



www.hbr.org

Strategy and the Internet

by Michael E. Porter

Included with this full-text *Harvard Business Review* article:

- 1 [Article Summary](#)
The Idea in Brief—*the core idea*
The Idea in Practice—*putting the idea to work*
- 2 [Strategy and the Internet](#)
- 20 [Further Reading](#)
A list of related materials, with annotations to guide further exploration of the article's ideas and applications

Strategy and the Internet

The Idea in Brief

Does the Internet render established rules about strategy obsolete? To the contrary, it makes them more vital than ever. Why? The Internet weakens industries' profitability, as rivals compete on price alone. And it no longer provides proprietary advantages, as virtually all companies now use the Web.

The Internet is no more than a tool—albeit a powerful one—that can support or damage your firm's strategic positioning. The key to using it most effectively? *Integrate* Internet initiatives into your company's overall strategy and operations so that they 1) complement, rather than cannibalize, your established competitive approaches and 2) create systemic advantages that your competitors can't copy.

Integrating Internet initiatives enhances your company's ability to develop unique products, proprietary content, distinctive processes, and strong personal service—all the things that create true value, and that have always defined competitive advantage.

The Idea in Practice

THE INTERNET'S INFLUENCE

The Internet powerfully influences industry structure and sustainable competitive advantage.

Industry structure derives from the basic forces of competition: competitor rivalry; entry barriers for new competitors; the threat of substitute offerings; and the bargaining power of suppliers, channels, and buyers. How does the Internet affect these forces?

- It's an open system whose technological advances level most industries' playing fields—thus intensifying competitive rivalry and reducing entry barriers.
- It dramatically increases available information, shifting bargaining power to buyers.

Sustainable competitive advantage comes from operational effectiveness (doing what your competitors do, but better) or strategic positioning (delivering unique value to customers by doing things *differently* than your competitors).

Most companies define Internet competition in terms of operational effectiveness (speed, flexibility, efficiency). But because competitors can easily copy your firm's advances in these areas, strategic positioning becomes most important.

THE INTERNET AS STRATEGIC COMPLEMENT

Although the Internet makes it difficult to sustain operational effectiveness, it makes it easier to maintain strategic positioning. How?

- It lets you create a customized, common information technology platform for all your company's activities—resulting in unique, integrated systems that reinforce the strategic fit among your firm's many functions. Even better, competitors can't easily imitate these systems.
- Rather than cannibalizing your traditional ways of competing, it can complement

them. For example, the Walgreens drug-store chain provides on-line prescription ordering. Because 90% of customers who order over the Web prefer to pick up their prescriptions at a store, Walgreens brick-and-mortar business benefits.

- By integrating virtual and physical activities to compensate for the Internet's performance limits (e.g., customers can't physically touch and test products), companies gain competitive advantage. For example, if you use your Web site to attract customers and draw them to flesh-and-blood salespeople who provide personalized advice and after-sales service, you reinforce connections—and strengthen sales.

The question isn't whether you should use the Internet or traditional methods to compete; it's how you can use *both* to your greatest strategic advantage.

Many have argued that the Internet renders strategy obsolete. In reality, the opposite is true. Because the Internet tends to weaken industry profitability without providing proprietary operational advantages, it is more important than ever for companies to distinguish themselves through strategy. The winners will be those that view the Internet as a complement to, not a cannibal of, traditional ways of competing.

Strategy and the Internet

by Michael E. Porter

The Internet is an extremely important new technology, and it is no surprise that it has received so much attention from entrepreneurs, executives, investors, and business observers. Caught up in the general fervor, many have assumed that the Internet changes everything, rendering all the old rules about companies and competition obsolete. That may be a natural reaction, but it is a dangerous one. It has led many companies, dot-coms and incumbents alike, to make bad decisions—decisions that have eroded the attractiveness of their industries and undermined their own competitive advantages. Some companies, for example, have used Internet technology to shift the basis of competition away from quality, features, and service and toward price, making it harder for anyone in their industries to turn a profit. Others have forfeited important proprietary advantages by rushing into misguided partnerships and outsourcing relationships. Until recently, the negative effects of these actions have been obscured by distorted signals from the marketplace. Now, however, the

consequences are becoming evident.

The time has come to take a clearer view of the Internet. We need to move away from the rhetoric about “Internet industries,” “e-business strategies,” and a “new economy” and see the Internet for what it is: an enabling technology—a powerful set of tools that can be used, wisely or unwisely, in almost any industry and as part of almost any strategy. We need to ask fundamental questions: Who will capture the economic benefits that the Internet creates? Will all the value end up going to customers, or will companies be able to reap a share of it? What will be the Internet’s impact on industry structure? Will it expand or shrink the pool of profits? And what will be its impact on strategy? Will the Internet bolster or erode the ability of companies to gain sustainable advantages over their competitors?

In addressing these questions, much of what we find is unsettling. I believe that the experiences companies have had with the Internet thus far must be largely discounted and that many of the lessons learned must be forgotten.

When seen with fresh eyes, it becomes clear that the Internet is not necessarily a blessing. It tends to alter industry structures in ways that dampen overall profitability, and it has a leveling effect on business practices, reducing the ability of any company to establish an operational advantage that can be sustained.

The key question is not whether to deploy Internet technology—companies have no choice if they want to stay competitive—but how to deploy it. Here, there is reason for optimism. Internet technology provides better opportunities for companies to establish distinctive strategic positionings than did previous generations of information technology. Gaining such a competitive advantage does not require a radically new approach to business. It requires building on the proven principles of effective strategy. The Internet per se will rarely be a competitive advantage. Many of the companies that succeed will be ones that use the Internet as a complement to traditional ways of competing, not those that set their Internet initiatives apart from their established operations. That is particularly good news for established companies, which are often in the best position to meld Internet and traditional approaches in ways that buttress existing advantages. But dot-coms can also be winners—if they understand the trade-offs between Internet and traditional approaches and can fashion truly distinctive strategies. Far from making strategy less important, as some have argued, the Internet actually makes strategy more essential than ever.

Distorted Market Signals

Companies that have deployed Internet technology have been confused by distorted market signals, often of their own creation. It is understandable, when confronted with a new business phenomenon, to look to marketplace outcomes for guidance. But in the early stages of the rollout of any important new technology, market signals can be unreliable. New technologies trigger rampant experimentation, by both companies and customers, and the experimentation is often economically unsustainable. As a result, market behavior is distorted and must be interpreted with caution.

That is certainly the case with the Internet. Consider the revenue side of the profit equation in industries in which Internet technology is widely used. Sales figures have been unreli-

able for three reasons. First, many companies have subsidized the purchase of their products and services in hopes of staking out a position on the Internet and attracting a base of customers. (Governments have also subsidized on-line shopping by exempting it from sales taxes.) Buyers have been able to purchase goods at heavy discounts, or even obtain them for free, rather than pay prices that reflect true costs. When prices are artificially low, unit demand becomes artificially high. Second, many buyers have been drawn to the Internet out of curiosity; they have been willing to conduct transactions on-line even when the benefits have been uncertain or limited. If Amazon.com offers an equal or lower price than a conventional bookstore and free or subsidized shipping, why not try it as an experiment? Sooner or later, though, some customers can be expected to return to more traditional modes of commerce, especially if subsidies end, making any assessment of customer loyalty based on conditions so far suspect. Finally, some “revenues” from on-line commerce have been received in the form of stock rather than cash. Much of the estimated \$450 million in revenues that Amazon has recognized from its corporate partners, for example, has come as stock. The sustainability of such revenue is questionable, and its true value hinges on fluctuations in stock prices.

If revenue is an elusive concept on the Internet, cost is equally fuzzy. Many companies doing business on-line have enjoyed subsidized inputs. Their suppliers, eager to affiliate themselves with and learn from dot-com leaders, have provided products, services, and content at heavily discounted prices. Many content providers, for example, rushed to provide their information to Yahoo! for next to nothing in hopes of establishing a beachhead on one of the Internet’s most visited sites. Some providers have even paid popular portals to distribute their content. Further masking true costs, many suppliers—not to mention employees—have agreed to accept equity, warrants, or stock options from Internet-related companies and ventures in payment for their services or products. Payment in equity does not appear on the income statement, but it is a real cost to shareholders. Such supplier practices have artificially depressed the costs of doing business on the Internet, making it appear more attractive than it really is. Finally, costs have been

Michael E. Porter is the Bishop William Lawrence University Professor at Harvard University; he is based at Harvard Business School in Boston. He has written many articles for HBR; the most recent, “Philanthropy’s New Agenda: Creating Value,” coauthored by Mark R. Kramer, appeared in the November–December 1999 issue. His book *Can Japan Compete?*, coauthored by Hiro-taka Takeuchi and Mariko Sakakibara, was recently published in the United States by Perseus/Basic Books.

Internet technology provides better opportunities for companies to establish distinctive strategic positionings than did previous generations of information technology.

distorted by the systematic understatement of the need for capital. Company after company touted the low asset intensity of doing business on-line, only to find that inventory, warehouses, and other investments were necessary to provide value to customers.

Signals from the stock market have been even more unreliable. Responding to investor enthusiasm over the Internet's explosive growth, stock valuations became decoupled from business fundamentals. They no longer provided an accurate guide as to whether real economic value was being created. Any company that has made competitive decisions based on influencing near-term share price or responding to investor sentiments has put itself at risk.

Distorted revenues, costs, and share prices have been matched by the unreliability of the financial metrics that companies have adopted. The executives of companies conducting business over the Internet have, conveniently, downplayed traditional measures of profitability and economic value. Instead, they have emphasized expansive definitions of revenue, numbers of customers, or, even more suspect, measures that might someday correlate with revenue, such as numbers of unique users ("reach"), numbers of site visitors, or click-through rates. Creative accounting approaches have also multiplied. Indeed, the Internet has given rise to an array of new performance metrics that have only a loose relationship to economic value, such as pro forma measures of income that remove "non-recurring" costs like acquisitions. The dubious connection between reported metrics and actual profitability has served only to amplify the confusing signals about what has been working in the marketplace. The fact that those metrics have been taken seriously by the stock market has muddied the waters even further. For all these reasons, the true financial performance of many Internet-related businesses is even worse than has been stated.

One might argue that the simple proliferation of dot-coms is a sign of the economic value of the Internet. Such a conclusion is premature at best. Dot-coms multiplied so rapidly for one major reason: they were able to raise capital without having to demonstrate viability. Rather than signaling a healthy business environment, the sheer number of dot-coms in many industries often revealed nothing more

than the existence of low barriers to entry, always a danger sign.

A Return to Fundamentals

It is hard to come to any firm understanding of the impact of the Internet on business by looking at the results to date. But two broad conclusions can be drawn. First, many businesses active on the Internet are artificial businesses competing by artificial means and propped up by capital that until recently had been readily available. Second, in periods of transition such as the one we have been going through, it often appears as if there are new rules of competition. But as market forces play out, as they are now, the old rules regain their currency. The creation of true economic value once again becomes the final arbiter of business success.

Economic value for a company is nothing more than the gap between price and cost, and it is reliably measured only by sustained profitability. To generate revenues, reduce expenses, or simply do something useful by deploying Internet technology is not sufficient evidence that value has been created. Nor is a company's current stock price necessarily an indicator of economic value. Shareholder value is a reliable measure of economic value only over the long run.

In thinking about economic value, it is useful to draw a distinction between the uses of the Internet (such as operating digital marketplaces, selling toys, or trading securities) and Internet technologies (such as site-customization tools or real-time communications services), which can be deployed across many uses. Many have pointed to the success of technology providers as evidence of the Internet's economic value. But this thinking is faulty. It is the uses of the Internet that ultimately create economic value. Technology providers can prosper for a time irrespective of whether the uses of the Internet are profitable. In periods of heavy experimentation, even sellers of flawed technologies can thrive. But unless the uses generate sustainable revenues or savings in excess of their cost of deployment, the opportunity for technology providers will shrivel as companies realize that further investment is economically unsound.

So how can the Internet be used to create economic value? To find the answer, we need to look beyond the immediate market signals

to the two fundamental factors that determine profitability:

- *industry structure*, which determines the profitability of the average competitor; and
- *sustainable competitive advantage*, which allows a company to outperform the average competitor.

These two underlying drivers of profitability are universal; they transcend any technology or type of business. At the same time, they vary widely by industry and company. The broad, supra-industry classifications so common in Internet parlance, such as business-to-consumer (or “B2C”) and business-to-business (or “B2B”) prove meaningless with respect to profitability. Potential profitability can be understood only by looking at individual industries and individual companies.

The Internet and Industry Structure

The Internet has created some new industries, such as on-line auctions and digital marketplaces. However, its greatest impact has been to enable the reconfiguration of existing industries that had been constrained by high costs for communicating, gathering information, or accomplishing transactions. Distance learning, for example, has existed for decades, with about one million students enrolling in correspondence courses every year. The Internet has the potential to greatly expand distance learning, but it did not create the industry. Similarly, the Internet provides an efficient means to order products, but catalog retailers with toll-free numbers and automated fulfillment centers have been around for decades. The Internet only changes the front end of the process.

Whether an industry is new or old, its structural attractiveness is determined by five underlying forces of competition: the intensity of rivalry among existing competitors, the barriers to entry for new competitors, the threat of substitute products or services, the bargaining power of suppliers, and the bargaining power of buyers. In combination, these forces determine how the economic value created by any product, service, technology, or way of competing is divided between, on the one hand, companies in an industry and, on the other, customers, suppliers, distributors, substitutes, and potential new entrants. Although some have argued that today’s rapid pace of technological change makes industry analysis less

valuable, the opposite is true. Analyzing the forces illuminates an industry’s fundamental attractiveness, exposes the underlying drivers of average industry profitability, and provides insight into how profitability will evolve in the future. The five competitive forces still determine profitability even if suppliers, channels, substitutes, or competitors change.

Because the strength of each of the five forces varies considerably from industry to industry, it would be a mistake to draw general conclusions about the impact of the Internet on long-term industry profitability; each industry is affected in different ways. Nevertheless, an examination of a wide range of industries in which the Internet is playing a role reveals some clear trends, as summarized in the exhibit “How the Internet Influences Industry Structure.” Some of the trends are positive. For example, the Internet tends to dampen the bargaining power of channels by providing companies with new, more direct avenues to customers. The Internet can also boost an industry’s efficiency in various ways, expanding the overall size of the market by improving its position relative to traditional substitutes.

But most of the trends are negative. Internet technology provides buyers with easier access to information about products and suppliers, thus bolstering buyer bargaining power. The Internet mitigates the need for such things as an established sales force or access to existing channels, reducing barriers to entry. By enabling new approaches to meeting needs and performing functions, it creates new substitutes. Because it is an open system, companies have more difficulty maintaining proprietary offerings, thus intensifying the rivalry among competitors. The use of the Internet also tends to expand the geographic market, bringing many more companies into competition with one another. And Internet technologies tend to reduce variable costs and tilt cost structures toward fixed cost, creating significantly greater pressure for companies to engage in destructive price competition.

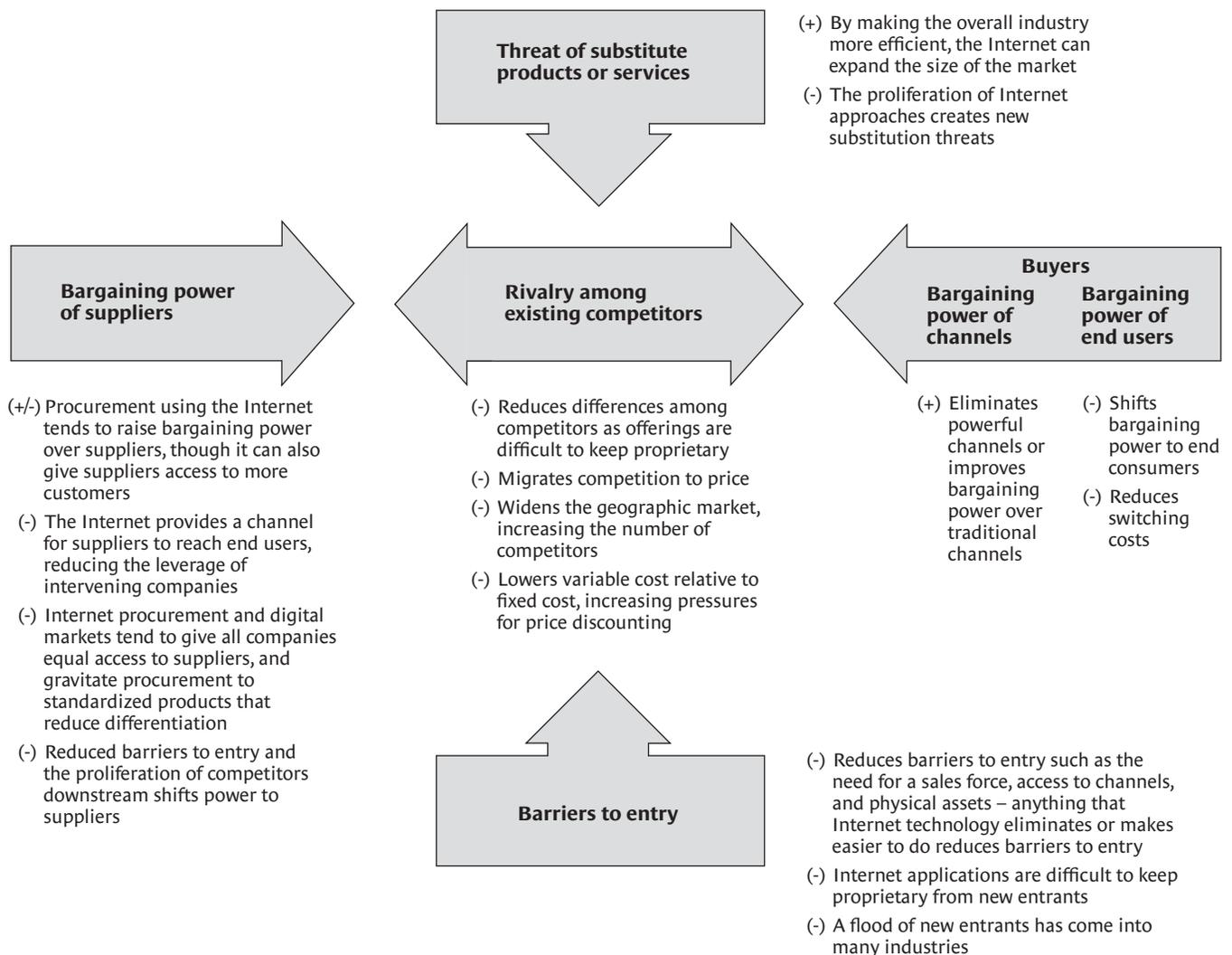
While deploying the Internet can expand the market, then, doing so often comes at the expense of average profitability. The great paradox of the Internet is that its very benefits—making information widely available; reducing the difficulty of purchasing, marketing, and distribution; allowing buyers and sellers to find and transact business with one another more

easily—also make it more difficult for companies to capture those benefits as profits.

We can see this dynamic at work in automobile retailing. The Internet allows customers to gather extensive information about products easily, from detailed specifications and repair records to wholesale prices for new cars and average values for used cars. Customers can also choose among many more options from which to buy, not just local dealers but also various types of Internet referral networks (such as Autoweb and AutoVantage) and on-

line direct dealers (such as Autobytel.com, AutoNation, and CarsDirect.com). Because the Internet reduces the importance of location, at least for the initial sale, it widens the geographic market from local to regional or national. Virtually every dealer or dealer group becomes a potential competitor in the market. It is more difficult, moreover, for on-line dealers to differentiate themselves, as they lack potential points of distinction such as showrooms, personal selling, and service departments. With more competitors selling

How the Internet Influences Industry Structure



This discussion is drawn from the author's research with David Sutton.
For a fuller discussion, see M.E. Porter, *Competitive Strategy*, Free Press, 1980.

largely undifferentiated products, the basis for competition shifts ever more toward price. Clearly, the net effect on the industry's structure is negative.

That does not mean that every industry in which Internet technology is being applied will be unattractive. For a contrasting example, look at Internet auctions. Here, customers and suppliers are fragmented and thus have little power. Substitutes, such as classified ads and flea markets, have less reach and are less convenient to use. And though the barriers to entry are relatively modest, companies can build economies of scale, both in infrastructure and, even more important, in the aggregation of many buyers and sellers, that deter new competitors or place them at a disadvantage. Finally, rivalry in this industry has been defined, largely by eBay, the dominant competitor, in terms of providing an easy-to-use marketplace in which revenue comes from listing and sales fees, while customers pay the cost of shipping. When Amazon and other rivals entered the business, offering free auctions, eBay maintained its prices and pursued other ways to attract and retain customers. As a result, the destructive price competition characteristic of other on-line businesses has been avoided.

eBay's role in the auction business provides an important lesson: industry structure is not fixed but rather is shaped to a considerable degree by the choices made by competitors. eBay has acted in ways that strengthen the profitability of its industry. In stark contrast, Buy.com, a prominent Internet retailer, acted in ways that undermined its industry, not to mention its own potential for competitive advantage. Buy.com achieved \$100 million in sales faster than any company in history, but it did so by defining competition solely on price. It sold products not only below full cost but at or below cost of goods sold, with the vain hope that it would make money in other ways. The company had no plan for being the low-cost provider; instead, it invested heavily in brand advertising and eschewed potential sources of differentiation by outsourcing all fulfillment and offering the bare minimum of customer service. It also gave up the opportunity to set itself apart from competitors by choosing not to focus on selling particular goods; it moved quickly beyond electronics, its initial category, into numerous other product categories in which it had no unique offering. Although the

company has been trying desperately to reposition itself, its early moves have proven extremely difficult to reverse.

The Myth of the First Mover

Given the negative implications of the Internet for profitability, why was there such optimism, even euphoria, surrounding its adoption? One reason is that everyone tended to focus on what the Internet could do and how quickly its use was expanding rather than on how it was affecting industry structure. But the optimism can also be traced to a widespread belief that the Internet would unleash forces that would enhance industry profitability. Most notable was the general assumption that the deployment of the Internet would increase switching costs and create strong network effects, which would provide first movers with competitive advantages and robust profitability. First movers would reinforce these advantages by quickly establishing strong new-economy brands. The result would be an attractive industry for the victors. This thinking does not, however, hold up to close examination.

Consider switching costs. Switching costs encompass all the costs incurred by a customer in changing to a new supplier—everything from hashing out a new contract to reentering data to learning how to use a different product or service. As switching costs go up, customers' bargaining power falls and the barriers to entry into an industry rise. While switching costs are nothing new, some observers argued that the Internet would raise them substantially. A buyer would grow familiar with one company's user interface and would not want to bear the cost of finding, registering with, and learning to use a competitor's site, or, in the case of industrial customers, integrating a competitor's systems with its own. Moreover, since Internet commerce allows a company to accumulate knowledge of customers' buying behavior, the company would be able to provide more tailored offerings, better service, and greater purchasing convenience—all of which buyers would be loath to forfeit. When people talk about the "stickiness" of Web sites, what they are often talking about is high switching costs.

In reality, though, switching costs are likely to be lower, not higher, on the Internet than they are for traditional ways of doing business,

including approaches using earlier generations of information systems such as EDI. On the Internet, buyers can often switch suppliers with just a few mouse clicks, and new Web technologies are systematically reducing switching costs even further. For example, companies like PayPal provide settlement services or Internet currency—so-called e-wallets—that enable customers to shop at different sites without having to enter personal information and credit card numbers. Content-consolidation tools such as OnePage allow users to avoid having to go back to sites over and over to retrieve information by enabling them to build customized Web pages that draw needed information dynamically from many sites. And the widespread adoption of XML standards will free companies from the need to reconfigure proprietary ordering systems and to create new procurement and logistical protocols when changing suppliers.

What about network effects, through which products or services become more valuable as more customers use them? A number of important Internet applications display network effects, including e-mail, instant messaging, auctions, and on-line message boards or chat rooms. Where such effects are significant, they can create demand-side economies of scale and raise barriers to entry. This, it has been widely argued, sets off a winner-take-all competition, leading to the eventual dominance of one or two companies.

But it is not enough for network effects to be present; to provide barriers to entry they also have to be proprietary to one company. The openness of the Internet, with its common standards and protocols and its ease of navigation, makes it difficult for a single company to capture the benefits of a network effect. (America Online, which has managed to maintain borders around its on-line community, is an exception, not the rule.) And even if a company is lucky enough to control a network effect, the effect often reaches a point of diminishing returns once there is a critical mass of customers. Moreover, network effects are subject to a self-limiting mechanism. A particular product or service first attracts the customers whose needs it best meets. As penetration grows, however, it will tend to become less effective in meeting the needs of the remaining customers in the market, providing an opening for competitors with different offerings. Fi-

nally, creating a network effect requires a large investment that may offset future benefits. The network effect is, in many respects, akin to the experience curve, which was also supposed to lead to market-share dominance—through cost advantages, in that case. The experience curve was an oversimplification, and the single-minded pursuit of experience curve advantages proved disastrous in many industries.

Internet brands have also proven difficult to build, perhaps because the lack of physical presence and direct human contact makes virtual businesses less tangible to customers than traditional businesses. Despite huge outlays on advertising, product discounts, and purchasing incentives, most dot-com brands have not approached the power of established brands, achieving only a modest impact on loyalty and barriers to entry.

Another myth that has generated unfounded enthusiasm for the Internet is that partnering is a win-win means to improve industry economics. While partnering is a well-established strategy, the use of Internet technology has made it much more widespread. Partnering takes two forms. The first involves complements: products that are used in tandem with another industry's product. Computer software, for example, is a complement to computer hardware. In Internet commerce, complements have proliferated as companies have sought to offer broader arrays of products, services, and information. Partnering to assemble complements, often with companies who are also competitors, has been seen as a way to speed industry growth and move away from narrow-minded, destructive competition.

But this approach reveals an incomplete understanding of the role of complements in competition. Complements are frequently important to an industry's growth—spreadsheet applications, for example, accelerated the expansion of the personal computer industry—but they have no direct relationship to industry profitability. While a close substitute reduces potential profitability, for example, a close complement can exert either a positive or a negative influence. Complements affect industry profitability indirectly through their influence on the five competitive forces. If a complement raises switching costs for the combined product offering, it can raise profitability. But if a complement works to standard-

Another myth that has generated unfounded enthusiasm for the Internet is that partnering is a win-win means to improve industry economics.

ize the industry's product offering, as Microsoft's operating system has done in personal computers, it will increase rivalry and depress profitability.

With the Internet, widespread partnering with producers of complements is just as likely to exacerbate an industry's structural problems as mitigate them. As partnerships proliferate, companies tend to become more alike, which heats up rivalry. Instead of focusing on their own strategic goals, moreover, companies are forced to balance the many potentially conflicting objectives of their partners while also educating them about the business. Rivalry often becomes more unstable, and since producers of complements can be potential competitors, the threat of entry increases.

Another common form of partnering is outsourcing. Internet technologies have made it easier for companies to coordinate with their suppliers, giving widespread currency to the notion of the "virtual enterprise"—a business created largely out of purchased products, components, and services. While extensive outsourcing can reduce near-term costs and improve flexibility, it has a dark side when it comes to industry structure. As competitors turn to the same vendors, purchased inputs become more homogeneous, eroding company distinctiveness and increasing price competition. Outsourcing also usually lowers barriers to entry because a new entrant need only assemble purchased inputs rather than build its own capabilities. In addition, companies lose control over important elements of their business, and crucial experience in components, assembly, or services shifts to suppliers, enhancing their power in the long run.

The Future of Internet Competition

While each industry will evolve in unique ways, an examination of the forces influencing industry structure indicates that the deployment of Internet technology will likely continue to put pressure on the profitability of many industries. Consider the intensity of competition, for example. Many dot-coms are going out of business, which would seem to indicate that consolidation will take place and rivalry will be reduced. But while some consolidation among new players is inevitable, many established companies are now more familiar with Internet technology and are rapidly deploying on-line applications. With a combina-

tion of new and old companies and generally lower entry barriers, most industries will likely end up with a net increase in the number of competitors and fiercer rivalry than before the advent of the Internet.

The power of customers will also tend to rise. As buyers' initial curiosity with the Web wanes and subsidies end, companies offering products or services on-line will be forced to demonstrate that they provide real benefits. Already, customers appear to be losing interest in services like Priceline.com's reverse auctions because the savings they provide are often outweighed by the hassles involved. As customers become more familiar with the technology, their loyalty to their initial suppliers will also decline; they will realize that the cost of switching is low.

A similar shift will affect advertising-based strategies. Even now, advertisers are becoming more discriminating, and the rate of growth of Web advertising is slowing. Advertisers can be expected to continue to exercise their bargaining power to push down rates significantly, aided and abetted by new brokers of Internet advertising.

Not all the news is bad. Some technological advances will provide opportunities to enhance profitability. Improvements in streaming video and greater availability of low-cost bandwidth, for example, will make it easier for customer service representatives, or other company personnel, to speak directly to customers through their computers. Internet sellers will be able to better differentiate themselves and shift buyers' focus away from price. And services such as automatic bill paying by banks may modestly boost switching costs. In general, however, new Internet technologies will continue to erode profitability by shifting power to customers.

To understand the importance of thinking through the longer-term structural consequences of the Internet, consider the business of digital marketplaces. Such marketplaces automate corporate procurement by linking many buyers and suppliers electronically. The benefits to buyers include low transaction costs, easier access to price and product information, convenient purchase of associated services, and, sometimes, the ability to pool volume. The benefits to suppliers include lower selling costs, lower transaction costs, access to wider markets, and the avoidance of powerful

channels.

From an industry structure standpoint, the attractiveness of digital marketplaces varies depending on the products involved. The most important determinant of a marketplace's profit potential is the intrinsic power of the buyers and sellers in the particular product area. If either side is concentrated or possesses differentiated products, it will gain bargaining power over the marketplace and capture most of the value generated. If buyers and sellers are fragmented, however, their bargaining power will be weak, and the marketplace will have a much better chance of being profitable. Another important determinant of industry structure is the threat of substitution. If it is relatively easy for buyers and sellers to transact business directly with one another, or to set up their own dedicated markets, independent marketplaces will be unlikely to sustain high levels of profit. Finally, the ability to create barriers to entry is critical. Today, with dozens of marketplaces competing in some industries and with buyers and sellers dividing their purchases or operating their own markets to prevent any one marketplace from gaining power, it is clear that modest entry barriers are a real challenge to profitability.

Competition among digital marketplaces is in transition, and industry structure is evolving. Much of the economic value created by marketplaces derives from the standards they establish, both in the underlying technology platform and in the protocols for connecting and exchanging information. But once these standards are put in place, the added value of the marketplace may be limited. Anything buyers or suppliers provide to a marketplace, such as information on order specifications or inventory availability, can be readily provided on their own proprietary sites. Suppliers and customers can begin to deal directly on-line without the need for an intermediary. And new technologies will undoubtedly make it easier for parties to search for and exchange goods and information with one another.

In some product areas, marketplaces should enjoy ongoing advantages and attractive profitability. In fragmented industries such as real estate and furniture, for example, they could prosper. And new kinds of value-added services may arise that only an independent marketplace could provide. But in many product areas, marketplaces may be superseded by di-

rect dealing or by the unbundling of purchasing, information, financing, and logistical services; in other areas, they may be taken over by participants or industry associations as cost centers. In such cases, marketplaces will provide a valuable "public good" to participants but will not themselves be likely to reap any enduring benefits. Over the long haul, moreover, we may well see many buyers back away from open marketplaces. They may once again focus on building close, proprietary relationships with fewer suppliers, using Internet technologies to gain efficiency improvements in various aspects of those relationships.

The Internet and Competitive Advantage

If average profitability is under pressure in many industries influenced by the Internet, it becomes all the more important for individual companies to set themselves apart from the pack—to be more profitable than the average performer. The only way to do so is by achieving a sustainable competitive advantage—by operating at a lower cost, by commanding a premium price, or by doing both. Cost and price advantages can be achieved in two ways. One is operational effectiveness—doing the same things your competitors do but doing them better. Operational effectiveness advantages can take myriad forms, including better technologies, superior inputs, better-trained people, or a more effective management structure. The other way to achieve advantage is strategic positioning—doing things differently from competitors, in a way that delivers a unique type of value to customers. This can mean offering a different set of features, a different array of services, or different logistical arrangements. The Internet affects operational effectiveness and strategic positioning in very different ways. It makes it harder for companies to sustain operational advantages, but it opens new opportunities for achieving or strengthening a distinctive strategic positioning.

Operational Effectiveness. The Internet is arguably the most powerful tool available today for enhancing operational effectiveness. By easing and speeding the exchange of real-time information, it enables improvements throughout the entire value chain, across almost every company and industry. And because it is an open platform with com-

mon standards, companies can often tap into its benefits with much less investment than was required to capitalize on past generations of information technology.

But simply improving operational effectiveness does not provide a competitive advantage. Companies only gain advantages if they are able to achieve and sustain higher levels of operational effectiveness than competitors. That is an exceedingly difficult proposition even in the best of circumstances. Once a company establishes a new best practice, its rivals tend to copy it quickly. Best practice competition eventually leads to competitive convergence, with many companies doing the same things in the same ways. Customers end up making decisions based on price, undermining industry profitability.

The nature of Internet applications makes it more difficult to sustain operational advantages than ever. In previous generations of information technology, application development was often complex, arduous, time consuming, and hugely expensive. These traits made it harder to gain an IT advantage, but they also made it difficult for competitors to imitate information systems. The openness of the Internet, combined with advances in software architecture, development tools, and modularity, makes it much easier for companies to design and implement applications. The drugstore chain CVS, for example, was able to roll out a complex Internet-based procurement application in just 60 days. As the fixed costs of developing systems decline, the barriers to imitation fall as well.

Today, nearly every company is developing similar types of Internet applications, often drawing on generic packages offered by third-party developers. The resulting improvements in operational effectiveness will be broadly shared, as companies converge on the same applications with the same benefits. Very rarely will individual companies be able to gain durable advantages from the deployment of “best-of-breed” applications.

Strategic Positioning. As it becomes harder to sustain operational advantages, strategic positioning becomes all the more important. If a company cannot be more operationally effective than its rivals, the only way to generate higher levels of economic value is to gain a cost advantage or price premium by competing in a distinctive way. Ironically, companies

today define competition involving the Internet almost entirely in terms of operational effectiveness. Believing that no sustainable advantages exist, they seek speed and agility, hoping to stay one step ahead of the competition. Of course, such an approach to competition becomes a self-fulfilling prophecy. Without a distinctive strategic direction, speed and flexibility lead nowhere. Either no unique competitive advantages are created, or improvements are generic and cannot be sustained.

Having a strategy is a matter of discipline. It requires a strong focus on profitability rather than just growth, an ability to define a unique value proposition, and a willingness to make tough trade-offs in choosing what not to do. A company must stay the course, even during times of upheaval, while constantly improving and extending its distinctive positioning. Strategy goes far beyond the pursuit of best practices. It involves the configuration of a tailored value chain—the series of activities required to produce and deliver a product or service—that enables a company to offer unique value. To be defensible, moreover, the value chain must be highly integrated. When a company’s activities fit together as a self-reinforcing system, any competitor wishing to imitate a strategy must replicate the whole system rather than copy just one or two discrete product features or ways of performing particular activities. (See the sidebar “The Six Principles of Strategic Positioning.”)

The Absence of Strategy

Many of the pioneers of Internet business, both dot-coms and established companies, have competed in ways that violate nearly every precept of good strategy. Rather than focus on profits, they have sought to maximize revenue and market share at all costs, pursuing customers indiscriminately through discounting, giveaways, promotions, channel incentives, and heavy advertising. Rather than concentrate on delivering real value that earns an attractive price from customers, they have pursued indirect revenues from sources such as advertising and click-through fees from Internet commerce partners. Rather than make trade-offs, they have rushed to offer every conceivable product, service, or type of information. Rather than tailor the value chain in a unique way, they have aped

the activities of rivals. Rather than build and maintain control over proprietary assets and marketing channels, they have entered into a rash of partnerships and outsourcing relationships, further eroding their own distinctiveness. While it is true that some companies have avoided these mistakes, they are exceptions to the rule.

By ignoring strategy, many companies have undermined the structure of their industries, hastened competitive convergence, and reduced the likelihood that they or anyone else will gain a competitive advantage. A destructive, zero-sum form of competition has been set in motion that confuses the acquisition of customers with the building of profitability. Worse yet, price has been defined as the primary if not the sole competitive variable. Instead of emphasizing the Internet's ability to support convenience, service, specialization, customization, and other forms of value that

justify attractive prices, companies have turned competition into a race to the bottom. Once competition is defined this way, it is very difficult to turn back. (See the sidebar "Words for the Unwise: The Internet's Destructive Lexicon.")

Even well-established, well-run companies have been thrown off track by the Internet. Forgetting what they stand for or what makes them unique, they have rushed to implement hot Internet applications and copy the offerings of dot-coms. Industry leaders have compromised their existing competitive advantages by entering market segments to which they bring little that is distinctive. Merrill Lynch's move to imitate the low-cost on-line offerings of its trading rivals, for example, risks undermining its most precious advantage—its skilled brokers. And many established companies, reacting to misguided investor enthusiasm, have hastily cobbled together Internet

The Six Principles of Strategic Positioning

To establish and maintain a distinctive strategic positioning, a company needs to follow six fundamental principles.

First, it must start with the *right goal*: superior long-term return on investment. Only by grounding strategy in sustained profitability will real economic value be generated. Economic value is created when customers are willing to pay a price for a product or service that exceeds the cost of producing it. When goals are defined in terms of volume or market share leadership, with profits assumed to follow, poor strategies often result. The same is true when strategies are set to respond to the perceived desires of investors.

Second, a company's strategy must enable it to deliver a *value proposition*, or set of benefits, different from those that competitors offer. Strategy, then, is neither a quest for the universally best way of competing nor an effort to be all things to every customer. It defines a way of competing that delivers unique value in a particular set of uses or for a particular set of customers.

Third, strategy needs to be reflected in a *distinctive value chain*. To establish a sustainable competitive advantage, a company must perform different activities than rivals

or perform similar activities in different ways. A company must configure the way it conducts manufacturing, logistics, service delivery, marketing, human resource management, and so on differently from rivals and tailored to its unique value proposition. If a company focuses on adopting best practices, it will end up performing most activities similarly to competitors, making it hard to gain an advantage.

Fourth, robust strategies involve *trade-offs*. A company must abandon or forgo some product features, services, or activities in order to be unique at others. Such trade-offs, in the product and in the value chain, are what make a company truly distinctive. When improvements in the product or in the value chain do not require trade-offs, they often become new best practices that are imitated because competitors can do so with no sacrifice to their existing ways of competing. Trying to be all things to all customers almost guarantees that a company will lack any advantage.

Fifth, strategy defines how all the elements of what a company does *fit* together. A strategy involves making choices throughout the value chain that are interdependent; all a company's activities must be mutually

reinforcing. A company's product design, for example, should reinforce its approach to the manufacturing process, and both should leverage the way it conducts after-sales service. Fit not only increases competitive advantage but also makes a strategy harder to imitate. Rivals can copy one activity or product feature fairly easily, but will have much more difficulty duplicating a whole system of competing. Without fit, discrete improvements in manufacturing, marketing, or distribution are quickly matched.

Finally, strategy involves *continuity* of direction. A company must define a distinctive value proposition that it will stand for, even if that means forgoing certain opportunities. Without continuity of direction, it is difficult for companies to develop unique skills and assets or build strong reputations with customers. Frequent corporate "reinvention," then, is usually a sign of poor strategic thinking and a route to mediocrity. Continuous improvement is a necessity, but it must always be guided by a strategic direction.

For a fuller description, see M.E. Porter, "What Is Strategy?" (HBR November–December 1996).

units in a mostly futile effort to boost their value in the stock market.

It did not have to be this way—and it does not have to be in the future. When it comes to reinforcing a distinctive strategy, tailoring activities, and enhancing fit, the Internet actually provides a better technological platform than previous generations of IT. Indeed, IT worked against strategy in the past. Packaged software applications were hard to customize, and companies were often forced to change the way they conducted activities in order to conform to the “best practices” embedded in the software. It was also extremely difficult to connect discrete applications to one another. Enterprise resource planning (ERP) systems linked activities, but again companies were forced to adapt their ways of doing things to the software. As a result, IT has been a force for standardizing activities and speeding competitive convergence.

Internet architecture, together with other improvements in software architecture and development tools, has turned IT into a far more powerful tool for strategy. It is much easier to customize packaged Internet applications to a company’s unique strategic positioning. By providing a common IT delivery platform across the value chain, Internet architecture and standards also make it possible to build

truly integrated and customized systems that reinforce the fit among activities. (See the sidebar “The Internet and the Value Chain.”)

To gain these advantages, however, companies need to stop their rush to adopt generic, “out of the box” packaged applications and instead tailor their deployment of Internet technology to their particular strategies. Although it remains more difficult to customize packaged applications, the very difficulty of the task contributes to the sustainability of the resulting competitive advantage.

The Internet as Complement

To capitalize on the Internet’s strategic potential, executives and entrepreneurs alike will need to change their points of view. It has been widely assumed that the Internet is cannibalistic, that it will replace all conventional ways of doing business and overturn all traditional advantages. That is a vast exaggeration. There is no doubt that real trade-offs can exist between Internet and traditional activities. In the record industry, for example, on-line music distribution may reduce the need for CD-manufacturing assets. Overall, however, the trade-offs are modest in most industries. While the Internet will replace certain elements of industry value chains, the complete cannibalization of the value chain will be exceedingly rare. Even in the music business, many traditional activities—such as finding and promoting talented new artists, producing and recording music, and securing airplay—will continue to be highly important.

The risk of channel conflict also appears to have been overstated. As on-line sales have become more common, traditional channels that were initially skeptical of the Internet have embraced it. Far from always cannibalizing those channels, Internet technology can expand opportunities for many of them. The threat of disintermediation of channels appears considerably lower than initially predicted.

Frequently, in fact, Internet applications address activities that, while necessary, are not decisive in competition, such as informing customers, processing transactions, and procuring inputs. Critical corporate assets—skilled personnel, proprietary product technology, efficient logistical systems—remain intact, and they are often strong enough to preserve existing competitive advantages.

Words for the Unwise: The Internet’s Destructive Lexicon

The misguided approach to competition that characterizes business on the Internet has even been embedded in the language used to discuss it. Instead of talking in terms of strategy and competitive advantage, dot-coms and other Internet players talk about “business models.” This seemingly innocuous shift in terminology speaks volumes. The definition of a business model is murky at best. Most often, it seems to refer to a loose conception of how a company does business and generates revenue. Yet simply having a business model is an exceedingly low bar to set for building a company. Generating revenue is a far cry from creating economic value, and no business model can be evaluated inde-

pendently of industry structure. The business model approach to management becomes an invitation for faulty thinking and self-delusion.

Other words in the Internet lexicon also have unfortunate consequences. The terms “e-business” and “e-strategy” have been particularly problematic. By encouraging managers to view their Internet operations in isolation from the rest of the business, they can lead to simplistic approaches to competing using the Internet and increase the pressure for competitive imitation. Established companies fail to integrate the Internet into their proven strategies and thus never harness their most important advantages.

In many cases, the Internet complements, rather than cannibalizes, companies' traditional activities and ways of competing. Consider Walgreens, the most successful pharmacy chain in the United States. Walgreens introduced a Web site that provides customers with extensive information and allows them to order prescriptions on-line. Far from cannibalizing the company's stores, the Web site has underscored their value. Fully 90% of customers who place orders over the Web prefer to pick up their prescriptions at a nearby store rather than have them shipped to their homes. Walgreens has found that its extensive network of stores remains a potent advantage, even as some ordering shifts to the Internet.

Another good example is W.W. Grainger, a distributor of maintenance products and spare parts to companies. A middleman with stocking locations all over the United States, Grainger would seem to be a textbook case of an old-economy company set to be made obso-

lete by the Internet. But Grainger rejected the assumption that the Internet would undermine its strategy. Instead, it tightly coordinated its aggressive on-line efforts with its traditional business. The results so far are revealing. Customers who purchase on-line also continue to purchase through other means—Grainger estimates a 9% incremental growth in sales for customers who use the on-line channel above the normalized sales of customers who use only traditional means. Grainger, like Walgreens, has also found that Web ordering increases the value of its physical locations. Like the buyers of prescription drugs, the buyers of industrial supplies often need their orders immediately. It is faster and cheaper for them to pick up supplies at a local Grainger outlet than to wait for delivery. Tightly integrating the site and stocking locations not only increases the overall value to customers, it reduces Grainger's costs as well. It is inherently more efficient to take and pro-

The Internet and the Value Chain

The basic tool for understanding the influence of information technology on companies is the value chain—the set of activities through which a product or service is created and delivered to customers. When a company competes in any industry, it performs a number of discrete but interconnected value-creating activities, such as operating a sales force, fabricating a component, or delivering products, and these activities have points of connection with the activities of suppliers, channels, and customers. The value chain is a framework for identifying all these activities and analyzing how they affect both a company's costs and the value delivered to buyers.

Because every activity involves the creation, processing, and communication of information, information technology has a pervasive influence on the value chain. The special advantage of the Internet is the ability to link one activity with others and make real-time data created in one activity widely available, both within the company and with outside suppliers, channels, and customers. By incorporating a common, open set of communication protocols, Internet technology provides a standardized infrastructure, an intuitive browser interface for information access and delivery,

bidirectional communication, and ease of connectivity—all at much lower cost than private networks and electronic data interchange, or EDI.

Many of the most prominent applications of the Internet in the value chain are shown in the figure on the next page. Some involve moving physical activities on-line, while others involve making physical activities more cost effective.

But for all its power, the Internet does not represent a break from the past; rather, it is the latest stage in the ongoing evolution of information technology.¹ Indeed, the technological possibilities available today derive not just from the Internet architecture but also from complementary technological advances such as scanning, object-oriented programming, relational databases, and wireless communications.

To see how these technological improvements will ultimately affect the value chain, some historical perspective is illuminating.² The evolution of information technology in business can be thought of in terms of five overlapping stages, each of which evolved out of constraints presented by the previous generation. The earliest IT systems automated discrete transactions such as order entry and ac-

counting. The next stage involved the fuller automation and functional enhancement of individual activities such as human resource management, sales force operations, and product design. The third stage, which is being accelerated by the Internet, involves cross-activity integration, such as linking sales activities with order processing. Multiple activities are being linked together through such tools as customer relationship management (CRM), supply chain management (SCM), and enterprise resource planning (ERP) systems. The fourth stage, which is just beginning, enables the integration of the value chain and entire value system, that is, the set of value chains in an entire industry, encompassing those of tiers of suppliers, channels, and customers. SCM and CRM are starting to merge, as end-to-end applications involving customers, channels, and suppliers link orders to, for example, manufacturing, procurement, and service delivery. Soon to be integrated is product development, which has been largely separate. Complex product models will be exchanged among parties, and Internet procurement will move from standard commodities to engineered items.

In the upcoming fifth stage, information technology will be used not only to connect

the various activities and players in the value system but to optimize its workings in real time. Choices will be made based on information from multiple activities and corporate entities. Production decisions, for example, will automatically factor in the capacity available at multiple facilities and the inventory available at multiple suppliers. While early fifth-stage applications will involve relatively simple optimization of sourcing, production, logistical, and servicing transactions, the deeper levels of optimization will involve the

product design itself. For example, product design will be optimized and customized based on input not only from factories and suppliers but also from customers.

The power of the Internet in the value chain, however, must be kept in perspective. While Internet applications have an important influence on the cost and quality of activities, they are neither the only nor the dominant influence. Conventional factors such as scale, the skills of personnel, product and process technology, and in-

vestments in physical assets also play prominent roles. The Internet is transformational in some respects, but many traditional sources of competitive advantage remain intact.

1. See M.E. Porter and V.E. Millar, "How Information Gives You Competitive Advantage," (HBR July–August 1985) for a framework that helps put the Internet's current influence in context.
2. This discussion is drawn from the author's research with Philip Bligh.

Prominent Applications of the Internet in the Value Chain

<p>Firm Infrastructure</p> <ul style="list-style-type: none"> • Web-based, distributed financial and ERP systems • On-line investor relations (e.g., information dissemination, broadcast conference calls) 				
<p>Human Resource Management</p> <ul style="list-style-type: none"> • Self-service personnel and benefits administration • Web-based training • Internet-based sharing and dissemination of company information • Electronic time and expense reporting 				
<p>Technology Development</p> <ul style="list-style-type: none"> • Collaborative product design across locations and among multiple value-system participants • Knowledge directories accessible from all parts of the organization • Real-time access by R&D to on-line sales and service information 				
<p>Procurement</p> <ul style="list-style-type: none"> • Internet-enabled demand planning; real-time available-to-promise/capable-to-promise and fulfillment • Other linkage of purchase, inventory, and forecasting systems with suppliers • Automated "requisition to pay" • Direct and indirect procurement via marketplaces, exchanges, auctions, and buyer-seller matching 				
<p>Inbound Logistics</p> <ul style="list-style-type: none"> • Real-time integrated scheduling, shipping, warehouse management, demand management and planning, and advanced planning and scheduling across the company and its suppliers • Dissemination throughout the company of real-time inbound and in-progress inventory data 	<p>Operations</p> <ul style="list-style-type: none"> • Integrated information exchange, scheduling, and decision making in in-house plants, contract assemblers, and components suppliers • Real-time available-to-promise and capable-to-promise information available to the sales force and channels 	<p>Outbound Logistics</p> <ul style="list-style-type: none"> • Real-time transaction of orders whether initiated by an end consumer, a sales person, or a channel partner • Automated customer-specific agreements and contract terms • Customer and channel access to product development and delivery status • Collaborative integration with customer forecasting systems • Integrated channel management including information exchange, warranty claims, and contract management (versioning, process control) 	<p>Marketing and Sales</p> <ul style="list-style-type: none"> • On-line sales channels including Web sites and marketplaces • Real-time inside and outside access to customer information, product catalogs, dynamic pricing, inventory availability, on-line submission of quotes, and order entry • On-line product configurators • Customer-tailored marketing via customer profiling • Push advertising • Tailored on-line access • Real-time customer feedback through Web surveys, opt-in/opt-out marketing, and promotion response tracking 	<p>After-Sales Service</p> <ul style="list-style-type: none"> • On-line support of customer service representatives through e-mail response management, billing integration, co-browse, chat, "call me now," voice-over-IP, and other uses of video streaming • Customer self-service via Web sites and intelligent service request processing including updates to billing and shipping profiles • Real-time field service access to customer account review, schematic review, parts availability and ordering, work-order update, and service parts management
<p>← • Web-distributed supply chain management →</p>				

cess orders over the Web than to use traditional methods, but more efficient to make bulk deliveries to a local stocking location than to ship individual orders from a central warehouse.

Grainger has also found that its printed catalog bolsters its on-line operation. Many companies' first instinct is to eliminate printed catalogs once their content is replicated on-line. But Grainger continues to publish its catalog, and it has found that each time a new one is distributed, on-line orders surge. The catalog has proven to be a good tool for promoting the Web site while continuing to be a convenient way of packaging information for buyers.

In some industries, the use of the Internet represents only a modest shift from well-established practices. For catalog retailers like Lands' End, providers of electronic data interchange services like General Electric, direct marketers like Geico and Vanguard, and many other kinds of companies, Internet business looks much the same as traditional business. In these industries, established companies enjoy particularly important synergies between their on-line and traditional operations, which make it especially difficult for dot-coms to compete. Examining segments of industries with characteristics similar to those supporting on-line businesses—in which customers are willing to forgo personal service and immediate delivery in order to gain convenience or lower prices, for instance—can also provide an important reality check in estimating the size of the Internet opportunity. In the prescription drug business, for example, mail orders represented only about 13% of all purchases in the late 1990s. Even though on-line drugstores may draw more customers than the mail-order channel, it is unlikely that they will supplant their physical counterparts.

Virtual activities do not eliminate the need for physical activities, but often amplify their importance. The complementarity between Internet activities and traditional activities arises for a number of reasons. First, introducing Internet applications in one activity often places greater demands on physical activities elsewhere in the value chain. Direct ordering, for example, makes warehousing and shipping more important. Second, using the Internet in one activity can have systemic consequences, requiring new or enhanced physical activities that are often unanticipated. Internet-based

job-posting services, for example, have greatly reduced the cost of reaching potential job applicants, but they have also flooded employers with electronic résumés. By making it easier for job seekers to distribute résumés, the Internet forces employers to sort through many more unsuitable candidates. The added back-end costs, often for physical activities, can end up outweighing the up-front savings. A similar dynamic often plays out in digital marketplaces. Suppliers are able to reduce the transactional cost of taking orders when they move on-line, but they often have to respond to many additional requests for information and quotes, which, again, places new strains on traditional activities. Such systemic effects underscore the fact that Internet applications are not stand-alone technologies; they must be integrated into the overall value chain.

Third, most Internet applications have some shortcomings in comparison with conventional methods. While Internet technology can do many useful things today and will surely improve in the future, it cannot do everything. Its limits include the following:

- Customers cannot physically examine, touch, and test products or get hands-on help in using or repairing them.
- Knowledge transfer is restricted to codified knowledge, sacrificing the spontaneity and judgment that can result from interaction with skilled personnel.
- The ability to learn about suppliers and customers (beyond their mere purchasing habits) is limited by the lack of face-to-face contact.
- The lack of human contact with the customer eliminates a powerful tool for encouraging purchases, trading off terms and conditions, providing advice and reassurance, and closing deals.
- Delays are involved in navigating sites and finding information and are introduced by the requirement for direct shipment.
- Extra logistical costs are required to assemble, pack, and move small shipments.
- Companies are unable to take advantage of low-cost, nontransactional functions performed by sales forces, distribution channels, and purchasing departments (such as performing limited service and maintenance functions at a customer site).
- The absence of physical facilities circumscribes some functions and reduces a means to reinforce image and establish performance.

- Attracting new customers is difficult given the sheer magnitude of the available information and buying options.

Traditional activities, often modified in some way, can compensate for these limits, just as the shortcomings of traditional methods—such as lack of real-time information, high cost of face-to-face interaction, and high cost of producing physical versions of information—can be offset by Internet methods. Frequently, in fact, an Internet application and a traditional method benefit each other. For example, many companies have found that Web sites that supply product information and support direct ordering make traditional sales forces more, not less, productive and valuable. The sales force can compensate for the limits of the site by providing personalized advice and after-sales service, for instance. And the site can make the sales force more productive by automating the exchange of routine information and serving as an efficient new conduit for leads. The fit between company activities, a cornerstone of strategic positioning, is in this way strengthened by the deployment of Internet technology.

Once managers begin to see the potential of the Internet as a complement rather than a cannibal, they will take a very different approach to organizing their on-line efforts. Many established companies, believing that the new economy operated under new rules, set up their Internet operations in stand-alone units. Fear of cannibalization, it was argued, would deter the mainstream organization from deploying the Internet aggressively. A separate unit was also helpful for investor relations, and it facilitated IPOs, tracking stocks, and spin-offs, enabling companies to tap into the market's appetite for Internet ventures and provide special incentives to attract Internet talent.

But organizational separation, while understandable, has often undermined companies' ability to gain competitive advantages. By creating separate Internet strategies instead of integrating the Internet into an overall strategy, companies failed to capitalize on their traditional assets, reinforced me-too competition, and accelerated competitive convergence. Barnes & Noble's decision to establish Barnesandnoble.com as a separate organization is a vivid

Strategic Imperatives for Dot-Coms and Established Companies

At this critical juncture in the evolution of Internet technology, dot-coms and established companies face different strategic imperatives. Dot-coms must develop real strategies that create economic value. They must recognize that current ways of competing are destructive and futile and benefit neither themselves nor, in the end, customers. Established companies, in turn, must stop deploying the Internet on a stand-alone basis and instead use it to enhance the distinctiveness of their strategies.

The most successful dot-coms will focus on creating benefits that customers will pay for, rather than pursuing advertising and click-through revenues from third parties. To be competitive, they will often need to widen their value chains to encompass other activities besides those conducted over the Internet and to develop other assets, including physical ones. Many are already doing so. Some on-line retailers, for example, distributed paper catalogs for the 2000 holiday season as an added convenience to their shoppers. Others are introducing proprietary products under their own

brand names, which not only boosts margins but provides real differentiation. It is such new activities in the value chain, not minor differences in Web sites, that hold the key to whether dot-coms gain competitive advantages. AOL, the Internet pioneer, recognized these principles. It charged for its services even in the face of free competitors. And not resting on initial advantages gained from its Web site and Internet technologies (such as instant messaging), it moved early to develop or acquire proprietary content.

Yet dot-coms must not fall into the trap of imitating established companies. Simply adding conventional activities is a me-too strategy that will not provide a competitive advantage. Instead, dot-coms need to create strategies that involve new, hybrid value chains, bringing together virtual and physical activities in unique configurations. For example, E*Trade is planning to install stand-alone kiosks, which will not require full-time staffs, on the sites of some corporate customers. VirtualBank, an on-line bank, is cobranding with corporations to create in-

house credit unions. Juniper, another on-line bank, allows customers to deposit checks at Mail Box Etc. locations. While none of these approaches is certain to be successful, the strategic thinking behind them is sound.

Another strategy for dot-coms is to seek out trade-offs, concentrating exclusively on segments where an Internet-only model offers real advantages. Instead of attempting to force the Internet model on the entire market, dot-coms can pursue customers that do not have a strong need for functions delivered outside the Internet—even if such customers represent only a modest portion of the overall industry. In such segments, the challenge will be to find a value proposition for the company that will distinguish it from other Internet rivals and address low entry barriers.

Successful dot-coms will share the following characteristics:

- Strong capabilities in Internet technology
- A distinctive strategy vis-à-vis established companies and other dot-coms, resting on a clear focus and meaningful advantages

example. It deterred the on-line store from capitalizing on the many advantages provided by the network of physical stores, thus playing into the hands of Amazon.

Rather than being isolated, Internet technology should be the responsibility of mainstream units in all parts of a company. With support from IT staff and outside consultants, companies should use the technology strategically to enhance service, increase efficiency, and leverage existing strengths. While separate units may be appropriate in some circumstances, everyone in the organization must have an incentive to share in the success of Internet deployment.

The End of the New Economy

The Internet, then, is often not disruptive to existing industries or established companies. It rarely nullifies the most important sources of competitive advantage in an industry; in many cases it actually makes those sources even more important. As all companies come to embrace Internet technology, moreover, the Internet itself will be neutralized as a source of advantage. Basic Internet applica-

tions will become table stakes—companies will not be able to survive without them, but they will not gain any advantage from them. The more robust competitive advantages will arise instead from traditional strengths such as unique products, proprietary content, distinctive physical activities, superior product knowledge, and strong personal service and relationships. Internet technology may be able to fortify those advantages, by tying a company's activities together in a more distinctive system, but it is unlikely to supplant them.

Ultimately, strategies that integrate the Internet and traditional competitive advantages and ways of competing should win in many industries. On the demand side, most buyers will value a combination of on-line services, personal services, and physical locations over stand-alone Web distribution. They will want a choice of channels, delivery options, and ways of dealing with companies. On the supply side, production and procurement will be more effective if they involve a combination of Internet and traditional methods, tailored to strategy. For example, customized, engineered

- Emphasis on creating customer value and charging for it directly, rather than relying on ancillary forms of revenue
- Distinctive ways of performing physical functions and assembling non-Internet assets that complement their strategic positions
- Deep industry knowledge to allow proprietary skills, information, and relationships to be established

Established companies, for the most part, need not be afraid of the Internet—the predictions of their demise at the hands of dot-coms were greatly exaggerated. Established companies possess traditional competitive advantages that will often continue to prevail; they also have inherent strengths in deploying Internet technology.

The greatest threat to an established company lies in either failing to deploy the Internet or failing to deploy it strategically. Every company needs an aggressive program to deploy the Internet throughout its value chain, using the technology to reinforce traditional competi-

tive advantages and complement existing ways of competing. The key is not to imitate rivals but to tailor Internet applications to a company's overall strategy in ways that extend its competitive advantages and make them more sustainable. Schwab's expansion of its brick-and-mortar branches by one-third since it started on-line trading, for example, is extending its advantages over Internet-only competitors. The Internet, when used properly, can support greater strategic focus and a more tightly integrated activity system.

Edward Jones, a leading brokerage firm, is a good example of tailoring the Internet to strategy. Its strategy is to provide conservative, personalized advice to investors who value asset preservation and seek trusted, individualized guidance in investing. Target customers include retirees and small-business owners. Edward Jones does not offer commodities, futures, options, or other risky forms of investment. Instead, the company stresses a buy-and-hold approach to investing involving mutual funds, bonds, and blue-chip equities.

Edward Jones operates a network of about 7,000 small offices, which are located conveniently to customers and are designed to encourage personal relationships with brokers.

Edward Jones has embraced the Internet for internal management functions, recruiting (25% of all job inquiries come via the Internet), and for providing account statements and other information to customers. However, it has no plan to offer on-line trading, as its competitors do. Self-directed, on-line trading does not fit Jones's strategy nor the value it aims to deliver to its customers. Jones, then, has tailored the use of the Internet to its strategy rather than imitated rivals. The company is thriving, outperforming rivals whose me-too-Internet deployments have reduced their distinctiveness.

The established companies that will be most successful will be those that use Internet technology to make traditional activities better and those that find and implement new combinations of virtual and physical activities that were not previously possible.

inputs will be bought directly, facilitated by Internet tools. Commodity items may be purchased via digital markets, but purchasing experts, supplier sales forces, and stocking locations will often also provide useful, value-added services.

The value of integrating traditional and Internet methods creates potential advantages for established companies. It will be easier for them to adopt and integrate Internet methods than for dot-coms to adopt and integrate traditional ones. It is not enough, however, just to graft the Internet onto historical ways of competing in simplistic “clicks-and-mortar” configurations. Established companies will be most successful when they deploy Internet technology to reconfigure traditional activities or when they find new combinations of Internet and traditional approaches.

Dot-coms, first and foremost, must pursue their own distinctive strategies, rather than emulate one another or the positioning of established companies. They will have to break away from competing solely on price and instead focus on product selection, product design, service, image, and other areas in which they can differentiate themselves. Dot-coms can also drive the combination of Internet and traditional methods. Some will succeed by creating their own distinctive ways of doing so. Others will succeed by concentrating on market segments that exhibit real trade-offs between Internet and traditional methods—either those in which a pure Internet approach best meets the needs of a particular set of customers or those in which a particular product or service can be best delivered without the need for physical assets. (See the sidebar “Strategic Imperatives for Dot-Coms and Established Companies.”)

These principles are already manifesting themselves in many industries, as traditional leaders reassert their strengths and dot-coms adopt more focused strategies. In the brokerage industry, Charles Schwab has gained a larger share (18% at the end of 1999) of on-line trading than E*Trade (15%). In commercial banking, established institutions like Wells Fargo, Citibank, and Fleet have many more

on-line accounts than Internet banks do. Established companies are also gaining dominance over Internet activities in such areas as retailing, financial information, and digital marketplaces. The most promising dot-coms are leveraging their distinctive skills to provide real value to their customers. ECollege, for example, is a full-service provider that works with universities to put their courses on the Internet and operate the required delivery network for a fee. It is vastly more successful than competitors offering free sites to universities under their own brand names, hoping to collect advertising fees and other ancillary revenue.

When seen in this light, the “new economy” appears less like a new economy than like an old economy that has access to a new technology. Even the phrases “new economy” and “old economy” are rapidly losing their relevance, if they ever had any. The old economy of established companies and the new economy of dot-coms are merging, and it will soon be difficult to distinguish them. Retiring these phrases can only be healthy because it will reduce the confusion and muddiness that have been so destructive of economic value during the Internet’s adolescent years.

In our quest to see how the Internet is different, we have failed to see how the Internet is the same. While a new means of conducting business has become available, the fundamentals of competition remain unchanged. The next stage of the Internet’s evolution will involve a shift in thinking from e-business to business, from e-strategy to strategy. Only by integrating the Internet into overall strategy will this powerful new technology become an equally powerful force for competitive advantage. 

The author is grateful to Jeffrey Rayport and to the Advanced Research Group at Inforte for their contributions to this article.

Reprint [R0103D](#); *Harvard Business Review* OnPoint [6358](#)

To order, see the next page
or call 800-988-0886 or 617-783-7500
or go to www.hbr.org

Strategy and the Internet

Further Reading

ARTICLES

[What Is Strategy?](#)

by Michael E. Porter
Harvard Business Review
November-December 1996
Product no. 4134

In this article, Porter sharpens the focus on the two components of sustainable competitive advantage discussed in “Strategy and the Internet”: operational effectiveness and strategic positioning. He emphasizes that it’s strategic positioning, not operational effectiveness, that lets a company most effectively distinguish itself from competitors. He then outlines three key principles behind strategic positioning: 1) creating a unique, valuable position through serving a few needs of many customers, broad needs of a few customers, or broad needs of many customers; 2) making trade-offs in competition (i.e., choosing what not to do); and—most relevant to his discussion of integration in “Strategy and the Internet”—3) improving “fit” among the company’s activities so that they reinforce one another. As he explains, when a company’s activities reinforce one another in a tightly interlocked system, competitors can’t easily imitate that system.

[Strategy as Simple Rules](#)

by Kathleen M. Eisenhardt and Donald N. Sull
Harvard Business Review
November-December 1996
Product no. 5858

This article provides practical guidelines for strengthening your company’s strategic positioning. Like Porter, Eisenhardt and Sull emphasize the importance of strategy in today’s unpredictable, complex markets. They emphasize keeping strategy clear and simple by focusing on a unique set of strategic processes—e.g., product innovation, partnering, branding—that place your company where the flow of opportunities is swiftest and deepest, and then defining just a handful of simple

rules to guide those processes. The authors outline five kinds of rules, including mandates for quickly ranking competing opportunities, deciding when to pull the plug on an opportunity, and distinctively executing your key processes.

B O O K

[On Competition](#)

by Michael E. Porter
Harvard Business School Press
1998
Product no. 7951

This book—a collection of Porter’s articles from the *Harvard Business Review*, augmented by two new selections and an introduction—is a more expansive treatment of Porter’s perspectives on the core concepts of competition and strategy, which he refers to in “Strategy and the Internet.” He shows how crucial business activities, such as staking out and maintaining a distinctive competitive position and continually improving productivity, are intimately linked to strategic positioning.

To Order

For reprints, *Harvard Business Review* OnPoint orders, and subscriptions to *Harvard Business Review*:
Call 800-988-0886 or 617-783-7500.
Go to www.hbr.org

For customized and quantity orders of reprints and *Harvard Business Review* OnPoint products:
Call Frank Tamoshunas at 617-783-7626,
or e-mail him at ftamoshunas@hbsp.harvard.edu

The "Internet of Things" has become ubiquitous, connecting people, products, and services around the globe, building new networks and communities, generating limitless data, and creating a staggering array of business opportunities and threats. This "Industrial Internet" is touching all industries and companies, is transformative, and is driving both old and new players to compete in new ways. On Thursday, October 23, Harvard Business School professors Marco Iansiti and Karim Lakhani held a discussion on the impact of the Internet of Things, examining the opportunities as well as the threats.

What internet marketing is, internet marketing strategies and statistics on the impact of social media are all covered in this definition. The interactive nature of the internet facilitates immediate communication between businesses and consumers, allowing businesses to respond quickly to the needs of consumers and changes in the marketplace. "Everyone has the internet in their pocket all the time, and this changes everything for small businesses" (Cory Capocchia, Forbes). Online reviews have become one of the most important components in purchasing decisions by consumers in North America.

Internet Marketing Strategy. Introduction. The internet is considered as a channel partner. Hence online marketing is to be considered as a channel marketing strategy. An Organization needs to define specific objective from internet marketing and building communications as well as scheme around it. Internet marketing is one form customer touch point where companies directly interact with existing as well as potential customers.

Integrated Strategy. The company needs to ascertain various pros and cons of internet marketing strategies before implementation of one particular strategy. With finite resources companies look for solutions which are implementable. To implement an online marketing strategy, companies have various marketing applications.