

A vertical graphic on the left side of the page. It features a light green background with various icons: gears, puzzle pieces, a target, a play button, and silhouettes of human heads. Dashed lines connect these elements. The text 'MIT Sloan Management Review' is at the top, followed by 'SLOANSELECT COLLECTION' in large, bold letters.

MIT Sloan
Management Review

**SLOANSELECT
COLLECTION**

TEN OF THE MOST READ AND DISCUSSED ARTICLES FROM THE
STRATEGY ARCHIVE

Top 10 Lessons on Strategy

Building and implementing an effective corporate strategy in an era of rapid change, evolving technology, and intense competition.

CONTENTS

**SLOANSELECT
COLLECTION**
SUMMER 2015

The Strategy Guidebook

1 The Art of Strategic Renewal

By Andy Binns, J. Bruce Harreld, Charles O'Reilly III and Michael L. Tushman

4 Strategic Decisions for Multisided Platforms

By Andrei Hagiu

14 Beyond Forecasting: Creating New Strategic Narratives

By Sarah Kaplan and Wanda Orlikowski

20 Which Strategy When?

By Christopher B. Bingham, Kathleen M. Eisenhardt and Nathan R. Furr

28 Optimizing Your Digital Business Model

By Peter Weill and Stephanie L. Woerner

36 Creating Value Through Business Model Innovation

By Raphael Amit and Christoph Zott

45 How Strategic Is Your Board?

By Didier Cossin and Estelle Metayer

52 Closing the Gap Between Strategy and Execution

By Donald N. Sull

61 The Strategic Communication Imperative

By Paul A. Argenti, Robert A. Howell and Karen A. Beck

68 How Companies Become Platform Leaders

By Annabelle Gawer and Michael A. Cusumano

Please note that gray areas reflect artwork that has been intentionally removed. The substantive content of the article appears as originally published.

Reprint #: STR0715



The Cisneros Group, a Spanish-language media company with operations across the United States and Latin America, assembled teams from across the organization to explore new ventures.

[LEADING CHANGE]

The Art of Strategic Renewal

What does it take to transform an organization before a crisis hits?

BY ANDY BINNS, J. BRUCE HARRELD, CHARLES O'REILLY III AND MICHAEL L. TUSHMAN

In recent years, we have seen well-established companies such as Kodak, Blockbuster, Nokia and BlackBerry pushed to the brink by smart competitors and changes in their industries. In each case, there were opportunities to act before a crisis engulfed the organization. At Kodak, for example, CEO George Fisher attempted to move the company into the digital era in the 1990s. However, he was unable to change course quickly

enough. Fisher had an opportunity; his successor had a crisis.

What can leaders do before the depth and scope of their companies' crises come into focus? How can they initiate major transformations proactively? As researchers and managers who have been involved in numerous corporate transformations in recent years, we have learned that applying standard formulae to corporate transformations is, at best, ineffective and,

at worst, dangerous. What's needed is a new approach that enables executives to transform organizations proactively without resorting to fear.

Is Strategic Renewal Right for You?

Strategic renewal is neither an event nor a detailed program. Rather, it's a set of practices that can guide leaders into a new era of innovation. Because strategic renewal involves making changes ahead of a crisis, the

efforts can be extremely difficult to initiate, fund and lead; many companies, including Xerox, Kodak and Firestone, attempted but failed to move ahead of their respective crises. The role of senior management is to build strategy, experimentation and execution into the day-to-day fabric of the organization. Here are four tests for deciding whether your company is ripe for strategic renewal:

1. Your profits are dominated by maturing businesses in which you see limited opportunities for growth. Nothing breeds complacency like success, and the right time to be paranoid is when you are at the top of your game. In 2007, Nokia

(Continued on page 22)

The Art of Strategic Renewal (Continued from page 21)

was the number one mobile handset manufacturer, and BlackBerry was the “killer app” for mobile email. Now, Nokia’s handset business has been sold off to Microsoft, and BlackBerry is struggling for survival. Executives at both companies were seduced by their success into thinking they had time to react. Although they saw their respective threats as serious, they made the mistake of assuming that the threats were all part of normal competition rather than an existential danger. Both companies didn’t grasp, in time, that the smartphone introduced a fundamentally new capability to the market and thus represented a different type of competitor.

2. There is a direct threat to your core source of profits. Regional newspapers in the United States have seen their profits dry up as classified advertising has largely left print media and moved online. We have passed the point where incremental innovation (for example, better printing techniques) will matter; local listings can be posted on Craigslist for free. New digital business models have put the profits of incumbents at risk. Whether the threat is digital technology, emerging markets reshaping economics, foreign competition or breakthroughs in genetic medicine, if it has the potential to redistribute profits, beware.

3. The opportunity (or threat) is outside your core markets. One thing that made

the introduction of the iPhone and Android difficult for Nokia to anticipate is that they both came from players that had not previously been involved in the mobile phone industry. Nokia executives had been bracing for incursions from Ericsson, Samsung and Motorola, not Apple and Google. They were focused on the industry as it was, and they didn’t anticipate the extent to which the newcomers would break the rules. Dramatic change is often driven from the outside, challenging the very basis of an industry and stimulating an immune response from the incumbent.

4. New ways of making money are a threat to your core capabilities. Nintendo’s introduction of the Wii video game console in 2006 was a masterstroke of innovation that enabled it to regain market leadership. It opened up a whole new market for computer gaming by introducing a simpler interface that made it possible for parents (and grandparents) to play alongside their children without having to memorize a list of arcane commands. However, the next wave of innovation may be more problematic, as it will put one of Nintendo’s fundamental rules about only producing software for its own consoles to the test. Popular Nintendo games like Super Mario Brothers and Donkey Kong operate exclusively on Nintendo devices. But the overall market is changing. Starting in 2011, consumers began moving from game consoles to

smartphones and tablets in droves. So far, Nintendo has refused to make its games for other platforms. If the company maintains this position, it could miss the next wave, a decision that would put the company’s entire future at risk.

The Strategic Renewal Playbook

Though strategic renewals are often more difficult to pull off than corporate turnarounds, they can result in positive outcomes if they are initiated early enough. IBM’s experience is instructive. In 1999, IBM concluded that while it was once again a stable business following a near-death experience five years earlier, it had lost its ability to innovate, something dozens of new competitors (including Cisco and Akamai) didn’t hesitate to seize upon.

Yet over the past 14 years, IBM has become a new company. It has successfully moved away from hardware and software and refocused itself around consulting, analytics and industry-specific solutions. Based on this experience (one of the authors of this article, Bruce Harreld, reported to IBM CEO Sam Palmisano from 2001 to 2008) and our work with other organizations including Ciba Vision, Analog Devices and Ball Corporation, we have developed a set of principles for strategic renewal that we believe can be applied to other organizations aiming to renew themselves *ahead* of market disruption.

1. Select growth aspirations that connect with people

emotionally. Renewal needs to be tied to a growth aspiration that connects to the company’s sense of identity — what motivates employees to come to work every day. For example, at Nissan Motor Co., when the company’s future was on the line, CEO Carlos Ghosn established the goal to “renew Nissan.” This provided a rallying cry that encouraged dispirited employees to get behind the turnaround effort.

Without a crisis, the emotional energy needs to come from somewhere else. A goal that anticipates success and speaks to the core identity of employees can be more compelling than fear of loss. For example, compare how Ciba Vision, a global contact lens manufacturer, framed its program for strategic renewal in the eye-care solutions business around “healthy eyes for life” with how one British manufacturer defined its goals around 5/10/2010: 5% revenue growth and 10% profit growth by 2010. While that mantra had a catchy ring, the only person it inspired was the CEO. Not only did the company miss its numbers, it suffered a major contract loss, whereupon the stock plunged, in part because of the relentless focus on short-term results.

2. Treat strategy as a dialogue as opposed to a ritualistic, document-based planning process. Turning an aspiration into reality requires going beyond highly formatted planning processes and having tough, fact-based conversations.

In this spirit, some companies are looking beyond PowerPoint presentations in an effort to find new ways of engaging managers in their strategy process. A European-based publishing company we worked with, for example, created a set of posters that displayed market data, competitor analysis and benchmarking information as a way to spark a dialogue. During a strategy meeting, the senior team was invited to discuss the data during a “gallery walk.” At Nedbank Group, a bank holding company in South Africa, CEO Ingrid Johnson, who had been frustrated by the pace of change as she sought to capture mid-market customers, discovered that one way to gain traction for an ambitious transformation following a major management overhaul was to conduct what she called “pause and reflect” sessions. These sessions provided a safe space for the leaders to explore her expectations for them and start to make connections to their daily priorities.

3. Use experiments to explore future possibilities. Strategic dialogues can help organizations grow new businesses through experimentation. Experimentation practices — adapted in many cases from the venture-capital world — create opportunities for established businesses to explore the future. For example, the Cisneros Group, a Spanish-language media company with operations across the United States and Latin America, decided in 2010 to expand its presence in digital

media. However, since it wasn’t clear what the best business model would be, management initiated several pilots. The goal was to identify a viable value proposition, then invest in the ventures that showed promise. One of the new businesses was Adsmovil, a service that helps companies target Hispanic audiences on their mobile devices. The service was so effective that it was retained by the Obama campaign in 2012 to target Hispanic voters.

4. Engage a leadership community in the work of renewal. Strategic renewal must be rooted in the senior team’s collective commitment to a transformation agenda. However, successful strategic renewals also need to be broadly based so they can engage managers one or two levels down in the organization. Creating leadership communities around the renewal project allows leaders to learn about the future by doing and win over potential resisters. IBM, for example, found that earmarking resources for experimentation, while continuing to hold operating units to tight cost disciplines, led to resentment, even resistance. Instead, the company’s “Strategic Leadership Forums” brought together groups of up to 100 executives to work on how to make new ventures successful. Rather than forcing people to help in the new ventures, the forums helped to build a social network of leaders who would decide to advocate for the new projects on their own.

At Cisneros, managers were wary of entering technology businesses, which were very different from the core of broadcasting. So the company assembled teams from across the organization to explore ideas for new ventures. Each team focused on a different idea and was asked to follow a specific evaluation process. “We needed these teams to go beyond managing the day-to-day and reconceive of the future of the firm by actually showing us what we needed to do,” says the CEO, Adriana Cisneros.

5. Apply execution disciplines to the effort. Management needs to bring as much focused execution to strategic renewals as it brings to other projects that are vital to business performance. Here we disagree with other experts who have argued that this effort can be assigned to enthusiastic volunteers, who pursue it in addition to their day-to-day responsibilities. Although the idea of volunteer efforts is certainly appealing (if for no other reason than its cost), our research and experience suggest that a company’s strategic renewal shouldn’t have to compete with the pressures of day-to-day. Rather, it requires a full-fledged commitment and the necessary funding and resources.

The experience of Cisco speaks directly to this concern. Realizing the imperative to create new revenue streams as its router business matured, Cisco launched a new initiative in

2007 that was designed to get multiple levels of executives involved in identifying and investing in new business opportunities. But the approach, which was dubbed “boards and councils,” was weak on accountability, and the effort was later dismantled. Strategic renewal can’t be viewed as a night job; it is core to the work of leaders, who must be able to keep the tension between short- and long-term priorities in balance.

Strategic renewal takes guile. After all, the corporate immune response is extremely powerful: Leaders find it much easier to resist change than to embrace it. Strategic renewal acknowledges this: It is about “both, and” rather than “either, or.” The practices we propose can enable senior leaders to build a bridge to the future without burning the bridges from the past.

Andy Binns is managing principal of Change Logic LLC, a Boston-based consulting firm. J. Bruce Harrell is a senior lecturer of business administration and Michael L. Tushman is the Paul R. Lawrence MBA Class of 1942 Professor of Business Administration at Harvard Business School in Boston, Massachusetts. Charles O’Reilly III is the Frank E. Buck Professor of Management at Stanford Graduate School of Business in Stanford, California. Comment on this article at <http://sloanreview.mit.edu/x/55222>, or contact the authors at smrfeedback@mit.edu.

Reprint 55222.

Copyright © Massachusetts Institute of Technology, 2014. All rights reserved.

Strategic Decisions for Multisided Platforms

Multisided platforms such as eBay and Facebook create value by enabling interactions between two or more customer groups. But building and managing a winning platform isn't easy.

BY ANDREI HAGIU

MULTISIDED PLATFORMS (MSPS) are technologies, products or services that create value primarily by enabling direct interactions between two or more customer or participant groups. Prominent examples of MSPs and the participants they connect include Alibaba.com, eBay, Taobao and Rakuten (buyers and sellers); Airbnb (dwelling owners and renters); the Uber app (professional drivers and passengers); Facebook (users, advertisers, third-party game or content developers and affiliated third-party sites); Apple's iOS (application developers and users); Google's Android operating system (handset manufacturers, application developers and users); Sony's PlayStation and Microsoft's Xbox gaming consoles (game developers and users); American Express, PayPal and Square (merchants and consumers); shopping malls (retail stores and consumers); Fandango (cinemas and consumers); and Ticketmaster (event venues and consumers).¹



THE LEADING QUESTION

What are some of the strategic issues that multisided platforms (MSPs) face?

FINDINGS

- ▶ Decisions need to be made about governance, platform design, pricing and number of sides.
- ▶ No side of the platform will join without the other or others.
- ▶ Most MSPs subsidize at least one side of their platform.

As these examples illustrate, MSPs include some of the largest and fastest-growing businesses of the past decade. Why? Successful MSPs create enormous value by reducing search costs or transaction costs (or both) for participants. As a result, MSPs often occupy privileged positions in their respective industries; most other industry participants revolve around and depend on MSPs in important ways. (See “How Multisided Platforms Differ from Product Platforms and Resellers.”)

This article offers an analysis of four fundamental strategic decisions and associated trade-offs that set MSPs apart from other types of businesses and that every MSP entrepreneur and investor should carefully consider. (See “About the Research.”) These challenges are the following:

- the number of sides to bring on board;
- design;
- pricing structures; and
- governance rules.

Basic Features of Multisided Platforms

An important feature of most MSPs is that the value to customers on one side of a platform typically increases with the number of participating customers on another side. This is known as the presence of “cross-side network effects,” sometimes referred to as “indirect network effects.”² For example, sellers derive more value from eBay when there are more buyers and vice versa.³ However, cross-side network

effects are a double-edged sword. On the one hand, they can create high barriers to entry, which explains why successful MSPs occupy privileged and often hard-to-assail positions in their respective industries. On the other hand, erecting that barrier is difficult because of an inherent chicken-and-egg problem: No side will join without the other or others. Overcoming the chicken-and-egg problem is one of the most difficult challenges for many MSPs.

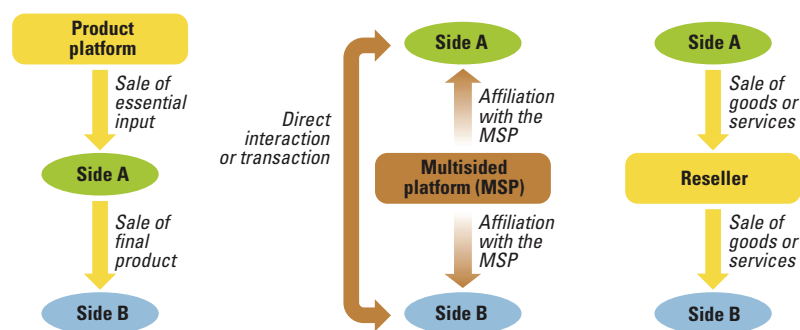
Cross-side network effects alone do not guarantee high barriers to entry. For an MSP to keep rivals and new entrants at bay, high switching costs or high costs to belong to more than one competing network are also necessary on one or all sides of the MSP.⁴ A cautionary tale is provided by Groupon and LivingSocial, the early leaders of the market for daily deals. Both are MSPs that connect merchants with consumers. And both exhibit clear cross-side network effects: The more users sign up to receive Groupon daily offers in the Boston area, the more attractive it becomes for Boston-based merchants to offer deals through Groupon, and vice versa.

Many investors assumed that these cross-side network effects would lead to market dominance, which propelled Groupon and LivingSocial to lofty valuations in record time. Groupon’s market capitalization was more than \$16 billion shortly after its IPO in November 2011, while LivingSocial was said to have been valued at about \$6 billion in a December 2011 private-funding round. By February 2013, those valuations had been slashed dramatically — Groupon’s to less than \$4 billion and LivingSocial’s to about \$1.5 billion⁵ — as analysts and investors realized that the low switching costs on both sides of this market — and ease of participating in more than one MSP — left the door open for many daily deal sites to compete. For instance, a 2011 news article reported that there were 33 daily deal sites in Boston and that competition had cut into both consumers’ and businesses’ loyalty to Groupon.⁶

Many, but not all, MSPs also exhibit economies of scale — their average cost of serving a customer (on a given side) or of enabling an individual transaction declines with the total number of customers that participate or transactions that are enabled. This is a common property of many software MSPs, simply because they typically have high up-front (fixed) development costs and low or zero marginal

HOW MULTISIDED PLATFORMS DIFFER FROM PRODUCT PLATFORMS AND RESELLERS

There are two key characteristics of a multisided platform: (1) each group of participants (“side”) are customers of the MSP in some meaningful way, and (2) the MSP enables a direct interaction between the sides. Product platforms violate the first requirement: The ultimate customer is not a customer of the platform provider. Resellers violate the second requirement: There is no direct interaction between the sides.



costs when they add users.⁷ Economies of scale can raise significant barriers to entry. For instance, the Microsoft Windows operating system has huge economies of scale due to its large up-front development costs.⁸ The combination of these economies of scale with strong cross-side network effects between users and application developers has made Windows one of the most valuable franchises in business history, and explains why its position has been so hard to assail for more than 30 years.

STRATEGY CHALLENGE NO. 1: How Many Sides to Bring on Board?

The first basic question that executives of any would-be MSP should ask is this: How many sides should we bring on board our platform? In some cases, the answer is obvious and constrained by the choice of industry; for instance, eBay did not have to think too hard before identifying buyers and sellers as its relevant sides. Sometimes, however, MSPs face a real choice when it comes to the number and identity of the sides to attract.

The following examples illustrate some of the pros and cons of courting more versus fewer sides:

- LinkedIn, the world's leading professional networking service, currently runs a three-sided platform that connects individual users (professionals), recruiters and advertisers. The company derives significant revenues from all three sides; by the end of 2011, 20% of revenues came from premium subscriptions, 30% from advertising solutions and 50% from recruiting solutions.⁹ The company is currently attempting to attract two additional sides: corporate users (company HR departments that would set up LinkedIn profiles to interact with their employees) and application developers. The challenge is that some individual users might not welcome the presence of corporate users (their employers) and that applications would have to be strictly restricted to a professional context (in other words, no Facebook-style games). Thus, while adding two more sides could potentially help LinkedIn grow, it also increases the risk of friction between the multiple sides and thereby LinkedIn's costs of operation.

- In the personal computer industry, Microsoft runs Windows as a three-sided platform, connecting

ABOUT THE RESEARCH

This article is part of the author's broader research agenda on multisided platform business models. It draws on more than 10 in-depth case studies developed as teaching vehicles during the past five years; direct advisory work with several technology companies (startups as well as large incumbents) seeking to implement multisided platform strategies; and formal economic modeling. My case studies were field-based and involved one or two days of interviews with top management teams. They aimed to (1) identify the price and especially nonprice strategic instruments that multisided businesses have at their disposal, and (2) formulate strategic options for dealing with challenges specific to multisided platforms, such as solving the chicken-and-egg problem and managing conflicting interests among various sides. My formal modeling work aims to capture the fundamental mechanisms at play in multisided businesses and provide predictions of optimal strategies. Predictions are then compared and reconciled with insights derived from case studies and advisory work.

users, third-party application developers (such as Adobe and Intuit) and third-party hardware manufacturers (OEMs such as Dell, Hewlett-Packard and Toshiba). In contrast, Apple has always stuck to a two-sided model — users and application developers — while producing its own hardware.¹⁰ Microsoft's strategy generated a larger ecosystem, which overwhelmed Apple's and relegated Macintosh computers to a much smaller PC market share than Windows-based PCs, despite Macintosh's allegedly superior design.

- A similar battle is now under way in the smartphone industry between Google's three-sided Android platform and Apple's two-sided iOS. At the end of 2012, Android devices accounted for 70% of the smartphone market share worldwide, whereas the iPhone had a 21% market share.¹¹ The two platforms were essentially tied on the developer side, with more than 800,000 applications available on each.¹² However, the iOS platform remains more profitable for third-party developers than Android, perhaps because Apple's devices typically command higher consumer loyalty and because iPhone users tend to spend more on apps than Android users do.

- When Microsoft first sought to enter the video game industry with its Xbox, which launched in 2001, it failed in its attempt to “copy and paste” its three-sided platform model from the PC industry. Hardware manufacturers like Dell declined Microsoft's proposal to produce Xbox consoles in exchange for a licensing fee, pointing out that video game consoles are sold below cost and money is made through the sale of games, and that it would

therefore be impossible for any standalone hardware OEM to make positive margins in the video game industry. As a result, Microsoft had to produce the consoles for the Xbox itself (as Nintendo and Sony do) and thus conform to the two-sided platform model that had prevailed in the industry for more than 15 years.

Looking at these examples, the trade-off involved in choosing whether to attract more or fewer sides becomes apparent. More sides lead to potentially larger cross-side network effects (as with Windows), larger scale and potentially diversified sources of revenues (as with LinkedIn). But there are at least two good reasons for staying with fewer sides. First, it may not be economically viable for one (or several) sides to exist independently. As described above, console hardware production cannot be profitable as a separate entity in the video game industry, which means that it has to be integrated with the same entity as the console operating system. Second, even if attracting many sides is possible, doing so carries the risk of creating too much complexity and even conflicts of interest between the multiple sides and the MSP (as with LinkedIn's efforts to attract employers as a new side).

Adding more sides can also cause a "lowest common denominator" issue, in that the need to please many different and heterogeneous platform constituents greatly constrains an MSP's ability to innovate by introducing truly ground-breaking features. Apple's control over its own Macintosh hardware limits scale but allows Apple to produce higher quality hardware-software systems. In contrast, Microsoft Windows has always been constrained by its OEM partners. In an interesting and recent shift, Microsoft has moved into hardware with its Surface tablet and acquisition of Nokia's handset business. These events could arguably be interpreted as an implicit admission that Microsoft's long-standing three-sided model is reaching its limits.

Finally, even if it makes sense to attract more sides in the long run, some MSPs find it easier to solve the initial chicken-and-egg problem by starting with fewer sides and at least partially vertically integrating into some of the "missing" sides. For example, Palm started off essentially as a one-sided product company when it launched its Pilot PDA

device in 1996 before turning it into a two-sided, then three-sided, platform by attracting third-party application developers and PDA hardware licensees.¹³ In another example, all major video game console manufacturers now operate their own development studios in order to produce first-party games (content) exclusive to their respective consoles, which is critical at every new console launch.¹⁴ Furthermore, partial vertical integration presents the opportunity to reap higher returns by owning some of the most profitable complementary products or services. But such selective vertical integration might be a disincentive for third-party players to join if they perceived a risk of competition from the MSP owner.

STRATEGY CHALLENGE NO. 2: Multisided Platform Design

MSPs can encompass a tremendous variety of functionalities and features that reduce search costs (Airbnb and Match.com provide search functionality based on desirable characteristics), transaction costs (eBay offers buyers and sellers the ability to settle transactions using PayPal) or product development costs (Sony provides application programming interfaces and development kits that facilitate game development for the PlayStation 3). For most of these features, the decision whether to include them is amenable to a straightforward cost-benefit analysis: If the cost of building and implementing is less than the value created for the multiple sides served, include them.

Nevertheless, there is still scope for expensive mistakes. For instance, eBay's acquisition of PayPal in 1999 greatly reduced transaction costs between its buyers and sellers by offering a reliable and convenient way to settle transactions. In the first quarter of 2013, the PayPal unit generated \$1.5 billion of the \$3.7 billion in revenues for eBay as a whole.¹⁵ In contrast, eBay's 2005 acquisition of Skype created much less value for buyers and sellers than the price paid (\$2.6 billion). Many users were turned off by the availability of voice communications, which they viewed as putting unnecessary pressure on the comfortable anonymity of Internet transactions. Two years later, eBay had to write off \$1.39 billion related to the Skype acquisition.¹⁶

The most difficult MSP design decisions are

those that involve features putting the interests of different sides of the MSP at odds with each other or with those of the MSP. Such features create strategic trade-offs for the MSP because they generate positive value for some participant groups or for the MSP itself, but negative value for other participant groups. These can be difficult trade-offs to navigate, even without taking into account the cost of building and implementing the features in question.¹⁷ Examples include the following:

- Any advertising-supported medium (such as magazines, over-the-air television channels, search engines or social networks) must constantly balance advertisers' desire to expose users to more numerous, prominent and targeted advertisements with users' preference for less intrusion.¹⁸ Microsoft, for example, included a do-not-track feature in Internet Explorer 9, which made it easier for users of that Web browser to protect their online privacy and harder for advertisers to reach them. This move was a significant departure from the design of Internet Explorer 8, in which the do-not-track feature had been suppressed under pressure from online advertisers and content providers.¹⁹

- In 2010, eBay discontinued its AdCommerce and Featured First advertising programs, which allowed some sellers to pay in order to appear at the top of buyers' eBay search results. These programs had been very popular with sellers and were an additional source of revenue for eBay, aside from listing fees.²⁰ In the end, however, eBay decided to ensure that buyers always saw the most relevant product listings.

How should MSPs resolve such conflicts between the interests of their various participant groups? There are no easy answers; sometimes, as illustrated by the examples above, MSPs must be ready to make sacrifices with direct short-term revenue impact in order to not alienate the participants whose utility is decreased by the design features in question. In particular, it would be a mistake to assume that design decisions should be made in favor of the side that brings in the largest share of *current* revenues. A better principle would be to consistently solve trade-offs in favor of the participant group that is most important to the MSP's long-term success. In any event, assessing the trade-off between the interests of the various groups associated with every significant design decision can go a long way toward reducing the risks of irreversible design mistakes or the costs of the design experimentation process.

STRATEGY CHALLENGE NO. 3:
Multisided Platform Pricing Structures

Because MSPs serve multiple types of customers, they potentially have multiple revenues and profit sources. In reality, however, most MSPs have discovered that they have to offer their services for free or at subsidized prices to at least one side of the platform and derive their profits on the other side.²¹ (See "Pricing Structures for Multisided Platforms.")

How should MSPs choose their pricing structures — how much should they charge each side relative to the others? Pricing structures have been

PRICING STRUCTURES FOR MULTISIDED PLATFORMS

Many multisided platforms have discovered that they have to offer their services for free or at subsidized prices to at least one side of the platform and derive their profits on the other side.

MULTISIDED PLATFORM	LOSS-LEADER SIDE	PROFIT-MAKING SIDE
Advertising-supported media (newspapers, over-the-air TV networks, Facebook, Google)	Users	Advertisers
Alibaba.com, eBay, Rakuten	Buyers	Sellers
Payment systems (American Express, Visa, Square)	Users	Merchants
Video game consoles	Users	Game developers
PC operating systems (Windows, Mac OS)	Application developers	Users
Ticketmaster	Venues/event organizers	Users
Fandango	Movie theaters	Users

the first and dominant focus of the economics and strategy work on MSPs to date.²² The pricing principles most useful to business executives are summarized below:

1. For each group, charge a higher price when the group in question has less price sensitivity. This simple pricing principle applies to any product or service. Here, it relies on treating each side of a multisided platform independently of the others. The price sensitivity on any given side of an MSP can be estimated by the availability of substitute services — or simply by the bargaining power that the MSP has over that particular participant group.

2. If there is no priced transaction between the sides, then charge more to the side that stands to benefit more from the presence of the other side or sides. The logic behind this principle is specific to MSPs, but also straightforward. For example, business conference organizers typically charge attendees but not invited speakers.

3. If there is a priced transaction between two sides, then charge more to the side that can extract more value from the other side. If side A gets a particularly good deal from side B in a monetary transaction, the MSP should charge more to side A in order not to excessively penalize side B; otherwise, side B might not derive enough value from the MSP to warrant participation. For instance, OpenTable offers a Web-based service matching diners with restaurants. It charges restaurants a fee to book online reservations and charges nothing to consumers. The logic is that restaurants derive significant value from diners' visits by selling them full-priced meals. MSPs should choose their pricing structures so as to optimally balance value extraction and value creation on their multiple sides. In general, customer groups that derive higher value should be charged more.

STRATEGY CHALLENGE NO. 4:

Multisided Platform Governance Rules

As MSPs create value by facilitating interactions between third parties, a key part of their strategy should be some regulation of third-party actions, which clearly affect the value of the MSP's entire ecosystem and customer proposition.²³ MSPs can regulate their various customers by resorting to

nonprice *governance rules*, which fall into two major categories:

- Rules regulating *access* to the MSP: Who is allowed to join?
- Rules regulating *interactions* on the MSP: What are the various sides allowed to do?

There is considerable variance across MSPs in terms of how loose (or tight) their governance rules are — even within the same industry, as seen below:

• Match.com and eHarmony are two of the leading online dating services in the United States.²⁴ Match.com places minimal restrictions on who can sign up and how its members interact; eHarmony has some of the tightest governance rules among online matchmaking services, for both access and interactions. It screens applicants by requiring them to complete a questionnaire of approximately 250 questions and then refusing membership to some applicants, even if they are willing to pay the membership fee.²⁵ Once granted admission, eHarmony's MSP members are not allowed to view profiles and communicate freely. Instead, the company uses a matching algorithm to generate potential matches for every member, and each member can communicate only with her or his potential matches. Furthermore, communication is initially guided by eHarmony's questions unless both members agree to "fast track" to open communication.

• In 1983, the video game market crashed, mainly because Atari — the dominant console manufacturer at the time — had failed to develop a technology for locking out unauthorized games. Opportunistic developers, wanting to take advantage of the popularity of Atari's console to make quick profits, flooded the market with poor-quality games. This, combined with a lack of information about game quality (at the time, there were almost no specialized game review magazines), led to a collapse of game and console prices. Not surprisingly, when Nintendo reignited the market with its Nintendo Entertainment System console, it put in place draconian governance rules: Any individual game developer was allowed to publish no more than five games a year (each of which was carefully reviewed by Nintendo), and developers had to buy cartridges from Nintendo, so that the latter also effectively controlled sales of each game. As a result of an antitrust investigation in the early 1990s and competition from Sega,



Multisided platform executives should ask: What are the ‘market failures’ that would prevent our ecosystem from functioning properly (or even lead to its collapse) and that we cannot eliminate through pricing?

which employed more liberal governance rules, Nintendo subsequently abandoned most of its restrictions. One exception was the screening of third-party games, which all major console manufacturers still do today, although Nintendo remains a stricter MSP than Sony and Microsoft.

•In the smartphone market, the two leading MSPs differ significantly in their governance rules. Apple places relatively tight restrictions on third-party developers for its iOS two-sided platform, while Google is much more liberal with respect to developers for its three-sided Android platform. For example, Google allows developers to use a variety of third-party tools in building their Android apps and accepts most new apps. But developers for Apple’s iOS are restricted to a fixed set of Apple-supplied tools. Furthermore, approval of new apps takes several weeks in Apple’s iPhone App Store, and Apple routinely rejects applications that it does not deem of satisfactory quality or simply a “good fit” for the iPhone. (Unsurprisingly, Apple’s criteria are viewed as arbitrary by some developers.²⁶)

•Roppongi Hills, Tokyo’s best-known real-estate complex, functions as an MSP, bringing together office tenants, retail tenants (shops and restaurants, a hotel, a movie theater), residents and more than 40 million visitors a year. Mori Building Company, developer and manager of the complex, has put in place a set of unusually demanding policies for its retail tenants. For example, they are required to differentiate their offerings from their other storefronts outside Roppongi Hills by keeping the stores open later and selling unique merchandise, and they are also required to contribute financial and human resources to promotional activities spanning the entire complex.²⁷

At a high level, an MSP’s choice of tighter governance rules reflects a trade-off of *quantity* in favor of *quality*. Indeed, the strength of cross-side network effects on an MSP is not solely determined by

the number of members on its respective sides and the number of interactions they engage in, but also by their quality.

The benefits of higher quality have to be weighed against the costs of implementing tighter governance rules. These costs can be technological (such as designing and including security chips for video game consoles to lock out unauthorized games) or operational (such as analyzing the profiles of individual applicants to eHarmony’s service). Thus, if quantity “crowds out” quality to a limited extent, some MSPs might find it optimal to do away with costly governance rules or to “out-source” their enforcement to users. For instance, e-commerce sites such as Airbnb and eBay have put in place rating systems for buyers and sellers, which tend to keep both sides honest.

Generally speaking, some form of MSP governance is indispensable. MSP executives should ask: *What are the “market failures” that would prevent our ecosystem from functioning properly (or even lead to its collapse) and that we cannot eliminate through pricing?* As discussed in the previous section, MSPs can, to a certain extent, correct imbalances in supply and demand or relative bargaining power by adjusting their pricing structures. Furthermore, pricing can sometimes have additional governance benefits, such as restricting entry of undesirable constituents. For example, the per game copy royalty charged by video game console makers to independent game developers serves not just as the console makers’ main revenue stream but also as a disincentive for low-quality game developers to participate.

There are three potential sources of market failures that warrant active governance by the MSP. First, insufficient information and transparency in the market with respect to the quality of the goods and services exchanged through the MSP may lead to a “lemons market failure,” in which low-quality suppliers drive out high-quality ones and the market

breaks down. The 1983 video games crash provides a vivid illustration of this phenomenon. eHarmony's stringent governance rules can also be viewed as an effort to prevent such a failure, in which users with short-term dating interests would drive away users looking for long-term relationships and marriage. (eHarmony caters to the latter.)

The second potential source of MSP market failure is the risk that too much competition within one side of an MSP might reduce the incentive to invest in developing high-quality products or services. This is the main reason that video game console makers maintain relatively tight control over access by third-party game developers even today. Even though the risk of a 1983-type market failure is no longer present because of the abundance of information and reviews about upcoming games, excessive competition between developers on any given console could reduce the profits that each developer can extract, to the point where they may no longer find it profitable to invest in groundbreaking projects. As a result, the MSPs (console makers) restrict entry of developers so that those who are licensed are able to make a sufficient return on their investments.²⁸

Third, without some form of strict governance by the MSP, each constituent might fail to take actions or investments that would have positive spillover effects for the MSP and its other constituents. This is the main reason behind Mori Building's tight governance rules on its Roppongi Hills development. The rules are designed to exploit positive complementarities between retail tenants, which might not materialize if the latter were left to decide independently.

Whenever one or more of these three potential sources of market failures are present, MSPs are well-advised to consider enforcing governance rules that target the source of the specific market failure or failures in question.

Successful Multisided Platforms Are the Exception

Increasing awareness of the power of MSP business models and the spectacular MSP successes from the past decade have prompted many entrepreneurs and investors to attempt building or identifying "the next eBay." Recent examples include Getaround and RelayRides (peer-to-peer car rental services); DogVacay (boarding for dogs); and Kitchit (chef-hiring service). It is important to realize, however, that successful MSPs are the exception rather than the norm.

Indeed, MSPs are very hard to build. There are three main obstacles that trip up most MSP candidates:

1. the chicken-and-egg problem inherent in launching an MSP business;
2. resistance from key potential MSP constituents, who do not want to be beholden to a new and powerful MSP; and
3. the sheer complexity of running an MSP business with conflicting interests to satisfy.

The experience of Brightcove, a Boston-based leading provider of online video technologies, provides a cautionary tale illustrating many of these issues.²⁹ When it was founded in 2004, Brightcove aimed to become a four-sided platform connecting video content providers (from large publishers such as MTV Networks, Discovery Communications and The Wall Street Journal to small, "long-tail" ones, such as Shipwreck Central), advertisers, Web affiliates and end users (viewers). Specifically, Brightcove intended to provide (1) video publishing tools to content providers; (2) a video portal for consumers to search, view and purchase content from publishers; (3) an advertising marketplace in which content providers and advertisers would trade video advertising space; and (4) a syndication marketplace, where content providers and affiliated websites would trade video content. After two years, however, it became increasingly

The spectacular multisided platform successes from the past decade have prompted many entrepreneurs or investors to attempt building or identifying 'the next eBay.'



Airbnb was valued at about \$2.5 billion in its private funding round in October 2012. That's the gold at the end of the multisided platform rainbow that many seek.

clear that this ambitious four-sided vision was off the mark. The key issue was that the content-provider side (large publishers in particular) viewed Brightcove as competing against their efforts to attract consumers and advertisers to their websites. Furthermore, Brightcove discovered that it was very hard to allocate sufficient resources to serve four different types of customers simultaneously.

The good news is that the difficulty of an MSP business does not necessarily rule out the possibility of building a solid non-MSP business. By late 2008, Brightcove had almost entirely abandoned its consumer-facing portal as well as its advertising and syndication marketplaces and had decided to focus simply on one side, supplying video publishing tools to content providers. The company went public in February 2012 and had a market cap of more than \$400 million at the end of October 2013. This is a respectable valuation, but not exactly what Brightcove initially had in mind. After all, Airbnb was valued at about \$2.5 billion in its private funding round in October 2012. That's the gold at the end of the MSP rainbow that many seek.

Andrei Hagiu is an associate professor in the strategy group at the Harvard Business School in Boston. Comment on this article at <http://sloanreview.mit.edu/x/55225>, or contact the author at smrfeedback@mit.edu.

REFERENCES

1. MSPs are a straightforward generalization of the two-sided platform — from two sides to multiple sides — as defined in Boudreau and Lakhani (2009). Boudreau and Lakhani's "integrator platforms" and "product platforms" are not MSPs. Integrator platforms do not enable direct interactions; instead, they take full control and ownership of products from "outside innovators" (suppliers) before selling them to customers. Thus, they are equivalent to resellers as defined by Hagiu and Wright (2013). Meanwhile, product platforms (for example, Gore-Tex) do not have any relationship with customers: only outside innovators affiliate with such platforms.

MSPs include some but not all the "industry platforms"

studied by Gawer and Cusumano (2008). Many industry platforms, such as Windows and PlayStation 3, are MSPs because they enable direct interactions between users and game or application developers. In particular, my requirement of direct interactions is aligned with the notion that industry platforms do not fully control what third parties do or build on their platforms. On the other hand, some industry platforms are not MSPs: they are equivalent to the product platforms in Boudreau and Lakhani (2009). One example is the electronic ink technology developed by E Ink, which is the key component in Amazon's Kindle and other e-readers. E Ink functions merely as a component supplier to Amazon and others. Note, however, that the Kindle is an MSP: It allows Kindle users to buy and read e-books supplied by independent publishers. Both sides (users and publishers) affiliate with Amazon's Kindle, not with E Ink. Principles for dethroning incumbent platforms apply to MSPs as well as to non-MSP product platforms, such as E Ink.

See K.J. Boudreau and K.R. Lakhani, "How to Manage Outside Innovation," MIT Sloan Management Review 50, no. 4 (summer 2009): 68-76; A. Hagiu and J. Wright, "Do You Really Want to Be an eBay?" Harvard Business Review 91, no. 3 (March 2013): 102-108; A. Gawer and M.A. Cusumano, "How Companies Become Platform Leaders," MIT Sloan Management Review 49, no. 2 (winter 2008): 28-35; and F.F. Suarez and J. Kirtley, "Dethroning an Existing Platform," MIT Sloan Management Review 53, no. 4 (summer 2012): 35-40.

2. This is distinct from one-sided network effects (also known as direct network effects), which occur when the value to a customer increases with the number of other customers on the same side (or of the same type) that participate. One-sided network effects can be exhibited by products or services that are not MSPs. For example, Skype exhibits one-sided network effects but is not a MSP. Furthermore, some MSPs exhibit both one-sided and cross-side network effects. For instance, Facebook creates one-sided network effects among its users and cross-side network effects between users and app developers.

3. For a more detailed discussion of cross-side network effects for both MSPs and non-MSPs, see A. Hagiu and J. Wright, "Multi-Sided Platforms," working paper no. 12-024, Harvard Business School, Boston, October 2011.

4. "Switching costs" refers to the costs incurred by users to abandon an MSP and switch to a competing MSP. The costs incurred by MSP users who do not switch MSPs but also join a competing MSP are known as "multihoming costs." See T. Eisenmann, G. Parker and M.W. Van Alstyne, "Strategies for Two-Sided Markets," Harvard Business Review 84, no. 10 (October 2006): 92-101. Also see A. Hagiu and D. Yoffie, "Network Effects," in "The

Palgrave Encyclopedia of Strategic Management," ed. M. Augier and D.J. Teece, August 2013, www.palgraveconnect.com.

5. D. MacMillan, "LivingSocial Falls to a Quarter of 2011 Value in Latest Funding," February 22, 2013, www.bloomberg.com.

6. S. Raice and S. Woo, "Groupon's Boston Problem: Copycats," Wall Street Journal, July 8, 2011.

7. Exceptions arise when MSPs need to provide additional services (such as customer support) that do not scale well or may even lead to diseconomies of scale.

8. See D. Einstein, "Microsoft Betting BIG on Cloud With Windows 8 and Tablets," October 11, 2012, www.forbes.com.

9. D. Yoffie and L. Kind, "LinkedIn Corporation, 2012," Harvard Business School case no. 713-420 (Boston: Harvard Business School Publishing, 2012).

10. Apple briefly flirted with the three-sided model in the mid-1990s but discovered that its third-party OEM licensees did not help make any dent in the market share of Windows-based PCs and instead cannibalized Apple's own sales. See D.B. Yoffie and M. Slind, "Apple Inc., 2008," Harvard Business School case no. 708-480 (Boston: Harvard Business School Publishing, 2008).

11. H. McCracken, "Who's Winning, iOS or Android? All the Numbers, All in One Place," April 16, 2013, <http://techland.time.com>.

12. Ibid.

13. D.S. Evans, A. Hagiu and R. Schmalensee, "Invisible Engines: How Software Platforms Drive Innovation and Transform Industries" (Cambridge, Massachusetts: MIT Press, 2006).

14. A. Hagiu and D. Spulber, "First-Party Content and Coordination in Two-Sided Markets," Management Science 59, no. 4 (April 2013): 933-949.

15. "eBay Inc. Reports Strong First-Quarter 2013 Results," April 17, 2013, <http://investor.ebayinc.com>.

16. K. Regan, "Skype Write-Off Has eBay Seeing Red," October 18, 2007, www.ecommercetimes.com.

17. D.S. Evans and R. Schmalensee, "The Industrial Organization of Markets with Two-Sided Platforms," Competition Policy International 3, no. 1 (Spring 2007): 150-179.

18. A. Hagiu and B. Jullien, "Why Do Intermediaries Divert Search?," RAND Journal of Economics 42, no. 2 (summer 2011): 337-362; and A. Hagiu and B. Jullien, "Search Diversion and Product Competition," working paper no. 11-124, Harvard Business School, Boston, September 24, 2013.

19. N. Wingfield and J. Angwin, "Microsoft Adds Do-Not-Track Tool to Browser," Wall Street Journal, March 14, 2011.

20. I. Steiner, "eBay Discontinues AdCommerce Ad Program for Sellers," July 1, 2010, www.ecommercebytes.com.

21. Schmalensee (2011) provides an insightful analysis of

the possible economic causes underlying the prevalence of such highly skewed pricing structures. He shows that they are not necessarily the result of profit non-concavities, as was suggested by Bolt and Tieman (2008), but can arise due to differences in demand structures across the multiple sides of an MSP. See R. Schmalensee, "Why Is Platform Pricing Generally Highly Skewed?," Review of Network Economics 10, no. 4 (2011): 1-11; and W. Bolt and A.F. Tieman, "Heavily Skewed Pricing in Two-Sided Markets," International Journal of Industrial Organization 26, no. 5 (2008): 1250-1255.

22. M. Armstrong, "Competition in Two-Sided Markets," RAND Journal of Economics 37, no. 3 (autumn 2006): 668-691; B. Caillaud and B. Jullien, "Chicken and Egg: Competition Among Intermediation Service Providers," RAND Journal of Economics 34, no. 2 (summer 2003): 309-328; A. Hagiu, "Two-Sided Platforms: Product Variety and Pricing Structures," Journal of Economics and Management Strategy 18, no. 4 (winter 2009): 1011-1043; J.-C. Rochet and J. Tirole, "Platform Competition in Two-Sided Markets," Journal of the European Economic Association 1, no. 4 (June 2003): 990-1029; and J.-C. Rochet and J. Tirole, "Two-Sided Markets: Where We Stand," RAND Journal of Economics 37, no. 3 (autumn 2006): 645-666.

23. K. Boudreau and A. Hagiu, "Platform Rules: Multi-Sided Platforms as Regulators," in "Platforms, Markets and Innovation," ed. Annabelle Gawer (Northampton, Massachusetts: Edward Elgar, 2010); and Evans and Schmalensee, "Industrial Organization of Markets."

24. A. Levy, "eHarmony Founder Breaks Up with Investors to Reboot," December 3, 2012, www.bloomberg.com.

25. M.J. Piskorski, J. Mikolaj, H. Halaburda and T. Smith, "eHarmony," Harvard Business School case no. 709-424 (Boston: Harvard Business School Publishing, 2008).

26. S. Kovach, "Frustration Builds with Apple's Inconsistent Rules for App Developers," April 13, 2013, www.businessinsider.com; and P. Viswanathan, "Android OS Vs. Apple iOS: Which Is Better for Developers?" May 24, 2011, About.com.

27. A. Elberse, A. Hagiu and M. Egawa, "Roppongi Hills: City Within a City," Harvard Business School case no. 707-431 (Boston: Harvard Business School Publishing, 2008).

28. Boudreau (2012) provides compelling evidence of this phenomenon in the context of handheld-computing MSPs; see K.J. Boudreau, "Let a Thousand Flowers Bloom? An Early Look at Large Numbers of Software App Developers and Patterns of Innovation," Organization Science 23, no. 5 (September-October 2012): 1409-1427.

29. A. Hagiu and D.B. Yoffie, "Brightcove, Inc. in 2007," Harvard Business School case no. 712-424 (Boston: Harvard Business School Publishing, 2011); A. Hagiu and N. Fisher, "Brightcove, Inc. (B)," Harvard Business School case no. 713-436 (Boston: Harvard Business School Publishing, 2012).

Reprint 55225.

Copyright © Massachusetts Institute of Technology, 2014.

All rights reserved.

Beyond Forecasting: Creating New Strategic Narratives

In turbulent markets, it can be hard for established companies to choose new strategic directions. But by rethinking the past and present and reimagining the future, managers can construct strategic narratives that enable innovation.

BY SARAH KAPLAN AND WANDA ORLIKOWSKI

ONE OF THE GREAT CHALLENGES for organizations in the current economy is making strategy under the uncertainties posed by turbulent environments, intensified competition, emerging technologies, shifting customer tastes and regulatory change. Executives often know they must break with the status quo, but there are few signposts indicating the best way forward.

A core assumption in much of strategic management research is that more accurate forecasts of future competitive actions or the future value of certain business capabilities will lead to strategic success.¹ Executives have long been exhorted to conduct analyses of internal and external environments and construct scenarios of the future. However, seeing strategy in this way has some serious



THE LEADING QUESTION

In rapidly changing industries, how can managers develop and build momentum for innovative strategies?

FINDINGS

- ▶ Focus on creating strategic narratives that link elements of the company's past to present issues as well as a reimagined future.
- ▶ The more work strategy teams devote to creating strategic narratives linking past, present and future, the more they are able to craft strategies that depart significantly from the status quo.

weaknesses. It assumes that accuracy can be achieved through rigorous analysis and conscientious efforts to overcome individual biases in perception. It also assumes that the process will be relatively frictionless and primarily analytical.

There is an important tension at work here. Because the future is essentially unknowable, leaders must rely on the past for information and insight. Moreover, given that the future is unknown, there are likely to be differences and conflicts within the organization about what that future might hold. Such conflicts can impede progress on the development and execution of new strategies — especially innovative strategies that depart significantly from a company's current approach to the market.

Studies have pointed to the “abject failure”² of most forecasting efforts to attain the desired precision. While strategy researchers tell managers they *should* project into the future, we tell them little about *how* to do this. As observed by an executive at CommCorp (a pseudonym for a communications technology corporation that we studied in 2002, shortly after the bursting of the Internet bubble):

Who today in this marketplace has accurate data? I mean, nobody, literally nobody. It is very hard. You have a gazillion points right now where, you know, everybody — economists, analysts,

companies — fails to forecast accurately ... so forecasting is very difficult, or you can say impossible, because [of the] dramatic change.

To study how managers make strategy in a highly turbulent environment, we took an in-depth look at five technology strategy projects inside the Advanced Technology Strategy Group at CommCorp. (See “About the Research.”) Our study aimed to understand how managers make strategy in conditions of considerable uncertainty. In our research, we followed the five technology strategy projects closely, from their inception to critical strategic choices about resource allocation. Some of these projects ended up conforming quite closely to the status quo, making only incremental changes, while others resulted in radical strategic choices and actions.

Our study revealed that future projections are intimately tied to interpretations of the past and the present. Strategy making amid volatility thus involves constructing and reconstructing strategic narratives that reimagine the past and present in ways that allow the organization to explore multiple possible futures. In comparing strategy projects within CommCorp, we found that the more work managers do to create novel strategic narratives, the more likely they are to explore alternatives that break with the status quo.

ABOUT THE RESEARCH

To understand how strategies actually get made inside organizations, we conducted an eight-month ethnographic study at a communications technology corporation during a period of tremendous uncertainty. This company, CommCorp (a pseudonym), specialized in optical technologies and was facing a crisis created by the bursting of the Internet technology bubble in 2001. Despite the rapid downturn in the market, optical technologies continued to advance, and CommCorp could not risk doing nothing. Instead, the company had to find innovative ways to address a market whose future shape was unpredictable.

To look at the day-to-day

processes of strategy making, we followed five technology strategy projects in the Advanced Technology Strategy group to see how strategic choices were made. Over the course of our study, it became apparent that the five projects came to embody different visions of the future that represented greater or lesser degrees of change from the status quo. To understand these differences, we examined our participants' views of the strategies as they evolved in their projects over time.

We collected data over eight months, from April to December 2002. This fieldwork yielded multiple overlapping sources of data for each of the five projects, including observing daily project activities at various CommCorp locations; attending 34 formal meetings (from

two hours to two days long); conducting 91 interviews across hierarchical levels and functions; participating in frequent informal communications, teleconferences, and email exchanges; and collecting documentation for each project (for example, spreadsheets, presentations, emails, agendas and minutes of meetings). (Detailed results of our study were reported in an article in *Organization Science*.¹)

These rich, multifaceted data allowed us to track the evolution of each project, identifying activities and interpretations over time. In that process, we could observe managers' struggles to forecast the future. We also discovered that they could not imagine new futures without rethinking the past and reconsidering present

concerns. A new future could not shape strategic choices unless it was connected into a narrative that showed its connections with the past and the present. When managers settled on a particular narrative, they could make choices. But we also saw that agreements on a narrative were provisional, and sometimes a narrative would break down. In these cases, choices were more difficult to make, and managers worked to construct new narratives. Often, the explorations required by breakdowns in narratives led to more innovative solutions that diverged more sharply from the status quo. These insights led us to construct a model of strategy making based on how these narratives were constructed and what happens when they break down.



In other words, to get to an alternative future, you have to create a story about the past that connects to it. For instance, *The New York Times* is working to stay relevant in a landscape where newspapers are being crowded out. A recently leaked *New York Times* internal strategy report focused on a vision of the newspaper's increasingly digital future. But the report's authors also drew on the paper's past in framing a strategy for the company's future. In one section of the report, called "The Paper of Record, Version 2.0," the report's authors urged the company to do a better job of "tagging" its digital content to make it more easily findable. To support their argument, the authors drew on a historical example about how *The New York Times* gained a competitive advantage a century earlier by creating a comprehensive index of the newspaper for libraries and researchers.³

In that instance, the reimagined past was being used to enable an innovative future — by invoking a similar successful innovation from the company's history. But in some cases, a company's story about the past dominates and limits the future. For instance, although Amazon.com Inc. has shifted from being an online store to also producing its own hardware (the Kindle e-reader and, more recently, the Fire phone), the company linked its device strategy to a story about how these products make it easier to shop at Amazon.⁴ Indeed, as critics have pointed out, the design of the new Fire phone was so shaped by this narrative that one of its few distinctive features is

a scanning technology that allows the user to easily scan an item and link to a buying opportunity at Amazon. As one commentator noted, this feature of the Fire phone can be "off-putting because it seems like little more than a way to get people to buy more products from Amazon."⁵

Creating New Strategic Narratives

Within the five Advanced Technology Strategy projects at CommCorp that we studied, multiple and varied interpretations of the future were in play. In comparing the unfolding of CommCorp's strategy projects, we found that strategy making was about constructing new narratives that tie together interpretations of the past, present and future. That is, effective projections of the future must be connected to resonant understandings of the present and past.

For example, at the time we studied CommCorp, the company had historically pursued a "technology push" strategy, and the job of marketing was to sell "cool technologies." However, some managers had begun to rethink this history, arguing that it had led CommCorp to the crisis the company faced during the bursting of the Internet bubble. While many saw CommCorp as having focused consistently on optical technologies for the backbone of the Internet, others argued that CommCorp's real history was in serving a broad set of communication needs (as indicated by its name, "Communications Corporation"). CommCorp had

primarily sold products to the telecom carriers (such as Verizon Communications Inc.), but managers began to debate whether this represented a deliberate choice not to serve other customers such as enterprises or whether the narrow focus was simply due to historical habit. These questions were reflected in a variety of interpretations of the present problems and priorities that people thought the new strategies would address.

The past, present and future were thus all interpreted and reinterpreted in the CommCorp strategy-making process, and these interpretations were multiple, interdependent — and sometimes conflicting. At the time we studied the company, the crash in the market for its existing products had forced everyone at CommCorp to reevaluate the company's historical strategic trajectory. This questioning enabled one manager to reinterpret CommCorp's

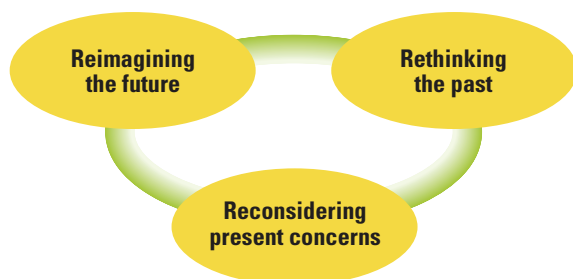
On the other hand, he worried that convergence “steps on everybody's toes at CommCorp,” requiring them “to change plans across the board.” He described this tension as “a tug of war [between] wanting to be entrepreneurial and CommCorp's resource limits.” The more the participants reconsidered present concerns, the greater the tensions that arose. However, it was through such interactions that new connections were built among the past, present and future.

A particular view of the future shaped and was shaped by certain understandings of history and present priorities. Envisioning new futures provoked reassessments of the past and present, just as new understandings of current concerns triggered new imaginings of the future and alternative versions of history. Negotiating these interpretive differences proved to be central to strategy making in practice. We refer to this activity as *constructing strategic narratives* that link together efforts to reimagine future possibilities, rethink past routines and reconsider present concerns. (See “Constructing Strategic Narratives.”)

This work occurred in team discussions, in senior management meetings and through the development of strategy documents in which company managers negotiated and resolved tensions around different understandings of what had happened in the past, what was at stake in the present and what might emerge in the future. Sometimes the debates were fast and furious, involving strong disagreements in views. However, strategic choices were only possible if managers could settle on a particular narrative. We found that for a narrative to guide strategic choices, it had to be coherent, plausible and acceptable to most key stakeholders within the company. (See “How to Create a Compelling Strategic Narrative.”) For example, the narrative one team leader constructed focused on a radical vision of convergence as an alternative to optics (making it coherent), which was consistent with the Advanced Technology Group's charge to act as the “investment portfolio” for CommCorp (making it plausible), and which would be developed on a limited budget (making it acceptable). Narratives that fit these criteria allowed managers to shift from disagreeing or deliberating about meanings to implementing strategic choices, thus enabling the organization to move forward in

CONSTRUCTING STRATEGIC NARRATIVES

To develop a new strategic direction for a company during a time of change, managers need to create a strategic narrative that links the company's past, present and future. Crafting a strategic narrative involves reimagining future possibilities, rethinking the company's past and reevaluating present concerns.



history, not only as a provider of big-ticket hardware for the backbone of the Internet but also as a provider of communications technologies across the whole network. By seeing the company as all about “communications,” the manager was able to propose a project for improving access at the “last mile” of the network. This reinterpretation made a radical shift in a future vision possible: CommCorp could provide small-ticket, standardized products as well as customized, high-end technologies.

New visions of the future also triggered reconsiderations of current concerns. For example, inspired by the potential for convergence between networking and computing, one project leader was eager to get CommCorp to move in that direction.

the face of uncertainty. If a narrative is not acceptable to most key stakeholders, then managers must continue their efforts to construct and reconstruct the narrative, drawing links between the past, present and future in new ways.

Not all proposed strategic narratives met the criteria of being coherent, plausible and acceptable within the organization. For example, one group at CommCorp proposed a strategic narrative that others refused to accept, and opponents of the project suggested that that particular narrative was implausible and did not fit coherently with corporate history. Only after the sponsors of the project let go of their commitment to their narrative were they able to gain buy-in for their project — but the lack of a compelling new narrative meant that the project's strategy ended up being largely incremental.

Work to construct strategic narratives is not easy, linear or straightforward. We found that decisions are only reached if differences in interpretations of the past, present and future can be resolved and constructed into a narrative. At the same time, changes in the external environment or internal efforts to make change can lead to breakdowns in narratives. Such breakdowns then trigger more work to construct a new narrative.

While breakdowns may ultimately lead to new agreements and new strategic decisions, they make decisions difficult to reach in the short run. When newly constructed narratives are not deemed coherent, plausible or acceptable, the resulting breakdowns compel managers to continue seeking alternative connections among interpretations until they can settle on a narrative that enables the organization to move forward. If they don't settle on a narrative, managers have little basis upon which to make decisions.

The more intensively managers reimagined the future, rethought the past, and reconsidered present concerns, the more their projects produced strategies that represented radical departures for the organization. It was not that technologies a priori represented greater or lesser change, or that new technologies forced people in the organization to engage more intensively in constructing strategic narratives. Rather, the evidence from CommCorp suggests that the degree of change represented by a new technology strategy was related to the degree to

HOW TO CREATE A COMPELLING STRATEGIC NARRATIVE

For a narrative to guide strategic choices within a company, it must be coherent, plausible and acceptable to most key stakeholders in the organization.

To create a *coherent* strategic narrative, ask yourself:

- Does this narrative offer a view of the future that can be made consistent with understandings of our company's past and our concerns in the present?
- Does this narrative connect the past, present and future in ways that make sense?

To make the narrative *plausible*, ask yourself:

- Does this narrative address important aspects of the external environment, including market and technological changes?
- Does it offer our company a distinctive competitive position?
- Does the narrative provide a reasonable response to competitors' actions?
- How well does this narrative take into account our company's existing resources and capabilities?

To create a narrative that will be *acceptable* within the organization, ask yourself:

- Will this narrative bring people in the company together and reduce conflict?
- Will this narrative resonate with all — or at least most — of the key stakeholders in the organization?

which the managers in the organization negotiated their interpretive differences to produce alternative understandings of the past, present and future.

Implications for Executives

By using ethnographic techniques to look at how strategy actually gets made, we see that forecasting the future is not the sterile or precise analytical process that both scholars and executives might have hoped it would be. Drawing on our in-depth examination of strategy practice, we offer four lessons about the messy business of making strategy.

First, making strategy is not about accurate forecasting. You must consider the multiple interpretations of present concerns and historical trajectories that help to constitute those forecasts. Though the future will likely not turn out the way it was projected, this does not mean that projections do not matter. Articulating projections shapes attention, deliberation, investment and effort.

Second, achieving an innovative future is not about forgetting the past. Some people have suggested that new strategies require strategic “forgetting,” so that organizations are not anchored in old ways of doing things.⁶ We found instead that managers need to engage directly with the past to shape a narrative that connects a particular

understanding of history to a new future direction. Constructing new narratives is a way to achieve change while at the same time showing how the new strategy achieves some form of continuity with a (reimagined) past. In other words, history matters — but not in the way you might think. The past is not a singular guide to the future. In fact, it is the multiplicity and ambiguity of experiences of the past that enable the different interpretations that can generate innovative alternatives.

Third, strategy making is not about getting the “right” narrative. It’s about getting a narrative that is good enough for now, so that the organization can move forward and take action in uncertain times. This recognizes that strategy will in some ways always be evolving and “emergent.” Our view of strategy making suggests that the narratives that managers construct will shape the direction of future actions, just as those actions, in turn, will lead to further reconfiguring of the company’s strategic narratives over time.

Fourth, breakdowns in the strategy-making process are not failures but rather opportunities for learning and for reconfiguring the strategic narrative. Breakdowns and disagreements in the strategy-making process create openings that can generate alternative narratives. While breakdowns can sometimes impede progress, they can also be productive by provoking a search for new interpretations and novel possibilities.

A model of strategy making that focuses on strategic narratives provides insights into a long-standing puzzle about the sources of competitive advantage: Is company performance mainly derived from luck or managerial foresight? Evidence from our field study suggests that both past legacies and future projections shape future outcomes. Past experience can manifest itself in routines that maintain operations effectively. But the more such routines are reproduced, the more organizations can suffer lock-in.

Recognizing that organizations can get stuck in ruts, leaders may want to provoke breakdowns in a company’s existing strategic narrative by challenging conventional wisdom within a company. Such interventions would involve the construction of new strategic narratives that can prevent organizations from getting locked into a strategy that is constrained

by routinized understandings of the past, myopic views of the present and limited visions of the future.

Sarah Kaplan is an associate professor of strategic management at the Rotman School of Management at the University of Toronto. Wanda Orlikowski is the Alfred P. Sloan Professor of Management and a professor of information technologies and organization studies at the MIT Sloan School of Management in Cambridge, Massachusetts. Comment on this article at <http://sloanreview.mit.edu/x/56107>, or contact the authors at smrfeedback@mit.edu.

REFERENCES

1. See, for example, J.B. Barney, “Strategic Factor Markets: Expectations, Luck, and Business Strategy,” *Management Science* 32, no. 10 (October 1986): 1231-1241; J.B. Barney, “Firm Resources and Sustained Competitive Advantage,” *Journal of Management* 17, no. 1 (March 1991): 99-120; M.A. Peteraf, “The Cornerstones of Competitive Advantage: A Resource-Based View,” *Strategic Management Journal* 14, no. 3 (March 1993): 179-191; and C.K. Prahalad and G. Hamel, “The Core Competence of the Corporation,” *Harvard Business Review* 68, no. 3 (May-June 1990): 79-91.
2. M.L. Barnett, W.H. Starbuck and R.N. Pant, “Which Dreams Come True? Endogeneity, Industry Structure and Forecasting Accuracy,” *Industrial & Corporate Change* 12, no. 4 (August 2003): 653-672.
3. The New York Times, “Innovation” (New York, N.Y.: New York Times, Mar. 24, 2014), 41-43 accessed via www.scribd.com.
4. See for example, R. Cheng, “Kindle Fire HD: Amazon’s Anti-Apple Profit Engine,” Sept. 6, 2012, cnet.com; and F. Manjoo, “Why Did Amazon Make a Phone? A Conversation With Jeff Bezos,” June 19, 2014, bits.blogs.nytimes.com.
5. See S. Jacobs, “The Amazon Fire’s Fanciest Features Fail to Impress,” *MIT Technology Review*, Aug. 5, 2014. See also G.A. Fowler, “Amazon Fire Phone Review: Full of Gimmicks, Lacking Basics,” *Wall Street Journal*, July 23, 2014; and T. Duryee, “Amazon Fire Phone Nosedives on Company’s Bestsellers List, Dropping to #61 After Debuting in Top Five,” June 30, 2014, GeekWire.
6. V. Govindarajan and C. Trimble, “The CEO’s Role in Business Model Reinvention,” *Harvard Business Review* 89, no. 1-2 (January-February 2011): 108-114.
7. H. Mintzberg and J. Lampel, “Reflecting on the Strategy Process,” *Sloan Management Review* 40, no. 3 (spring 1999): 21-30; and H. Mintzberg and J.A. Waters, “Of Strategies, Deliberate and Emergent,” *Strategic Management Journal* 6, no. 3 (July-September 1985): 257-272.
- i. S. Kaplan and W.J. Orlikowski, “Temporal Work in Strategy Making,” *Organization Science* 24, no. 4 (July-August 2013): 965-995.

Reprint 56107.

Copyright © Massachusetts Institute of Technology, 2014.
All rights reserved.

Which Strategy When?

Just when you think you have settled on the right strategy, you may need to change. By understanding the particular circumstances and forces shaping your company's competitive environment, you can choose the most appropriate strategic framework.

BY CHRISTOPHER B. BINGHAM, KATHLEEN M. EISENHARDT AND NATHAN R. FURR

MARKETS ARE CHANGING, competition is shifting and your business may be suffering or perhaps thriving, at least for now. Whatever the immediate circumstances, managers are forever asking the same questions: Where do we go from here, and which strategy will get us there? Should we fortify our strategic position, move into nearby markets or branch out into radically new territory? To help guide our decisions, most of us have a smorgasbord of strategic frameworks to draw on. But which one is the right one, and when? The strategic plans, market analyses and hefty binders that strategy consulting firms leave behind often jumble strategic lenses: Five-Forces analysis, portfolio review, assessment of core competencies; examination of profit pools, competitive landscape and so on. But which analyses are most helpful right now?

Most managers recognize that not all strategies work equally well in every setting. So to understand how to choose the right strategy at the right time, we analyzed the logic of the leading strategic frameworks used in business and engineering schools around the world. Then we matched those frameworks with the key strategic choices faced by dozens of industry leaders at different times, during periods of stability as well as change. (See "About the Research," p. 72.) Two surprising insights emerged.

First, we discovered that the logics of the different strategic frameworks break into three archetypes: strategies of position, strategies of leverage and strategies of opportunity. What's right for a company depends on its circumstances, its available resources and how management combines those resources together. (See "Choosing the Right Strategy," p. 73.)

Pixar Animation Studios, whose worldwide megahits include the *Toy Story* movies and *Finding Nemo*, uses rules such as "great story first, then animation" to guide its strategy.

Second, by observing market leaders employing archetypal strategies, we found that many assumptions about competitive advantage simply don't hold. For example, although strategy gurus talk about strategically valuable resources, sometimes

? THE LEADING QUESTION

How can managers know which strategic framework is the most appropriate one?

FINDINGS

- ▶ **What's right for a company depends on its circumstances, its available resources and how it puts the resources together.**
- ▶ **Sometimes ordinary resources assembled well can be used to create competitive advantage.**
- ▶ **To identify the most appropriate strategic framework, start by assessing whether your industry is stable, dynamic or somewhere in between.**



ABOUT THE RESEARCH

To understand how companies create competitive advantage in different industries and settings, we conducted in-depth interviews with more than 90 corporate leaders. The leaders included both senior executives (CEOs, chairmen, executive vice presidents and business-unit heads) and managers who are charged with strategy implementation. We also surveyed all top management team members at 12 U.S., Finnish and Singaporean companies about the strategies they used for key strategic processes such as alliances, acquisitions, product development and internationalization as well as the performance results that followed from using those strategies. In addition, we reviewed relevant research articles in the field of strategic management published in leading academic and practitioner journals from 1980 to 2010. From the data collected in our own research and through the review of the extant literature, we were able to zero in on three archetypal strategic frameworks used by industry exemplars at different times and under different conditions of environmental dynamism.

very ordinary resources assembled well are all that's required for competitive advantage. Sometimes it makes good sense to bypass the largest markets and focus instead on where resources fit best. In other circumstances, it may be preferable to ignore existing resources and attack an emergent market. In some situations, basic rules of thumb work better than detailed plans. Surprisingly, these simple strategies can be harder to imitate than complex ones.

How to Choose the Right Strategy

To figure out when it makes sense to pursue strategies of position, leverage or opportunity, the key is to look first at the immediate circumstances, current resources and the relationships among the various resources. Understanding these factors will help you get started with the right strategic framework.

Understand Your Circumstances The first step for managers is a thoughtful review of their industry. Specifically, assess whether your industry is stable, dynamic or somewhere in between. How do you gauge this dynamism? Begin by asking yourself: Can I map the five industry structure forces in my industry? If you can identify buyers, suppliers, customers and substitutes by name and tick off barriers to entry, and if these five factors tend to stay largely the same, then you are probably operating within a stable industry. If the industry is too unsettled to map (think mobile Internet applications) or the basic rules are in flux (think clean or nano technology), then you most likely inhabit a dynamic industry.

Next ask: Where do my products fit in terms of product life cycle? In stable industries, standards are well-defined, product expectations are clear, product life cycles are known and often long and a limited number of competitors may slowly push the development envelope with anticipated innovations. However, in dynamic industries it's different. Standards may not yet exist, product life cycles are short, products are diverse and no clear dominant technology or product has emerged. Some industries are in between. The auto industry is historically a stable industry. But new technologies (for example, hybrid and electric-powered engines), compressed product development times, volatile oil prices and regulatory pressure have increased dynamism. Also, don't forget that your own company's circumstances (for

example, whether you're a startup with a promising business model or an established player with global reach) will also affect where you fit.

Take Stock of Your Resources Once you understand your industry circumstances, take a look at your company. Assessing your resources and the links among them is essential. Why? Resources lie at the heart of strategy. They enable companies to set themselves apart from competitors. Tangible resources (such as Intel's fabrication facilities or Starbucks' locations) are relatively straightforward to assess. But intangible resources (for instance, Amazon's patents or Procter & Gamble's brands) are trickier. Beyond these, organizational processes (for example, the acquisition process of India's Tata Group or General Dynamics' divestment process) can provide a critical basis for advantage.

Once you know your resources, determine how advantageous they really are. The most strategically important resources are valuable (i.e., useful in your industry), rare (i.e., possessed by only a few), inimitable (i.e., difficult to copy) and nonsubstitutable (i.e., lacking in functional equivalents). These resources are a potential source of competitive advantage. Yet even if they can provide advantage, they aren't absolutely necessary for competitive advantage. Indeed, even common resources can be a source of advantage depending on how they are linked with other resources.

Determine the Relationships Among Resources

A secret to picking the right strategic framework is assessing how your resources relate to one another. Some resources are tightly linked. For example, Wal-Mart's low-cost strategy in the United States depends heavily on its physical resources (often rural locations), sophisticated information technology (like maximizing selling space in stores and quickly replenishing inventories), efficient logistics (like cross-docking) and cost-conscious culture, all of which reinforce each other. By contrast, Google's resources are more loosely linked. Executives can recombine human capital and technical resources as needed to tackle different markets and products. Of course, there are trade offs: Tightly linked resources create more defensible strategic positions, but they resist change; loosely linked resources are easier to change, but they can be inefficiently deployed and redundant.

CHOOSING THE RIGHT STRATEGY

We found that the logics of different strategic frameworks break into three archetypes: position strategies, leverage strategies and opportunity strategies. What's right for a company depends on its circumstances, available resources and how management links those resources.

	POSITION STRATEGY	LEVERAGE STRATEGY	OPPORTUNITY STRATEGY
STRATEGY	Build mutually reinforcing resource systems with many resources in an attractive strategic position. Deepen their links.	Build strategically important resources for current markets. Leverage them into attractive new products and new markets.	Pick a few strategic processes with deep and swift flows of opportunities. Learn simple rules to capture opportunities.
Circumstances Best for	Stable environments	Moderately dynamic environments	Dynamic environments
Resources	Often mundane	Strategically important (i.e., valuable, rare, inimitable and nonsubstitutable)	Opportunity-rich strategic processes guided by simple rules
Relationships	Tightly interlocked resources	Moderately linked resources	Loosely linked resources
Basis of Competitive Advantage	A cost leadership or differentiated strategic position that is defensible	Ownership of specific strategically important resources that can be leveraged	Capture of attractive opportunities before rivals
Sustainability of Advantage	Long term	Medium term	Unpredictable
Inimitability of Advantage	Through causal ambiguity of tightly linked resources plus time to develop the resource system and path dependence	Through property rights, path dependence and time needed to develop the same resources	Through first-mover advantage and the challenge of inferring rules from partially improvised outcomes
Challenges	Adjusting system of tightly linked resources quickly enough and without producing negative synergy	Adjusting resource portfolio without being blocked by cognitive and political rigidities	Maintaining "edge of chaos" with the right number and types of rules. Timely pivoting to better strategic processes

Choosing a Strategy When does it make sense to choose one strategy over another? How do executives decide whether to build their strategies around position, leverage or opportunity? We will examine each framework separately.

The Position Strategy

When industries are stable, a strong case can often be made for a position strategy. Position strategies involve selecting a valuable and unoccupied industry position and then building up its defenses. This is the strategy that is commonly associated with Five Forces analysis,¹ where competitive advantage comes from constructing a fortress around an attractive market. Industry stability ensures that the position of the fortress provides a long-term competitive advantage, thereby justifying repeated investments to reinforce and preserve the position. The strategy remains valuable until the terrain shifts and the strategic position is eroded.

With a position strategy, competitive advantage depends first on choosing a valuable and unoccupied strategic position in a given industry, and second on creating and linking company resources

to defend that position. A valuable strategic position drives superior profitability through the ability to either boost prices (e.g., Porsche in the automotive industry) or reduce costs (e.g., Casio in the watch industry). Companies often defend their positions by assembling resource combinations that their competitors cannot easily imitate. In the U.S. mutual fund industry, for example, The Vanguard Group has built its strategy around conservative investment management and low costs. Vanguard, which claims that the average expense ratio of its mutual funds is a fraction of its main competitors, defends its position with mutually reinforcing resource choices, including low commissions, modest management perks and an absence of retail branches. Thus, the key to advantage with a position strategy is not just having a valuable strategic position, but also linking resources to defend successfully against challengers.

Position strategies seem straightforward, but it is often assumed their success requires strategically important resources. Although such resources can be helpful, they aren't necessary. Competitive advantage can come from defending a strategic position

through a system of tightly linked resources, not necessarily from the superiority of the resources per se. Consider JetBlue, the low-cost U.S. airline. On the surface, its strategy is based on common, even mundane, resources: Airbus A320 and Embraer 190 aircraft, comfortable passenger seats, DIRECTV access and SIRIUS XM satellite radio, e-mail and instant messaging services and fast turnaround capability at airport gates. None of these resources is particularly special. But as a package, they are mutually reinforcing and produce a differentiated offering that gives JetBlue a competitive advantage that other airlines would have difficulty imitating.

When resources are tightly linked, they are hard to copy. Interdependent resources create complexity, and so copying them and their linkages is challenging and time-consuming. Thus, even if imitators understand which resources are being used, they probably don't understand exactly how they fit together because there are often many resources with unexpected combinatorial effects. Successful imitation, therefore, requires not only knowing which resources comprise another company's strategy (i.e., ingredients), but also deciphering the proper sequence of their assembly (i.e., recipe).

Over time, since even fortresses need maintenance, managers with position strategies can't just rest on their laurels. To maintain competitive advantage, they may need to refresh their resources and strengthen the links among them. For example, the Spanish clothing company Zara has updated several resources to bolster its strategic position, including more and better small-batch production that seamlessly links to air shipment logistics. Zara can now send new designs to any store in the world in less than two days.

Like any strategy, position strategy has an Achilles heel: change. When industries change, moving a fortress locked into a strategic position is tough. Changing a tightly linked system means dismantling the very synergies that management worked so hard to build and putting the organization at risk during the transition to a new strategy. For this reason, many managers either ignore change or make changes at the margin. But neither approach works. Once stable markets change, entrenched strategic positions tend to falter. Change forces managers to dismantle their existing resource systems and reas-

semble them in new strategic positions. This is difficult and time-consuming — a combination that can potentially be lethal because performance may not improve until the pieces are reassembled and linked. For example, Liz Claiborne, an apparel company, relied on a positioning strategy in which production, distribution, marketing, design, presentation and sales resources were all tightly linked. But when the industry changed, the company's relationships with department stores were disrupted.² In an effort to adapt, Claiborne executives changed resources such as their "no reordering" process that had antagonized department stores. But since this process was synergistically entwined with other resources like overseas logistics and distant manufacturing locations, the "no reordering" process could not be undone without damaging system coherence. Financial performance sank precipitously. Only after Claiborne executives dismantled their existing resources and started reconnecting new ones did positive performance begin to return.

The Leverage Strategy

In markets where change is moderate, leverage strategies often beat position strategies. Since change is incremental and predictable, it makes sense for managers to coevolve their strategically important resources with the industry. So while position strategies are based on the fortress analogy, leverage strategies are more like chess, where competitive advantage comes from both having valuable pieces and making smart moves with them. Take Pepsi. The company has several strategically important resources (including its brand, product formulas and distribution system). But what really matters is that the company has smartly leveraged them to support new products that fit with increasingly health-conscious consumers. Alongside its carbonated drinks, Pepsi now offers an array of alternative beverages, including waters (Aquafina, SoBe Lifewater), juices (Tropicana, Dole), teas (Lipton) and sports drinks (Gatorade), all of which take advantage of the company's strategically important resources.

Companies that pursue leverage strategies achieve competitive advantage by using their strategically important resources in existing and new industries at a pace that is consistent with market

change. This strategy, commonly associated with the resource-based view of the company,³ focuses on building or acquiring resources that are valuable, rare, difficult to imitate and nonsubstitutable, and leveraging them into new products and markets. But while resources in position strategies are often tightly interlocked, resources in leverage strategies are often only moderately interconnected.

Leverage strategies can focus on refreshing and consistently deploying core resources in current markets. For example, although Intel's short-term success depends on extracting value from its current generation of microprocessors, its long-term growth depends on using its well-known design capabilities, branding and manufacturing resources in future generations of microprocessors. Similarly, Pizza Hut's continued success depends on updating its highly important service resources in its existing markets. The company expanded into India in the late 1990s and soon distinguished itself from competitors based on its ability to provide customers with pizza and friendly table service in a relaxed atmosphere. Yet, by 2005, India's casual dining sector was crowded. Pressured by rivals, including Domino's, Pizza Hut refreshed its service resources and leveraged them to create a more upscale dining experience. As a result, Pizza Hut is still the most trusted food brand in India.

While leveraging resources in existing markets is important, leveraging resources into new markets is important, too. Under Armour, a Baltimore, Maryland, sports apparel company founded in 1995, offers a good example. CEO Kevin Plank originally planned to make breathable garments for football players. But he and his team soon realized that they could leverage their moisture-wicking synthetic fabrications into other markets. After screening markets to see where this resource could be introduced most effectively, Under Armour executives developed their first line of moisture-wicking running shoes. Similarly, Home Depot is currently attempting to leverage its core resources by selling automotive replacement parts. By exploiting both its extensive expertise in "do-it-yourself" and its 2,200 store locations, it hopes to propel growth.

A common mistake with leverage strategies is forgetting to reassess the strategic importance of resources (especially value, rarity and nonsubstitutability) in potential new markets. For example,

when Amazon.com first tried to leverage its online ordering and inventory fulfillment capabilities beyond books and music to include other product categories such as toys, it hit a wall. As it turned out, the inventory systems that were tailored for books and music were not well suited for the extreme seasonality of toys, and the company's warehouse logistics were not designed to handle toys, which come in all sorts of shapes and sizes.

Leverage strategy is not only about expansion. Sometimes, it makes sense to pull back and redeploy resources. For years, California-based Advanced Micro Devices used its superior engineering design resources to develop semiconductors. Recently, however, the company has redeployed some of its resources away from the hotly competitive semiconductor industry and into design services. Although products and services may rely on particular strategically important resources, these resources need not be wedded to specific products or services. Rather, they can be used to create competitive advantage in other contexts. In other words, a deep knowledge base of resources and capabilities is often fungible across multiple products and markets.

A primary challenge of creating competitive advantage with a leverage strategy is updating the resource portfolio as industries change. This can mean choosing whether to acquire, partner or develop key resources in-house. Toyota's Prius is an example of leveraging some existing resources, including brand and electronics technology, even as the company developed and acquired new resources for hybrid technology, engine control software and regenerative braking. But, even when managers see the need for adding, upgrading or eliminating resources, entrenched beliefs and internal power struggles can interfere. Immediate performance from existing resources takes precedence over later performance from new resources that may be several years away. To support this point, one needs to look no further than Chrysler. In 1984, Chrysler introduced the first minivan. Over the next 20 years, it sold more than 10 million minivans, revitalized its popular Jeep line and introduced successful Ram and Dakota pickups and Dodge Durango SUVs. But the auto industry changed. While General Motors and Ford adapted their engine technologies to emphasize fuel efficiency



Under Armour CEO Kevin Plank and his team realized that they could leverage their moisture-wicking synthetic fabrications into new markets.

and retooled their manufacturing plants for small cars, Chrysler failed to update its resource portfolio. As a result, the company, now controlled by Fiat, has yet to prove that it can gain the resources necessary to compete well in the new reality.

The Opportunity Strategy

In contrast to stable industries, dynamic industries are characterized by superabundant flows of fast-moving but often unpredictable opportunities. Industry structure is characteristically shifting as competitors come and go, customers modify their preferences and business models are in flux. How long will competitive advantage last? It's impossible to know, but probably not very long. As the CEO of a security software company told us half-jokingly, "You need a degree in astrology to compete in our industry." Even though managers seek a long-term competitive advantage, they do business as if it doesn't exist. The famous Intel axiom that "only the paranoid survive" reflects senior management's belief that at any point in time their competitive advantage will vanish. As a result, strategy focuses on capturing opportunities that create a series of temporary competitive advantages.

In contrast to the fortress and chess views of strategy, pursuing an opportunity strategy is like surfing: Performance comes from catching a great wave at the right time, even though the duration of that wave is likely to be short and the ride a precarious "edge of chaos" experience where falling off is always a possibility.⁴ Timing and capturing successive waves are what matters. The video game console industry provides a useful case in point. In the space of only a few years, different companies (including Sega, Nintendo, Sony and Microsoft) have "caught the wave" and for a time led the industry.

For companies pursuing opportunity strategies, competitive advantage comes from capturing attractive but fleeting opportunities sooner, faster and better than competitors. This strategy, which is commonly associated with "simple rules" heuristics,⁵ requires combining two elements: choosing a focal strategic process and developing simple rules to guide that process. Together, they enable companies to be flexible enough to capture unanticipated opportunities while still being broadly coherent and efficient. In choosing a focal strategic process, the key is to choose one where the flow of attractive op-

portunities is steady and deep. Tata Group, whose diversified operations range from steel and autos to communications and beverages, provides a good example. Because of its high market capitalization and ready access to corporate debt, Tata has relied heavily on acquisitions as its focal strategic process. Its managers have pursued a series of acquisition opportunities quickly and effectively. For example, in 2007, the company paid \$12 billion for Corus, a European steel company. Several months later, it paid \$2.3 billion to buy Jaguar and Land Rover from Ford. In contrast, Apple focuses on a different strategic process — product development — to churn out coveted new designs. Yet in contrast to position strategy, which depends on tightly connected processes, opportunity strategy is built on processes that are only loosely connected to one another.

Once managers have identified their focal strategic process, they need to learn some simple rules. The easiest to learn are rules of thumb for picking and processing opportunities; rules for pacing and priority rules are more difficult to learn. The idea is to provide enough structure for action while also allowing flexibility to capture unanticipated opportunities. At Pixar Animation Studio, whose animated films (including the *Toy Story* movies, *A Bug's Life*, and *Finding Nemo*) have become worldwide megahits, the rules are clear. One rule is "no studio executives." Pixar is run by creative artists, or as Andrew Stanton (director of *WALL-E* and Pixar's ninth employee) called it, "film school without the teachers." This gives company artists maximum leeway to create without having to fight their way through middle management. A second rule is "great story first, then animation." That not only ensures a steady stream of prestigious awards (*Ratatouille* holds the record for the most Oscar nominations for a feature-length animated film), but also makes it easier to attract talent. Another rule stipulates "in-house original ideas only." And while ideas must come from within, they don't come just from creative types: Everyone from janitors to auditors is encouraged to submit ideas, and all ideas are considered. Finally, as the surfing analogy would suggest, the rules affecting pacing are particularly important. A key one at Pixar is "one new movie per year." But while there are rules, there is plenty of space at Pixar to create unique movies.

On the surface, opportunity strategies relying on simple rules seem easy to copy. But since the op-

portunities and outcomes are so varied, it is actually difficult to decode the rules from the outside. Of course, competitors can try to mimic processes (say, for acquisitions or product development), but rules are often the results of idiosyncratic trial and error, making them difficult for rivals to duplicate. Moreover, even if competitors understand the underlying logic and copy a company's rules, it's often too late: The most attractive opportunities will have already been captured. For example, although Cisco System's networking rivals eventually copied the rules of its acquisition process, they could not replicate the opportunities that Cisco had already acquired.

Managers often tinker with their rules by making them better or more suited to their changing industries. In doing so, managers not only alter the number and content of rules, but also their abstraction. For example, CRF Health, an international company that expedites drug discovery in the pharmaceutical industry, frequently adjusted the rules that guided its internationalization process. When the company entered the United States, it relied on a rule that had been highly effective in Sweden: "Hire strong locals using online resources." But this rule proved ill-suited to the new market because there were few individuals with both clinical development and technical skills willing to work in a startup. Indeed, the rule led to several early hires who were not well-qualified. Based on this experience, CRF's team decided that the existing rule needed to change to one emphasizing local hiring without regard to source. Thus, leaders raised the abstraction from "Hire strong locals using online resources" to the more general "Hire strong locals." This new rule focused attention on the overarching aim of hiring, but did not prescribe whether to rely on online resources, headhunters or other sources. Although intuition suggests that rules begin as abstract and become detailed, opportunity strategy stresses the opposite. Rather than becoming routine to ensure efficiency, rules often become more abstract and remain few in number to ensure flexibility to address unanticipated opportunities.

When an opportunity flow becomes less attractive (e.g., greater competition for the opportunities or lower payoff from the opportunities) or when more attractive opportunity flows emerge, it's time to pivot to the superior flow and its related strategic process.



The key point is that shifts in where to compete are driven more by the attractiveness of opportunity flows than by fit with the company's strategically important resources. For example, as product development opportunities slowed down at Google, management placed more emphasis on internationalization opportunities. The company ramped up to enter more than 55 countries with more than 35 languages by supporting localized search, and it now generates more than half its revenue from outside the United States. Similarly, once its user network had grown to a sufficient scale, LinkedIn switched from emphasizing its strategic process for user acquisition to one for developing new revenue-producing services.

Just as positioning and leverage strategies have their pitfalls, so does opportunity strategy. For entrepreneurial startups, it is often critical to add more strategic processes and rules than is comfortable. Too little structure is riskier than too much. But for large companies, the greater risk is having too much structure. Most managers intuitively worry about bureaucracy and red tape. But what they don't know is that pursuing an opportunity strategy requires holding the line on the number of rules, not just their content. In other words, the number of rules matters. Managers should also be alert to signs of consolidation, standardization, longer product life cycles and other such indications that the industry is maturing and becoming less dynamic.

SO WHICH STRATEGY SHOULD YOU USE? The reality is that no single strategy works in every industry always. Although the essence of strategy is being different, establishing that "difference" — whether it's through different positions, different resources or different rules — depends on the circumstances. Each approach works best in particular settings and has its own implications for strategic actions, pitfalls, competitive advantage and performance. And just when you think you have it right, you may well need to change again. But by understanding the archetypal strategic frameworks and the factors underlying each choice, you'll be better prepared to craft your next strategy.

Christopher Bingham is assistant professor and Philip Hettleman Fellow of strategy and entrepreneurship at the University of North Carolina at Chapel Hill's Kenan-Flagler Business School. **Kathleen Eisenhardt**

is the Stanford W. Ascherman M.D. Professor of Strategy and Organization at Stanford University. **Nathan Furr** is assistant professor of entrepreneurship and strategy at Brigham Young University. Comment on this article at <http://sloanreview.mit.edu/x/53110/>, or contact the authors at smrfeedback@mit.edu.

ACKNOWLEDGMENTS

The authors thank Kenan-Flagler Business School at UNC, Stanford Technology Ventures Program, Marriott School of Management at BYU and the National Science Foundation (grant #0323176) for their support.

REFERENCES

1. M.E. Porter, "Competitive Strategy" (New York: Free Press, 1980); M.E. Porter, "What Is Strategy?," Harvard Business Review 74, no. 6 (1996); J.W. Rivkin, "Imitation of Complex Strategies," Management Science 46, no. 6 (2000): 824-844; N. Siggelkow, "Evolution Toward Fit," Administrative Science Quarterly 47, no. 1 (2002): 125-159
2. C.B. Bingham and K.M. Eisenhardt, "Position, Leverage and Opportunity: A Typology of Strategic Logics Linking Resources with Competitive Advantage," Managerial and Decision Economics 29, no. 2-3 (2008): 241-256.
3. N. Siggelkow, "Change in the Presence of Fit: The Rise, the Fall, and the Renaissance of Liz Claiborne," Academy of Management Journal 44, no. 4 (2001): 838-857.
4. C.K. Prahalad and G. Hamel, "The Core Competence of the Corporation," Harvard Business Review 68, no. 3 (1990); D.J. Collis and C.A. Montgomery, "Competing on Resources," Harvard Business Review 73, no. 4 (1995): 118-128
5. J. Barney, "Firm Resources and Sustained Competitive Advantage," Journal of Management 17, no. 1 (1991): 99-120; M.A. Peteraf, "The Cornerstones of Competitive Advantage: A Resource-Based View," Strategic Management Journal 14, no. 3 (1993): 179-191.
6. J.P. Davis, K.M. Eisenhardt and C. B. Bingham, "Optimal Structure, Market Dynamism and the Strategy of Simple Rules," Administrative Science Quarterly 54 (2009): 413-452.
7. S.L. Brown and K.M. Eisenhardt, "Competing on the Edge: Strategy as Structured Chaos" (Boston: Harvard Business School Press, 1998); K.M. Eisenhardt and D.N. Sull, "Strategy as Simple Rules," Harvard Business Review 79, no. 1 (2001): 107-116; C.B. Bingham, K.M. Eisenhardt and N.R. Furr, "What Makes a Process a Capability? Heuristics, Strategy and Effective Capture of Opportunities," Strategic Entrepreneurship Journal 1, no. 1-2 (2007): 27-47; C.B. Bingham and K.M. Eisenhardt, "Rational Heuristics: The 'Simple Rules' That Strategists Learn from Their Process Experiences," Strategic Management Journal (in press); C.B. Bingham and J. Halebian, "How Entrepreneurial Firms Learn Heuristics: Similarities and Differences Between Individual and Organizational Learning," Strategic Entrepreneurship Journal (in press).

Reprint 53110.

Copyright © Massachusetts Institute of Technology, 2011.

All rights reserved.

Optimizing Your Digital Business Model

What does it take to create the strongest possible online presence?

BY PETER WEILL AND STEPHANIE L. WOERNER

ARE YOUR CUSTOMERS leaving you behind digitally? Are they seeking out other companies that provide great digital customer experiences?

These are far from idle questions. Customers are increasingly demanding to interact with companies anytime and anywhere. For instance, 72% of customers in a recent survey said they would replace some traditional channels with mobile apps if the capability was available.¹

Given that, enterprises must strengthen their digital business models — how they engage their customers digitally to create value, via mechanisms such as websites and mobile devices.² If your company doesn't offer a great digital experience, many customers, particularly younger people, will move to industry competitors or do more business with companies like Amazon.com that offer great customer experiences digitally, operate in adjacent industries and are starting to offer services similar to yours.

To make this change more difficult, a great digital business model challenges the traditional physical business model that relies on places (such as bank branches, bookstores or department stores) and people (such as sales teams or insurance agents) to delight a customer. A digital business model challenges the physical model in three main areas: internal power, since who “owns” the customer’s



THE LEADING QUESTION

How can you develop an effective digital business model?

FINDINGS

- ▶ As business increasingly moves from the physical world of “place” to the digital world of “space,” companies need to strengthen their digital business models.
- ▶ To be successful, a digital business model must offer good content, customer experience and platforms.
- ▶ However, your company doesn't necessarily need to be a leader in all three areas.

As Netflix Inc. discovered in 2011, business model missteps can annoy customers.

ABOUT THE RESEARCH

This article is based on a two-year MIT Center for Information Systems Research (CISR) research project. We began by creating a framework drawing on previous research and many conversations with chief information officers and other senior leaders about the challenges of operating in a more digital world. We designed a survey to validate the framework, with 118 companies in a wide variety of industries responding. We analyzed self-reported financial performance data, looking for patterns of best practice. The effectiveness of a company's content, experience and platform was measured by averaging answers to a set of questions about different aspects of each construct (content=9 questions, experience=9 questions, platform=8 questions). We also collected detailed secondary data on companies, including news reports and other publicly available information. Data for the LexisNexis case study were collected in interviews with six of the company's most senior executives, using a structured interview guide. Data for the USAA case were drawn from public sources, senior executive presentations and an MIT CISR case study.¹ We also completed a detailed case study of Banco do Brasil and case vignettes from public sources on Apple, Bloomberg, Commonwealth Bank of Australia and Netflix. Finally, to refine the work, we shared our analysis with executives in the companies we studied and in workshops with executives experienced in transforming their enterprises to succeed in a digital environment.

experience often changes from product groups to the unit that manages the multiproduct customer experience; business processes, which require rethinking to be seamless across channels; and customer data, which become an enterprise-wide resource rather than remaining hidden in one area.

Whether you are a born-on-the-Web company, a large established company or a local business just starting to focus on the best way to connect with customers online, your enterprise needs to strengthen its digital business model. And the stakes are high if you get it wrong. Just ask Netflix Inc., which dominated the DVD mail rental business and had strong claims on the video streaming business. Through business model missteps — separating delivery via mail and digital delivery, coupled with a large price hike — Netflix annoyed many of its customers. The result was a 79% drop in share price from July to November 2011, despite revenue growth of 52%.³ During that period, the stock market lost confidence in Netflix's ability to manage its increasingly digital business model. Netflix stock has since rebounded, but by early 2013 it still had not reached the levels it occupied in 2011.

Digital business models are transparent to all. They can crash quickly, because switching costs in the digital world are often lower than in the physical world, and it's getting easier to digitally describe offerings using images, objective measures (for example, power in a toaster oven or management costs for a mutual fund) and third-party product ratings. It's also getting easier to compare services from different companies — using search engines, or sites like TripAdvisor LLC or intermediaries (for example, Expedia Inc. in travel) that incorporate customers' shared experience via ratings as well as social media.

To help executive teams assess and strengthen their digital business models, we provide a framework that organizations can use, along with examples drawn from both born-digital companies and older companies such as Apple, USAA and LexisNexis. We also present benchmarks and best practices derived from a recent survey we conducted. Our survey found that organizations that were in the top third in terms of digital customer experience had 8.5% higher net margins and 7.8% higher revenue growth than their industry competitors.⁴ (See "About the Research.")

From Place to Space

Three trends have converged to raise the stakes for the effectiveness of your enterprise's digital business model. The first is the continued march toward the digitization of ever-increasing aspects of business — incorporating more of your customers' experience, executing more of your business processes and working together with partners in your value chain. The second trend is the increasing number of "digital natives" — your young current and future customers and employees — who expect a brilliant digital experience in all of their interactions with you. The third trend is the dawning of the age of the customer voice, in which customers have a much stronger impact on enterprises via ratings of their services (such as the customer rating stars on Amazon and customer experience surveys) and via online comments through Twitter and other social media.

Before the Internet, business operated primarily in a physical world of "place": It was a world that was tangible, product-based and oriented toward customer transactions. Today, many industries — all moving at different rates — are shifting toward a digital world of "space": more intangible, more service-based and oriented toward customer experience.

Take *The Wall Street Journal*. In the world of "place," *The Wall Street Journal* produces its own content (stories, photos, etc.), packages it into a printed newspaper (with a distinctive look, feel and editorial style) and delivers it via a custom-built infrastructure (printing presses, trucks and delivery people). Customer value is produced via tight integration of these components.

In the world of "space," the components of content, packaging and infrastructure have morphed and split. Content has mushroomed and is no longer strictly proprietary: In the digital world, *The Wall Street Journal* obtains branded content from other sources (like Reuters) and in turn provides its content to partners to deliver to their customers. The packaging has transformed into a consistent digital customer experience on many different devices. Infrastructure has morphed into a powerful combination of internal and external digital platforms — some controlled by *The Wall Street Journal* and some not; for example, you can access *The Wall Street Journal* on your phone, PC and TV from anywhere. Customer value is now produced via a modular combination of these

components, often creating different value propositions for different customers.⁵

Content, Experience and Platform

A digital business model has three components: content, customer experience and platform.⁶ (See “The Three Components of a Digital Business Model.”) Consider Amazon’s retail customer digital business model. Amazon’s content — what is consumed — includes digital products like movies and software, as well as information about the physical products it sells or brokers. And many of these digital products have challenged the status quo at Amazon and other companies. For example, Amazon’s e-books outsold its physical books for the first time in May 2011.⁷

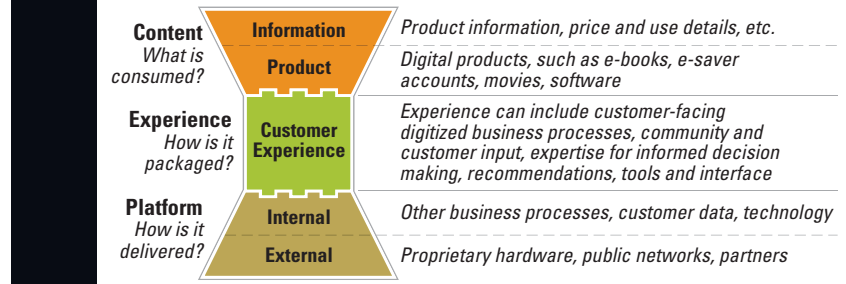
The customer experience embodies what it’s like to be a digital customer of your organization, whether buying digital or physical products. Amazon’s customer experience includes the website and the digitized business processes touching the customer, like the shopping cart and payment options, as well as messaging, such as delivery alerts and email acknowledgments. The experience also includes Amazon’s well-developed customer-created content: customer product ratings and reviews, as well as sophisticated tools like search, a detailed history of purchases and tailored recommendations.

The platform consists of a coherent set of digitized business process, data and infrastructure. The platform has internal and external components and may both deliver digital content to the customer as well as managing physical product delivery to the customer. Amazon’s internal platforms include customer data and all the business processes that don’t touch the customer, such as customer analytics, human resources, finance and merchandising. External platforms include the phones, tablets or computers that consumers use to research and purchase the products, along with telecommunications networks and Amazon’s partnerships with delivery companies like UPS that deliver physical products and generate text messages on delivery; all of these external platforms neatly integrate with Amazon’s internal platforms.

To achieve economies of scale with digital business models requires the development and reuse of digitized platforms across the enterprise.⁸ Without

THE THREE COMPONENTS OF A DIGITAL BUSINESS MODEL

The three components of your digital business model — content, experience and platform — work together to create a compelling customer value proposition.



such shared platforms, the IT units in companies implement a new solution in response to every business need, creating a spaghetti-like arrangement of systems that do meet specific customer needs but are expensive and fragile — and don’t scale enterprise-wide. Worse still, the customer experience suffers as the customer gets a fragmented product-based experience rather than a unified multiproduct experience.

How LexisNexis Strengthened Its Digital Business Model

The experience of LexisNexis, one of the world’s largest providers of information to the legal market, illustrates how one company tackled the challenge of strengthening its digital business model. With 2011 revenues of \$2.3 billion, LexisNexis has customers in more than 100 countries, a five-year revenue growth rate of 11%⁹ and billions of searchable documents. LexisNexis’ operating environment has become increasingly digital; its parent company, Reed Elsevier, reports total enterprise revenues from electronic content and tools increasing from 22% in 2000 to 63% in 2011.¹⁰ Leaders at the company expect this will rise to almost 100% in the near future.

As legal content has become more digitized, it has also become more commoditized, and disintermediators such as Bing and Google have gained importance as sources for information such as contact details for lawyers, public records and case law. Governments also are digitizing more of their public records, making them searchable and easier to access. In response, LexisNexis has invested in more exclusive content, improved its customer experience and developed a more flexible platform.

Creating Unique Content

LexisNexis has diversified its content to make it more valuable to lawyers. It continues to deliver public record and case law information in ever more easy-to-find ways. But to create unique content, LexisNexis has developed relationships with top experts — celebrity lawyers — who provide opinions and commentary in many areas such as intellectual property, bankruptcy and constitutional and tax law. These commentaries are updated regularly and received enthusiastically by lawyers practicing in each specialty.

LexisNexis has also been growing its user-generated content. It has agreements with 30 of the top law firms in the United States to generate expert commentary that is syndicated via LexisNexis channels. And it has built relationships with some of the top legal bloggers in America. Common to all these efforts is the creation of unique content not available via any other source.

Improving and Measuring Customer Experience

LexisNexis has invested heavily in its customer experience. Market research based on focus groups and surveys is not getting the job done anymore, so LexisNexis has assembled a team of anthropologists who work closely with customers to identify unmet needs. The field researchers sit with customers and watch, asking them to describe the most frustrating parts of their day, observing the most frequently performed tasks and generating ideas about how to better complete those tasks.

This deep customer-driven innovation has had big impacts at LexisNexis. For example, the process has helped change the product roadmap for LexisNexis' mobile efforts. The initial mobile strategy was to enable complete mobile access to all LexisNexis services. But the field research led to the insight that customers want to perform quick, time-sensitive tasks on their mobile devices, like tracking time, looking up legal terms and reviewing legal codes and precedents, each via a dedicated app. LexisNexis has deployed more than 15 of these targeted-task mobile apps, with more than 81,000 downloads in the first year.

LexisNexis has also started implementing “trackers” at key customer touchpoints. (A tracker is software that “tracks” a customer’s activity, including browsing and then the decision to purchase or not.)

These trackers are used to immediately assess satisfaction and point out problems to be addressed before they affect the overall relationship with LexisNexis — and reduce the company’s reliance on surveys.

Developing a Flexible Global Platform

LexisNexis’ new platform, Lexis Advance, represents a complete update of its technology and processes. Among other elements, it offers an enhanced user experience and includes features such as My Workspace (an online place to access, store and organize legal research), better pre- and post-search filtering, visualization capabilities for research citation and verification, and new linking capabilities. (For example, cases and codes can now be linked to public records, company reports, verdicts and more.) The search capability now encompasses the customer’s content as well as LexisNexis and Web content, and it provides results targeted to the user. (For instance, a lawyer in New York state probably wants Second Circuit cases, not Ninth Circuit cases.) The new platform was designed with mobile use in mind, so that data from the mobile apps sync smoothly to the full-featured version. In addition, the platform was designed to be used globally and to include “smart content” and a flexible product platform, enabling innovative applications to be easily added later. (See “LexisNexis’ Digital Business Model.”)

Building Digital Business Model Capabilities

Investing in exclusive content, user experience and an integrated platform has given LexisNexis the ability to enter attractive markets. One of these new markets is the segment of small law firms with one to 50 lawyers. Approximately half of all U.S. lawyers work in small law firms. Small law firms usually don’t need and aren’t able to pay for the same service levels provided to large law firms. LexisNexis added content and services that small law firms need, like lead development, website construction and client and peer ratings. Rather than field-based research, the small law division employs a test-and-learn methodology over the Web — trying new offerings in select markets and scaling what works best.¹¹ LexisNexis’ primary pricing model is based on comprehensive subscriptions. The company also offers subscriptions based on targeted content by geography or practice area, as well as charging by time used.

Like LexisNexis, companies need to choose and invest in their key sources of competitive advantage for their digital business model: content, experience, platform or some combination of those. LexisNexis chose to build strong capabilities in all three to create an industry-leading digital business model that it is scaling globally and adapting to enter adjacent markets. But does every company need to strive to lead its industry in all three capabilities?

What Is Your Digital Source of Competitive Advantage?

We have studied the successful digital business models of companies like Amazon, Apple, Bloomberg, Banco do Brasil, Commonwealth Bank of Australia, DirecTV, ING Direct, Google, Netflix and USAA, and we analyzed the results of a survey of 139 enterprises. For a successful digital business model, your enterprise has to have good content, customer experience and digital platforms. But does your company have to be a leader in all three? We don't think so — at least not yet.

Consider Apple. The company shipped 125 million iPhones in 2012 and sold more than five million iPhones on the first weekend the iPhone 5 was available.¹² In the first quarter of 2012, iPhone sales represented 9% of the handset share, but a whopping 73% of the profit share in the industry.¹³ The company has created a juggernaut of app content, with more than 700,000 active iPhone apps available¹⁴ and cumulative app revenues of approximately \$5 billion a year.¹⁵ Apple's annual revenue from apps, music and e-books is projected to be \$13 billion in 2013.¹⁶

Apple's customer experience has set a benchmark for all competitors, with easy-to-use interfaces such as iTunes as well as other aspects of the Apple brand magic — making products seen as cool and fun. But it's the company's combination of digital platforms — the great design of the physical objects it sells, the engineering of the iTunes platform and the tight integration of the operating systems to the devices — that has been hardest for other companies to replicate.

Today, Apple's competitive advantage is its customer experience and its platform, not its content; indeed, Apple's customer experience and platform enable others to provide much of its valuable content. Apple has created a new type of customer experience: the mobile app that has branded and packaged access

to great new content. And consumer behavior is changing as a result. As of December 2011, the average U.S. user spends more time inside a mobile app (such as *The Wall Street Journal's* iPad app) than on the Web searching.¹⁷ This trend has big implications for how to design an effective digital business model and the importance for most companies of having great mobile apps available for customers.

Measuring Effectiveness of Content, Experience and Platform

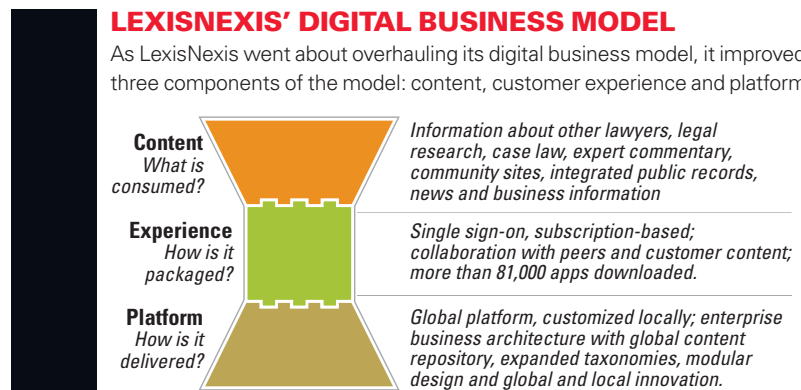
To better understand digital business models by industry, we surveyed companies to assess the effectiveness of their content, experience and platform. (See "The Effectiveness of Content, Experience and Platform by Industry," p. 76.) For each of the three aspects of a digital business model (content, experience and platform), we aggregated the answers to eight or nine survey questions to get a broad base for assessing effectiveness.¹⁸

The industry with the strongest effectiveness scores overall was IT software and services, while energy and mining and health care were among the poorest. Interestingly, the top financial performers in each industry also had better digital business model effectiveness. For example in the financial services industry, companies in the top third of financial performers had 29%, 35% and 26% better content, experience and platform scores, respectively, than those in the bottom third.¹⁹

But where should you start? That depends on your strategic goals. If your goal is driving new digital revenue, then start with strengthening your digital content (information and/or products) and the associated buzz. If your goal is cross-selling and driving more revenue per customer, focus first on

LEXISNEXIS' DIGITAL BUSINESS MODEL

As LexisNexis went about overhauling its digital business model, it improved all three components of the model: content, customer experience and platform.



improving your customer experience. If your goal is efficiency and flexibility, then focus first on building and exploiting shared digital platforms.

USAA’s Digital Business Model

For most enterprises that were not born on the Web, creating an effective digital business model is a journey that requires the collaboration of many different parts of the business and often some organizational surgery. Consider USAA, the financial services company based in San Antonio, Texas, that began operations in 1922 to sell insurance policies to military personnel. With eight million members, few branches and content consisting of a complex set of financial products and services, USAA is typically ranked number one in customer experience in its industry. USAA believes that its customer experience is the paramount factor in its success. Consequently, USAA reorganized its channels and call centers, consolidating them into a unified member experience organization focused on life events rather than products. Typical life events are buying a house or a car, having a baby or getting married. When USAA mem-

bers go to the company’s website (or call the company), they can pick a life event and are then offered an integrated set of products associated with that life event. To manage this organizationally, a customer experience executive vice president reports to the CEO and supervises 12,000-plus customer service representatives. To deliver the content and experience, USAA has a single customer information file and shared infrastructure, data and application services (its platform). The results have been significant.

We believe USAA has very good products and platforms, but the company’s competitive advantage — and what drives the company’s success — is having the best customer experience. As a result, USAA has restructured to focus its digital business model — indeed, the entire business model — on delivering great customer experience.

The Journey From Place to Space

Some industries are moving more quickly from place to space. For example, media is probably leading the way — and watching how that industry has struggled to get paid for content is sobering for the industries that are now making the journey from place to space. Retail and financial services are not far behind media. Both industries have players with significant investments in physical channels (such as Target Brands Inc.), with newer entrants that are all or mostly competing via digital channels (such as Amazon). A poignant *Wall Street Journal* article reported Target’s frustration at being used as a showroom in which customers view products but then buy those products for less online from companies that don’t have Target’s physical infrastructure costs.²⁰ One of Target’s responses was to ask vendors’ help in developing unique products that would reduce the easy price comparison using bar codes and online search.

Where are your industry and your company on the journey from place to space? It’s a good time to review your digital business model. As we have seen in the move from print books to digital, once a tipping point is reached, the movement to space speeds up and is hard to resist. Just look at the demise of many physical bookstores. Other industries will follow — at different paces, driven, in part, by issues such as regulation, product complexity and how amenable the products are to digitization. Even in industries like health care that traditionally rely on

THE EFFECTIVENESS OF CONTENT, EXPERIENCE AND PLATFORM BY INDUSTRY

We surveyed companies in various industries to assess the effectiveness of their content, experience and platform. Effectiveness was measured on a 10-point scale, from 1 = not effective to 10 = very effective.

INDUSTRY	EFFECTIVENESS OF:		
	CONTENT	EXPERIENCE	PLATFORM
Banking, Financial Services and Insurance	6.4	5.4	5.8
Transportation and Utilities	6.8	5.8	6.2
Health Care	6.0	5.4	5.6
High Tech, Aerospace and Electronics	6.2	5.2	6.4
IT Software and Services	8.0	7.0	7.4
Other Services*	8.4	6.2	7.0
Energy and Mining	5.8	4.4	5.4
Manufacturing and Chemicals	6.9	4.4	6.4
Telecommunications and Media	7.0	6.0	6.8
For all respondents	6.8	5.6	6.4

*Other Services includes legal, professional and consumer services, restaurants and hospitality, and distribution and logistics.

ASSESSING YOUR DIGITAL BUSINESS MODEL

Use the following questions to help you and your colleagues prioritize the improvement to your digital business model.

	TODAY: Rate your business today in each of the three areas on a scale of 1 to 10, where 1 = "Does not create business value," and 10 = "creates significant business value."	THREE YEARS FROM NOW: Given the issues, rank (1, 2 or 3, with 1 being most important) the importance of each of the three areas for success in your business in three years.
Content: <i>What is consumed?</i>		
Experience: <i>How is it packaged?</i>		
Platform: <i>How is it delivered?</i>		

If the average of your scores on the first question today is seven or below in any area, here are some questions to help you work on refining your digital business model.

Content

- How much of your revenue is generated online?
- Of the content you provide today, what do your customers find most valuable? What other content could you provide that customers (or channel partners) would value or pay for?
- Who has responsibility for content in your enterprise? Is responsibility for digital products and information about physical products held by different groups? Should it be?

Experience

- Do you know how good your customer experience is? Who owns it?
- What aspects of your digital customer experience do customers like? What aspects do they find frustrating?
- Who has the best customer experience in your industry? (Consider both traditional competitors and new entrants.)

Platform

- How good are your internal digital platforms? Who owns them?
- How can you expose more of your internal digital platforms to your customers to improve their experience?
- How can you better leverage the market for your platforms — for example, the cloud, software as a service, partners, external data?
- How good are your partners' platforms?

the physical interaction between provider and patient, we are seeing more online services: Doctors are providing email advice and remote monitoring of patients, and insurance companies are enabling online claims with more and more self-service. The move from place to space and the need for a digital business model are not just phenomena limited to the consumer market, either, as we saw in the case of a business-to-business enterprise, LexisNexis.

To further develop and assess your own enterprise's digital business models, we suggest you think about the business value of your content, experience and platform today (by business unit and/or major customer segment) as well as what you expect three years from now. (See "Assessing Your Digital Business Model.") Get as many colleagues as you can to assess your digital business model. As you consider the future importance of content, experience and platform in your business, we have a final question: Does your budget for next year reflect the importance of content, experience and platform? And how do you govern this? Now's the time to take the lead on

strengthening your digital business model — as your customers and enterprise move from place to space.

Peter Weill is senior research scientist and chair of the MIT Sloan School of Management's Center for Information Systems Research in Cambridge, Massachusetts. Stephanie Woerner is a research scientist at MIT Sloan School of Management's Center for Information Systems Research. Comment on this article at <http://sloanreview.mit.edu/54322>, or contact the authors at smrfeedback@mit.edu.

ACKNOWLEDGMENTS

The authors wish to acknowledge, with gratitude, that important contributions to this research came from Jeanne Ross, Peter Reynolds, Michele Vivona and John Sviokla, as well as the many executives who enthusiastically provided feedback during MIT CISR workshops.

REFERENCES

1. ClickFox, "Mobile Apps Consumer Survey," October 2011 (sample size=650). The survey also found that 78% of the sample reported using apps to interact with companies with which they do business, like banks and retailers.
2. The concept of a digital business model draws on previous research on business models, much of which focused

on e-business. The numerous definitions of a business model all include some form of how a business makes money or sustains itself. Our previous work on business models is described in T.W. Malone, P. Weill, R.K. Lai, V.T. D'Urso, G. Herman, T.G. Apel and S. Woerner, "Do Some Business Models Perform Better Than Others?" MIT Sloan Research Paper No. 4615-06, May 2006, http://papers.ssrn.com/sol3/papers.cfm?abstract_id=920667; performance differences between business models are highlighted in P. Weill, T.W. Malone and T.G. Apel, "The Business Models Investors Prefer," MIT Sloan Management Review 52, no. 4 (summer 2011): 17-19. Additional recent books on business models include: A. Osterwalder and Y. Pigneur, "Business Model Generation: A Handbook for Visionaries, Game Changers, and Challengers" (Hoboken, New Jersey: Wiley, 2010); S. Kaplan, "The Business Model Innovation Factory: How to Stay Relevant When the World Is Changing" (Hoboken, New Jersey: Wiley, 2012); "Harvard Business Review on Rebuilding Your Business Model" (Boston, Massachusetts: Harvard Business Press, 2011); M.W. Johnson, "Seizing the White Space: Business Model Innovation for Growth and Renewal" (Boston, Massachusetts: Harvard Business Press, 2010); and H. Chesbrough, "Open Business Models: How to Thrive in the New Innovation Landscape" (Boston, Massachusetts: Harvard Business Press, 2006).

3. Year-to-year revenue growth, 2nd quarter, 2011.

Source: Netflix Q2 2011 Letter to Shareholders, <http://ir.netflix.com/results.cfm>.

4. MIT CISR conducted a digital business models survey in 2011 (sample size=118). We measured a number of digital practices that were part of either content effectiveness, customer experience effectiveness or platform effectiveness constructs. The survey included nine questions about content effectiveness, nine about experience effectiveness and eight about platform effectiveness. Effectiveness was measured on a 10-point scale, from 1=Not effective to 10=Very effective. To assess total digital effectiveness, we averaged two outcomes scales: "attractiveness of digital products" and "effectiveness of digital delivery." In this article, we highlight the 10 practices (out of 27) that were statistically significant ($p < 0.1$) in a regression against digital effectiveness. In other analyses, we correlated content effectiveness, customer experience effectiveness and platform effectiveness with financial performance measures, adjusted for industry.

5. For one of the earliest and most insightful discussions of this move from place to space, see J.F. Rayport and J.J. Sviokla, "Managing in the Marketspace," Harvard Business Review 74, no. 2 (November-December 1994): 141-150.

6. Framework adapted from P. Weill and M.R. Vitale, "Place to Space: Migrating to eBusiness Models" (Boston: Harvard Business Press, 2001) and Rayport and Sviokla, "Managing in the Marketspace."

7. C.C. Miller and J. Bosman, "E-Books Outsell Print Books at Amazon" New York Times, May 19, 2011, www.nytimes.com/2011/05/20/technology/20amazon.html.

8. For more on platforms, see P. Weill and J.W. Ross, "IT Savvy: What Top Executives Must Know to Go From Pain to Gain" (Boston: Harvard Business Press, 2009).

9. Financial growth rate calculated by MIT CISR, based on public data.

10. Reed Elsevier, "Annual Reports and Financial Statements" (London: 2011).

11. For more on test and learn, see E.T. Anderson and D. Simester, "A Step-by-Step Guide to Smart Business Experiments," Harvard Business Review 89, no. 3 (March 2011): 98-105.

12. Apple Inc., "Q4 2012 Unaudited Summary," <http://images.apple.com/pr/pdf/q4fy12datasum.pdf>; and Apple Inc., "iPhone 5 First Weekend Sales Top Five Million," www.apple.com/pr/library/2012/09/24/iPhone-5-First-Weekend-Sales-Top-Five-Million.html.

13. Z. Epstein, "Apple Owns 8.8% of Cell Phone Market, 73% of Cell Phone Profits," BGR, May 3, 2012, <http://bgr.com/2012/05/03/apple-cell-phone-profits>.

14. C. Taylor, "Apple Sets All-Time Record for Quarterly App Store Sales: 700K Apps, 275K for iPad, \$6.5B Paid to Devs," TechCrunch, Oct. 25, 2012, <http://techcrunch.com/2012/10/25/apple-sets-all-time-record-for-quarterly-app-store-sales-700k-apps-275k-for-ipad-6-5b-paid-to-devs>.

15. Piper Jaffrey estimate cited in J. Lowensohn, "Despite Growth, Google Trails Apple in App Dollars Spent," Nov. 21, 2011, http://news.cnet.com/8301-27076_3-57328804-248/despite-growth-google-trails-apple-in-app-dollars-spent.

16. M. Brian, "Apple iTunes Revenues to Push \$13 Billion in 2013: Report," The Next Web, July 5, 2011, <http://thenextweb.com/apple/2011/07/05/apple-itunes-revenues-to-push-13-billion-in-2013-report>.

17. BI Intelligence using sources from comScore, Alexa, U.S. Bureau of Labor Statistics and Flurry: see Business Insider, "BI Report: Why Mobile Commerce Is Set to Explode," Jan. 30, 2013, www.businessinsider.com/bii-report-why-mobile-commerce-is-set-to-explode-22013-1#ixzz2Jc2c6TWk.

18. Questions include "How often does your enterprise contract with third parties to measure your external customer digital experience?" and "Relative to competitors, how effective is the digital information you provide about your non-digital products and services in retaining or attracting external customers?"

19. We measured financial performance using an equally weighted combination of revenue growth and net margin percentage adjusted for industry. We asked respondents to provide their revenue growth and net margin percentages and then subtracted the respective industry average from each company's data (to industry adjust). Then we took z-scores of both measures (to place the different measures on the same scale) and summed the two to get a combined measure of revenue growth and profitability.

20. A. Zimmerman, "Showdown Over 'Showrooming,'" Wall Street Journal, Jan. 23, 2012, <http://online.wsj.com/article/SB10001424052970204624204577177242516227440.html>.

i. J.W. Ross and C.M. Beath, "USAA: Organizing for Innovation and Superior Customer Services," MIT CISR Working Paper No. 382, December 2010.

Reprint 54322.

Copyright © Massachusetts Institute of Technology, 2013.

All rights reserved.

Creating Value Through Business Model Innovation

Could your company benefit from a new business model? Consider these six questions.

BY RAPHAEL AMIT AND CHRISTOPH ZOTT

COMPANIES OFTEN MAKE substantial efforts to innovate their processes and products to achieve revenue growth and to maintain or improve profit margins. Innovations to improve processes and products, however, are often expensive and time-consuming, requiring a considerable upfront investment in everything from research and development to specialized resources, new plants and equipment, and even entire new business units. Yet future returns on these investments are always uncertain. Hesitant to make such big bets, more companies now are turning toward business model innovation as an alternative or complement to product or process innovation.

A recent global survey of more than 4,000 senior managers by the Economist Intelligence Unit found that the majority (54%) favored new business models over new products and services as a source of future competitive advantage. EIU analysts concluded that “the overall message is clear: how companies do business will often be as, or more, important than what they do.”¹ And in a similar global study conducted by IBM, in which over 750 corporate and public sector leaders were interviewed on the subject of innovation, researchers found that “competitive pressures have pushed business model innovation much higher than expected on CEOs’ priority lists.”² However, this level of interest may not have been too surprising given that the IBM study also found that companies whose operating margins had grown faster than their competitors’ over the previous five years were twice as likely to emphasize business model innovation, as opposed to product or process innovation.³ One CEO explained why his company’s focus on business model innovation had grown:

In the operations area, much of the innovations and cost savings that could be achieved have already been achieved. Our greatest focus is on business model innovation, which is where the greatest benefits lie. It’s not enough to make a difference on product quality or delivery readiness or production scale. It’s important to innovate in areas where our competition does not act.⁴

The growing popularity of e-reading devices such as the Kindle is stimulating business model changes in book publishing.



THE LEADING QUESTION

What do executives need to know about business model innovation?

FINDINGS

- ▶ Business model innovation can consist of adding new activities, linking activities in novel ways or changing which party performs an activity.
- ▶ Novelty, lock-in, complementarities and efficiency are four major business model value drivers.
- ▶ Within organizations, business model choices often go unchallenged for a long time.

Business model innovation can also help companies stay ahead in the product innovation game, where as one CEO from another study explained, “you’re always one innovation away from getting wiped out by a new competing innovation that eliminates the need for your product.”⁵ A good product that is embedded in an innovative business model, however, is less easily shunted aside. Someone might come up with a better MP3 player than Apple’s tomorrow, but few of the hundreds of millions of consumers with iPods and iTunes accounts will be open to switching brands.

Business model innovation matters to managers, entrepreneurs and academic researchers for several reasons. First, it represents an often underutilized source of future value. Second, competitors might find it more difficult to imitate or replicate an entire novel activity system than a single novel product or process. Since it is often relatively easier to undermine and erode the returns of product or process innovation, innovation at the level of the business model can sometimes translate into a sustainable performance advantage. Third, because business model innovation can be such a potentially powerful competitive tool, managers must be attuned to the possibility of competitors’ efforts in this area.⁶ Competitive threats often come from outside their traditional industry boundaries.

ABOUT THE RESEARCH

The ideas presented in this article are anchored in the authors’ decade-long research program on business models. We started this research with in-depth inquiries into the business models of 59 e-business companies in Europe and the U.S. that had undertaken initial public offerings. Under our guidance, several research analysts investigated each company, using approximately 50 open-ended questions. The analysts wrote up the answers to the questions using information gathered from multiple data sources (such as IPO prospectuses), which we then took to develop an inductive theory on the sources of value creation in e-business.

In our subsequent work, we shifted attention from value creation to value appropriation by linking some of the value drivers of business models (notably, novelty and efficiency) to company performance. To test our hypotheses, we developed a unique data set containing detailed information about the business models of 190 entrepreneurial companies listed on U.S. or European public exchanges between 1996 and 2000. We measured each business model design theme as a variable at a particular point in time, and we regressed these variables on a range of performance measures. We also supplemented these data on companies’ business models with a manually collected data set on business strategy, establishing empirically that a company’s product market strategy and its business model are distinct constructs that affect performance. More recently, we developed cases on business model choice and evolution. These cases have given us additional insights that have led to further conceptual advances. Building on these advances in this article, we focus for the first time squarely on business model innovation in the context of established companies rather than start-ups.

We define a company’s business model as a system of interconnected and interdependent activities that determines the way the company “does business” with its customers, partners and vendors. In other words, a business model is a bundle of specific activities — an activity system — conducted to satisfy the perceived needs of the market, along with the specification of which parties (a company or its partners) conduct which activities, and how these activities are linked to each other. We started our research into business models a decade ago by making in-depth inquiries into the business models of 59 e-business companies in Europe and the U.S. that had undertaken initial public offerings.⁷ (See “About the Research.”) Later, we developed a unique data set containing detailed information about the business models of 190 entrepreneurial companies listed on U.S. or European public exchanges between 1996 and 2000. We supplemented these data on companies’ business models with another manually collected data set on business strategy, establishing empirically that a company’s product market strategy and its business model are distinct constructs that affect corporate performance.⁸ More recently, we have developed cases on business model choice and evolution.⁹

Building on this work, we focus in this article on business model innovation in the context of established companies. However, these ideas are equally applicable to innovators of entirely new business models and to managers of companies who need to adapt their business model incrementally with the objective of achieving business model innovation new to their organization. Even under conditions of resource scarcity, organizations do not need to renounce innovation as a way of enhancing their performance prospects. Rather, managers should consider the opportunities offered by business model innovation to complement, if not substitute for, innovation in products or processes. Business model innovation can allow managers to resolve the apparent trade-off between innovation costs and benefits by addressing *how* they do business, for example, by involving partners in new value-creating activity systems.

Business Model Innovation in Practice

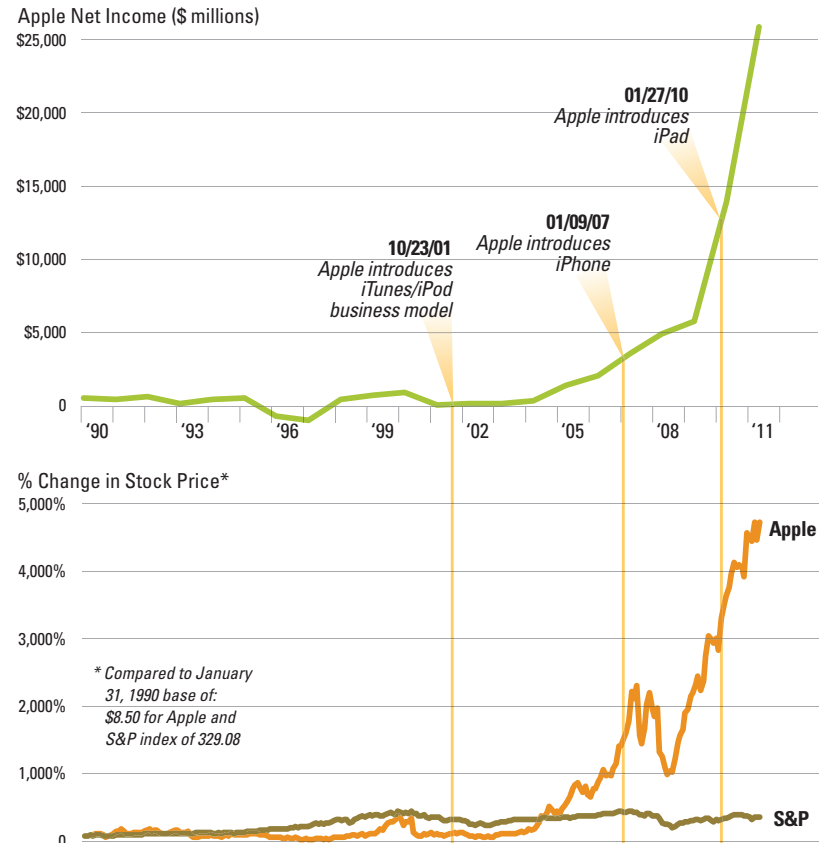
To illustrate the power of business model innovation, consider two cases: Apple and HTC, the Taiwan-

based mobile device manufacturer. For most of its history, Apple was focused on the production of innovative hardware and software, mostly personal computers. By creating the iPod and the associated iTunes, a legal online music download service, Apple introduced a radical innovation of its business model. Apple was the first computer company to include music distribution as an activity, linking it to the development of the iPod hardware and software. By adding this new activity to its business model, which links the music label owners with end users, Apple transformed music distribution. Rather than growing by simply bringing innovative new hardware to the market, Apple transformed its business model to encompass an ongoing relationship with its customers, similar to the “razor and blade” model of companies such as Gillette. This enabled Apple, and its business model partners, to extract ongoing value from the use of the Apple hardware and software. In this way, Apple expanded the locus of its innovation from the product space to the business model — and its revenues, profit and stock price change have reflected that successful business model innovation. (See “Apple’s Performance, Before and After Business Model Changes.”)

Such performance can be hard for even some otherwise high-performing companies to match if they rely solely on product innovation. HTC has been a very innovative, profitable and growing original equipment manufacturer since its founding in 1997. Initially, HTC manufactured handsets for Microsoft-powered mobile phones for companies such as Palm, HP and T-Mobile. In 2006, it changed its product-market strategy from being a contract OEM manufacturer to selling its own HTC-branded smart phones to wireless network operators and the general public through various distribution channels. HTC has excelled in many ways, recording many firsts in the smart phone product market space and winning numerous awards for its many techno-

APPLE’S PERFORMANCE, BEFORE AND AFTER BUSINESS MODEL CHANGES

In recent years, Apple’s revenues, profit and stock price change have reflected its successful business model innovations.



logical innovations. Yet HTC’s business model has remained centered on hardware design and product innovation. In effect, HTC sells great razors, but no razor blades: Its business model allows it to benefit only from the sale of its innovative, state-of-the-art smart phones and tablets, but not from their use. Comparing the performance of HTC and Apple stock in the past two years highlights the fact that in the fast-moving technology market space, product innovation without business model innovation may not always provide enough competitive advantage. (See “The Stock Price of HTC vs. Apple,” p. 44.)

In contrast to Apple, HTC has not been involved in the creation or delivery of mobile content or services, and its devices function on third-party operating systems such as Google’s, generating revenues for HTC only from the hardware sales. Apple, on the other hand, benefits from economies of scope due to the interoperability of its software base (iOS, iTunes, App

Store, iCloud) for its various products including its computers (iMacs), tablets (iPads), phones (iPhones) and MP3 players (iPods). In addition, Apple benefits from direct ownership of its distribution channels (online App Store, brick-and-mortar Apple retail stores). Further, Apple's business model enables it to derive revenue from App Store sales of third-party applications, from iTunes songs, and from AT&T for the use of its iPhone for voice and data.

How to Innovate in Business Model Design

An innovative business model can either create a new market or allow a company to create and exploit new opportunities in existing markets. Dell, for example, implemented a customer-driven, build-to-order business model that replaced the traditional build-to-stock model of selling computers through retail stores.¹⁰

Changes to business model design, however, can be subtle; even when they might not have the potential to disrupt an industry, they can still yield important benefits to the innovator. Consider Taco Bell, the restaurant chain offering Mexican-style fast food, which in the late 1980s decided to turn the restaurant's kitchens into heating and assembly units. Most chopping, cooking and clean-up activities were transferred to corporate headquarters. The food was sent precooked in plastic bags to restaurants, where it could be heated, assembled and served.¹¹ This incremental business model innovation was not game-changing for the fast food industry, but it

allowed Taco Bell to realize economies of scale and improvements in efficiency and quality control, as well as to increase space for customers within the restaurants.¹² Other companies might wish to change their business models in similar incremental ways or follow a business model innovator in their industry in order to achieve competitive parity.

Business model innovation can occur in a number of ways:

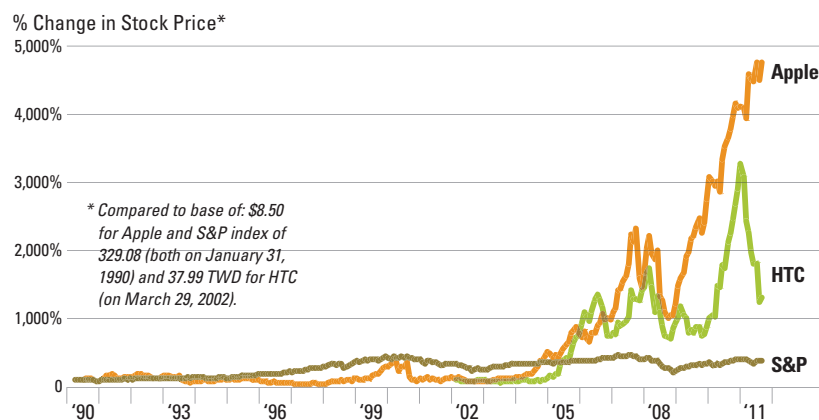
1. By adding novel activities, for example, through forward or backward integration; we refer to this form of business model innovation as new activity system "content."¹³
2. By linking activities in novel ways; we refer to this form of business model innovation as new activity system "structure."
3. By changing one or more parties that perform any of the activities; we refer to this form of business model innovation as new activity system "governance."

Content, structure and governance are the three design elements that characterize a company's business model.¹⁴ (See "Six Questions About Business Model Innovation.") Change one or more of these elements enough and you've changed the model. Consider the following.

The content of an activity system refers to the selection of activities to be performed. For example, Colombia's largest bank, Bancolombia, adopted activities beyond those of a typical retail bank. The perceived market need for these activities was the demand for microcredit among the more than 60% of Colombians who did not have access to banking services. To perform these new activities — an innovation in the content of its business model — the bank needed to train its top management, hire and train new staff and link the new activities to its existing system (platforms, applications and channels).¹⁵ Another example of business model innovation focused on content is IBM.¹⁶ After a severe financial crisis in the early 1990s, the company shifted its focus from being a supplier of hardware to becoming a service provider. Drawing on know-how built over decades, IBM launched a range of new activities in consulting, IT maintenance and other services. The transformation was substantial: By 2009, more than half of IBM's \$96 billion in revenues came from these activities, which had barely existed 15 years earlier.

THE STOCK PRICE OF HTC VS. APPLE

Comparing the performance of HTC and Apple stock during the past two years highlights the potential benefits of successful business model innovation.



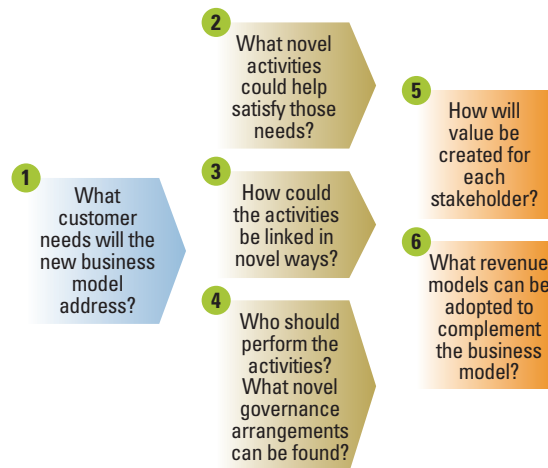
The *structure of an activity system* describes how the activities are linked and in what sequence. Consider Priceline.com. This online travel agency has established links with airline companies, credit card companies and Travelport's Worldspan central reservation system, among others. By introducing a reverse market in which customers post desired prices for sellers' acceptance, Priceline developed a fundamentally novel exchange mechanism through which these parties interact and by which items such as airline tickets are sold. Priceline was granted a business method patent on its innovative activity system — a novel structure that continues to distinguish the company from other travel agencies.

The *governance of an activity system* refers to who performs the activities. Franchising, for example, represents one possible approach to innovative activity system governance. It can be the key to unlocking value, as when Japanese entrepreneur Toshifumi Suzuki realized in the early 1970s that the franchise system that had developed in the U.S. was an ideal response to the strict regulations imposed by the Japanese government on retailing outlets, which limited their size and restricted opening times. By franchising 7-Eleven stores in Japan, Suzuki adopted a novel type of activity system governance (new to Japan, but not to the rest of the world) and managed to create value through professional management and local adaptation.¹⁷ Another example of an innovative governance structure is the recent formation of a consortium of magazine publishers, including Time, Hearst, Meredith and Condé Nast, to develop an online magazine newsstand using multiple digital formats. The resulting company, Next Issue Media, is jointly owned by industry rivals and is a response by the rival publishers to declining print circulation (and hence print advertising revenue) and the growth of digital media. Fighting for survival, the publishers are looking beyond their otherwise fierce competition to their common interest in inventing a new context for magazines in the digital era. As Ann Moore, the former CEO of Time, stated, "It's increasingly clear that finding the right digital business model is crucial for the future of our business."¹⁸

But how does a company increase the odds of developing the right business model for its situation? In our earlier work,¹⁹ we identified four major

SIX QUESTIONS ABOUT BUSINESS MODEL INNOVATION

Business model innovation can occur in a number of ways: by adding new activities, by linking activities in novel ways — or by changing one or more parties that perform any of the activities.



interlinked value drivers of business models: novelty, lock-in, complementarities and efficiency.

1. *Novelty* captures the degree of business model innovation that is embodied by the activity system.
2. *Lock-in* refers to those business model activities that create switching costs or enhanced incentives for business model participants to stay and transact within the activity system. Consider for example Nespresso, a division of Nestlé Corporation. It introduced a new, low-cost espresso maker that uses Nespresso-produced coffee capsules. Once a customer buys a Nespresso machine, he or she needs to use Nespresso coffee capsules — creating a lock-in that enables Nestle to profit from both the sale of the machine and the use of the machine by selling consumables that machine owners must buy from Nespresso. Launching these products involved a radical redesign of the activity system, for example, by branching out into retailing activities.
3. *Complementarities* refer to the value-enhancing effect of the interdependencies among business model activities. Consider, for example, eBay, which offers a platform to conduct sales over the Internet among individual buyers and sellers of used and new products. A key requirement for the platform to function properly is a payment mechanism that allows buyers to make credit card payments even when the seller does not have access

to credit card services. PayPal, the online payment company that eBay acquired, offers such a function, facilitating trades that could not otherwise be completed. In other words, PayPal has a value-enhancing effect on the eBay activity system.

4. *Efficiency* refers to cost savings through the interconnections of the activity system. Consider Wal-Mart, which not only championed the concept of discount retailing but also designed an activity system that supports its low-cost strategy. An important activity within this system is logistics. Over time, Wal-Mart developed highly sophisticated processes, such as cross-docking, unrivalled in the industry. These processes help the company to keep its costs lower than its competitors, giving Wal-Mart an important competitive advantage.

Our research suggests that the presence of each of these value drivers enhances the value-creation potential of a business model. Moreover, we find important synergies among the value drivers. Complementarities, for example, can be more valuable when supported by novel business model design.

Interdependencies in Business Models

Interdependencies in business models are created by entrepreneurs or managers in several ways: when they choose the set of organizational activities they consider relevant to satisfying a perceived market need, when they design the links that weave activities together into a system and when they shape the governance mechanisms that hold the system together.

Interdependence among business model design elements. Content, structure and governance can be highly interdependent. Take the San Francisco, California-based peer-to-peer lending company Prosper, for example. The venture aims at enabling direct, small, unsecured loans between individual lenders and borrowers. Early on, the founders made the conscious decision to let lenders choose the borrowers to whom they wanted to lend their money. This was a structural choice that settled the question of how lending and borrowing activities were linked, but it also constituted a decision about governance because it shifted the evaluation and selection activities to the customers and away from the company.

Interdependencies between business and revenue models. Managers also need to consider the

interdependency between a company's business model and its revenue model. The revenue model refers to the specific ways a business model enables revenue generation for the business and its partners.²⁰ It is the way in which the organization appropriates some of the value that is created by the business model for all its stakeholders. A revenue model complements a business model design, just as a pricing strategy complements a product design. Consider Better Place, whose business model aims to provide electric vehicle charging services. Like a mobile phone operator whose business model centers on enabling the use of the mobile phone device through its network rather than on the handset device itself, Better Place's business model centers on providing charging networks and services rather than on the electric vehicle itself. It involves an innovative business model structure with partners ranging from governments, vehicle manufacturers, clean energy producers and others. Just as mobile phone operators charge customers variable or flat rates for telecommunication services, Better Place intends to implement a revenue model as a function of customers' car usage (miles driven), thus taking into account the interdependency between its business and revenue models.²¹

The concepts of business and revenue model, although conceptually distinct, may be quite closely related and even inextricably intertwined. For example, in the product world, Gillette uses its pricing strategy of selling inexpensive razors to make customers buy its more expensive blades. A business model lays the foundations for a company's value capture by codefining (along with the company's products and services) the overall "size of the value pie" (that is, the total value that is created), which can be considered an upper limit to the company's value capture.²² The greater the total value created through the innovative business model, and the greater a company's bargaining power, the greater the amount of value that the company can appropriate.²³

Caveats. As the Better Place example suggests, business model innovators need to bear in mind that identifying technologically or strategically distinct activities can be conceptually challenging, because the number of potential activities is often quite large.²⁴ Many seemingly inseparable activities can now be broken down even further, especially given ongoing advances in information and communica-

tions technologies.²⁵ (This, of course, represents not only a conceptual challenge but also an opportunity for innovative managers to redesign the activity systems of their organizations in novel ways.)

What's more, making changes to a company's whole activity system rather than optimizing individual activities (such as production) requires systemic and holistic thinking, which can be demanding. When responding to a crisis, operating in tough economic times or taking advantage of a new opportunity, rethinking an entire business model may not always be the first thing on a manager's mind. This is particularly true when the level of resistance to change is predicted to be high. As a result, choices on business model design often go unchallenged for a long time.

Six Questions to Ask Before Launching a New Model

Our research shows that in a highly interconnected world, especially one in which financial resources are scarce, entrepreneurs and managers must look beyond the product and process and focus on ways to innovate their business model. A fresh business model can create and exploit opportunities for new revenue and profit streams in ways that counteract an aging model that has tied a company into a cycle of declining revenues and pressures on profit margins.²⁶ We suggest that managers ask themselves the following six key questions as they consider business model innovation:

1. What perceived needs can be satisfied through the new model design?
2. What novel activities are needed to satisfy these perceived needs? (business model *content* innovation)
3. How could the required activities be linked to each other in novel ways? (business model *structure* innovation)
4. Who should perform each of the activities that are part of the business model? Should it be the company? A partner? The customer? What novel governance arrangements could enable this structure? (business model *governance* innovation)
5. How is value created through the novel business model for each of the participants?
6. What revenue model fits with the company's business model to appropriate part of the total value it helps create?

To illustrate how managers might productively and proactively use these questions, consider the business model of McGraw-Hill's book publishing business.²⁷ In the U.S., general and trade books (including consumer titles and celebrity author books) represent about 55% of industry revenues, while academic and professional books generate the remainder. Until recently, only in business-to-business and academic text segments have websites been a true marketing platform for digital content. While e-readers such as the Kindle and the iPad are now rapidly gaining popularity, the time-consuming and expensive book publishing process had not changed in a material manner in many decades. However, Google, Amazon and other competing information and content providers have stimulated a growing customer interest in electronic formats. Publishers in the U.S. and Europe are searching for solutions to meet the emergent demand for creating and delivering digital content on portable devices while preserving and enhancing value.

Meeting the demand for digital content may require publishers to perform new activities (*new business model content*). Although it is unlikely that the traditional hardback/paperback book will disappear, it is expected that the demand for printed publications will fall sharply. If printing and physical distribution become less relevant in the process, the time it now takes to add a new title to a catalogue and to bookstore shelves will be reduced. Accordingly, designing, uploading and maintaining the most complete online catalogue may become

A consortium of magazine publishers is working to invent a new context for magazines in the digital era.



Determining whether McGraw-Hill or another partner will carry out each of the activities of the new business model requires a careful consideration of trade-offs (*new business model governance*). For example, should the publisher's content be delivered through a new McGraw-Hill branded device, or by proprietary devices offered by such partners as Amazon (with its Kindle) or Apple (with its iPad), thereby leveraging their existing position in the market? Or should its content be delivered through Internet-based platforms compatible with a broad range of devices, enabling global distribution? These are crucial governance decisions that a new publishing model will answer.

Publishers' new business models will create value through the complementarities and interdependence among activities and through the enormous ef-

a central new activity in publishers' business models. In addition, to the extent that publishers decide to bypass traditional retail bookstores in their new business models, they will have to develop a new marketing activity targeting retail buyers. Production will need to change as well. Creating content with a digitally enabled streamlined process is another activity 21st-century publishers will probably need to incorporate into their new business models.

Linking the various activities to each other, sequencing these linkages and deciding how stakeholders will interact with one another in the new business models requires careful consideration (*new business model structure*). For example, the ways in which McGraw-Hill decides to interact with multiple digital distribution partners such as Apple and Amazon, through which McGraw-Hill distributes digital content to retail consumers, will affect the breadth of the company's access to the retail digital book market. The linkages among content creators, including authors, editors, other publishing professionals and distributors, will constitute the heart of the new business model. These linkages must reflect alternatives available to authors — such as bypassing publishers altogether — as well as approaches adopted by competing publishers.

iciencies in the publishing process that the new business models could generate. A number of alternative revenue models associated with these new business models could be considered, such as single subscription pricing independent of the number of downloaded manuscripts, piecemeal pricing and/or value-based pricing for time-sensitive publications.

Taking a Systemic View

Addressing the six questions outlined above can help managers see their companies' identities more clearly in the context of the networks and ecosystems in which their organizations operate. Without a business model perspective, a company is a mere participant in a dizzying array of networks and passive entanglements. Adopting the business model perspective can help executives purposefully structure the activity systems of their companies; the purposeful design and structuring of business models is a key task for general managers and entrepreneurs and can be an important source of innovation, helping the company look beyond its traditional sets of partners, competitors and customers. Most importantly, perhaps, this approach encourages systemic and holistic thinking when considering innovation, instead of isolated, individual choices. The message to execu-

tives is clear: When you innovate, look at the forest, not the trees — and get the overall design of your activity system right before optimizing the details.

Raphael Amit is the Robert B. Goergen Professor of Entrepreneurial Management at the Wharton School of the University of Pennsylvania in Philadelphia, Pennsylvania. **Christoph Zott** is a professor of entrepreneurship at IESE Business School in Barcelona, Spain. Comment on this article at <http://sloanreview.mit.edu/x/53310>, or contact the authors at smrfeedback.mit.edu.

ACKNOWLEDGMENTS

Raphael Amit acknowledges support from the Robert B. Goergen Chair in Entrepreneurship at the Wharton School. Christoph Zott acknowledges financial support from the IESE Research Division and from the Ministry of Science and Innovation of Spain (grant ECO 2009-12852). Both authors gratefully acknowledge the financial support of the Wharton-INSEAD Alliance Center for Global Research & Development and also thank Yuliya Snihur, Cesar Guzman-Concha and Sylvie Beauvais for valuable research assistance.

REFERENCES

1. "Business 2010: Embracing the Challenge of Change," white paper, Economist Intelligence Unit, New York, February 2005, p. 9.
2. G. Pohle and M. Chapman, "IBM's Global CEO Report 2006: Business Model Innovation Matters," *Strategy & Leadership* 34, no. 5 (2006): 34-40.
3. *Ibid.*, 36.
4. *Ibid.*
5. "Business 2010," Economist Intelligence Unit, 10.
6. R. Casadesus-Masanell and J.E. Ricart, "Competing Through Business Models," working paper 713, IESE Business School, Barcelona, Spain, November 2007.
7. R. Amit and C. Zott, "Value Creation in e-Business," *Strategic Management Journal* 22, no. 6-7 (June-July 2001): 493-520.
8. C. Zott and R. Amit, "The Fit Between Product Market Strategy and Business Model: Implications for Firm Performance," *Strategic Management Journal* 29, no. 1 (January 2008): 1-26.
9. C. Loch, C. Zott, A. Guttman, P. Jokela and D. Nahmias, "FriCSO (A): How to Translate a New Technology into a Business (Model)," case no. 608-025-1 (Fontainebleau, France: INSEAD, 2008); C. Loch, C. Zott, A. Guttman, P. Jokela and D. Nahmias, "FriCSO (B): Designing the New Business Model," case no. 608-026-1 (Fontainebleau, France: INSEAD, 2008); C. Loch, C. Zott, A. Guttman, P. Jokela and D. Nahmias, "FriCSO (C): Executing the New Business (Model)," case no. 608-027-1 (Fontainebleau, France: INSEAD, 2008); and C. Zott, B. Biren and I. Bancerek "Webraska: Evolving with the Wireless Market," case no. 802-008-1 (Fontainebleau, France: INSEAD, 2003).
10. E. Brynjolfsson and L. Hitt, "Intangible Assets and the Economic Impact of Computers," in "Transforming Enterprise," ed. W. Dutton, B. Kahin, R. O'Callaghan and A.W. Wyckoff (Cambridge, Massachusetts: MIT Press, 2004), 27-48.
11. See L. Applegate, L. Schlesinger and D. Delong, "Taco Bell, Inc.: 1983-94," case no. 9-398-129 (Boston: Harvard Business School, 2001).
12. J. Santos, B. Spector and L. Van Der Heyden, "Toward a Theory of Business Model Innovation Within Incumbent Firms," working paper 2009/16/EFE/ST/TOM, INSEAD, Fontainebleau, France, 2009.
13. We note in this context that although the "what" of the business model may change (i.e., what activities are included), the "what" of the customer offering (i.e., what product or service the customer buys) may or may not remain unchanged.
14. Amit and Zott, "Value Creation."
15. S. Banerjee, R. Kahn, C. Petit and J. White, "Dare to be Different: Why Banking Innovation Matters Now," executive brief, IBM Institute for Business Value, Somers, New York, 2006.
16. H. Chesbrough, "Open Business Models" (Boston: Harvard Business Review Press, 2006).
17. K. Nagayama and P. Weill, "7-Eleven Japan Co. Ltd.: Reinventing the Retail Business Model," CISR WP 338 and MIT Sloan WP no. 4485-04 (Cambridge, Massachusetts: MIT Sloan School of Management, January 2004).
18. B. Stelter, "Group of Magazine Publishers Is Said to Be Building an Online Newsstand," *New York Times*, Nov. 25, 2009, sec. B, p. 3; also see www.nextissue.com.
19. Amit and Zott, "Value Creation."
20. *Ibid.*
21. www.betterplace.com.
22. A. Brandenburger and H.W. Stuart, Jr., "Value-Based Business Strategy," *Journal of Economics and Management Strategy* 5, no. 1 (March 1996): 5-24.
23. C. Zott and R. Amit, "Business Model Design and the Performance of Entrepreneurial Firms," *Organization Science* 18, no. 2 (2007): 181-199.
24. M.E. Porter, "Competitive Advantage: Creating and Sustaining Superior Performance" (New York: The Free Press, 1985).
25. F. Santos, "Toward an Entrepreneurial Theory of Boundaries: The Scalability of Firms in Nascent Markets," unpublished manuscript.
26. Zott and Amit, "Business Model Design"; Zott and Amit, "Fit Between Product Market Strategy and Business Model."
27. The McGraw-Hill Companies are active in the financial services, education and business information markets through leading brands such as Standard & Poor's, McGraw-Hill Education and J.D. Power and Associates.

Reprint 53310.

Copyright © Massachusetts Institute of Technology, 2012.

All rights reserved.

How Strategic Is Your Board?

Many corporate boards lack clarity about their role in strategy. A structured assessment of the board's strategic responsibilities — and how these should evolve if the company's competitive context shifts — can change that.

BY DIDIER COSSIN AND ESTELLE METAYER

IN A WORLD where business models are evolving rapidly and new competitors can emerge almost overnight, strategic thinking — especially at the top of the company — is more important than ever to a company's survival. Unfortunately, boards of directors have no clear model to follow when it comes to developing the strategic role that is best suited to the company they oversee. At one extreme, the board does little more than rubber-stamp the CEO's decisions, while at the other, the board constantly second-guesses the executive team. Neither extreme adds value.

As with other leadership roles, the one played by the board varies with the company's culture and the norms and legal requirements of its home country, as well as the norms of the industry. More importantly, the board must play a role that matches the strategic needs of the company and the state of its sector. The board of a young company usually needs to wrestle with different strategic



THE LEADING QUESTION

Is your board equipped to handle your company's strategic challenges?

FINDINGS

- ▶ The strategic role of the board varies, depending on factors such as culture and a country's legal requirements.
- ▶ Boards can supervise, cocreate or support strategy.
- ▶ Boards should be prepared to change their role in strategy if the industry context changes.

issues than the board of a long-established company, and the board of a company in a young and chaotic industry generally needs to operate differently than the board of a company in a mature industry. In this article, we will look first at how to assess the strategic value that your board currently delivers; second, at whether that value matches your company's needs, based on the current competitive situation; and finally, if there isn't a good fit, how to realign your board's style so that it meets your company's current needs. (See "About the Research.")

Three Strategic Dimensions

Three dimensions shape the board's contributions to strategy. These factors differ from culture to culture and from company to company, but they are always present in varying degrees:

1. A Definition of Strategy Companies define strategy in different ways, depending on their place in their industry and the nature of their industry. Often boards go wrong simply because they have not defined the right measures of competition or the right challenges on which to focus.

2. The Role of the Board The board's role in strategy may range from that of advisers who supervise the strategy to full coauthors of the company's game plan. The particular role a board plays shapes its participation in the strategy debate in several distinct ways that each have pluses and minuses.

3. The Context of the Company The board's involvement in strategy also depends on the context or environment in which the company competes. If the company operates in a market that has a fairly simple and stable competitive dynamic, the board may be well advised to remain distant and largely hands-off on strategy questions. In a more chaotic context, however, a board may choose to take a stronger, hands-on approach to strategy development.

These three variables, and the interactions among them, make determining a board's responsibilities for strategy a complex decision. In our view, the best way to understand and clarify your board's optimal role is to first create a "map" of your company's strategic direction by analyzing the

three dimensions in detail. You can then use that map to make a choice about what degree of involvement would serve the company best.

Define What Strategy Means to Your Company

The first step is to define what your company means by strategy. This might sound pedantic, but a shared understanding of how the company defines its strategic issues is actually of great practical importance. Strategy means many different things to different people,¹ and lack of clarity about what it means can prevent management from taking full advantage of competitive opportunities.

We believe there are at least five ways of looking at strategy:

1. Strategy as Planning The most traditional view of strategy sees its chief aim as the definition of the company's long-term objectives, action programs and resource allocation priorities. It is exemplified by the kind of structured, step-by-step process that gave birth to the notion of "strategic planning," which remains a cherished practice in most corporations, despite widespread criticism of it by many management thinkers who argue that it has many shortcomings.² Because strategic planning generally happens annually, it shares the same shortcomings for companies as for countries with centrally planned economies: misallocation of resources when market conditions change and difficulty responding to changed realities.

2. Strategy as a Redrawing of Competitive Boundaries Here, strategy is used to redefine the company's competitive domain. In the past few years, for example, Nestlé S.A. redefined its strategic arena from food to "nutrition, health and wellness," creating opportunities that go far beyond food and beverages, and opening the door to a wide variety of new possibilities. In a more radical redefinition, Fujifilm not only survived but thrived during the transition from film to the digital age. Even as its traditional competitor Kodak foundered, Fujifilm succeeded because it developed a new vision of its strategic imperatives and acted on that vision. Fujifilm decided to use its knowledge of chemicals to diversify into areas such as a new line

of antioxidant cosmetics as well as optical films for LCD flat-panel televisions, while Kodak struggled to redefine its mission beyond its heritage as a film and camera brand.

3. Strategy as a Focused Response to a Key Challenge This kind of strategy³ begins with the diagnosis of a key challenge. The challenge may come from risks and opportunities in the economic and business environment (for example, rising oil prices), or it may arise from the competitive landscape (for example, a new business model from a competitor). It may even stem from internal issues such as an organizational structure that does not allow full value creation.

Identifying, assessing, managing and structuring the risks and opportunities related to a key challenge can lead to a clear and focused strategy. For instance, corporations used to operating in the face of great uncertainty, such as natural resource or commodity players, tend to keep a close eye on risks and opportunities. They are well aware of the break-even points in the prices of their key commodities and the dynamics of capital investment in volatile markets, and their strategies are closely linked to these dynamics. For example, under the leadership of former CEO Peter Voser, Royal Dutch Shell plc committed to the largest capital expenditures program in the industry while restructuring the company — an implicit bet that oil prices would continue to rise even as high production costs shrank margins. Voser diagnosed a challenge (increasingly difficult access to oil and gas resources), designed a guiding policy (focus the organization on large capital expenditures and demand gains in efficiency) and organized a coordinated set of actions (cost restructuring, reorganization and cash-flow management) to support that policy.

4. Strategy as the Development of Core Competencies Companies often focus on how to continue to deliver value as a market evolves. IBM's research division successfully reinvented itself time and time again by reconfiguring its core strategy of transforming research into new products for the marketplace. From the 1940s until the 1970s, the research division relied mostly on corporate funding to underwrite long-term research projects. In

ABOUT THE RESEARCH

The methodology presented in the article stems from clinical work with more than 20 organizations and more than 300 directors from around the world. The organizations we worked with included large publicly traded companies, family businesses, privately owned corporations, financial institutions, membership organizations, state-owned enterprises and a multinational organization. The work was conducted over a period of four years in different settings. The organizations were based in North America, Europe, Asia and the Middle East.

The work involved a range of strategic issues in corporate governance, including:

- Working with an organization on how to design a new strategy with board involvement.
- Establishing the governance review of a board to assess its effectiveness at handling strategic issues (based on a confidential survey of board members and management).
- Working with a board to build productive strategic discussions with the management team (and in several cases repair a board-management relationship that had become strained around strategic issues).
- Working on a process of improvement for board strategic discussions.
- Leading education sessions for board members on how to lead a strategic reflection from the board, in a productive relationship to management.

The authors worked closely with chairmen and CEOs as well as with members of the board, including members of the strategy committee when such a committee existed. The research included work with organizations in the following industries: banking, industrial manufacturing, pharmaceuticals, telecommunications, broadcasting, luxury goods, aviation, hotel management and humanitarian activities.

the 1970s and 1980s, it emphasized collaborative teams and shorter-term projects funded by the business units. In the 1990s, the research division began to look to its customers' research divisions to jointly develop innovative new projects. Now IBM researchers have imitated a venture capital model to fund promising new ventures.

5. Strategy as Optimizing the Value Created for Stakeholders Here, strategy consists in defining, monitoring and optimizing how the company can maximize benefits for its customers and other stakeholders. For example, a number of banks moved toward a deeper customer focus following the 2008 financial crisis. In Canada, for example, Toronto-based TD Bank Group went all out in its efforts to court customers, especially those working full time, by undertaking a variety of new measures, such as offering early morning and Sunday hours for their convenience.

Given the range of possible approaches to strategy, boards need to begin by clarifying which interpretation of strategy they want to focus on or, if several matter, which one matters most. This is by no means a static decision: One view of strategy

may be more essential to the success of the organization in the medium term, but another will need to take priority over the long term. Boards may even need to examine different time periods (for example, five versus 25 years) in their consideration of strategy. Having this discussion with management is invaluable — and a great way to stop the all-too-common “death by PowerPoint” that takes place at many board meetings. Many disagreements within boards, and between boards and executives, can be avoided by examining and identifying the board’s role in how it defines its strategic function. For instance, a board that sees its primary focus as adding value for customers can help clarify this strategic objective for executives. Or a board that sees its mission as helping the CEO steer clear of large risks during difficult times can focus on profiting from board members’ experience.

Boards can begin to assess their optimal strategic function by ranking the five possibilities in terms of which matter most to them. We find that one effective way to do this is to ask every board member to assign points to each of these five definitions and then tally the results to uncover the differences in views and determine which approach or approaches rank highest among all board members. Such a process provides an opportunity to air different perspectives and build a coordinated view across the board.

Determine the Board’s Role

The next step is to determine what roles the board should play in light of its strategic priorities. Boards typically play up to three roles:

1. Supervisor In a supervisory role, the board spends its time monitoring corporate performance and executive team behavior. The board ensures the performance of the organization and its executives in selecting a course of action and implementing it. Board members supervise everything, including strategy development, design and implementation. This requires the board to develop specific supervisory skills including a systematic view, attention to detail and an understanding of consistency and control, all of which can be adapted to supervising not only results but also strategy. The board must engage in a process of probing and sensing underlying

conditions in the company by using appropriate metrics, hard and soft, while paying attention to risks, strategic inconsistencies and flaws that could threaten the business. Developing these supervisory skills is thus a prerequisite for board supervision of strategy. However, such skills are not necessarily valued in boards as much in the West as in other cultures such as China, where large corporations are closely supervised by government agencies that continuously monitor organizational and individual performance. For example, Xu Shanda, an independent director of the Industrial and Commercial Bank of China Ltd., based in Beijing, has said his past supervisory experience with tax authorities at the ministry level is an important asset to the bank that would be less valuable to a Western company.

2. Cocreator A board may contribute directly to company performance by cocreating the strategy of the company. Industry experience beyond the company, managerial experience beyond the industry and contacts with many stakeholders (whether governments, customers, society or employees) often give board members a broader perspective than company executives have when it comes to understanding trends and the complexity of today’s business world. By pursuing a cocreative role, boards can help open the minds of executives and steer the strategy debate beyond any cultural blind spots. Such blind spots typically arise from executive myopia due to corporate, historic or strategic biases. An executive strategy retreat with the board or a highly structured yearly strategy meeting can yield an opportunity, implicitly or explicitly, for cocreation that takes executives beyond their strategic preconceptions. Starting out with supervisory questions (for example, what are your principal moves to achieve your strategic objectives? What are your fallback options?) and pursuing support issues (such as gaining alignment between board and management and enforcing corporate commitment to the strategy) can lead to reflection, which, in turn, may inspire some level of strategy cocreation. Successful strategy cocreation typically leverages both the internal information held among the management team and the external information and experience of the board to produce a longer-term perspective with more options and flexibility than may come from

managerial views alone. As part of strategy cocreation, boards may engage with management about the company's definition of strategy.

3. Supporter In this role, the board acts largely as a support to management, lending the executive team its credibility and authority (or, in some cases, withholding its support to pressure management). Although distant from management, the board adds value by garnering support for the company both within and outside the company. Distance gives the board objectivity and authority; its stamp of approval brings credibility and weight to major strategic shifts as well as subtle ones. The board also helps management in realms the latter cannot easily reach: governments, social movements, stakeholders and so on. In times of crisis, a supportive board can be critical not just to success but to the survival of the company. In general, board members can be invaluable in steering a company clear of serious obstacles. For instance, the work done by Antony Leung, former financial secretary of Hong Kong, to encourage the Industrial and Commercial Bank of China to establish a

supportive international board of Chinese diaspora members probably smoothed the company's transition from a major domestic Chinese financial institution to an international bank.

In the same way that boards can rank and map their definitions of strategy across the five possibilities, they can also describe the roles they currently play — supervisory, cocreative, supportive or a combination of these — to gain greater clarity about the role they need to play. For example, a board cannot decide to act in just a supportive role unless it is convinced of the quality of corporate choices, behaviors and performance the leadership team produces. On the other hand, a board may not have the necessary skills to take on a supervisory role and may prefer to work toward a more cocreative one, cooperating with management on strategy. What counts is that the board understands its role and how that affects the nature of its involvement in strategic questions. (See “The Board's Contributions to Strategy.”) Once the board achieves clarity about strategic ends and means, its members can better address how they will support strategy and organize their communication and contacts with internal and external stakeholders.

THE BOARD'S CONTRIBUTIONS TO STRATEGY

The three types of board roles intersect with the five dimensions of strategy to yield a variety of ways in which the board can add value to strategy.

APPROACH TO STRATEGY	BOARD'S ROLE		
	Support	Cocreation	Supervision
Strategy as Planning	<ul style="list-style-type: none"> •Process for scanning for weak signals 	<ul style="list-style-type: none"> •Shaping “a pattern in a stream of decisions”ⁱ 	<ul style="list-style-type: none"> •Key performance indicators •Evaluation by board •Supervisory skill sets
Strategy as Focus/Scope	<ul style="list-style-type: none"> •Challenging assumptions •Supporting strategic focus 	<ul style="list-style-type: none"> •Board members' diverse frames of reference •Identifying strategic blind spots •Scenario planning •Industry convergence analysis 	<ul style="list-style-type: none"> •Monitoring the consistency of the strategic focus
Strategy as Response to Threats/Risk	<ul style="list-style-type: none"> •Competitive blind spot analysis 	<ul style="list-style-type: none"> •Insights on global and industry trends 	<ul style="list-style-type: none"> •Independent intelligence stream
Strategy as Competitive Advantage	<ul style="list-style-type: none"> •Capabilities identification 	<ul style="list-style-type: none"> •Offering “alien eye” perspectives from other industries 	<ul style="list-style-type: none"> •Strategic benchmarking •Strategic coherence
Strategy as Contribution to Stakeholders	<ul style="list-style-type: none"> •Stakeholder intelligence 	<ul style="list-style-type: none"> •Stakeholder engagement 	<ul style="list-style-type: none"> •Stakeholder measurement and benchmarking

Assessing the Business Context

Finally, the context in which the company works should inform the board's strategic leadership stance. A framework for the leadership's decision making can provide a good context for evaluating board decision structures.⁴ We typically see four context types:

1. Simple Context A *simple context* consists of repeating patterns that have clear cause and effect. This context allows for fact-based management. Supervising the organization's established processes, the use of best practices and optimizing communication for clarity are central to board work in this context.

2. Complicated Context A *complicated context* usually requires the services of experts. Having experts on the board with diverse views and extensive industry experience helps capture otherwise unknown information and facts that could threaten the health of the company. In a complicated context, a board should also start paying attention to the blind spots of its executives (such as a false sense of confidence) and obtain alternative views.

3. Complex Context A *complex context* is full of ambiguities and unpredictability that go far beyond a complicated context. In such situations, the

board should not spend its time second-guessing the CEO but rather should seek out its own sources of information so it can make up its own mind about strategic decisions. It also should minimize the extent to which it delegates reflection and action, as these should remain as much as possible within the board. Frequent interaction with the executive team and external sources of information is essential to capture market shifts quickly.

4. Chaotic Context A *chaotic context* is full of turbulence and shifts that are sometimes hard even to identify. Outcomes are highly uncertain, and no one, not even experts, can assess them well. This creates tensions and conflicting points of view. It multiplies the number of significant decisions to make and requires greater reassurance within the organization. In a chaotic context, the board's role often becomes highly visible. Opportunities and risks abound, and a strong board can make a decisive difference, while a divided, weaker board can threaten the life of the organization.

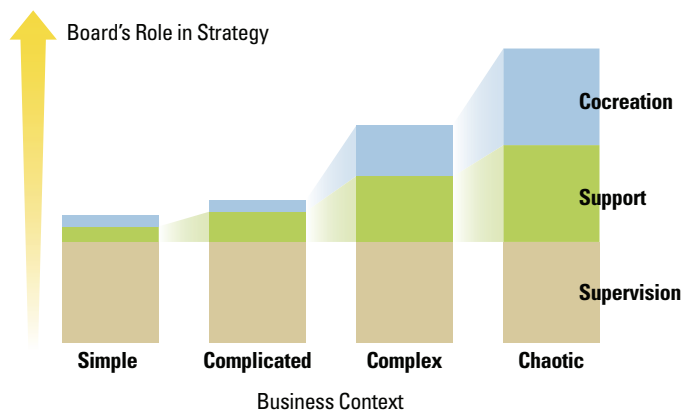
In today's fast-moving world, the business context can quickly shift from simple to complicated and from complicated to complex and even chaotic. In general, boards tend to get bogged down with issues that are complex but often nonstrategic (such as financial filings and operations). When determining their role in strategy, board members should take into account the context in which they believe the organization operates. Is the context stable — or might it change at some point? (See "How the Board's Role Changes.")

We find that boards can add the most value in complex or chaotic situations, where executive teams are typically overwhelmed and lack the diversity of views needed to fully understand the situation. When the dominant context becomes complex or chaotic, a dozen heads are usually much better than one. In complex or chaotic contexts, resilience and company survival require early detection and the ability to interpret, to engage confidently, to recover and to exploit opportunities quickly. These are times when experience, judgment and the willingness to make a dramatic shift — for example, removing rather than steering a CEO — are crucial to the organization.

All boards must be prepared to adapt to changes in context. They should be ready to shift not only

HOW THE BOARD'S ROLE CHANGES

The dominant role of the board in strategy (cocreation, support or supervision) should evolve, depending on the context the company faces. The overall time the board spends on strategy supervision does not change, but as the company's environment becomes more challenging, the board should increase the time it spends on supporting and cocreating strategy. In a chaotic environment, the board will spend roughly equal amounts of time on strategy cocreation and strategy supervision.





Today's chief executives are overstretched and confronted with rising levels of complexity from society, governments, alternative business models, global changes and economic volatility.

their strategic goals but their understanding of their own role. As contexts change, giving priority to customers may matter less when employee safety or the entire organizational reputation is at stake (for example, during a disaster such as the BP Deepwater Horizon oil spill in 2010). A rebalancing not only of strategic priorities but also the underlying strategic focus may become essential. As a result, the board may need to act quickly, taking a much more hands-on, nearly managerial approach.

The Impact of Context

Today's chief executives are overstretched and confronted with rising levels of complexity from society, governments, alternative business models, global changes and economic volatility. Even the best executives cannot be expected to respond consistently well to all these challenges, especially when the environment turns chaotic. Matching the right environment to the right kind of board activity is surprisingly straightforward. In our experience, most contexts demand that the board follow a particular strategy:

Simple: In a simple context, the dominant strategy is to operate according to a plan. The board should take a supervisory role that typically focuses on execution and optimization, driving such initiatives as Six Sigma or a lean supply regime.

Complicated: In a complicated context, a planning or core-competency strategy will tend to dominate. The board's role remains supportive and supervisory, however, and the board tends to focus on improving the executive team's precision and sophistication, often by recruiting the help of outside experts.

Complex: In a complex context, boards should support and supervise strategy — and sometimes even cocreate it. A complex context tends to incorporate the traits of every other context.

Chaotic: No one strategy dominates in a chaotic context, but in high-functioning companies, boards will tend to take charge more. They are

usually more involved and more concerned about risk management.

In all types of business contexts, however, companies today need strong boards that comprise focused and dedicated individuals. These individuals must have access to accurate and well-organized information and be able to establish meaningful structures and processes and implement board dynamics that foster effective debates that result in good decisions and actions. But even the most exceptional board can fail if it tries to fulfill the wrong strategic role at the wrong time. Reflecting on a company's strategy and the board's role in developing that strategy is important to the success of any board.

Didier Cossin is a professor of governance at IMD in Lausanne, Switzerland, and is director of the IMD Global Board Center. Estelle Metayer is the founder and president of Competia, a consulting firm that advises boards and executives on strategic issues; she is also an independent director on the boards of two public companies and an adjunct professor at McGill University in Montreal. Comment on this article at <http://sloanreview.mit.edu/x/56112>, or contact the authors at smrfeedback@mit.edu.

REFERENCES

1. Scholars have long debated the definition of strategy. For a range of such strategy definitions, see A.C. Hax and N.S. Majluf, "Strategy and the Strategy Formation Process," Sloan School of Management working paper no. 1810-86, August 1986, available at <http://dspace.mit.edu>.
2. See H. Mintzberg, "The Rise and Fall of Strategic Planning" (New York: The Free Press, 1994).
3. D.J. Snowden and M.E. Boone elaborate on this framework. See D.J. Snowden and M.E. Boone, "A Leader's Framework for Decision Making," Harvard Business Review 85, no. 11 (November 2007): 68-76.
4. R. Rumelt illustrates this view. See R. Rumelt, "Good Strategy Bad Strategy: The Difference and Why It Matters" (New York: Crown Business, 2011).
- i. H. Mintzberg, "Patterns in Strategy Formation," Management Science 24, no. 9 (May 1978): 934-948.

Reprint 56112.

Copyright © Massachusetts Institute of Technology, 2014.
All rights reserved.

Closing the Gap Between Strategy and Execution

In fast-paced industries, companies should think of strategy as an iterative loop with four steps: making sense of a situation, making choices, making things happen and making revisions.

Donald N. Sull

In an ideal world, managers could formulate a long-term strategy, methodically implement it and then sustain the resulting competitive advantage. Reality, however, is rarely so neat and tidy. Technologies evolve, regulations shift, customers make surprising choices, macroeconomic variables fluctuate and competitors thwart the best-laid plans. Thus, to execute strategy as circumstances change, managers must capture new information, make midcourse corrections and get the timing right because being too early can often be just as costly as being too late. But how can managers implement a strategy while maintaining the flexibility to roll with the punches?

The first step is to abandon the long-held view of strategy as a linear process, in which managers sequentially draft a detailed road map to a clear destination and thereafter implement the plan. This linear approach suffers from a fatal flaw: It hinders people from incorporating new information into action. How so? First, the linear approach splits the formulation of strategy from its execution. (Indeed, many business schools still teach formulation and implementation as separate courses.) Thus planners craft their strategy at the beginning of the process, precisely when they know the least about how events will unfold. Executing the strategy, moreover, generates new information — including the responses of competitors, regulators and customers — that then becomes difficult to incorporate into the prefabricated plan. Second, a linear view of strategy pushes leaders to escalate commitment to a failing course of action, even as evidence mounts that the original strategy was based on flawed assumptions.¹ Leaders commit to a plan, staking their credibility on being right. When things go awry (the U.S. involvement in Vietnam is a classic example), they find it difficult to revise their strategy and instead attribute problems to “unexpected setbacks,” which is just another way of saying new information. Third, a linear approach ignores the importance of timing. When companies view strategy as a linear process, they sprint to beat rivals. But rushing to execute a flawed plan only ensures that a company will get to the wrong place faster than anyone else. Instead, managers need to notice and capture new information that might influence what to do and when to do it, including the possibility of delaying as well as accelerating specific actions.

Many managers, of course, recognize these limitations and attempt to work around them. One approach is to identify big bets up front and then think exhaustively in the planning process to envision possible outcomes *ex ante*.² But managers can rarely identify all the factors that will end up mattering in the future, let alone predict how events will unfold. Another approach is to accept the presence of uncertainty, make a best guess on a strategy based on the data at hand, commit to the strategy and then hope for the best.³ But even though executives might try to mitigate risk by, for example, diversifying their lines of business, the fundamental logic remains: Place your bets and take your chances.

Donald N. Sull is an associate professor of management practice at the London Business School. Comment on this article or contact the author through smrfeedback@mit.edu.

There is an alternative. Instead of thinking of strategy as a linear process, why not consider it as inherently iterative — a loop instead of a line? According to this view, every strategy is a work in progress that is subject to revision in light of ongoing interactions between the organization and its shifting environment. To accommodate those interactions, the strategy loop consists of four major steps: making sense of a situation, making choices on what to do (and what not to do), making those things happen and making revisions based on new information. (See “About the Research,” p. 32 and “The Strategy Loop,” p. 33.) These steps can be embedded within formal processes, such as strategic planning, budgeting, resource allocation or performance management, but they should also be contained within the myriad informal conversations that fill out the typical manager’s day. And these discussions should not be concentrated at the top; they must take place at every level of the organization. Strategy will remain stranded in the executive suites unless teams throughout the organization can effectively translate broad corporate objectives into concrete action by mak-

ing sense of their local circumstances, making choices on how best to proceed, making things happen on the ground and making revisions in light of recent events.

The fundamental advantage of strategy loops is their ability to incorporate new information and translate it into effective action. They integrate formulation and execution into a strategic yin and yang that cannot be separated. They also explicitly call for ongoing revision as new information emerges, mitigating the tendency to escalate commitment to a failed course of action. Finally, by breaking time into discrete chunks (defined by each iteration) and by building in an explicit step for revision, they increase the odds that managers will spot changes in context that open a window of opportunity and will act before the window closes.

Reconceptualizing strategy as an iterative loop is simple enough, but putting that new mind-set into practice is extremely difficult. Here, the crucial thing to remember is that discussions — formal and informal, short and long, one-on-one and in groups — are the key mechanism for coordinating activity inside a company, especially within large corporations. Thus, to put the strategy loop into practice, managers at every level in the organization must be proficient at leading discussions that reflect the four major steps (making sense, making choices, making things happen and making revisions).

All too often, though, conversations at companies bog down in an endless series of unproductive meetings in which the usual suspects cover the same ground without making progress. Frustration mounts as participants “spin their wheels” or “talk in circles.” To avoid that, managers should start by asking a simple question: Are we having the right type of conversation? Specifically, are we trying to make sense, prioritize, make things happen or revise assumptions? (See “What Are We Talking About?” p. 35.) Moreover, managers who understand the intricacies of the four different types of discussions will be better able to translate understanding into action — and to revise both understanding and action in light of new information.

Although each type of discussion is simple in principle, they are all prone to breakdowns in practice. Indeed, the path through the strategy loop is strewn with pitfalls, but the crucial thing is that each of the four types of discussions has a different objective, requiring a specific tone, supporting information, leadership traits and accompanying tactics. (See “Discussions Through the Strategy Loop,” p. 36 for a high-level summary of those differences.)

Making Sense of a Situation

The first step of the strategy loop consists of gathering raw data from different sources to identify patterns from a welter of information that is complex, incomplete, conflicting, ambiguous and of uncertain reliability. The objective is to develop a shared mental model that helps people anticipate how events might unfold. But the goal of the process should not be accurate long-term predictions. Instead, people should strive for just enough clarity to proceed through one iteration of the strategy loop.

To make sense of a situation, managers should establish a tone of open inquiry rather than advocacy. Teams are most likely to make sense of novel situations if they dig into the data with an open mind. In this step, the advocacy of a preconceived interpretation can be dangerous. Consider the Cuban missile crisis.⁴ While President John F. Kennedy was trying to assess the situation, his military advisers reflexively advocated invading Cuba, a course of action they had favored for some time, even though the specific situation at hand suggested that a military strike could easily escalate into nuclear war.

Research on effective decision making has found that groups in rapidly changing markets do best to avoid anchoring too quickly on a single view.⁵ In novel situations, the best interpretation is rarely obvious, and the obvious one is often wrong.

Therefore, the discussion leader must ensure that participants feel safe to put forth alternative interpretations.⁶ Kennedy's team might have settled on the "obvious" interpretation that Nikita Khrushchev's intentions were hostile, but Llewellyn "Tommy" Thompson, a former ambassador to the Soviet Union, argued that the Soviet leader probably felt backed into a corner and might accept a face-saving way to de-escalate the tensions — an interpretation that proved accurate. (This example also illustrates the benefit of empathy in making sense of an ambiguous situation. Thompson knew Khrushchev personally, which helped him to see the situation from Khrushchev's perspective rather than viewing the Soviets as an abstract enemy.)

Instead of passively waiting for divergent views to emerge, leaders can actively stimulate them. President Kennedy required his advisers to generate different alternatives to a military strike, which made it safe for them to discuss the apparently "soft" options of blockade and diplomatic negotiation — alternatives that ultimately prevailed, allowing the United States to avoid a nuclear war. A quick test of whether a team feels comfortable proposing alternative interpretations is to track the number of framings that were proposed and seriously discussed.

Conversations to make sense of a situation can, of course, derail in many ways. The team might cower before a powerful

About the Research

Over the past decade, I have investigated dozens of companies in volatile markets. The core of this research consisted of comparative case work analyzing how similar companies in highly uncertain environments responded to unexpected opportunities and threats.¹ The first study contrasted 10 pairs of established Brazilian firms, in which the focal company succeeded during the turbulent decade of the 1990s while its matched pair was less successful. The second study followed a similar design, matching six Chinese startups that adapted successfully to shifting environmental conditions with similar, but less successful, ventures (with an additional two companies analyzed without a matched pair). In both studies, conversations within the company were a central research focus, and I conducted

hundreds of one-on-one interviews, supplemented by a review of archival records within the businesses and direct observations of management team meetings.

The development of the strategy-loop framework is the result of that research as well as a general review of the existing literature on iterative processes and agility in diverse domains, including entrepreneurship, military theory and software programming. Reviewing those diverse fields provided insight into the fundamental characteristics of strategy loops that appear to be robust across domains. In addition, a review of the existing literature on decision making helped refine and enhance the different steps within the strategy loop.

Concepts of the strategy loop have been implemented at several companies

to enhance their quality of discussions. In this research, I typically worked with dozens (and even up to hundreds) of managers at various levels within each firm over the span of months (and sometimes years). A typical session would last approximately two days, during which the participants would learn about the framework, complete a diagnostic exercise to identify common breakdowns in their organization at each stage in the strategy loop and collectively brainstorm to develop tactics for overcoming those obstacles. I have also worked directly with various management teams, observing their formal and informal meetings to identify impediments to effective discussions and to coach the participants on potential ways to improve those discussions.

i. D.N. Sull and M. Escobari, "Success Against the Odds: What Brazilian Champions Teach Us About Thriving in Unpredictable Markets" (São Paulo: Elsevier, 2003); and D.N. Sull with Y. Wang, "Made in China: What Western Managers Can Learn From Trailblazing Chinese Entrepreneurs" (Boston: Harvard Business School Press, 2003).

In novel situations, the best interpretation is rarely obvious, and the obvious one is often wrong. Therefore, the discussion leader must ensure that participants feel safe to put forth alternative interpretations.

leader, lapse into “groupthink” or ignore the available data when forming conclusions. One warning sign is when some participants check out of the conversation altogether, perhaps because they believe the leader has already made a decision in a “meeting before the meeting” and is just trying to obtain everyone’s buy-in.

One of the most dangerous pitfalls is when a team prematurely develops a “bias for action.” This risk is particularly acute among managers who pride themselves on getting the job done. The result: The team shortchanges the sense-making discussion and jumps right into a debate about what to do and how to do it. But if the conversation rushes too quickly through the messy thrashing around of sense making, managers risk diving into the details of implementation before they’ve explored alternative assessments, surfaced and checked key assumptions, or tested the fit between their interpretation and the facts on the ground. Executives can mitigate this risk by separating discussions to make sense from those to make choices. For example, the top management team of Diageo Ireland, which handles alcoholic beverages such as Guinness, Smirnoff and Baileys, breaks the monthly performance management process into distinct meetings. On the second day of the month, managers update their assessment of the market situation and identify possible issues, and on the seventh day they decide what to do, thereby reducing the risk of short-changing sense making in a rush to action. When action proposals do arise in sense-making discussions, the leader can dig backward to unearth and examine the assumptions that underlie the plan of action rather than rush forward into details of implementation. Questions that help uncover that information include, “If that’s the solution, what exactly is the problem?” and “What fresh data would convince us that this is the wrong course of action?”⁷

Guiding discussions to make sense requires a distinct set of management traits. The first is *coup d’oeil*, or the ability to grasp the essence of a situation based on limited data, akin to a person quickly being able to visualize the overall picture of a jigsaw puzzle after glimpsing just a few pieces. Another critical attribute is curiosity. Managers with that trait remain open to new interpretations and are likely to explore unfamiliar ways of framing a situation. Curiosity also helps people remain alert to weak signals from many different sources — an important skill because the

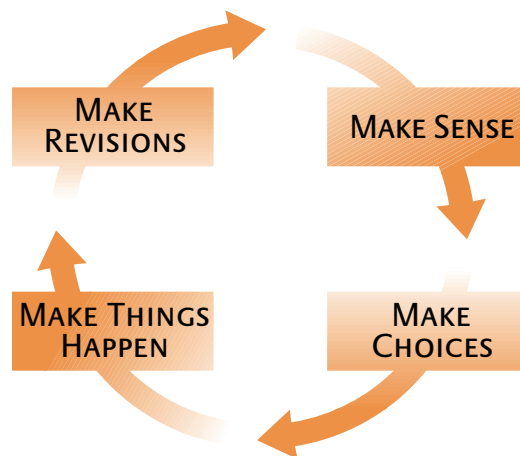
crucial piece of a puzzle often comes from an unexpected source. That’s why some leaders use specific techniques to reinforce their curiosity. Robert Rubin, the former U.S. Treasury secretary and co-managing director of Goldman Sachs & Co., would tackle any new situation, from evaluating a risk arbitrage deal to managing an economic crisis, by pulling out a pad of yellow legal paper to write down a long list of questions — in stark contrast to many managers who try to affirm authority by asserting answers rather than asking good questions.⁸ Finally, leaders need to do more than just tolerate different points of view; they must actively seek them out. Various tactics can help, including arguing the opposite of a given position and appointing a devil’s advocate to probe contrary views.

Making Choices

The objective of discussions to make choices is a small set of clear priorities that will focus organizational resources and attention. Determining the right priorities is a critical function of management under any circumstances, but the process is all the more important (and difficult) in dynamic markets. In such environments, the constant deluge of potential opportunities

The Strategy Loop

The strategy loop is an iterative process that consists of four major steps.



The most successful companies did not seek complete consensus, but neither did they go to the other extreme of having one person call all the shots. Instead, they followed a policy of “qualified consensus.”

and threats can lead managers to hedge their bets against every foreseeable contingency, thereby spreading corporate resources too thin and failing to execute on key initiatives. Conversations to make choices conclude when a group agrees on a set of priorities that are both consistent with its interpretation of the situation and sufficiently concrete to be understood by everyone required to execute the strategy.

These conversations are, at their core, about making hard trade-offs. As a result, the leader should establish a tone of respectful argumentation, in which team members can express valid disagreements that might otherwise simmer below the surface. Without active efforts to stimulate debate, these conversations can easily drift toward superficial agreement while unresolved conflicts lurk below. The danger is particularly acute if prioritization becomes politicized — participants from different business units refrain from challenging an initiative to respect a colleague’s turf, for example, or they horse-trade support for their pet initiatives. Leaders can actively counterbalance such tendencies by insisting that all choices be made in public meetings, thus adding transparency to the process, which can help keep political prioritization in check. In addition, holding team members collectively responsible for delivering on priorities will increase their willingness to raise potential conflicts in order to avoid being held accountable for initiatives that are ill-advised for the organization as a whole.

Discussions to make choices frequently derail when people add priorities without either increasing resources or removing other initiatives. Such cases of priority proliferation can arise when managers make decisions by focusing on specific issues in isolation without considering the existing portfolio of activities going on within the organization. As a result, decision makers fail to consider which current activities they should terminate to free the resources required for a new initiative and, over time, the result is a plethora of so-called priorities.

To avoid priority proliferation, managers can inject discipline into the prioritization process by making choices more explicitly and systematically. At Diageo Ireland, for instance, issues are triaged into one of three categories: soft opportunities or threats, which receive ongoing monitoring but no action; hard opportunities or threats, which require immediate action and become a priority within the company; and nonissues, which are dropped from the agenda. Teams can also adopt a small set of simple rules

to guide the prioritization process.⁹ Consider All America Latina Logistica S.A., which began life as a privatized branch of Brazil’s freight railway. The new company had only \$15 million for capital spending to offset decades of underinvestment. So, to select from among countless capital budgeting proposals, management adopted a set of simple rules, such as “eliminate bottlenecks to growing revenues,” “lowest up-front cash beats highest net present value” and “reuse of existing resources beats acquiring new.”

Simple rules can also help prevent discussions from bogging down in an endless quest for perfect agreement. Achieving consensus is, of course, desirable, but the process takes time, and the costs of delay can often outweigh the benefits, particularly in fast-moving markets. Indeed, research on successful decision making in such environments has found that the most successful companies did not seek complete consensus, but neither did they go to the other extreme of having one person call all the shots.¹⁰ Instead, they followed a policy of “qualified consensus,” in which the top management team would seek agreement up to a certain point and then invoke a set of pre-specified rules. The rules depended on the team and the decision; for example, the person with the most authority (or functional expertise) might decide, or the team might take a vote. Interestingly, the exact rules mattered less than the fact that they were clear, considered to be legitimate and known by everyone in advance.

In discussions to make choices, the central leadership quality is decisiveness, and a related trait is the ability to say no. Generally speaking, the hardest choices are not about deciding what to do; instead, they involve determining what not to do (or what to stop doing). Because such decisions might be unpopular, they must typically be based on a compelling rationale grounded in the overarching strategy and objectives of the organization. In making choices, managers should also consider the overall enterprise rather than setting parochial priorities that make sense only for their individual units. Finally, leaders need sufficient credibility to have their decisions stick. The return of company founders Steve Jobs (Apple Inc.), Charles Schwab (Charles Schwab Corp.) and Michael Dell (Dell Inc.) might stem in part from the credibility they possess within their organizations, which enables them to bring people along even when they make very difficult decisions.

Making Things Happen

A simple but powerful mechanism — the promise — can help managers make things happen.¹¹ A promise is a personal pledge a provider makes to satisfy the concerns of a customer within or outside the organization. Both “customer” and “provider” refer to roles (and not individuals), which can vary depending on the specific situation. A business unit head within a bank, for example, is a customer when requesting technology support from the chief technology officer. But she is a provider when supplying products to another division.

Companies can use promises to ensure that employees understand what they need to do and that those individuals deliver on their commitments. To a large extent, then, execution will hinge on the quality of promises made and on the consistency

with which those commitments are honored. In this context, the objective of the discussions to make it happen should solicit personal promises (between employees and their managers) to perform actions that are aligned with agreed-on priorities. The promises might take place within an existing procedure, such as performance management, or in off-line negotiations, but their purpose is the same — to weave a web of commitments that ensure coordinated action.

A common mistake is that people often equate a promise with a contract and focus on the specific clauses of what the provider has committed to deliver. But the conversations that lead to a promise and keep it alive are far more important than the actual terms of the deal. When leading such discussions, managers should adopt a tone of supportive discipline, demanding explicit promises and holding people accountable for them but also helping those individuals to deliver on their commitments. That support can take several forms, providing, for example, additional resources, relief from other priorities or the political cover needed to deliver on the commitments.

Managers should remember that the most effective promises share five fundamental characteristics: They are public, actively negotiated, voluntary, explicit and linked to corporate priorities. A commitment can easily derail when any of the five is absent. For instance, private (and not public) side deals can allow people to wriggle out of what they said they’d do. Passive (and not active) promises occur when people agree to do something without probing to understand what they are really signing up for. Coerced (and not voluntary) commitments arise when people feel compelled to accept a request — even one that is unrealistic — because it comes from someone more powerful in the organization. Vague (and not explicit) commitments offer too much scope for interpretation of what constitutes execution, making it difficult to hold people accountable. Lastly, commitments that are ad hoc (and not linked to corporate priorities) arise when people make promises that might be optimal locally but are poorly aligned with the organization’s objectives.

Scrum, which takes its name from a play in rugby, is an approach used in the software industry that exemplifies how to elicit good promises. In the process, a programming team convenes in the same place and time each workday to make and track each member’s promises publicly. During a meeting, the participants (typically fewer than 10) stand in a circle and answer the same three questions: What have you done since the last scrum? What will you do between now and the next scrum? And what’s getting in the way of you delivering on your promises? The public forum is effective because of peer pressure — people don’t want to let down their team, nor do they want their reputations to suffer from a failure to do what they said they would. Scrums also allow the programmers to actively talk through what they are promising, which helps ensure that the promises are sufficiently

What Are We Talking About?

Understanding the four types of discussions that make up the strategy loop is necessary but not sufficient. Leaders must also exercise judgment in deciding which type of conversation to have, when to have it and how to lead it most effectively. (“Discussions Through the Strategy Loop” summarizes some key differences among the four types of discussions.) The following questions should help:

- What are we talking about? This simple question often reveals a disturbing lack of focus in discussions.
- Are the right people in the room? Discussions to make sense work best when different points of view are brought to bear; making things happen requires the presence of the people who will ultimately do the work; and discussions for revision often benefit from an outside viewpoint.
- Are we currently talking about the right thing? Managers must make a call on what conversation is appropriate for the current situation. Are people jumping to choices before they’ve made sense of what is going on, for example, or are they revisiting assumptions when they should instead be getting things done? The timing of when to shift a conversation from one stage to another is a crucial decision that executives must make.
- Does the conversation have the right tone? Managers must understand what an effective discussion sounds like for each step of the strategy loop. For example, they should establish and maintain a spirit of open inquiry during discussions to make sense of a situation, and they should promote respectful arguments during discussions to make choices.
- Are we skipping key conversations? Execution-focused teams are particularly prone to ignore discussions to make sense and make revisions, while more strategic groups might favor discussions about the market but omit critical discussions to ensure that everyone does the necessary work.

explicit for others to adjust their behaviors accordingly. Moreover, work is not assigned — instead, people volunteer for it — and everyone’s commitments are always linked back to the priorities set in monthly meetings with customers.

In discussions to make things happen, the most important leadership trait is trustworthiness. Here, a manager can set the right tone by consistently honoring his or her own promises. When making a commitment, an executive takes on the responsibility for all the unexpected contingencies that could occur. As such, overcoming inevitable setbacks and obstacles requires flexible tenacity — the ability to try different courses of action until the desired results are achieved. Finally, a leader must inspire others to make ambitious promises without coercing them to do so, and one of the most effective ways to accomplish that is by linking the assignment to a mission or corporate objective that matters to the person making the commitment.

Making Revisions

Managers need to recognize emerging patterns in order to anticipate new opportunities and threats. But spotting such patterns also requires people to revise and sometimes even abandon their existing mental models, and therein lies the rub. When a person’s established patterns of thinking clash with changing circumstances, the existing mental models typically prevail. But letting go of the old is as important as spotting the new. Thus managers must keep their mental models fluid, modifying them in light of changes in the broader context. And they must remain open to the possibility of abandoning those established models altogether.

In any discussion to make revisions, people should treat actions as experiments: They should analyze what’s happened and use the results to revise their assumptions, priorities and promises. As such, the appropriate time to have such conversa-

Discussions Through the Strategy Loop				
Discussions at each stage in a strategy loop have different objectives, face different pitfalls and require distinct management approaches to improve the quality of the conversation.				
	Make Sense	Make Choices	Make Things Happen	Make Revisions
Objective	Develop a shared mental model of a situation	Agree on clear priorities to guide action and resource allocation	Ensure that people make good promises and deliver	Sense anomalies and revise key assumptions
Appropriate Tone	Open inquiry	Respectful argumentation	Supportive discipline	Dispassionate analysis
Information Support	Shared dashboard of real-time, granular data	Ongoing monitoring of “hard” and “soft” priorities	Monitor performance against promises	Variance reporting of key variables to spot anomalies
Required Leadership Traits	<ul style="list-style-type: none"> • Coup d’oeil • Curiosity • Empathy to see other points of view 	<ul style="list-style-type: none"> • Decisiveness • Enterprise perspective • Credibility to make the call 	<ul style="list-style-type: none"> • Trustworthiness • Flexible tenacity • Ability to inspire others 	<ul style="list-style-type: none"> • Intellectual humility • Respect for other viewpoints • Sensitivity to anomalies
Pitfalls	<ul style="list-style-type: none"> • Advocating pre-existing positions • Anchoring too quickly on one viewpoint • Bias for premature action 	<ul style="list-style-type: none"> • Superficial agreement • Politicized prioritization • Priority proliferation • Searching for complete consensus 	<ul style="list-style-type: none"> • Private promises • Passive agreement • Meaningless yes • Implicit agreements • What without why 	<ul style="list-style-type: none"> • Blame game • Escalating commitment to failed course of action • Cognitive biases toward confirming evidence
Helpful Tips	<ul style="list-style-type: none"> • Question assumptions • Interact frequently 	<ul style="list-style-type: none"> • Explicit prioritization • Simple rules to prioritize 	<ul style="list-style-type: none"> • Publicly monitor promises • Link promises to priorities 	<ul style="list-style-type: none"> • Build in regular reviews • Bring in external reviewers
Killer Questions	<ul style="list-style-type: none"> • What fresh data would convince us that our assessment is wrong? 	<ul style="list-style-type: none"> • What will we stop doing? 	<ul style="list-style-type: none"> • What did you promise to do? • What have you done? • What is hindering you? 	<ul style="list-style-type: none"> • What did we expect to happen versus what really happened? • Why the difference? • What should we change?

Many anomalies provide clues to outdated and otherwise inaccurate assumptions, and people who discover and act on that information can seize the initiative from rivals who are slower to respond.

tions is after the team has reached a significant milestone in making things happen. Discussions to make revisions tend to add the most value after a prolonged period of heads-down execution, when team members have not yet had the time to determine whether the results have confirmed their original assessment of the situation. Shifts in contextual factors, such as regulatory changes or unexpected moves by competitors, almost always create a gap between initial assumptions and how events actually unfold. Consequently, leaders need to design in regular occasions for people to pause and reflect on what the team has learned.

In principle, discussions to make revisions are simple: The team discusses what it expected to happen (and why) versus what actually happened, and then it explores any gaps between expectations and reality. Leaders can facilitate these discussions by explicitly framing assumptions as hypotheses and actions as experiments.¹² But even when the conversations are presented clearly as retrospective opportunities to learn, they remain tricky and delicate. People might still feel threatened by the prospect of having their actions scrutinized and criticized, and they could personalize feedback as a negative reflection on their competence, judgment or motivation. To avoid that, the discussions should maintain a tone of dispassionate analysis — think of a scientist in a lab coat objectively evaluating results from an experiment.

The fear of blame isn't the only obstacle. Psychologists have documented a depressingly long list of factors that keep people locked into the confines of their established mental models. For example, people often escalate their commitment to a failed course of action in order to avoid admitting any mistakes, or they fixate on data that confirm their expectations while ignoring or downplaying any contradictory information.

Given all the obstacles, organizations must go out of their way to incorporate frequent and rigorous opportunities for revision into their strategy loops. Venture capital firms, for example, typically stage their funding in rounds, which forces the partners and entrepreneurs to reexamine a startup's performance against its business plan and to consider shifts in the market and other changes in circumstances. In fact, many venture capitalists view their most important role as that of protecting their partners from falling in love with a bad investment. So they regularly engage in hard-hitting and skeptical

evaluations of one another's deals, asking questions along the lines of, "If this company walked in the door today, would we invest?" and "Why shouldn't we cut our losses right now?" The partners of Onset Venture Services Corp., an early-stage venture capital firm based in Menlo Park, California, have gone even further by instituting a simple rule: They don't scale a startup until its business model has morphed at least once, building in the expectation that not only is it OK to adjust the model, it's required. Consequently, Onset selects entrepreneurs to fund in large part based on their ability to learn and adapt to shifting circumstances. Moreover, to inject a more objective perspective into the process, the Onset partners invite later-stage venture capitalists from the outside to help them evaluate the progress and prospects of their portfolio companies.

The fundamental leadership trait required for revision is intellectual humility, which is admittedly not the most common attribute among executives. But in an uncertain world, managers must acknowledge that their mental models are merely simplified maps of complex terrain based on provisional knowledge that is subject to revision in light of new information. That humility can help executives to actively seek out disconfirming information that exposes inaccuracies in their maps. On a related note, executives must have respect for other points of view — not just because it will smooth the road for implementation and is desirable in and of itself, but also because it will increase the likelihood that they will hear and consider alternative perspectives that might lead to a revision of past assumptions. Finally, managers should remain alert to any new information that doesn't jibe with their expectations. Many anomalies provide clues to outdated and otherwise inaccurate assumptions, and people who discover and act on that information can seize the initiative from rivals who are slower to respond. When managers observe an anomaly, they should investigate it firsthand until they're satisfied that they understand the source of the discrepancy.

SOME INDUSTRIES — HEAVILY REGULATED UTILITIES, for example — do not often produce new information that would challenge a company's strategy. In such stable contexts, the traditional linear approach to strategy might suffice. But most markets frequently generate high levels of strategically relevant information. In such industries — call them volatile, unpredictable,

Managers who master the four types of discussions will be able to spot emerging opportunities, seize them and make midcourse corrections more effectively than others who stumble through those steps.

turbulent, high-velocity, hypercompetitive, chaotic or uncertain — the complex interactions of multiple variables (geopolitics, technical innovation, capital market swings, competitive dynamics, shifting consumer preferences and so on) influence a company's best course of action and ultimate performance.¹³ Each of these variables is individually uncertain, and their myriad potential interactions fundamentally defy prediction. These dynamic markets throw out a steady stream of opportunities and threats, and managers can neither predict nor control the form, magnitude or timing of future events with accuracy. In such environments, companies succeed to the extent that they can respond to shifting circumstances. Strategy loops, with their inherent ability to incorporate and translate new information into action, provide an effective framework for organizations to close the gap between strategy and execution. Managers who master the strategy loop's four types of discussions will be able to spot emerging opportunities, seize them and make midcourse corrections more effectively than others who stumble through those steps.

REFERENCES

1. For a review of the escalation of commitment literature, see J. Brockner, "The Escalation of Commitment to a Failing Course of Action: Toward Theoretical Progress," *Academy of Management Review* 17, no. 1 (January 1992): 39–61.
2. See P. Ghemawat, "Commitment: The Dynamic of Strategy" (New York: Free Press, 1991). Ghemawat argues that strategy consists of making commitments or infrequent large changes in resources that have large and enduring effects on a company's future alternatives. The importance of these decisions implies that managers can and should clearly analyze their consequences long into the future. Ghemawat's argument hinges on the assumption that managers can identify what matters *ex ante* and can analyze the consequences of their actions, although he, of course, admits the presence of uncertainty.
3. See R. Amit and P.J.H. Schoemaker, "Strategic Assets and Organizational Rent," *Strategic Management Journal* 14, no. 1 (January 1993): 33-46. Amit and Schoemaker acknowledge that their view offers little guidance to managers. See also M.E. Raynor, "The Strategy Paradox: Why Committing to Success Leads to Failure (And What to Do About It)" (New York: Currency, 2007).
4. See A. Schlesinger Jr., "A Thousand Days: John F. Kennedy in the White House" (Boston: Houghton Mifflin, 1965); and R. Kennedy, "Thirteen Days: A Memoir of the Cuban Missile Crisis" (New York: W.W. Norton, 1969). For an excellent analysis of decision making by Kennedy's team, see M.A. Roberto, "Deciding How to Decide," chap. 2 in "Why Great Leaders Don't Take Yes For an Answer" (Upper Saddle River, New Jersey: Wharton School Publishing, 2005).
5. See K.M. Eisenhardt, "Making Fast Strategic Decisions in High-Velocity Environments," *Academy of Management Journal* 32, no. 3 (September 1989): 543-576; and K.M. Eisenhardt, "Speed and Strategic Choice: How Managers Accelerate Decision Making," *California Management Review* 32, no. 3 (spring 1990): 39-54.
6. See A.C. Edmondson, "Psychological Safety and Learning Behavior in Work Teams," *Administrative Science Quarterly* 44, no. 2 (June 1999): 350-383; and A.C. Edmondson, "Speaking Up in the Operating Room: How Team Leaders Promote Learning in Interdisciplinary Action Teams," *Journal of Management Studies* 40, no. 6 (September 2003): 1419-1452. Edmondson's construct of psychological safety is critical throughout the strategy cycle, but it takes a slightly different form in each step. In making sense, for example, psychological safety ensures that participants feel safe to broach alternative interpretations of what is going on, while in making things happen providers should feel secure to negotiate what they need before they can make a binding performance promise.
7. This is a slightly modified version of "Alexander's question" described in R.E. Neustadt and E.R. May, "Thinking in Time: The Uses of History for Decision Makers" (New York: Free Press, 1988): 152-153.
8. See R.E. Rubin and J. Weisberg, "In an Uncertain World: Tough Choices From Wall Street to Washington" (New York: Random House, 2003); and L. Endlich, "Goldman Sachs: The Culture of Success" (New York: Alfred A. Knopf, 1999).
9. K.M. Eisenhardt and D.N. Sull, "Strategy As Simple Rules," *Harvard Business Review* 79 (January 2001): 107-116.
10. See Eisenhardt, "Fast Strategic Decisions," and Eisenhardt, "Strategic Choice."
11. For an in-depth perspective on the promise-based view of the firm, see D.N. Sull and C. Spinosa, "Promise-Based Management: The Essence of Execution," *Harvard Business Review* 85 (April 2007): 78-86; and D.N. Sull and C. Spinosa, "Using Commitments to Manage Across Units," *MIT Sloan Management Review* 47, no. 1 (fall 2005): 73-81.
12. For a thoughtful and practical guide to after-action reviews based on practices within the U.S. Army, see D.A. Garvin, "Learning in Action: A Guide to Putting the Learning Organization to Work" (Boston: Harvard Business School Press, 2003): 106-116.
13. See F. Emery and E. Trist, "The Causal Texture of Organizational Environments," *Human Relations* 18 (1965): 21-32. In their discussion of uncertain markets, Emery and Trist emphasize complexity (that is, multiple factors that influence performance) and dynamism (that is, the rate of change of those variables) and imply the role of interactions.

Reprint 48412.

Copyright © Massachusetts Institute of Technology, 2007. All rights reserved.

The Strategic Communication Imperative

The link between strategy and its implementation has always been tenuous. Top consulting companies have employed countless MBAs to develop strategy for their clients. Academics at top business schools have spent their careers developing frameworks explaining how to develop better strategies for top companies. However, only a handful of academics and a cadre of tactical consultants, primarily at public relations companies, have struggled with strategy implementation in the area where it matters most: its communication to a set of varied constituents.

Many companies take a tactical, short-term approach to communicating with key constituencies, which is not only nonstrategic but may be inconsistent with the corporate strategy or even impede it. Exxon Corp.'s decision in 1989 to remain silent for days after the Exxon Valdez ran aground in Alaska's Prince William Sound, AT&T Corp.'s decision to permanently lay off 40,000 employees on the first business day of 1996, a CFO's decision to avoid notifying senior managers about a downgrade of the company's stock by a major investment bank and, more recently, Merck & Co. Inc.'s decision to wait until pressured to pull Vioxx, its arthritis and acute pain medication, from the market are all examples of communications being used tactically as part of a short-term legal or financial orientation. However, the dearth of both academic and practitioner emphasis on the strategic nature of communications, coupled with recent legal and regulatory responses to corporate scandals (such as enactment of Regulation Fair Disclosure and the Sarbanes-Oxley Act of 2002), has created a strategic communication imperative — an increasingly urgent need for executives to ensure that their communications practices contribute directly to corporate strategy implementation.

We define strategic communication as *communication aligned with the company's overall strategy, to enhance its strategic positioning*. (See "The Framework for Strategic Communication," p. 85.) Over the past year, we conducted primary research into strategic communication, conducting more than 50 interviews with CEOs, CFOs, heads of corporate communications and investor relations, and others from a dozen companies representing different industries, market capitalizations and approaches to organizing their communications efforts. To research the concept that strategic communication is inextricably linked to corporate strategy, we asked these executives about their communications strategies and tactics.

Paul A. Argenti is professor of corporate communication at the Tuck School of Business, Dartmouth College. **Robert A. Howell** is a distinguished visiting professor of business administration at the Tuck School of Business. **Karen A. Beck** is a consultant with Boston Consulting Group. Contact them at Paul.Argenti@dartmouth.edu, Robert.Howell@dartmouth.edu and Beck.Karen@bcg.com.

Companies that continue to take a tactical, short-term approach to communicating with key constituencies will find it increasingly difficult to compete. Developing an integrated, strategic approach to communications will be critical to success.

Paul A. Argenti, Robert A. Howell and Karen A. Beck

The research not only indicates the drivers, best practices and lessons of strategic communication, but it also suggests that when companies take a strategic approach to communication, communication becomes integral to the formulation and implementation of strategy. (See “About the Research.”)

We found that the companies most likely to recognize the strategic communication imperative are those in which the CEO has an inherent understanding of how communication can be a differentiator for a business and thus can drive strategy. Executives at PepsiCo Inc. and Dell Inc., for example, are keenly aware of the need for a strategic approach to communications. Dell chairman Michael Dell says, “I communicate to customers, groups of employees and others, while working on a strategy. A key part of strategy is communicating it. Communications is key to operations and execution and an integral part of the process.” PepsiCo president and CFO Indra Nooyi puts it cogently: “You only have to go through one or two communications debacles as a senior executive to understand the importance of communications.”

This indicates that communications professionals need to have a seat at the strategy-making table. Indeed, the communications professionals we met with agreed that their job was not only to reinforce and help implement the company’s strategy by com-

About the Research

Our primary research into strategic communications comprised more than 50 individual interviews, conducted one-on-one and in person, by all three members of our research team over a period of six months. Our selection of companies included those representing the state of the art in corporate communications (Dell, FedEx and Pepsi), companies that have faced and survived major crises (Cendant, Knight Trading and Textron), and some unsung heroes (Cognex, Infosys, Jet Blue, the New York Times Co. and Playboy Enterprises) that are great corporate communicators, but not usually recognized for their efforts. We also included a pharmaceutical company (GlaxoSmithKline), given the formidable communications issues in that industry.

At each company, we met with (at least once) the CEO, CFO, chief communication officer and investor relations officer. The interviews were structured in advance, but often veered from the initial questions. We did, however, ask each executive key questions about the role of communication in strategy formulation and implementation, communication strategy, how the function is structured in their companies, what process exists for communication and what role they play in communicating, including how much time they spend on this activity. Interviews were set for an hour but often lasted as long as three hours.

municating with key constituencies but also to interpret constituency responses in ways that inform strategy going forward. “The communication function supports the businesses and brand-building efforts,” says Tod MacKenzie, senior vice president of corporate communications at PepsiCo. “It moves the organization. The messages articulate the strategic direction of the company and motivate people to move behind it.”

Best Practices of Strategic Communication

Strategic-communication leaders allow their corporate strategy to drive their communication choices. They are equally adept at tailoring their communication activities to support existing strategy or drive new strategy.

FedEx The emphasis placed on communications at FedEx is reflected in the amount of time executives devote to it. T. Michael Glenn, president and CEO of FedEx Services, says, “Communication is at the center of everything. You can’t execute strategy if you can’t communicate about it. ... The communication philosophy goes back to [founder] Fred [Smith] and his military training. His management philosophy is ‘Shoot, move, communicate.’”

For example, when the economy took a downward turn a few years ago, FedEx, like many companies, determined it had to lay off employees. But FedEx realized that the goodwill and morale of its employees is central to the success of its exceedingly customer-facing strategy. The company not only offered generous voluntary severance packages to its departing employees, but it clearly communicated this both internally and externally using a multifaceted approach across a variety of platforms to maintain employees’ loyalty, customers’ trust and the good graces of Wall Street.

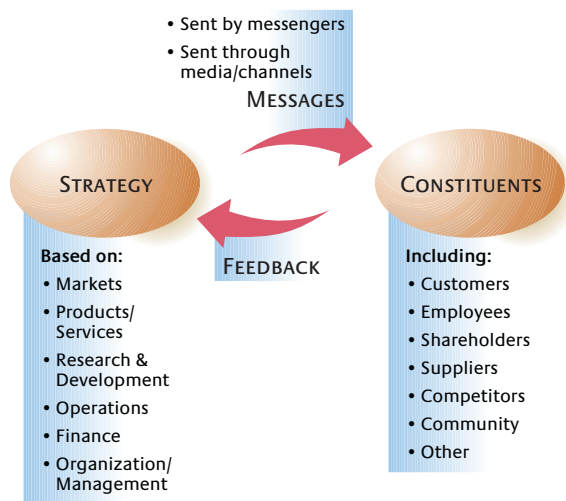
“It was like changing a tire on a moving truck because an entirely new organizational structure was being developed and communicated in phases to nearly 13,000 employees,” says Bill Margaritis, corporate vice president of worldwide corporate communications. “We worked with our HR group and external suppliers on numerous highly detailed and personalized communications to those eligible for early retirement or voluntary severance. We created a number of two-way communication channels to answer employee questions including various hot lines and Web sites where we collected questions and answered them for all employees to read. And each of those processes had to be coordinated with the others.”

According to Eric Jackson, vice president of corporate communications, “FedEx is now held up as an example of how to transition, of how to keep the hearts and minds of employees while meeting business needs.”

Textron Textron was one of the original highly diversified “growth by acquisition” conglomerates. Over the years, Textron has acquired, merged with and divested itself of dozens of com-

The Framework for Strategic Communication

The framework for strategic communication comprises a wide variety of iterative loops, encompassing multiple connections with multiple constituencies on multiple strategic levels. Those strategic elements include the markets addressed, the products and services offered in those markets, the underlying research and development that supports those products and services, the operations plan to deliver those products and services, the finances required and the financial practices needed to assure optimal performance and, finally, the organizational infrastructure, culture and management necessary to attain that optimal performance.



panies. Today, its principal businesses include Bell Helicopter, Cessna Aircraft, Textron Fastening Systems and Textron Financial. One of the repercussions of such frenetic buying and selling was the absence of common systems, procedures and a shared culture across the corporation. Despite these internal hurdles, Textron rode the wave of the buoyant market during the 1990s, only to watch its stock fall by 80% when the bubble burst in the stock market.

“The core of our existence was shaken,” says chairman, president and CEO Lewis Campbell. He realized he had to articulate a new vision and strategy for Textron — to become the premier multi-industry company in the world recognized for its world-class enterprise processes — and that selling it internally and externally would require a coordinated communications effort. “We moved from a ‘want to’ communicate to a ‘have to.’ The only way to show the commitment is to communicate with passion, face-to-face, all the time with the same message.”

To date, the process has been focused internally to get alignment and commitment from within. Prior to the transformation, the business units operated as independent, self-directed companies. Now, they have to buy into a centralized strategy

and streamlined processes. Textron has hundreds of communication programs under way to support the “one company” objective. For example, it holds an annual Corporate Communications Council to develop one message and incorporate that message into the business units. In addition, the council holds a monthly Internet teleconference to ensure compliance. At an even more tactical level, all relevant press releases are reviewed at the corporate level as well.

For Textron, strategic communications came in the form of harnessing the power of the CEO and other senior executives to communicate the message both internally and externally in a time of incredible transformation. Campbell is using communications to disseminate his new vision and strategy throughout the corporation, while at the same time keeping the financial community apprised of the company’s progress at implementing its new strategy.

Dell Founded by Michael Dell in his dorm room at the University of Texas in 1984, Dell Inc. generates more than \$49 billion in annual sales, has 55,000 employees and does business in every corner of the world by selling directly to end users. The phrase “Dell Direct” not only describes the company’s business model, but it is about as clear a unifying communications statement as a company could possibly have. It defines how Dell relates to its customers, its employees, its competitors and its shareholders. This concise and straightforward ethos also characterizes the company commitment to and attitude toward strategic communications. “Communications are an essential part of what you have to offer to customers and shareholders,” says Michael Dell. “Communications has to be in the center to be optimally effective.”

For Dell, strategic communication means functional integration. CEO Kevin Rollins uses communications to create alignment among strategy, messages, employees, Wall Street and the media. “You have to modify messages by constituency,” says Rollins. “Which elements of the overall strategy do you want to discuss with each constituent? The communication function breaks strategy into pieces and sells the right pieces to the right audience.”

Cendant Cendant’s commitment to strategic communication grew out of crisis. One of the foremost providers of travel and real estate services in the world, the company was created by the merger of HFS Inc. and CUC International Inc. in December 1997. Cendant was hit hard in April 1998 when it was discovered that CUC’s financial statements had been overstated by hundreds of millions of dollars in both revenues and profits. Following this discovery, the market value of Cendant dropped more than 40%, threatening the credibility of both the company and chairman and CEO Henry Silverman and spurring a barrage of questions from numerous constituencies. How could a company and its CEO not have conducted adequate “due diligence” to uncover

CUC's fraudulent reporting of this magnitude before the transaction was completed?

Silverman realized that, to regain credibility, complete honesty and financial transparency was the only viable course of action. He established the mantra, "Tell the truth. Tell it all. Tell it now," insisting that all the accounting irregularities be acknowledged as soon as they were known. Silverman and the company's senior vice president of corporate communications and investor relations, Samuel Levenson, continue to tell the Cendant story as frequently and as clearly as possible to restore investor confidence in the company. "I can never be far away from investor relations or public relations. At the end of the day, I'm accountable," says Silverman. "You can never overcommunicate. There is no such thing."

Drivers of Strategic Communication

Even if a CEO or CFO does not have an active interest in or inherent understanding of strategic communications, a number of factors, both external and internal, can necessitate such an approach.

Regulatory Imperatives New regulations often drive companies to revisit communications strategies and practices. In 2000 when the U.S. Securities and Exchange Commission adopted Regulation Fair Disclosure prohibiting companies from communicating preferentially with certain outside parties, particularly analysts, critics worried that companies might reduce the amount of information they communicated to the analyst community and other interested parties. On the contrary, companies have developed regular conference calls and other procedures to get their message out fairly and consistently. "Communications now have to be crisper and give more clarity," says Ted French, executive vice president and CFO of Textron Inc., on the topic of Reg FD.

The Sarbanes-Oxley bill requiring that CEOs and CFOs certify their companies' financial results and attest to systems of internal controls, also has changed the way companies communicate. Sarbanes-Oxley and the move toward transparency has pressured companies to make their footnotes to financial statements more under-

standable and complete and to make the management discussion and analysis section of annual reports more comprehensible and accessible.

Organizational Complexities As an organization grows in size and complexity — more markets, customers, products, services, employees, suppliers, investors and so on — the need for a consistent communications strategy becomes even more critical because it must communicate to a diverse and rapidly expanding array of constituents while remaining relevant to all.

"In a large, complex company with multiple operating units such as ours, all the pieces get lumped together and are viewed negatively," says Ronald Nelson, Cendant Corp. president and CFO. "Some investors say, 'Cendant's too complicated — forget it!' And that is exactly what we have to respond to."

"As Dell matured," says Michael Dell, "we had to put a premium on making sure we had communication nailed down. While we've done a better job in the last couple of years, there were times when communications wasn't well integrated, particularly over parts of the worldwide operations. As a global business, it is essential that we have a clear, consistent strategy."

The Need to Increase Credibility Corporate crises, both internal and external, also can drive companies to reconsider how they communicate. In the high-flying 1990s, "making the quarterly earnings estimate" became a dangerous mantra for some companies. Enron Corp.'s incessant drive to do so led to its demise. Xerox Corp. overstated sales and lost 90% of market value when the real numbers became clear. The bursting of the bubble and the corporate crises that followed gave new management at many companies the formidable challenge of restoring credibility.

Recent polls show that over 80% of the American public feel that business does a poor job of balancing profit and the public interest.¹ In fact, the 2005 Edelman Trust Barometer poll shows that nongovernmental organizations are held in higher esteem than businesses, and executives in large companies are among the lowest rated in terms of credibility, ranking below even lawyers and government officials.² Given such low levels of approval and trust, the need for a more strategic approach to communication truly becomes imperative as companies strive to differentiate themselves.

Aligning Communication With Strategy

Corporations have multiple constituents, and their communications must be responsive to all of them. "The job of a senior manager is to determine which elements of the overall strategy you want to communicate to each constituency," says Dell CEO Kevin Rollins. Whether a company is developing a coherent identity for itself through advertising, is discussing with employees the reasons for a merger and subsequent work-force reductions or is

"Being on message is critical," says Leonard Forman, executive vice president and CFO of the New York Times Co., "but it has to be based on something real."

explaining to shareholders why it didn't meet fourth-quarter projections, employing a coherent communication strategy is critical. "We break messages into pieces and try to give the right piece to the right audience," says Rollins.

Executives have to think carefully about an organization's objectives for each specific communication, determining which constituencies are critical to meeting that objective and understanding what kinds of messages to deliver to them through the most effective channel. In fact, the message and the messengers are the critical links between a company's strategy and the understanding of and response to that strategy by the company's various constituents. (See "Using a Strategic Approach to Communications.")

Communications professionals and other executives we spoke with agree that strategic communication requires clarity and consistency of message. "Communication has to be able to talk to people inside and outside the company," says FedEx Corp. executive vice president and CFO Alan Graf. "We have to have the same messages and conflicts." Repetition is also crucial. "You almost can't communicate a message frequently enough, particularly to the employees," says Russell Lewis, former president and CEO of the New York Times Co. "Use every mechanism." And, perhaps above all, effective strategic communication is based on truth. "Being on message is critical," says Leonard Forman, executive vice president and CFO of the New York Times Co., "but it has to be based on something real."

Channel choice is another integral part of the strategic com-

munication process. Senior managers need to focus on using the right channel(s) for each message to each constituency. Given the complexity and array of choices available as distribution channels today, this offers managers an opportunity to choose on the basis of the preferences of their constituents, who are more sophisticated than ever before as a result of media exposure, the evolution of technology and the ability to access communications in real time. Companies also must realize that there is great overlap among their various constituencies. Market analysts and suppliers may also be customers. This makes it increasingly important that companies "speak in harmony."

Finally, feedback from constituents determines the overall success of a communication and, more critically, the successful implementation of strategy in general. For example, "In [investor relations], you get real-time feedback as people vote every day with their shares," says Ron Nelson of Cendant. "The feedback isn't determinative, but it's valuable in picking out what troubles shareholders."

A strategic communications approach also attempts to tie its activities to both financial and behavioral outcomes. On the financial side, senior managers are increasingly interested in measuring communications activity in terms of market value. This is in part due to having tighter budgets in a time of limited resources. But it is also the result of having new techniques and frameworks that allow managers for the first time to establish the direct links between a company's intangible assets and performance.³ "Communications is an intangible, but it adds to

Using a Strategic Approach to Communications

Strategic communications requires an integrated, multilevel approach. Each communication function fulfills specific objectives, is targeted at specific constituencies that are critical to meeting those objectives and is delivered through the channels most appropriate to and effective for those constituencies. To achieve full strategic impact, all communications to all constituencies through all channels must be customized to a given objective, yet consistent both with one another and the corporate strategy.

COMMUNICATIONS FUNCTIONS	OBJECTIVES	CONSTITUENCIES		CHANNELS
		PRIMARY	SECONDARY	
Media relations	Public relations, crisis management	All constituencies	Media	Press releases, interviews
Employee communications	Internal consensus building	Employees	Customers, families	Town hall meetings, memos, newsletters
Financial communications	Transparency, meeting financial expectations	Investors	Analysts, media	Conference calls, CEO/CFO
Community relations	Image building	Communities	NGOs, media	Events, speeches, philanthropy
Government relations	Regulatory compliance, meeting social expectations	Regulators	Media, customers	Lobbying efforts, one-on-one meetings
Marketing communications	Driving sales, building image	Customers	All key constituencies	Advertising, promotions

our valuation, credibility and the ease with which we enter markets,” says Dell senior vice president and CFO James Schneider. Over the next several years, with the development of more refined frameworks, as well as the creation of industry standards, the connection between a company’s communications activities, business outcomes and value creation will be ever more definable.

Lessons of Strategic Communications

Our research suggests there are some basic lessons to be learned about how communication can add to the process of translating boardroom strategy to front-line execution, as well as the ability of communications to support strategy development.

Lesson 1: Senior managers must be involved. The CEO and other top leaders, including the CFO, *must* understand the importance of communication and leverage communications strategically with all their constituents. Jean-Pierre Garnier, CEO of GlaxoSmithKline, said it best, “At the end of the day, the communications aren’t owned by the communication department. You have to have good executives who can and will communicate.”

While there have been sensational headlines in business publications about the decline of the charismatic CEO, it is clear from our interviews that the role of top leaders in communications actually has expanded in the past few years. Now, more than ever, the CEO is not only the thought leader but also the face and voice of the company, setting the tone for the executive team and the organization as a whole. Those senior executives who think that communications can be delegated to the head of the corporate communication function are mistaken. In fact, in many companies, the CEO acts, in effect, as the senior communications officer of the company. When asked how much time he spends communicating, Dell’s Kevin Rollins said, “Can you go above 100%?”

Surprisingly, CFOs also are more involved in the overall communications activity of corporations, seemingly as a result of their connection to investor relations executives

who sit on the senior executive team. Alan Graf of FedEx says that “[communication] is the vast majority of my time. I’m either communicating or thinking about it. I’m an input-driven CFO. I’m absorbing, translating or communicating.”

As outcomes-based measures of communication continue to develop, even the most reluctant senior executives will see the demonstrated value that communications brings to the implementation of strategy and will recognize the critical role they must play in that effort.

Lesson 2: Communications must be integrated. Bob Shillman, president, chairman and CEO of Cognex Corp., a Natick, Massachusetts-based manufacturer of machine vision systems, puts integration into perspective: “Communication is not a separate function. It’s hard to separate it out. It’s like a car. What’s the most important part? An engine can’t get you anywhere without the wheels. It all has to be integrated.”

Integration develops in a variety of ways. JetBlue Airways, the budget-oriented airline, achieves integration through the close connection between its CEO and CFO; the New York Times Co., FedEx and Cendant achieve integration by having one person manage the function; Dell achieves integration through the relationships developed between corporate communications and investor relations professionals; and Textron and Infosys Technologies Ltd., an Indian company focused on outsourcing, achieve integration through their communications processes. However structured, communication must be integrated and adept at delivering a harmonious message to all constituents.

So what can you do to integrate communications activities at your company? First, realize that while communication is something that everyone does, the communication function must ensure that communications emanating from the business units are aligned with and support the company’s overall strategy. Martha Lindeman, Playboy Enterprises Inc. senior vice president of corporate communication and investor relations, says: “[We integrate] because we’re concerned with maintaining the integrity of the brand. The brand means different things to different people, and we don’t want counterproductive moves or multiple divisions pitching to the same media.”

Second, specific messages must sound like they are coming from the same place leading in the same direction. This is the concept of “speaking in harmony.” “[Investor relations] and corporate communications are separate functions that work very closely together,” says GlaxoSmithKline’s Jean-Pierre Garnier. “But we still have one story here — one basic message.”

Third, think about the opportunities that integration of communications will create, which would otherwise be missed. “Before investor relations and corporate communications were integrated,” says Russell Lewis, formerly of the New York Times Co., “we didn’t have problems, but we failed to take advantage of opportunities.”

In many companies, the CEO acts, in effect, as the senior communications officer. Asked how much time he spends communicating, Dell’s Kevin Rollins said, “Can you go above 100%?”

And, finally, pay attention to detail. Dell is exemplary in this regard. The company integrates its communications activities down to specific messages, such as the mandate to “be direct” in all activities, delivered by specific executives, including both Michael Dell and Kevin Rollins, to further a specific strategic goal.

Lesson 3: Structural integration is not the only choice. Some companies strategically integrate their communications functions by combining them under one executive. It is surprising, however, how often structural change is not used as an integrating mechanism. “Reporting relationships do not matter as much as informal relationships in most organizations,” says Cendant’s Samuel Levenson.

Communications executives are integral to the extent that they have a strong personal network, access to information, awareness of how their work connects to the overall strategy of the company and the ability to measure its impact on shareholder value. Senior executives at the companies we studied were quick to point out attributes such as broad perspective and personal credibility as the reasons communications executives earned a seat at the strategy-making table.

Lesson 4: Communications must have a long-term orientation. It has been suggested that the most enduring companies are those that focus on the long term, have a strong set of values and are proactive rather than reactive in communicating.⁴ Just as companies have long-term marketing and budgeting plans for the organization as a whole, they also must have a master communication strategy. For many, however, this is a difficult task. Most communications professionals are rewarded for their tactical abilities in the short term (that is, for “getting good ink”). Indeed, their compensation is often tied to short-term, tactical achievements. Their job, however, is to meet short-term needs but stay focused on the long-term issues that will affect the company. There is a clear need in the marketplace for a measurement framework that connects the two, a goal succinctly stated by Eric Jackson of FedEx: “It’s not

“[Investor relations] and corporate communications are separate functions,” says GlaxoSmith-Kline’s CEO Jean-Pierre Garnier. “But we still have one story here — one basic message.”

about meeting next quarter’s numbers. We have 30 years of history and want 100 more.”

Lesson 5: Top communicators must have broad general management skills. All too often, the corporate communications function is a dumping ground for tactical managers who are uncomfortable with the quantitative skills needed for success in other functions. But effective communications professionals are those who speak the same language as senior executives and have a deep understanding of the business and its strategy. That often means they have business intuition garnered outside the communication function or from formal education, personal credibility with senior executives, a wide organizational reach, integrity and a strong leadership position in the company. One of the best ways to acquire these attributes is to work at building an informal network of contacts within the company, getting involved in every aspect of the business. When Lynn Tyson, Dell’s vice president of investor relations and corporate communications, first joined the company, she attended operations and other functional meetings so that she could learn about Dell inside and out. “For IR to be proactive and effective,” she says, “IR needs to understand what happens in the company.”

COMPANIES THAT CONTINUE to take a laissez-faire approach to communication will find it increasingly difficult to compete. Although there will be a continuing need for tactical execution, the addition of an integrated, strategic focus will be critical to success. For communications professionals, this imperative will not be a threat but an opportunity to not only get a seat at the table, but to stay there.

ACKNOWLEDGMENTS

The authors would like to thank the National Investor Relations Institute’s Center for Strategic Communication for support of our research.

REFERENCES

1. P.A. Argenti, “Corporate Communication” (New York: McGraw-Hill, 2002), 4.
2. “Trust Shifting From Traditional Authorities to Peers, Edelman Trust Barometer Finds” (New York: Edelman USA, 2005), www.edelman.com/news/ShowOne.asp?ID=57.
3. There is, in fact, growing evidence to suggest that intangibles do drive valuation. A recent study by the Brookings Institution showed that in 1978, 20% of corporate value was attributable to intangible assets, whereas in 1998 that had increased to 80%. See M.M. Blair and S.M.H. Wallman, “Unseen Wealth: Report of the Brookings Task Force on Intangibles” (Washington, D.C.: Brookings Institution Press, 2001).
4. J.C. Collins and J.I. Porras, “Built To Last: Successful Habits of Visionary Companies” (HarperCollins: New York, 1997), 14.

Reprint 46315. For ordering information, see page 1.

Copyright © Massachusetts Institute of Technology, 2005. All rights reserved.

How Companies Become Platform Leaders

Under the right circumstances, companies of any size can grow to become platform leaders. And particular business and technology decisions can help platform-leader wannabes achieve their goals.

**Annabelle Gawer and
Michael A. Cusumano**

In recent years, many high-technology industries, ranging from “smart” cell phones to social networking Web sites such as Facebook Inc. and MySpace.com, have become platform battlegrounds. These markets require distinctive competitive strategies because the products are parts of systems that combine core components made by one company with complements usually made by a variety of companies. If a platform leader emerges and works with the companies supplying complementary products and services, they can together form an “ecosystem” of innovation that can greatly increase the value of their innovations as more users adopt the platform and its complements. However, companies often fail to turn their products into industry platforms.

Our previous research focused on understanding the levers or strategic mechanisms that existing platform leaders use to maintain their positions. (See “About the Research,” p. 31.) This article focuses on the special problems of companies that want to become platform leaders — “platform-leader wannabes.” Many companies do not succeed in becoming platform leaders because their strategies fail to tackle adequately both the technology and business aspects of platform leadership. The technological challenges involve designing the right architecture, designing the right interfaces/connectors and disclosing intellectual property selectively, in order to facilitate third-parties’ provision of complements. The business challenges include either making key complements or introducing incentives for third-party companies to create the complementary innovations necessary to build market momentum and defeat competing platforms.

Our strategic recommendations consist of two basic approaches. (See “Strategic Options for Platform-Leader Wannabes,” p. 32.) One strategy, “coring,” addresses the challenges of creating a new platform where one has not existed before. The second strategy, “tipping,” tackles the problem of how to win platform wars by building market momentum.¹

The Platform Vs. Product Strategy Choice

There is an important difference between a product and an industry platform. Put simply, a product is largely proprietary and under one company’s control, whereas an industry platform is a foundation technology or service that is essential for a broader, interdependent ecosystem of businesses. The platform requires complementary innovations to be useful, and vice versa. An industry platform, therefore, is no longer under the full control of the originator, even though it may contain certain proprietary elements.

Managers sometimes underestimate the importance of deciding early on between pursuing a product or a platform strategy. This decision matters because the industry conditions

Annabelle Gawer is lecturer in strategy and innovation at Tanaka Business School, Imperial College London. Michael A. Cusumano is the Sloan Management Review Distinguished Professor of Management and Engineering Systems at the MIT Sloan School of Management. Comment on this article or contact the authors at smrfeedback@mit.edu.

and business choices that favor a platform can differ from those that favor a product — creating differing incentives for owners of industry platforms than for companies that assemble proprietary products. In particular, owners of industry platforms benefit from lots of innovation in complementary products as well as from competition at the overall system level that would bring its price down. Thus, Microsoft Corp. benefits from competition among personal computer manufacturers that use its operating system, but they, in contrast, benefit when customers perceive their products as unique and therefore do not want cutthroat competition at the product or system level at which they compete. PC makers would probably rather see Microsoft face tough competition in computer operating systems so that they could bargain for better

prices on the operating system they will load onto their PCs.

Failure to decide early on between a product or platform strategy can result in dangerous strategic confusion. Achieving platform status requires specific decisions that govern technology evolution, product and system design and business relationships within the ecosystem — and they are different decisions than those made when pursuing a product strategy. Another common mistake is that managers can simply overlook the platform potential of their products. For example, Apple Inc.'s Macintosh personal computer was the leading product when it was introduced but didn't become the dominant personal computing platform, primarily because Apple did not open the Mac's architecture and software to third-party complementors and licensees.

While the benefits of becoming a platform seem clear, not every market has to have a platform leader. In some large markets, such as video game consoles or Web portals, several platform companies can persist without one clear winner. For that scenario to occur, it seems important that the market contain enough room for differentiation in user needs so that multiple companies can persist in specific niches or segments, particularly if it is not too difficult for users to switch among more than one platform.²

Nor can every product become a platform.³ To have platform potential, however, research suggests that a product (or a technology or service) must satisfy two

prerequisite conditions: (1) It should perform at least one essential function within what can be described as a "system of use" or solve an essential technological problem within an industry, and (2) it should be easy to connect to or to build upon to expand the system of use as well as to allow new and even unintended end-uses.

It is possible to test for these conditions. For the first, one can evaluate whether the overall system could function without the particular product or technology. If the system cannot operate, then the product does indeed perform an essential function. For example, Microsoft's Windows operating system and Intel's microprocessor were both essential platform components of the original IBM and IBM-compatible personal computers. For the second condition, the challenge is to test whether a product or a

technology is easy to connect to or to build upon. One way to do this is to see whether external companies have succeeded in developing complementary and interoperable products, or at least have started to do so. Unless these two conditions are fulfilled, the strategic game of platforms cannot begin. But they are far from sufficient to win the platform game.

Our research explores the issue of platform leadership in information technology industries such as computing and telecommunications because these industries not only have visible demarcations between platforms and complements but also have strong “network effects” between the two, leading to clear interdependencies. However, companies can pursue platform strategies in many different industries. For example, new energy sources, such as hydrogen fuel cells or hybrid gasoline-electric systems, may become platforms for powering a variety of devices made by different companies. Banks, credit card companies and Internet services companies all are competing to develop a platform for micropayments and other specialized financial services. In biology, the human genome database has become a platform for many companies and research laboratories. Pharmaceutical and chemical manufacturers develop certain compounds that can become the basis for a variety of drugs or other products made by themselves and many partner companies.

Coring: How to Create a New Industry Platform

“Coring” is the set of activities a company can use to identify or design an element (a technology, a product or a service) and make this element fundamental to a technological system as well as to a market. An element or component of a system is “core” when it resolves technical problems affecting a large proportion of other parts of the system. Coming up with platform-like technologies may well be easier than coming up with business strategies that encourage partners and customers to adopt a particular technology.

Platforms open the overall system in which they operate to new usage possibilities. These different uses are essential to the growth of an installed base, but one question arises: Who will develop these new uses? How can platform-leader wannabes successfully encourage other companies to join their ecosystems and develop essential complementary applications? Answering that question is one of the two essential business aspects of coring. The platform leader must create economic incentives for ecosystem members to invest in creating complementary innovations and to keep doing so over time. In addition, platform-leader wannabes need to protect their ability to profit financially from their innovations, just as any innovator company should. The balancing act — protecting one’s sources of profit while enabling complementors to make an adequate profit and protect their own proprietary knowledge — is perhaps the greatest challenge to platform leadership. There is no simple framework for how to

accomplish this, but looking at successful and unsuccessful companies can provide ideas on what to do and what not to do.

Google: Coring in Internet Search Google Inc. is a particularly well-known and clear example of successful coring in Internet search technology. The company, founded in 1998, started off as a simple search engine company and went on to establish its proprietary search technology as a foundation for navigating the Internet. First, Google improved upon existing solutions to an essential technical problem: how to find anything in the maze of the Internet, with millions of Web sites, documents and other online content. Google’s improved search function became an essential technology for fully using the Internet. Second, Google distributed its technology to Web site developers and users as an embedded toolbar, making it easy to connect to and to develop upon. It also allowed different uses, such as combining a search with different kinds of information or graphics.

But where Google really won the platform leadership battle for Internet search was on the business side. Google solved a fundamental problem, which was that it was not initially clear how companies could make money from using the Internet. Google found a way to link focused advertising to user searches. Ads appear only along with specific searches, meaning that users should have some interest in the advertisers. In effect, Google revolutionized the advertising business by rearchitecting the relationships between advertisers and Internet users. Today, Google’s market value is over \$200 billion, many times that of the largest advertising agencies.

Of course, Google had competition. In the mid-1990s, Digital Equipment Corp. created a powerful search engine tool for the Internet, AltaVista; several other companies created powerful search engines, such as Yahoo! and Inktomi. But Google proved to be much more effective than its competitors at the business aspect of market coring, even though Internet search and Web portals are a broad enough market that more than one company is likely to persist. As of April 2007, Google accounted for about 55% of Web searches, compared to about 22% for Yahoo! and 9% for MSN/Windows Live Search, according to a Netratings Inc. survey.⁴

Google continues to extend and promote its platform. In June 2007, Google held its first developers’ conference, with 1,000 programmers in attendance and another 5,000 at 10 other locations around the world. The agenda included presentations on Google’s application programming interfaces to enable developers to embed Google applications such as search, maps and calendars on Web sites or to develop custom search engines. Google also presented APIs for the Web 2.0 social networking site YouTube Inc., which it purchased in 2006. Google has increased the amount of free online software it provides, ranging from e-mail to word processing.

About the Research

Over the past decade, we have investigated dozens of companies that have attempted to formulate and implement platform strategies. These companies operated in a variety of industries including computing, telecommunications, electronic appliances, semiconductors, enterprise software, data storage, automobiles, Web portals and electronic payment systems. The major companies we studied in the first phase of our research included Intel, Microsoft, Cisco, Palm, and NTT DoCoMo, the Tokyo-based mobile communications company. We interviewed hundreds of managers and engineers and complemented the interviews with analysis of companies' archival records and company and industry data. This first research stage aimed at uncovering the drivers of success at established platform leaders. The results of that work were published in *MIT Sloan Management Review* in 2002, as well as in our book *Platform Leadership* (HBS Press, 2002).

The focus of our initial work was on how Intel, Microsoft, Cisco and other companies had been able to drive industry innovation and sustain positions of platform leadership. We identified four "levers" or mechanisms through which successful platform leaders were able to "architect" or influence external innovation. The first lever was company scope: the choice of what activities to perform in-house versus what to leave to other companies — in particular, whether the platform leader should make at least some of its own complements in-house. The second lever was technology design and intellectual property: what functionality or features to include in the platform, whether the platform should be modular and to what degree the platform interfaces should be open to outside complementors and at what price. The third lever covered external relationships with complementors: the process by which the platform leader manages complementors and encourages them to contribute to a vibrant

ecosystem. The fourth lever was internal organization: how and to what extent platform leaders should use their organizational structure and internal processes to give assurances to external complementors that they are genuinely working for the overall good of the ecosystem. Taken together, the four levers offer a template for sustaining a position of platform leadership.

This article presents findings from the second stage of our research, which draws heavily on public information. It has been inspired primarily by several consulting engagements (such as with Nokia, EMC, Tokyo-based information technology company NTT Data and e frontier, the 3D computer graphics developer based in Santa Cruz, California), contacts with managers at organizations using our original framework (such as enterprise resource planning software provider SAP, the Internet Home Alliance and Siemens Automation) and numerous MIT master's theses and Ph.D. dissertations, as well as class projects.

Qualcomm: Coring in Wireless Technology Another company that has done very well in the technological aspects of coring is Qualcomm Inc. in the wireless technology industry. It has been extraordinarily successful in terms of profitability, although the business side of its ecosystem shows some signs of instability due to opposition from a number of its licensees. Founded in 1985, Qualcomm started out designing communications technology for satellites and military applications and went on to establish its proprietary wireless communications technology as a platform for the cellular phone industry.⁵

Qualcomm solved a basic technical problem of the late 1980s and early 1990s: incompatible and inefficient wireless cell phone technologies. This problem negatively affected other industry players such as telecom operators and handset manufacturers. Qualcomm invented the code division multiple access technology, which breaks phone calls into small bits and then reassembles them, much as the Internet does with data packets. Key industry players such as AT&T (later Lucent) and Motorola licensed Qualcomm's technology. By addressing an essential technological problem in its industry, Qualcomm satisfied the first condition for platform potential.

It was also easy for other companies to connect to and build

upon Qualcomm's technology — the second prerequisite condition for platform potential. To facilitate third parties' adoption of its technology, Qualcomm invested in chipset designs embedding its technology and made CDMA widely available for licensing. The chipsets were compact integrated circuits with physical connectors that made it easy to plug them inside cell phone handsets, and Qualcomm's licensing of its patents made it possible for operators to use CDMA protocols. This strategy enabled dozens of companies to include Qualcomm technology in most second-generation and many third-generation cell phones, as well as in hundreds of other wireless devices.

Qualcomm has a more checkered performance in its relationships with other companies in its ecosystem. In the company's business model, an important source of revenue is from licensing its intellectual property. Qualcomm therefore filed thousands of patents and regularly and aggressively challenged any potential violators in court. Its customers may not always have appreciated this litigious approach. However, since Qualcomm owned approximately 80% of the patents for CDMA and CDMA2000 technology, they had little choice for many years. Also, Qualcomm lessened the conflicts with some of its key ecosystem members in the late 1990s by selling its cell

phone handset business, which had competed with its own handset-maker customers such as Nokia, Ericsson and Motorola.

In fiscal 2006, Qualcomm reported an astounding net income of \$2.5 billion on sales of \$7.5 billion, both selling chipsets as well as licensing its patents. However, as the technology and market continues to evolve, Qualcomm’s position could weaken. To avoid paying high license fees, European companies led by Nokia Corp. and companies sponsored by the Chinese government have been developing or exploring alternatives to Qualcomm patents. In 2007, Qualcomm only owned 20% of the patents for the newer Wideband Code Division Multiple Access standard, popular in Europe. Nokia also has gone to court to challenge Qualcomm’s high licensing fees, and integrated circuit maker Broadcom Corp. has filed multiple suits against Qualcomm. Qualcomm might have avoided this situation in the cell phone market by investing more of its profits earlier into research and development in order to become the indisputable leader for the next-generation technology; it could also have made more aggressive efforts to work with, not against, customers such as Nokia and Broadcom. Qualcomm is trying to diversify. It is attempting a similar coring strategy for mobile broadband connectivity on laptops, with 70 models embedding Qualcomm chipsets as of May 2007.⁶

Coring Challenges: EMC’s WideSky Not every attempt to establish an industry platform through coring succeeds. Consider the case of EMC Corp.’s WideSky. EMC, a market leader in data storage

technology, based in Hopkinton, Massachusetts, launched a strategy in the early 2000s that aimed to establish its hardware and software technology, known as WideSky, as a new industrywide platform. WideSky was a middleware software layer that made it possible to integrate and manage third-party hardware. By doing so, it solved an important technical industry problem that affected all IT customers: the efficient management of a growing assortment of heterogeneous information systems that store more and more mission-critical data.

With WideSky, EMC succeeded at the technological aspect of coring, but not at the business side of creating an industrywide platform. EMC was unable to convince its competitors — principally IBM, Hewlett-Packard, Hitachi, and Sun Microsystems — to adopt WideSky. Non-EMC customers were also reluctant to adopt a proprietary standard. EMC’s competitors decided to create their own open-standards platform and manage this through an industry group, the Storage Networking Industry Association. The number of companies and users supporting this open technology eventually forced EMC to abandon its platform-leadership effort and adopt the SNIA standards.⁷

Tipping: How to Win Platform Battles By Building Market Momentum

As the case of WideSky versus SNIA demonstrates, many platform battles involve competition among technical standards and incompatible technologies. A current standards battleground pits

Strategic Options for Platform-Leader Wannabes

Two principal strategies for becoming a platform leader are (1) coring (creating a new platform) and (2) tipping a market toward your company’s platform. To become a platform leader, companies need to address both the business and technology aspects of platform strategy.

Strategic Option	Technology Actions to Consider	Business Actions to Consider
<p>Coring How to create a new platform where none existed before</p>	<ul style="list-style-type: none"> • Solve an essential “system” problem • Facilitate external companies’ provision of add-ons • Keep intellectual property closed on the innards of your technology • Maintain strong interdependencies between platform and complements 	<ul style="list-style-type: none"> • Solve an essential business problem for many industry players • Create and preserve complementors’ incentives to contribute and innovate • Protect your main source of revenue and profit • Maintain high switching costs to competing platforms
<p>Tipping How to win platform wars by building market momentum</p>	<ul style="list-style-type: none"> • Try to develop unique, compelling features that are hard to imitate and that attract users • Tip across markets: absorb and bundle technical features from an adjacent market 	<ul style="list-style-type: none"> • Provide more incentives for complementors than your competitors do • Rally competitors to form a coalition • Consider pricing or subsidy mechanisms that attract users to the platform

When battling to become a platform in a standards war, companies should try to gain control over an installed base, broadly license their intellectual property and facilitate partner investments in complementary innovation.

Toshiba Corp.'s HD DVD against Sony Corp.'s Blu-ray Disc for high-definition media storage. Some earlier well-known examples include JVC's Video Home System versus Sony's Betamax for videocassette recording and Microsoft's Windows versus Apple's Macintosh for personal computer operating systems. For a dominant standard and a platform leader to emerge from such standards wars, the markets have to "tip" in favor of a particular technology standard or platform embodying that standard. "Tipping" is the set of activities or strategic moves that companies can use to shape market dynamics and win a platform war when at least two platform candidates compete. These moves cover sales, marketing, product development and coalition building. As with coring, successful tipping requires actions taken from both the technology and the business sides of the platform.

When battling to become a platform in a standards war, companies should try to gain control over an installed base, broadly license their intellectual property and facilitate partner investments in complementary innovation.⁸ Platform-leader wannabes should also invest in building brand equity as well as manufacturing, distribution or service capabilities to signal support of the platform. For example, Matsushita Electrical Industrial Co. publicized its large investment in mass-production facilities as an argument to convince developers of videotapes to adopt the VHS standard, which had been developed at its much smaller Victor Company of Japan Ltd. subsidiary. Intel Corp., when trying to convince motherboard makers in the early 1990s to adopt its new interface for connecting peripheral devices, committed to developing it themselves in large quantities. Such approaches are helpful to master the business aspect of tipping.

Pricing is another useful strategic weapon in platform battles, but it is more complex to use than in simpler product markets. Platforms can be understood as "double-sided" markets, and it may be necessary for platform leaders and wannabes to subsidize one side of the market (for example, software application developers) in order to bring on the other, paying side (for example, software end-users). But there is no simple formula to tell managers how much to subsidize one side of the market over the other. Moreover, the price that maximizes short-term profits for a stand-alone hit product may not encourage a global ecosystem of complementors to develop over the long term.

At the opposite extreme, trying to stimulate demand through low or zero pricing for all or part of a platform system can de-

stroy the business model for complementors. Intel made this mistake when it tried to enter the PC videoconferencing market with a line of products that competed with higher-end systems made by PictureTel Corp. and other companies. Customers suddenly stopped paying for expensive videoconferencing equipment and services, forcing most of the companies that offered them out of existence and probably delaying the adoption of the PC as a device for video communications.⁹

But there is another powerful way to accomplish tipping: "tipping across markets," which others have called "platform envelopment."¹⁰ Tipping across markets occurs when a company crosses over the boundary of its existing market to absorb technical features from an adjacent market and bundle them to extend the company's platform. Tipping across markets seems particularly important in the context of technological convergence, which is pervasive among computers, telecommunications equipment and digital appliances. For example, Sunnyvale, California-based Palm Inc., originally known as a dominant company in personal digital assistants, has added cell phone, media player and handheld computer functions to its platform. In turn, cell phone manufacturers have added PDA, media player and handheld computer functions to their "smart" cell phones. Companies that tip across markets by bundling new features can leverage existing market power, technology or reputation to help them move into adjacent markets.

Another effective tipping behavior is when competitors or users band together in a coalition as a defense mechanism to fight entry by a platform-leader wannabe. This can be seen not only in the EMC WideSky example but also in cellular telephony, with Nokia teaming up with competitors to support Symbian Ltd.'s Symbian OS in order to build a viable alternative to Microsoft's mobile operating system. Similarly, Linux users and service providers have worked together to limit the positions of both UNIX and Windows in the server operating system market.

Companies tend to encounter common obstacles and make similar mistakes when attempting to help a market tip toward their platform. Of course, established platform leaders with powerful positions in a particular market must take care not to violate antitrust laws. In addition, however, problems sometimes occur because tipping strategies dependent on narrow technical standards are effective only as long as platform boundaries remain relatively fixed and predictable. Companies that dominate

One dominant platform can be a distribution mechanism for entering other platform markets — if there are ways to bundle the technologies legally, use the same distribution channels or create unique complementarities.

in one market may fail to maintain their positions when converging technologies create opportunities to extend other platforms. Another problem can occur when opening a platform's inner workings to encourage the supply of complementary innovations: Too much openness can expose the company to imitation. International Business Machines Corp. made this mistake when it asked Microsoft and Intel to provide key components of its PC platform and did not contractually retain rights to the operating system or the microprocessor design.

Linux: Tipping the Market for Web Server Operating Systems In the market of Web server operating systems, Linux provides an excellent example of successful market tipping. This operating system was first introduced in 1991 by the Finnish graduate student Linus Torvalds and was based largely on the UNIX design. Linux has subsequently evolved through a formal and informal community of open-source programmers and users around the world. Linux's interface and installation requirements continue to limit its popularity among average consumers; as a result, there is an ongoing shortage of everyday desktop applications for Linux, compared to Microsoft Windows, the dominant software platform for the PC. However, Linux has managed to become the fastest-growing operating system used in the back office, particularly for Web servers.

From about 20% of the installed base for server software in 2005, Linux grew to about 50% of the market by 2006.¹¹ Its largest competitors in that market are UNIX, whose main distributor is Sun Microsystems, and the Windows server from Microsoft; both tend to be more expensive than a nominally free product, although nonexpert Linux users generally have to purchase more support services, such as installation and training, than Windows users do. Intel also adapted its microprocessors to run Linux, and this reduced hardware costs. Even Microsoft signed an agreement with Novell Inc. in 2007 to make sure that Windows interoperates with Linux in the future.

Several factors contributed to the success of Linux for back-office applications.¹² Linux offered not only a seemingly low cost of ownership but also very high quality, at least for skilled IT professionals. Without software applications, an operating system is of very limited utility. But the open-source community made sure that Linux worked exceptionally well with what may be considered the "killer" application for webmasters: Apache Software Foundation's free and open-source Apache Web server.

Still, we believe that Linux would not have become widely accepted as an enterprise software platform without the decision of numerous powerful companies, led by IBM and Hewlett-Packard Co., to provide support services for it and bundle it with their hardware servers and other software products. Linux is a case study that illustrates the ability to accomplish tipping through the power of a large, and still growing, coalition of service provider companies as well as users.

Tipping in the Internet Browser Market Another well-known example of tipping took place in the Internet browser market.¹³ Netscape Communications Corp. introduced the first mass-market browser in 1994 and dominated the segment for several years. Microsoft designed its own browser, Microsoft Internet Explorer, and bundled this "for free" with Windows from 1995 on. As hundreds of millions of new PCs shipped with Internet Explorer over the next several years, and as Microsoft steadily improved its browser technology, Netscape's browser dropped from around an 80% market share to a negligible presence.

The Microsoft-Netscape example is complicated by the questions of whether the browser is a separate product from the operating system and how a company with a monopoly in one market must behave when bundling across markets. By bundling a product for free that competitors often offered for sale, Microsoft violated antitrust law because it engaged in several anti-competitive practices while it had a monopolistic share in operating systems. For example, Microsoft pressured PC manufacturers and service providers not to bundle the Netscape Navigator Web browser.

Apart from the antitrust story, however, there are other lessons from Microsoft's strategy. One dominant platform can be a powerful distribution mechanism for a company that wants to enter other platform markets — if there are ways to bundle the technologies legally, use the same distribution channels or create unique complementarities between the different products. Windows could have served these functions for Internet Explorer even if Microsoft had avoided antitrust problems by offering Windows with and without the browser at different prices and by not pressuring PC manufacturers to avoid the competing product. Microsoft had much greater resources to continue investing in browser R&D. Netscape's management, however, also made a series of strategic and technical errors.

How might Netscape have maintained its early lead and prevented the market from tipping toward Microsoft? For one thing, Netscape managers misunderstood how to keep a market from tipping in a different direction. Once a comparable product is free, competitors have little choice but to reduce their prices to zero and find other ways to make money, such as through services or advertising. Netscape made the mistake of continuing to charge customers such as Dell Inc. and AOL as well as corporate users for the Navigator browser even after Microsoft began bundling a competitive browser for free. Netscape was also late to see that it could generate enormous advertising revenues from its highly popular Web site.

But perhaps Netscape's greatest mistake was to challenge Microsoft too directly and present the browser as an alternative computing platform before it had enough of a user base and ecosystem of complementors (Web site designers, Web application developers and Internet service providers, as well as PC assemblers who were licensing Navigator) to sustain its position.¹⁴ Navigator initially was a wonderful complementary application to Windows and might have remained so, at least for several more years. In retrospect, Netscape managers should have thought more carefully about how their early lead could quickly erode with a competitor such as Microsoft, which shipped hundreds of millions of copies of Windows each year.

Platform Leadership and Company Size

As the Microsoft-Netscape example suggests, size can sometimes be an advantage for companies seeking to tip a market. In fact, one issue that has surfaced in discussions with managers is the question of whether small or medium-sized companies can truly become platform leaders, or whether platform leadership is only an option for large companies like Microsoft, Intel or Cisco. We believe that coring is a possible option for any company because technology and architectural leadership do not directly depend on the size of the company. Qualcomm, for example, was little more than a startup company when it introduced its technology for wireless devices. JVC and even Microsoft and Intel were small companies when they first became platform leaders. And Linux was the product, at least initially, of a lone graduate student working in a remote corner of Europe. At the same time, though, smaller companies are likely to have a harder time negotiating with large enterprise customers. They may also find it difficult to tip markets on their own and generally will need to establish ecosystem partnerships or coalitions of providers and users — as JVC, Microsoft, Intel and Linux have done.

In general, becoming a platform leader requires a compelling vision of the future as well as the ability to create a vibrant ecosystem by evangelizing a business model that works both for the platform-leader wannabe and potential partners. It can some-

times be hard to convince others to follow a particular direction, for example, when an industry is undergoing transition and its contours are ill-defined, or when technology is evolving too rapidly. But these are the very conditions when companies that want to become platform leaders can stand out — precisely because they are so badly needed.

REFERENCES

1. Since we published our work on platform leadership in 2002, a number of students at MIT and elsewhere have inspired us to continue this research and, in particular, to investigate market or business factors that help platform-leader wannabes succeed. In particular, we would like to thank Ray Fung for his master's thesis, "Networking Vendor Strategy and Competition and Their Impact on Enterprise Network Design and Implementation" (MIT System Design and Management Program, 2006) and Makoto Ishii for his master's thesis, "A Strategic Method to Establish Sustainable Platform Businesses for Next-Generation Home-Network Environments" (MIT Sloan Fellows Program, 2006).
2. For an insightful exposition of drivers of platform emergence in the context of computing, see S. Greenstein, "Industrial Economics and Strategy: Computing Platforms," *IEEE Micro* 18, no. 3 (May-June 1998): 43-53; and T. Eisenmann, G. Parker and M. Van Alstyne, "Strategies for Two-Sided Markets," *Harvard Business Review* 84 (October 2006): 92-101.
3. We thus disagree with J. Sviokla and A. Paoni, "Every Product's a Platform," *Harvard Business Review* 83 (October 2005): 17-18.
4. "Search Market Share Update: Google Rises, MSN Falls, Yahoo Hovers," May 24, 2007, www.seroundtable.com/archives/013595.html.
5. This discussion of Qualcomm is based primarily on D. Yoffie, P. Yin and L. Kind, "Qualcomm Inc. 2004," Harvard Business School case no. 9-705-401 (Boston: Harvard Business School Publishing, 2005). See also Qualcomm Inc., "Qualcomm Business Model: A Formula for Innovation and Choice" (San Diego, California: Qualcomm, 2007).
6. Qualcomm Inc., "Annual Report 2006" (San Diego, California: Qualcomm, 2006).
7. See J. Saghbini, "Standards in the Data Storage Industry: Emergence, Sustainability, and the Battle for Platform Leadership" (Master's thesis, MIT System Design and Management, June 2005).
8. See C. Shapiro and H. Varian, "Information Rules: A Strategic Guide to the Network Economy" (Boston: Harvard Business School Press, 1998).
9. See A. Gawer and M. Cusumano, "Platform Leadership: How Intel, Microsoft, and Cisco Drive Industry Innovation" (Boston: Harvard Business School Press, 2002).
10. See Eisenmann, "Strategies."
11. DM Review Editorial Staff, "Industry Research: Linux Vs. Windows — Is the Gap Narrowing?," June 2005, www.dmreview.com/article_sub.cfm?articleid=1030321; and "Comparison of Windows and Linux," May 29, 2007, www.wikipedia.com.
12. See, for example, G. Moody, "Rebel Code: Inside Linux and the Open Source Revolution" (Cambridge, Massachusetts: Perseus, 2001); and Gawer, "Platform Leadership."
13. See M. Cusumano and D. Yoffie, "Competing on Internet Time: Lessons From Netscape and Its Battle with Microsoft" (New York: Free Press, 1998).
14. Cusumano, "Competing."

Reprint 49201.

Copyright © Massachusetts Institute of Technology, 2008. All rights reserved.



PDFs ■ Reprints ■ Permission to Copy ■ Back Issues

Articles published in MIT Sloan Management Review are copyrighted by the Massachusetts Institute of Technology unless otherwise specified at the end of an article.

MIT Sloan Management Review articles, permissions, and back issues can be purchased on our Web site: sloanreview.mit.edu or you may order through our Business Service Center (9 a.m.-5 p.m. ET) at the phone numbers listed below. Paper reprints are available in quantities of 250 or more.

To reproduce or transmit one or more MIT Sloan Management Review articles by electronic or mechanical means (including photocopying or archiving in any information storage or retrieval system) **requires written permission.**

To request permission, use our Web site: sloanreview.mit.edu
or

E-mail: smr-help@mit.edu

Call (US and International):617-253-7170 Fax: 617-258-9739

Posting of full-text SMR articles on publicly accessible Internet sites is prohibited. To obtain permission to post articles on secure and/or password-protected intranet sites, e-mail your request to smr-help@mit.edu.