieve goals. He articulated the idea in two books, *Napoleon's Glance* and *The Art of What Works*, both published in 2003. So when the U.S. Army asked him to explore the implications of strategic intuition for Army planning procedures, the idea came full circle—back to its military origins.

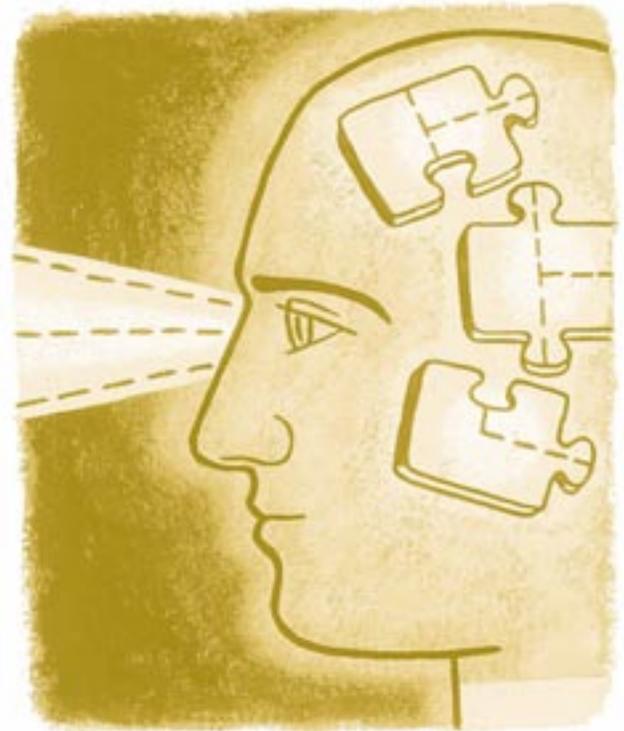
In *On War*, finally published in 1832, von Clausewitz points out that instead of pursuing territorial objectives Napoleon looked for opportunities to win battles. A profound student of military history, Napoleon sought to apply the successful tactics of past generals to

new situations. Von Clausewitz describes four elements of Napoleon's approach to strategy: (1) examples from history, (2) presence of mind, (3) a *coup d'oeil* or flash of insight and (4) the resolution to move forward and overcome all obstacles.

Research on expert intuition supports the notion that in urgent situations people make decisions by combining analysis of past experience with a flash of insight. In the 1990s, psychologist Gary Klein studied the decision-making processes of emergency room nurses, firefighters and soldiers in battle. While these experts initially attributed their choices to intuition, further probing revealed that they were actually making rapid connections

between the situation at hand and similar situations stored in their memories. Recent brain research provides further evidence that people make decisions through a combination of analysis and intuition. In 2000, a group of neuroscientists won the Nobel Prize for a new model of the brain called intelligent memory, which overturned the previous left-brain/right-brain model.

"Basically, as you go through life, you're putting things on the shelves of



Your brain is constantly comparing what it's taking in to what's already there, and when it finds a combination—a synthesis—you have an insight.

your brain," says Duggan. "The scientists call it parsing; it's technically analysis. Your brain is constantly comparing what it's taking in to what's already there, and when it finds a combination—a synthesis—you have an insight."

After making the connection between von Clausewitz and modern science, Duggan defined the common idea as strategic intuition: "the selective projection of past elements into the future in a new combination as a course of action that might or might not fit your previous goals, and the personal commitment to work out the details along the way."

Last year Duggan reviewed the core procedures in the Army's standard planning manual to see how well they fit with strategic intuition. In the resulting publication, *Coup d'Oeil: Strategic Intuition in Army Planning*, he notes that the manual reflects an outdated view of the human mind—the idea that analysis and intuition take place in separate parts of the brain and are appropriate for different situations. In reality, as the new brain research shows, analysis and intuition are closely intertwined in all situations.

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Strategic intuition describes how breakthrough ideas happen in all realms of human endeavor, from business to politics to art. “This might sound like the opposite of an innovation, but in a practical sense this is how innovation actually happens,” says Duggan. “And even in business this is an old idea—the Austrian economist Joseph Schumpeter basically said this in the 1940s. I trace its earliest origins to the *Tao Te Ching* in ancient China, 450 BC.”

Once you understand how strategic intuition works, you can identify opportunities that you might otherwise have missed by following these four steps:

1. Examples from History If the shelves of your brain are well stocked, you are more likely to make an important connection. Napoleon and Patton, two of the most successful generals who ever lived, both had an encyclopedic knowledge of military history. “They were famous for not choosing a strategic objective, like a city or a bridge or a fort, but rather putting their armies in motion,” says Duggan. “When they recognized a strategic situation from past battles, they would replicate that battle or pieces of that battle to defeat the enemy. They fought battles; they didn’t conquer territory. But in doing so they defeated the enemy.”

2. Presence of Mind The key to presence of mind is expecting the unexpected. In order to open your mind to a *coup d’oeil*, you must abandon your preconceived notions of what the solution might be—or sometimes even what the problem is. “Sometimes people don’t see what to do, and that’s OK,” Duggan says. “They should keep searching and keep looking for opportunity. And if they’re prepared and aware and have great presence of mind, they will see the opportunity that indeed might take them in a different direction than if they had first tried to plan without an idea of how actually to fulfill the plan.”

3. A Flash of Insight A *coup d’oeil* is not a totally new idea but rather a new way of combining past ideas from different sources. For example, Ransom Olds was the first carmaker to build a mass-produced car using a stationary assembly line, and Henry Ford copied that car quite closely in both its design and its manufacturing process. Then on a visit to the Chicago stockyards, where carcasses were hung on a rail and moved from station to station, Ford got a flash of inspiration—and the moving assembly line was born.

A *coup d’oeil* can show you how to reach a goal, but it can also change your goal—an idea that many people find difficult to accept.

“Most strategic planning typically says, first, ‘What’s your goal?’” says Duggan, “and then it helps you plan. It doesn’t really care what the goal is. Whereas strategic intuition offers a way to answer the question ‘What’s a good goal?’ And a good goal is one that you see some way to reach, based on some combination of things you can put together from the past.”

4. Resolution Resolution in this context is more than simply the determination to achieve your goal. It includes an element of flexibility—the willingness to move forward without a detailed plan and also the willingness to change course if a better opportunity presents itself. In Napoleon’s first campaign, his men were vastly outnumbered by Italian and Austrian troops. But because the situation resembled several campaigns of Frederick the Great some 50 years earlier, Napoleon had an idea: he would move his army between the Italian and Austrian armies and fight first one enemy and then the other.

“His goal came out of some historical sense of what would work, and he projected that into this situation, which was not identical,” says Duggan. “He had a general goal rather than a detailed plan and he put his army in motion, and indeed he defeated each enemy army in turn in a series of battles. So, strategic intuition is not against goal setting. It just asks the question ‘Where does your goal come from?’ And then it says your goal is as detailed as you see—not more so—and that you fill the details in as you can.”

In a strategy course Duggan teaches, participants create a map of all the goals that might make them happy and all the opportunities they currently see that might get them to one goal or another. “The idea of having multiple possible directions

is much more realistic in life and gives you many more options,” says Duggan. “But if you already have a five-year goal and know exactly what you’re going to do and really are trying to get there, that’s fine. Just remember that some opportunity may arise that will take you somewhere better.”

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William Duggan is associate professor of management at Columbia Business School.

A *coup d’oeil* is not a totally new idea but rather a new way of combining past ideas from different sources.

Collusion with Private Information

A game theory model offers antitrust regulators a new screening method for collusive behavior.

In a prisoner's dilemma—the classic theoretical game for understanding cooperation among self-interested parties—two parties benefit by cooperating, but any one party gets an even better outcome by defecting, provided the other doesn't defect. So if the parties interact only once, each betrays the other, and both suffer negative consequences as a result. But if the parties interact on a repeated basis, the long-term gains from cooperation may be enough to discourage them from cheating.

Standard game theory models assume the parties don't need to communicate because they can observe each other's behavior and put themselves in each other's shoes. But what happens in a situation where each has private information?

Professor **Kyle Bagwell** has studied the problem of private information in such contexts as tariff negotiations among countries and collusive behavior among firms. In a price-fixing scenario, each firm has a short-term incentive to undercut the other but a long-term incentive to maintain high prices. Thus it's possible for the firms to collude if they're sufficiently patient.

In a series of papers with Susan Athey of Stanford, Bagwell modeled the behavior of colluding firms in an environment where costs fluctuate and the firms have different cost structures. "In an ideal collusive state, you can imagine one parent firm with two branches," Bagwell says. "And if this parent firm were trying to maximize profits for the firm as a whole, it would try to figure out which branch had the lowest costs on any given day. It would try to make sure that prices were high and that more production was allocated to the branch that had lower costs at any particular time."

Two firms trying to collude perfectly would take a similar approach. Imagine that Firm A claims to have lower costs than Firm B during a given period of time. Firm A wants to increase its production to take advantage of those low costs, so Firm B must reduce its output in order to maintain the high price level. Firm B can't observe Firm A's cost structure, but the prospect of future cooperation provides an incentive for both firms to trust each



other and to truthfully reveal their costs. In particular, if Firm A must compensate Firm B for cutting back its production, then Firm A has an incentive to communicate that its costs are low only when this is indeed the case.

How should Firm A compensate Firm B for reducing its output? Since transferring money is likely to attract regulators' attention, Firm A might instead promise to produce less during a future period when Firm B has lower costs or when both firms have similar costs. "The way you promise to play the future game can act like a transfer," Bagwell says. "So a firm that says, 'I want to produce today because I've got

low costs,' would be willing to give up some market share in the future in order to get the extra market share today."

Bagwell and Athey's work combines repeated game theory with a body of microeconomic literature on mechanism design, a set of tools developed for static models in which agents have private information. "This really becomes a model of favor exchange," says Bagwell. "It brings to life the logic of 'I owe you one' as being fundamental to how you solve private-information prisoner dilemma problems."

While most game theory models assume each player can deduce what the other will do, this research offers a theoretical basis for the idea that colluding firms might need to communicate. It also suggests that regulators should watch for patterns of market share exchange, Bagwell says. "If a firm's market share exhibits some negative correlation through time—if I have a high market share today I'm more likely, all else equal, to have a low market share tomorrow—then that might be something you would want to screen for, if this theory is representative of what firms in a particular industry are doing when they're colluding."

Read More

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Kyle Bagwell is professor of finance and economics at Columbia Business School and the Kelvin J. Lancaster Professor of Economic Theory in Columbia University's Department of Economics.

When Does Competition Lead to Higher Prices?

With the right product differentiation strategy, you can steal customers from your competition without provoking a price war.

An aspiring entrepreneur notices the heavy foot traffic outside a busy specialty coffee shop near a university. Sensing untapped profit potential, she opens a competing coffee shop across the street. But when the incumbent lowers its prices and the entrepreneur is forced to respond in kind, she finds herself struggling to stay afloat. What could she have done differently to capture a share of the market without causing a price war?

Professor **Michael Riordan** is using a game theory approach to study how incumbents react to the entry of new firms. “The key issue is designing products to avoid head-to-head competition,” he says, “so that there is not a substantial number of consumers in the market who are more or less indifferent between your product and your competitor’s line. Because if there are, it will be tempting to try to attract them through a lower price.”

Riordan and Yongmin Chen have developed a model for exploring scenarios where firms enter a market with a differentiated product strategy. Unlike Harold Hotelling’s classic 1930s model, which described competition between two stores located at either end of Main Street, Riordan and Chen’s “spokes” model comprises intersecting lines that form a network. In this more complicated marketplace, the researchers found, more competition might actually lead to higher prices.

In markets where consumers have relatively homogeneous preferences, demand is highly elastic. “It’s very likely that if I try to compete head-to-head with a competitor across the street, that competitor will respond by cutting price,” Riordan says. “So even if I do attract half of the consumers in the market, my margins may be lower than I would hope for, and it may be an unprofitable enterprise.”

But what if the entrepreneur opens a specialty tea store, seeking to attract that segment of the coffee shop’s customer base that prefers tea? Consumers with a strong preference for tea will not switch to coffee just because the coffee establishment lowers its prices, so the coffee shop will have less incentive to cut its prices. In fact, it might even raise its prices in order to maximize its profits from coffee loyalists.

“The coffee establishment’s profit-maximizing price will depend on the price that the tea establishment is charging, and vice versa,” Riordan says. “What game theory does is provide a method of solving that strategic interaction, characterizing an equilibrium in which firms correctly anticipate what each other is going to charge and settle down on prices that are a stable configuration. And our model analyzes conditions under which that equilibrium is one in which prices are higher than in a market structure in which there’s only a single firm selling in the market.”

So how can you create a product differentiation strategy that maximizes your profits? Before entering a market, consider the following questions:

- 1. Is there a customer segment that isn’t being well served by incumbent firms?** Consumers vary in their willingness to pay for certain products and in their willingness to substitute one product for another. If you can design your product line in a way that creates value for customers who are willing to pay more for particular products, you can capture some of that value in the form of higher profits.
- 2. How differentiated should the products be within your own product line?** Further segmentation can create more value for your customers,



provided your offerings are aligned with their preferences and willingness to pay. But how much variety is cost-effective? And how will new variations affect sales of your other products?

- 3. How will incumbents respond to your entry into the market?** If a lot of customers regard your product and a competitor’s product as close substitutes, the competitor will likely respond to your entry with a price cut. But you can provoke a softer form of price competition by segmenting the market in such a way that most customers have a relatively strong preference for one product or the other.

“What entry ideally does is rearrange consumers in the market,” Riordan says, “so that in the new segmentation of consumers across firms, consumers are less sensitive to price.”

Read More

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Michael Riordan is the Laurans A. and Arlene Mendelson Professor of Economics and Business at Columbia Business School.

Decision Brief: EMC Turnaround

In the 1990s, EMC was the hottest stock on the New York Stock Exchange. But when the dot-com bubble burst, the company's fortunes took a dramatic turn for the worse. How did Joe Tucci '84 revamp EMC's business model to fit a radically different marketplace?

SITUATION

Between January 1, 1990, and December 31, 1999, EMC's stock appreciated by 83,000 percent—the best performance in the history of the New York Stock Exchange. The Massachusetts-based company was the market leader in information storage. Its flagship product, a high-end storage platform called Symmetrix, sold for twice the price of competing products. In 2000, the company had revenues of \$8.9 billion and profits of \$1.8 billion, and its market capitalization reached a high of \$225 billion.

Joe Tucci joined EMC in January 2000 and became president and CEO in January 2001. Having recently overseen a major restructuring at Wang Global, he was looking forward to leading a company that was on a solid growth track. EMC's biggest challenge was hiring and training enough qualified people to sustain its rapid growth rate.

But by the end of 2001, as the economy lurched toward a recession following the dot-com bust and September 11 terrorist attacks, the demand for EMC's products plummeted. The company posted a loss of \$508 million for 2001. A lot of people within EMC viewed the downturn as a temporary aberration. Tucci saw it as a sea change. Companies were no longer making major investments in information technology with little regard for cost.

During the dot-com bubble, the amount of information stored on disk arrays was virtually doubling each year. Even during the recession, the market had growth rates of about 40 percent. "We were fundamentally in a great market," Tucci says. "And we had \$4 billion in the bank and no debt, so we were not going to fall off the face of the Earth if we kept our cool and marched forward. That being said, we

had to change fast because we were bleeding money."

Companies not only were spending less money on information technology but also were consolidating their purchases and doing business with a smaller number of vendors. Dave Donatelli, an executive vice president who oversees EMC's storage platforms, worried that some customers might switch to buying storage products from larger technology companies that offered one-stop shopping.

"The real challenge was deciding, is this just a blip, or is it really a fundamental change to the business?" Donatelli says. "Once we decided that it was a fundamental change, we had to reexamine things that we had done for a decade and get everybody to be willing to think differently. We weren't going to go out of business, but in our industry there's something almost as bad as going out of business, and that's becoming irrelevant. And in 2002, when we shrank to \$5.4 billion in revenue, that was my biggest fear."

DECISION

EMC's culture was technology-driven, not cost-driven. But after the downturn, many customers were no longer willing to pay premium prices for the highest-quality information storage products. Most of the market's growth was in the midrange segment. The high end, EMC's stronghold, was growing at a rate of just 3 percent.

Tucci and his senior management team decided that in order to stay relevant EMC would have to dramatically change its business model. High-end hardware accounted for three quarters of the company's revenues. Tucci felt

it was crucial that EMC move into the middle and lower tiers and enhance its software and service offerings. He also wanted to develop a network of channel partners to supplement the company's direct sales force.

"If we stayed just as a storage platform company, we'd be increasingly commoditized," says David Goulden, executive vice president of customer operations. "So while we could continue to add value to those storage platforms, we had to have a value proposition that went above where we were at that point in time."

A lot of people within EMC viewed the downturn as a temporary aberration. Tucci saw it as a sea change.

EMC software was getting great reviews from customers, but its revenue potential was limited because it ran only on EMC storage arrays. With the open-source movement gaining momentum, Tucci thought it was time to move beyond proprietary software and develop applications that would manage information on competitors' platforms. And while EMC would continue to define itself as a product company, he wanted to expand its service offerings to help customers get the maximum value out of EMC products.

Tucci distilled the new business model into a rough formula: 50 percent hardware, 30 percent software, 20 percent services. EMC's gross margins for hardware had dropped from 60 percent to about 20 percent. By contrast, the software business had 85 percent margins, and the services

business had margins in the low 30s. Tucci calculated that the 50-30-20 model would raise the company's overall margins to around 48 percent.

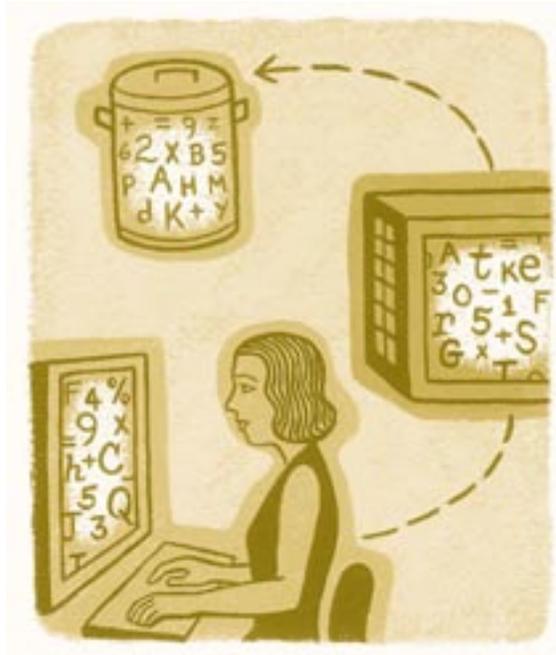
Then, in a series of strategy meetings, Tucci and his senior team fleshed out a new value proposition: EMC would be the first company to totally dedicate itself to information life-cycle management (ILM). Recognizing that not all information is of equal importance—and that the value of a particular piece of data changes over time—the company would offer integrated solutions to store, protect and manage information from its creation through the end of its useful life.

"Something that you're using for a stock trade at that second is very, very valuable data," says Donatelli. "A month after that trade or three years after that trade, that data is not as valuable to you." ILM allows customers to save money by migrating data from a high-end storage array to less expensive platforms at different points in the information life cycle. "During the bubble years, people had virtually all their storage on the high end," Donatelli says. "The idea of ILM was to start to move people down the chain."

EXECUTION

When Tucci took the helm at Wang, he had a strong platform for change because the company was in bankruptcy. But at EMC, many employees viewed the abrupt downturn in 2001–02 as an anomaly, not a fundamental change requiring a new strategy. "The populace didn't want to change, because they were fearless," says Tucci. "This was just a momentary problem, and let's keep hiring and let's keep going." Tucci had to convince a skeptical workforce that while EMC had benefited from Y2K, the euro and the e-business boom, there was no more low-hanging fruit on the horizon.

Before the restructuring, EMC's least expensive product sold for \$250,000. Suddenly the company was offering products priced as low as \$4,000. "If you have a culture that has always been a premium price culture, to learn how



to sell things at \$4,000 is a tremendous cultural change that impacts your entire company," says Donatelli. "The biggest challenge we faced internally was getting our workforce to understand that in almost a blink of an eye the world had changed and what they had been used to over the last 10 years is no longer the way things will be in the future."

Despite the new emphasis on controlling costs, Tucci refused to scale back research and development, since product development is what separates EMC from competitors that are more focused on services. As the company's revenues declined, R&D spending went from 9 percent to 15 percent of sales. EMC now invests almost 11 percent of its revenues in R&D; by contrast, IBM puts only 6 or 7 percent of its revenues into R&D.

In 2003, EMC introduced a new high-end storage platform, the DMX, as well as several midtier hardware products. Tucci had pushed to bring the DMX to market quickly instead of releasing an incremental upgrade of the existing high-end platform. Maintaining dominance in the high-end segment was critical to EMC's positioning in the industry. "The midrange has been important," says Bill Teuber, executive vice president and CFO, "but technology leadership in this business is decided in the high end."

In addition to developing new hardware and software products, the company embarked on an acquisition program to fill in some gaps in its information life-cycle management capabilities. It bought three software companies—Legato, Documentum and VMware—over an eight-month period in 2003 and 2004. All three were on the West Coast, where EMC had never had a presence. "We probably were all surprised at the complexity and the multiple dimensions associated with three simultaneous integrations," says Goulden.

To build credibility, EMC went the extra mile in communicating its new strategy to analysts and investors. "We opened up our fixed versus variable costs so investors could understand our cost-saving efforts," Teuber says. During the stabilization phase, the focus was on break-even and leverage—how much of every dollar over the break-even point was dropping to the bottom line. Once the company reached the growth phase, the relevant metrics changed to revenue growth and operating margins.

Throughout the restructuring process, Tucci set aggressive quarterly financial targets. The company has consistently met or exceeded its targets since the fourth quarter of 2002. "You'll be much more successful in life if you have a

mediocre idea but excellent execution than if you have the best idea in the world and terrible execution,” Tucci says. “We did Babe Ruth every quarter. We pointed at the center field fence and said, ‘OK, we’re going to grow twice as fast as the market.’ And quarter after quarter after quarter we delivered. That’s what builds credibility and wins over the skeptics.”

OUTCOME

Last year EMC had record sales of \$9.7 billion, with year-on-year growth of 17 percent. Its stock has a market value of \$28 billion and a healthy price-to-earnings ratio of 25. While the company’s high-end storage business is growing by only a few percentage points per year, midtier storage is growing at a rate of about 35 percent, and software and services have growth rates in the mid-20s.

EMC’s current revenue breakdown—46 percent hardware, 37 percent software, 17 percent services—is pretty close to the model Tucci sketched out in 2002. “Having a balance makes it tougher for a competitor to attack,” he says. “Before, if you could find a way

SUMMARY OF FINANCIAL RESULTS

	Revenues	Net Income
2000	\$8.9 B	\$1.8 B
2001	7.1 B	(507 M)
2002	5.4 B	(119 M)
2003	6.2 B	496 M
2004	8.2 B	871 M
2005	9.7 B	1.1 B

to attack high-end storage, you were going to hurt EMC. Now you can attack high-end storage, but I’ve still got all the other weapons in the arsenal.”

During the downturn, when EMC’s market value fell from \$225 billion to \$10 billion, some investors and analysts blamed the new CEO for the company’s decline. “You’ve got to have ownership

FACULTY COMMENTARY

Kathryn Harrigan, Henry R. Kravis Professor of Business Leadership: The EMC story told by Tucci reminds us that organizations are slow to acknowledge when they are in trouble because nobody tells them that their performance is no longer adequate. There is a creeping incrementalism to this turnaround story reminiscent of the ability to boil a frog to death as long as you increase the size of the flame under the kettle by a little bit at a time.

Laura Resnikoff, Associate Professor of Management: Whenever executives or MBA students ask for a set of early warning signs—how to identify a company heading for trouble or how to assess a company’s efforts to get out of trouble—I always speak about the challenges of reorganizing a large-scale sales force. Too often it is a life-altering event for a corporation. Few companies succeed in their first attempt, most exceed the projected business disruptions and time frames and few recover to prior glories.

With Tucci’s mature and commanding leadership, EMC did. What distinguishes this management team?

1. Their willingness to candidly acknowledge the influences of the past and lead change among a group of people who were proud of and comfortable with the benefits of EMC’s very prosperous growth history
2. Tucci’s insightfulness and openness about people and business opportunities
3. The melding of long-tenured EMC people with managers that Tucci brought with him, most with prior restructuring experience
4. Luck—an indispensable element of any successful turnaround:
 - breathing room due to a most favorable capital structure as deteriorating performance accelerated
 - some significant competitors who too had lost traction, from a combination of individual and industry-wide causes
 - regulatory and legal mandates and precedents worldwide that exponentially increased the need for information storage solutions

This team stands out for another rare accomplishment: the group that now leads EMC’s successful growth strategy is similar to the group that led the turnaround. Few individual managers command the talents needed for these very different sets of managerial challenges; when corporate performance improves, few groups of managers, after all of the turnaround’s hard work, are still acceptable. Tucci and his team are worth learning more about and emulating.

whether you caused it or not,” Tucci says. “If you’re in the lead chair, you just take the responsibility and get on with life.”

Tucci is similarly unaffected by the praise he has received in the past two years as a result of EMC’s spectacular comeback. “If you read the articles about me in 2001 and in 2004, it would

not appear that this was even the same person,” he says. “In 2004, I’m brilliant. In 2001, I was dumb as a stone. So that’s one of the things you learn in life. When things are going good, don’t get too pleased with yourself; when things are going bad, don’t get too down. You’ve got to ride the middle.”

THE IDEA: Alliances promote faster drug development, especially when the project is closely related to the developing firm's knowledge base.

THE RESEARCH

Previous research has yielded contradictory findings about the role of alliances in the development of new drugs. Some studies suggest that alliances lead to better outcomes because of the benefits of specialization: small firms that concentrate on niche technologies partner with larger firms that have the scale and experience to bring the drugs to market. Other studies support the "lemons" theory: firms develop their most promising compounds in-house and license out the less promising ones.

Jerry Kim examined data from 2,114 drug development projects from 1980 through 2003. His study focused on two dimensions of the distance between the project and the firm developing the drug: first, whether the project originated internally or externally; and second, how closely the project matched the firm's existing knowledge base.

Kim found that projects originating outside the firm have a faster rate of development, and that this effect is magnified when a project is closely related to the firm's core strengths. The study also demonstrated one

If you opt for an inbound licensing strategy, you should select projects that are closely related to your firm's core strengths.

of the risks of using an inbound licensing strategy: given the investment required to get the collaboration started, the developing firm may be reluctant to terminate a failing project. Kim found that alliances tend to extend the duration of failing projects, except in the case of projects that are highly relevant to the developing firm's knowledge base.



PRACTICAL APPLICATIONS

Pharmaceutical companies

This study confirms that licensing promising compounds from other firms can be an efficient way to fill your drug development pipeline. But it also suggests that you must be careful not to escalate your commitment to failing projects. If you opt for an inbound licensing strategy, you should select projects that are closely related to your firm's core strengths instead of using alliances to diversify into unfamiliar markets.

Read More

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Jerry Kim is assistant professor of management at Columbia Business School.

THE IDEA: As participants in incentive systems perceive that they are getting closer to their goal, they intensify their efforts.

THE RESEARCH

The goal-gradient hypothesis describes a 1934 finding in behaviorism: rats running toward a reward (cheese) move progressively faster as they approach their goal. Laboratory tests conducted over the years provided support for the original finding in animals, but until recently there was little empirical evidence of a goal-gradient effect in humans.

Ran Kivetz, Oleg Urminsky and Yuhuang Zheng tested the goal-gradient hypothesis in the context of consumer reward programs. They looked at the behavior of coffee drinkers participating in a café's "buy 10 coffees, get 1 free" program and Internet users who rated songs in return for reward certificates. The results showed that the café customers purchased coffee more frequently as they got closer to earning a free coffee. Likewise, the Internet users visited

the rating Web site more often, rated more songs per visit and were less likely to terminate a rating session as they approached the incentive threshold.

In both programs, participants reduced their level of engagement after achieving their first reward and then accelerated their efforts

again as they approached their second reward. Individuals who more strongly accelerated toward their first reward were more likely to quickly reengage in the program. Moreover, the researchers found that illusionary goal progress also induces a higher level of engagement: customers who received a 12-stamp coffee card with two preexisting "bonus" stamps completed the 10 purchases more quickly than those who got a regular 10-stamp card (median completion times were 10 versus 15 days).



PRACTICAL APPLICATIONS

Marketing managers, sales directors and human resource managers

This research has implications not only for consumer reward programs but also for sales force incentives, employee motivational plans and other types of goal-based systems. You can use this research to design incentive systems that more effectively segment your constituents and motivate them to achieve goals and engage in desired behaviors.

Read More

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Ran Kivetz is the Sidney Taurel Associate Professor of Business at Columbia Business School.

You can use this research to design incentive systems that more effectively segment your constituents and motivate them to achieve goals.

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How Can Poor Countries Get Rich?

Q & A with Frederic Mishkin

Trade globalization has lifted many of the world's poorest workers out of poverty. But without financial globalization, says Frederic Mishkin, poor nations can't reach the next stage of development.

Why is financial globalization so important for emerging market economies?

It's critical for emerging market countries to have an institutional framework that allows their financial systems to work well. This is frequently not understood—in fact, even some high policy officials don't understand why finance is important to economic well-being and growth. For an economy to grow, you need money channeled to productive investments. If that doesn't happen, a country will never make it. One of the serious problems in emerging market countries is their financial systems don't work well: they don't have good property rights, and they don't have a legal system that allows enforcement

give you money. And you can become very rich, with tremendous benefit to society. The high-tech sector is a prime example. But if you live in a country with a financial system that doesn't work well, people will not lend to you because they won't be able to enforce their contracts. One of the huge problems in poorer countries is that they can't get capital to work for them.

Financial globalization is an important part of helping financial systems develop. First, there is the direct effect: access to foreign capital, which lowers the cost of capital and makes it easier to do investment. Then there are all of the secondary benefits for a country's institutional framework. Financial globalization, like globalization in general, increases competition. If you bring in foreign capital, domestic financial institutions have to do a better job in order to survive. And with competition, these institutions will realize that they have to have a better legal system, with property rights and so forth.

What are the risks of this influx of foreign capital?

Frequently, when a country begins to open up to financial globalization, it is done in a way that benefits the same elites that have been repressing the financial system. And this can be dangerous for their countries.

For example, when Mexico privatized its banks and opened its financial system to the outside world, the business elites took over the banks, putting very little money of their own into them. In addition, they made sure the system allowed the banks to take on huge risk. If the banks got in trouble, the taxpayers



For an economy to grow, you need money channeled to productive investments. If that doesn't happen, a country will never make it.

— Frederic Mishkin

would bail them out. The result was the banks blew up and the financial system faced a devastating crisis. Similar problems happened in Korea. Banking institutions were essentially lending machines for the businesses that owned them.

This pattern is a very common one. Although financial globalization is critical to growth, it's frequently mismanaged. There are many examples where it has been successful and many examples of when it has been a disaster.

What about income inequality? Some say that globalization will increase the gap between the rich and the poor.

There's always been a concern that globalization might increase income inequality. But for poor countries, globalization tends to be one of the most important ways of eradicating poverty. Look at what's happened in India and China. They entered the global trading system, and as a result a huge number of people have been lifted out of extreme poverty.

However, there have been countries that have not been able to take advantage of globalization, frequently because of bad policies. What we've found is that countries that don't take the proper steps to globalize actually lose out. Not only do they not grow as fast as countries that globalize, they sometimes see declines in income.

In advanced countries like the United States, globalization may have led to

There's always been a concern that globalization might increase income inequality. But for poor countries, globalization tends to be one of the most important ways of eradicating poverty.

of contracts—things that we take for granted in places like the United States. As a result, businesses and households often can't get the funds they need.

Suppose you're an entrepreneur and you have a wonderful idea. In the United States, even if you don't have money, you're able to get someone to

increased income inequality in recent years. There's a lot of debate about this, and there is no clear-cut answer. It's one reason why some people are opposed to globalization, because they feel that some elements of society may not do as well. But you also have to think about the really poor people. There aren't just workers in the United States, there are workers throughout the world. And globalization is very beneficial to them. Furthermore, there are better ways of compensating workers who lose from globalization than stopping globalization altogether.

Is this risk for emerging market countries one of the reasons financial globalization is so controversial?

Financial globalization is much more controversial than trade liberalization, and one reason is that many economists don't understand the importance of finance to economic growth. It's a very new literature.

Another reason is that financial globalization in emerging market countries has sometimes proved to be disastrous because it's mismanaged. But the real issue is not whether it's good or bad but whether it can be done right.

How can these countries get it right?

One of the key issues is that a country must supervise its financial sector to make sure it doesn't take on excessive risk. This is something that is done very actively in advanced countries, though not always well. We've had our crises too. The United States had a savings-and-loan crisis because regulators weren't doing a good job. But when an advanced country makes a mistake, it usually fixes it.

Another important issue is what's called currency mismatch. Frequently, businesses in emerging market countries borrow money in foreign-denominated currencies because it's easier. But their revenue and the value of their assets are denominated in domestic currency. If the value of the domestic currency declines, it blows up the value of their debt and blows up the companies, and that blows up the country. So one issue is how to limit currency mismatch.



Also, trade liberalization actually helps prevent financial crises. If an economy is open to trade, many companies are exporting and a lot of their revenue will be in foreign currency. When they then borrow in foreign currency, it doesn't create a problem.

How can the advanced countries help?

First, you want to provide incentives for these countries to get financial globalization right. One way is not bailing out countries that are pursuing bad policies. This has been a very big problem with both the World Bank and the IMF, which frequently give money to governments that are doing bad things.

Advanced countries can promote financial globalization by allowing poor countries to send their goods and services to us. This encourages them to export. If they export, they need to get capital. And they will need to improve their institutions to make financial globalization work well for them.

Read More

Mishkin, Frederic. *The Next Globalization: How Disadvantaged Nations Can Harness Their Financial Systems to Get Rich*. Princeton, N.J.: Princeton University Press, 2006.

Frederic Mishkin is the Alfred Lerner Professor of Banking and Financial Institutions at Columbia Business School.

Guppies, Ants and Golf Swings: Mental Models for Investors

Q & A with Michael Mauboussin

In a down-to-earth guide to behavioral finance, Michael Mauboussin mines unexpected sources for insight into the concepts of choice, risk and innovation.

The basic framework for *More Than You Know* is the idea of consilience among disciplines. Can you talk briefly about that concept?

The one investor who probably best embodies that approach is Charlie Munger, Warren Buffett's partner at Berkshire Hathaway. Munger's basic point is the best way to solve problems is to have in your mind a latticework of mental models from various disciplines. He likes to evoke the phrase "To a person with a hammer, every problem looks like a nail." In other words, if you have one worldview or one perspective, you're going to try to solve all problems the same way, and that's not likely to be very effective.

Consilience is about trying to draw the best ideas from various disciplines so that when you face a business problem or an investing problem you have the best tools to bring to bear to try to solve that intelligently. A lot of that comes down to finding an apt metaphor or analogy to help think through a problem effectively.

How did this book project come about?

I was on vacation with my family in the summer of 2000, and my wife's grandfather handed me a copy of *Time* magazine with an article about Tiger Woods. It described how Tiger Woods won the Masters golf tournament in 1997 by a record margin of 12 strokes. Surprisingly, Woods reviewed his performance and concluded his swing was really awful. So he embarked on a multiyear process to revamp his swing, and as he was doing this his performance really deteriorated. However, he was saying all along, "I'm a better



"What the ant colonies teach us is that in markets, cause and effect are very difficult to pin down."

— Michael Mauboussin

golfer." And then he burst back onto the scene in 1999–2000 and won an extraordinary number of tournaments.

When I'm reading this article what's flashing in my mind is the idea of fitness landscapes, which is a concept evolutionary biologists use to describe the fitness of species. The best way to describe a fitness landscape is to envision a mountain range. The metaphor says a species tries to climb up the hills to get to a peak. However, when you get to a local peak you may look out and see that there's a higher peak somewhere else. So to improve your fitness, you have to go down into the valley and then back up the hill.

That idea of fitness landscapes has a lot of applicability for corporations. You can see many examples of companies that try to get off the local peak onto a higher peak. One example today would be Kodak, where their traditional business is in decline but the digital business is growing rapidly. So they have to go down one side and back up the other side in order to take advantage of that transition.

You give several examples in the book of investing insights from the natural world. Can you talk about a couple of those?

One of my favorite chapter titles is "Guppy Love." The basic story is that female guppies have a tendency to prefer bright-colored males. However, when experimenters set them up in a contrived situation where some females observed



other females choosing dull-colored males, the observing females overrode their own hard wiring and chose the dull-colored males as well. So imitation is clearly something that happens in the animal world.

It's a very short leap to see how imitation is important in the human world. We're a very social and imitative species. So what does that mean for the world of business and investing? Well, often when you have a lot of diverse points of view, you get results that are pretty efficient. However, when everyone starts to do the same thing—everyone gets bullish on a stock or bearish on a stock or they get into a particular business fad or trend—it often gets carried to extremes. And those extremes are inflection points that are interesting from a business or investing perspective.

Another favorite example is the ant colony. If you study an ant colony, you will find it has a life cycle—it's robust, it's adaptive. However, if you ask any individual ant what's going on, they have no clue. They're working with local

by interviewing individual investors because each investor only has a partial piece of the picture. It's the aggregation that allows the full picture to emerge. What the ant colonies teach us is that in markets, cause and effect are very difficult to pin down. Sometimes we like to think that the experts on TV or the pundits quoted in the *Wall Street Journal* know what's going on. They're really just ants.

There are several places in the book where you debunk conventional wisdom or offer insights that are counterintuitive to most people. Could you give an example of that?

Most of us like to be right more than wrong. The main reason for that is loss aversion, which is a concept in psychology that says for a dollar loss and a dollar gain, we suffer twice as much for the loss as we enjoy the gain. You often hear, "If we're right about the stock just 51 percent of the time, we're going to be in really good shape." And that has nothing to do with how investing works. Real-world investing is about the frequency of correctness and the magnitude of correctness, and both of those in combination are what matter.

You can envision a scenario where you have four stocks in your portfolio; three of them go down a bit, the fourth goes up a lot. That would be a very bad frequency of success but obviously a very good portfolio. So as people think about their portfolios, it's important

to recognize the role of both frequency and magnitude. And that sort of rubs against common sense and conventional wisdom.

In the book's conclusion you mention some of the things the experts still don't understand about investing. Can you talk about the directions for future research?

If you look at the world of finance, there are many, many open questions.

For example, we don't really understand how capital markets get to efficiency. There are some theories that are widely used in the world of finance, including mean-variance and no-arbitrage assumptions. I suspect these traditional ideas will eventually be superseded by this idea of complex adaptive systems, or the wisdom of crowds.

I think that the recent developments in neuroscience and decision making are absolutely fantastic. Another area that is really intriguing are the statistical regularities, like the power laws, that have come out of the study of physical systems, like earthquakes. In biological science, we know things like body mass and metabolic rate also follow a power law, a scaling property, and we have ways to explain those phenomena reasonably well. We see many of those same power laws in social sciences, yet we really have no causal mechanisms. So we don't know why city sizes follow a power law or why the sizes of corporations follow a power law.

The last idea I'd mention is the flight simulator for the mind. One of the challenging things about investing is it's very difficult to get timely and clear-cut feedback. If you're a handicapper at the racetrack or you're a weather forecaster, you get feedback pretty immediately on the decisions that you make, and that helps you calibrate and improve your decision-making process. When you purchase or sell a stock, you really don't know in a timely fashion whether that decision was a good or a bad one. So an interesting question is whether we could create some sort of artificial environment that allows people to get better feedback on their decisions.

Read More

Mauboussin, Michael. *More Than You Know: Finding Financial Wisdom in Unconventional Places*. New York: Columbia University Press, 2006.

Michael Mauboussin is chief investment strategist at Legg Mason Capital Management and adjunct professor of finance and economics at Columbia Business School.

Consilience is about trying to draw the best ideas from various disciplines so that when you face a business problem or an investing problem you have the best tools to bring to bear to try to solve that intelligently.

information and local interaction. I think there's a very clear parallel to markets. How do markets get to be efficient? The answer is it's an interaction among a lot of diverse investors. The aggregation mechanism to bring the information together is the stock exchange, and then what emerges from that is the stock market.

The important takeaway is it's impossible to understand the market

Will oil prices stay at current levels, and how will they affect consumer confidence and the economy as a whole?



MARC GIANNONI,
Associate Professor of
Finance and Economics

Oil prices should remain high in the near future, as long as the world

economy continues to expand fairly rapidly, thereby stimulating demand for oil. However, short-term predictions of oil prices are difficult because they depend in part on political factors, such as stability in the Middle East. In the United States, higher energy prices as well as rising interest rates have tended to reduce consumer confidence. But consumer confidence has also benefited from a rapidly expanding economy and improved labor market conditions. Because of these opposing influences, consumer confidence has been quite volatile recently.

Unless other important negative news arrives, I expect that in the near future consumer confidence will remain relatively high, as the economy continues to grow at healthy rates and the labor market remains strong. It is likely, however, that high oil prices and a strong economy will induce the Federal Reserve to raise interest rates further in order to contain consumption and residential investment. This may have a negative effect on consumer confidence.

Professor Giannoni's research focuses on monetary policy and its effect on the aggregate economy.

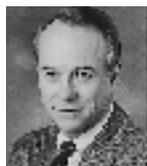


FREDERIC MISHKIN,
Alfred Lerner Professor
of Banking and Financial
Institutions

If you manage other policies well, oil prices

are not as big a deal as people think. In the 1970s, the Federal Reserve didn't do a good job of keeping inflation under control, and when oil prices went up, it had a much, much greater effect. It led to higher inflation, and higher inflation means the central bank ends up tightening monetary policy to cope with it, with a negative impact on the economy. In recent years, the higher credibility of the Federal Reserve to control inflation has meant that oil prices have not had the same kind of negative effect.

Professor Mishkin specializes in monetary policy and its impact on financial markets.



**DAVID BEIM, Professor
of Professional Practice,
Finance and Economics**

Although we're seeing relatively high oil prices compared to recent

years, the rise does not seem to have slowed down the economy. But it has provoked discussion of alternative sources of energy, which is a very positive development. Interest in ethanol has greatly accelerated in the last year, especially ethanol derived from cellulose. The competitiveness of Canadian tar sand oil has also improved—that's a huge resource but expensive and difficult to access. It becomes more realistic with higher oil prices. There's also a new process to make diesel fuel from coal; the governor of Montana is devoting a lot of time to promoting that process.

The rise in oil prices is actually good because it will accelerate our development of such alternative

sources of energy. We must rapidly reduce our dependence on oil imports, especially from the unstable Middle East.

Professor Beim's research interests include debt pricing and the banking industry.



GLENN HUBBARD,
Dean and Russell L.
Carson Professor of
Finance and Economics

Tightening supply reflects continued low

production in Iraq, supply disruptions in Nigeria and investment-unfriendly politics in Venezuela and Bolivia. At home, regional variations in environmental standards and recent mandates for blended ethanol that exceed production squeeze gasoline supply and raise prices. On the demand side, we in our SUVs make too little effort to encourage energy efficiency. And abroad, China has leapt past Japan as the world's No. 2 oil consumer.

But the cure for high prices is . . . high prices. High prices encourage conservation on the demand side. They also encourage the development of new oil reserves and, importantly, alternative energy sources on the supply side.

We need to support basic research for new technologies and export energy-efficient techniques to emerging economies. We need to clear out harmful domestic barriers to production and refining. And at the broadest level, we need to coordinate the domestic and foreign policy sides of the nation's energy policy.

Professor Hubbard studies public finance, corporate finance and financial markets and institutions.

Have the Old Rules of Marketing Collapsed?



Bernd Schmitt, who delivered the closing remarks at the Innovative Marketing Conference at Columbia Business School on June 8–9, discusses whether there is a new foundation for marketing.

With all the talk about new paradigms, many marketers may wonder if the old rules are gone forever. First, it helps to identify what these old rules are. Some participants in last month's Innovative Marketing Conference named the four Ps: price, product, promotion and place. Others said control: controlling the consumer, controlling your channels, controlling your competition, insulating yourself from it. Still others argued for targeting—target markets, target segments; or positioning—positioning against the competition or in the minds of the consumers.

Should we really cast these rules aside? No matter how much changes, some key marketing principles will hold true. We have to be innovative in creating new products. And we need to be relevant to customers. We rely on these strategy concepts—the analysis, the strategy development, the positioning, the targeting—as much as we always have. But the way we implement these concepts must change.

To some degree, of course, things have already changed. Whether you think these changes have been evolutionary or revolutionary is partly a matter of perspective. If you're a little bit older, you probably see this as an evolution, because every 5 or 10 years something comes along that experts say changes everything. If you're a little bit younger, you're probably seeing this for the first or second time, so you might say something truly radical is happening. I think it's somewhere in the middle. There is a shift going on and we are arriving at a new paradigm, but there's still a lot of truth to the old rules.

Over the two days of the Innovative Marketing Conference, more than 130 marketing executives discussed what a new paradigm might mean. The audience identified many concepts as critical: transparency, community, social currency and trust. There's also dialogue, engagement, conversations and cocreation.

The key, I would argue, is integrating all of these concepts—engaging in a conversation, creating value in terms of social currency, tapping into cultural meanings of brands. We have to pay attention to the more interactive qualities, the human face, of what we're engaging in. That is really the new paradigm. But these concepts, and the notion of integration itself, have been grossly misrepresented or not represented at all in traditional marketing.

If we wanted, we could put this all into a PowerPoint chart. That's part of what I do when I teach—I have PowerPoint slides and I talk about concepts and tools. But sometimes I feel there is more to this idea, and I think of it not in words or even images but in terms of music.

One person that comes to mind is the composer Gustav Mahler. Mahler had a way of juxtaposing atonal passages with beautiful, traditional melodic lines. He was struggling with the entire Western tradition of classical music, starting with Bach and then going all the way through to Bruckner and his contemporaries. He saw a new age dawning, but he couldn't fully express it yet.

In marketing, we're in a similar vein. So what would be the music of our new paradigm? Would it be a frenzied, disjointed sax solo, full of squawks and blurts? Or are we approaching

something along the lines of a slow, lyrical melody—a state of peaceful marketing and conversations with consumers that create new value like they've never seen?

There is a way to merge these worlds. I imagine the new paradigm as a jazzy improvisation. It's upbeat, it's a little edgy. It's heavy on riffs. And we shouldn't forget that this is, in a broader sense, another stage in our marketing evolution. Ultimately, we will reach a new, higher level of marketing. We are well on our way to making that happen.

For more information about the 2006 Innovative Marketing Conference, visit the Web site of the Center on Global Brand Leadership at www.globalbrands.org.

Bernd Schmitt is the Robert D. Calkins Professor of International Business and executive director of the Center on Global Brand Leadership at Columbia Business School.



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IN THIS ISSUE . . .

What is **strategy** and how is it different than planning? How can you create **value** for your customers and differentiate yourself from your competition? Is the concept of sustainable competitive **advantage** still relevant in today's rapidly changing marketplace? In this issue, Bruce Greenwald, William Duggan, Rita McGrath and Willie Pietersen offer frameworks for identifying and capturing **opportunity** in a dynamic business environment, while Kyle Bagwell and Michael Riordan present game theory-based findings on competitive **interaction** among firms.

To read more about the ideas covered in this issue—and to explore research findings on other business topics—visit the Columbia Ideas at Work Web site.

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