

Different views of strategy

The readings in this first section introduce business strategy in two ways. The first is by diving into a *particular* definition of strategy, allowing the reader to get a sense of what the big issues are through some provocative statements by one of the most well known strategy theorists. The second way is by stepping back and considering different approaches to the study of strategy and the assumptions that underlie them. The reading by Porter fulfils the first task while the readings by Whittington and by Mintzberg and Waters fulfil the second task.

Porter claims that strategic decisions are ones that are aimed at differentiating an organization from its competitors in a way that is sustainable in the future. This is different from decisions based on *operational effectiveness* which are aimed simply at doing existing activities better. The reading serves as a good starting point by providing a ‘working definition’ of strategy which will undergo many changes as the readings progress. For example, the reading by Abernathy and Wayne in Chapter 10 will indirectly challenge Porter’s distinction by allowing for the possibility that even decisions based on operational effectiveness, such as learning curve strategies, may be strategic under certain types of conditions, for example when technology changes slowly. What types of decisions are strategic depends on the context and that context changes over time, for example over the ‘industry life-cycle’. Thus, strategy is both about doing new things as well as doing existing things better.

The reading by Whittington steps back and compares how different theories of strategy answer the questions ‘*What is strategy?*’ and ‘*How do strategies come about?*’. He exposes the different assumptions underlying the different theories regarding human nature and the relationship between individual action

and the environment. His description allows deeper insight into the difference between the 'Design' school of strategy, which holds that strategy can be planned, and the 'Emergent' (or Processual) view of strategy, which holds that strategy is not the result of rational calculation but of experimentation and trial and error. The reading by Mintzberg and Waters provides an excellent example of the Processual view.

M. E. Porter: 'What Is Strategy?'

This reading appeared in the *Harvard Business Review* in 1996. Porter claims that not all business decisions are strategic. Decisions can only be defined as strategic if they involve consciously doing something 'differently' from competitors and if that difference results in a sustainable advantage. To be sustainable it must be difficult to imitate. Activities which simply increase productivity by making existing methods more efficient ('operational efficiency') are not strategic since they can be easily copied by others. Although a firm must engage in both types of activities, it is strategic activities that will allow it to develop a sustainable superior performance. One of the factors that renders strategies hard to imitate, hence unique, is that they are the result of a complex interaction between different activities, which is not reducible to the sum of the individual activities. It is this synergy between activities that produces value, not the activities in themselves. Porter provides various examples of companies that he thinks have behaved strategically and others which have not. He claims that Japanese firms are losing their competitiveness owing to their focus mainly on operational efficiency.

R. Whittington: 'Theories of Strategy'

This piece comes from a chapter in Whittington's book *What Is Strategy – and Does It Matter?* (2000). Whittington introduces us to four different perspectives on strategy: the classical perspective, the evolutionary perspective, the processual perspective and the systemic perspective. The classical perspective assumes that the manager has near to complete control over how to allocate the internal and external resources of the firm, and can thus manipulate the internal organization of the firm to better suit these objectives. In this view, strategic behaviour is guided by rationality, opportunism and self-interest. The *evolutionary* perspective places emphasis on behavioural differences between firms (e.g. some firms base their

decisions on rational calculations, others simply on imitation) and on the market selection mechanisms that allow some firms to grow and survive and others to fail. This view causes the image of the heroic entrepreneur, central to the classical perspective, to fall apart: it is not one manager but the mix between the forces of market selection, random events, and processes of positive feedback that determine performance. The *processual* perspective holds that economic outcomes *emerge* from the interactions between individuals and between individuals and their environment. The result of this interaction is unpredictable because actions are often *unintended*. Humans are not perfectly rational but 'bounded' in their rationality. This, along with the fact that interaction between individuals is guided not only by self-interest but also by collective bargaining and compromise, causes economic dynamics to be fuzzy and unpredictable. The *systemic* perspective argues that each of the above approaches is characterized by a narrow view of the world: a Western, often Anglo-Saxon, view. The 'rationality' of a particular strategy depends on its specific historical, social and cultural context. Strategic behaviour is 'embedded' in a network of social relations that includes cultural norms, class and educational background, religion and so on. Hence what is labelled as 'irrational' behaviour in one context may be perfectly rational in another.

H. Mintzberg and J. A. Waters: 'Of Strategies, Deliberate and Emergent'

This reading appeared in the *Strategic Management Journal* in 1985. Mintzberg and Waters explore the process by which strategies form within organizations. They compare intended strategies (strategies that come from a planning process) with realized strategies (what the organization actually did). They provide a framework to study the difference between these two concepts through a continuum where at one end lies the completely planned strategy and at the other end lies the completely emergent strategy. In the planned strategy, intentions are very clear and directly translated into actions. In emergent strategies, decisions emerge from bargaining, chance and positive feedback. An example is the strategy based on consensus. In the middle of these two extremes lie what the authors call the entrepreneurial, ideological and umbrella strategies. Instead of saying that any one type of strategy is better than the other, the authors claim that what is best depends on the nature of the organization.



What Is Strategy?

MICHAEL E. PORTER*

Operational effectiveness is not strategy

For almost two decades, managers have been learning to play by a new set of rules. Companies must be flexible to respond rapidly to competitive and market changes. They must benchmark continuously to achieve best practice. They must outsource aggressively to gain efficiencies. And they must nurture a few core competencies in the race to stay ahead of rivals.

Positioning – once the heart of strategy – is rejected as too static for today’s dynamic markets and changing technologies. According to the new dogma, rivals can quickly copy any market position, and competitive advantage is, at best, temporary.

But those beliefs are dangerous half-truths, and they are leading more and more companies down the path of mutually destructive competition. True, some barriers to competition are falling as regulation eases and markets become global. True, companies have properly invested energy in becoming leaner and more nimble. In many industries, however, what some call *hypercompetition* is a self-inflicted wound, not the inevitable outcome of a changing paradigm of competition.

The root of the problem is the failure to distinguish between operational effectiveness and strategy. The quest for productivity, quality, and speed has spawned a remarkable number of management tools and techniques: total quality management benchmarking, time-based competition, outsourcing, partnering, reengineering, change management. Although the resulting operational improvements have often been dramatic, many companies have been frustrated by their inability to translate those gains into sustainable profitability. And bit by bit, almost imperceptibly, management tools have taken the place of strategy. As managers push to improve on all fronts, they move farther away from viable competitive positions.

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Operational effectiveness: necessary but not sufficient

Operational effectiveness and strategy are both essential to superior performance, which, after all, is the primary goal of any enterprise. But they work in very different ways.

A company can outperform rivals only if it can establish a difference that it can preserve. It must deliver greater value to customers or create comparable value at a lower cost, or do both. The arithmetic of superior profitability then follows: delivering greater value allows a company to charge higher average unit prices; greater efficiency results in lower average unit costs.

Ultimately, all differences between companies in cost or price derive from the hundreds of activities required to create, produce, sell, and deliver their products or services, such as calling on customers, assembling final products, and training employees. Cost is generated by performing activities, and cost advantage arises from performing particular activities more efficiently than competitors. Similarly, differentiation arises from both the choice of activities and how they are performed. Activities, then, are the basic units of competitive advantage. Overall advantage or disadvantage results from all a company's activities, not only a few.¹

Operational effectiveness (OE) means performing similar activities *better* than rivals perform them. Operational effectiveness includes but is not limited to efficiency. It refers to any number of practices that allow a company to better utilize its inputs by, for example, reducing defects in products or developing better products faster. In contrast, strategic positioning means performing *different* activities from rivals' or performing similar activities in *different ways*.

Differences in operational effectiveness among companies are pervasive. Some companies are able to get more out of their inputs than others because they eliminate wasted effort, employ more advanced technology, motivate employees better, or have greater insight into managing particular activities or sets of activities. Such differences in operational effectiveness are an important source of differences in profitability among competitors because they directly affect relative cost positions and levels of differentiation.

Differences in operational effectiveness were at the heart of the Japanese challenge to Western companies in the 1980s. The Japanese were so far ahead of rivals in operational effectiveness that they could offer lower cost and superior quality at the same time. It is worth dwelling on this point, because so much recent thinking about competition depends on it.

[. . .]

For at least the past decade, managers have been preoccupied with improving operational effectiveness. Through programs such as TQM, time-based competition, and benchmarking, they have changed how they perform activities in order to eliminate inefficiencies, improve customer satisfaction, and achieve best practice.

[. . .]

Constant improvement in operational effectiveness is necessary to achieve superior profitability. However, it is not usually sufficient. Few companies have competed successfully on the basis of operational effectiveness over an extended period, and staying ahead of rivals gets harder every day. The most obvious reason for that is the rapid diffusion of best practices. Competitors can quickly imitate management techniques, new technologies, input improvements, and superior ways of meeting customers' needs. The most generic solutions – those that can be used in multiple settings – diffuse the fastest. Witness the proliferation of OE techniques accelerated by support from consultants.

OE competition shifts the productivity frontier outward, effectively raising the bar for everyone. But although such competition produces absolute improvement in operational effectiveness, it leads to relative improvement for no one. Consider the \$5 billion-plus US commercial-printing industry. The major players – R.R. Donnelley & Sons Company, Quebecor, World Color Press, and Big Flower Press – are competing head to head, serving all types of customers, offering the same array of printing technologies (gravure and web offset), investing heavily in the same new equipment, running their presses faster, and reducing crew sizes. But the resulting major productivity gains are being captured by customers and equipment suppliers, not retained in superior profitability. Even industry-leader Donnelley's profit margin, consistently higher than 7% in the 1980s, fell to less than 4.6% in 1995. This pattern is playing itself out in industry after industry. Even **the Japanese, pioneers of the new competition, suffer from persistently low profits (Box 1.1).**

Box 1.1

Japanese companies rarely have strategies

The Japanese triggered a global revolution in operational effectiveness in the 1970s and 1980s, pioneering practices such as total quality management and continuous improvement. As a result, Japanese manufacturers enjoyed substantial cost and quality advantages for many years.

But Japanese companies rarely developed distinct strategic positions of the kind discussed in this article. Those that did – Sony, Canon, and Sega, for example – were the exception rather than the rule. Most Japanese companies imitate and emulate one another. All rivals offer most if not all product varieties, features, and services; they employ all channels and match one another's plant configurations.

The dangers of Japanese-style competition are now becoming easier to recognize. In the 1980s, with rivals operating far from the productivity frontier, it seemed possible to win on both cost and quality indefinitely. Japanese companies were all able to grow in an expanding domestic economy and by penetrating global markets. They appeared unstoppable. But as the gap in operational effectiveness narrows, Japanese companies

are increasingly caught in a trap of their own making. If they are to escape the mutually destructive battles now ravaging their performance, Japanese companies will have to learn strategy.

To do so, they may have to overcome strong cultural barriers. Japan is notoriously consensus oriented, and companies have a strong tendency to mediate differences among individuals rather than accentuate them. Strategy, on the other hand, requires hard choices. The Japanese also have a deeply ingrained service tradition that predisposes them to go to great lengths to satisfy any need a customer expresses. Companies that compete in that way end up blurring their distinct positioning, becoming all things to all customers.

This discussion of Japan is drawn from the author's research with Hiroataka Takeuchi, with help from Mariko Sakakibara.

The second reason that improved operational effectiveness is insufficient – competitive convergence – is more subtle and insidious. The more benchmarking companies do, the more they look alike. The more that rivals outsource activities to efficient third parties, often the same ones, the more generic those activities become. As rivals imitate one another's improvements in quality, cycle times, or supplier partnerships, strategies converge and competition becomes a series of races down identical paths that no one can win. Competition based on operational effectiveness alone is mutually destructive, leading to wars of attrition that can be arrested only by limiting competition.

The recent wave of industry consolidation through mergers makes sense in the context of GE competition. Driven by performance pressures but lacking strategic vision, company after company has had no better idea than to buy up its rivals. The competitors left standing are often those that outlasted others, not companies with real advantage.

After a decade of impressive gains in operational effectiveness, many companies are facing diminishing returns. Continuous improvement has been etched on managers' brains. But its tools unwittingly draw companies toward imitation and homogeneity. Gradually, managers have let operational effectiveness supplant strategy. The result is zero-sum competition, static or declining prices, and pressures on costs that compromise companies' ability to invest in the business for the long term.

Strategy rests on unique activities

Competitive strategy is about being different. It means deliberately choosing a different set of activities to deliver a unique mix of value.

Southwest Airlines Company, for example, offers short-haul, low-cost, point-to-point service between midsize cities and secondary airports in large cities.

Southwest avoids large airports and does not fly great distances. Its customers include business travelers, families, and students. Southwest's frequent departures and low fares attract price-sensitive customers who otherwise would travel by bus or car, and convenience-oriented travelers who would choose a full-service airline on other routes.

Most managers describe strategic positioning in terms of their customers: 'Southwest Airlines serves price- and convenience-sensitive travelers,' for example. But the essence of strategy is in the activities – choosing to perform activities differently or to perform different activities than rivals. Otherwise, a strategy is nothing more than a marketing slogan that will not withstand competition.

A full-service airline is configured to get passengers from almost any point A to any point B. To reach a large number of destinations and serve passengers with connecting flights, full-service airlines employ a hub-and-spoke system centered on major airports. To attract passengers who desire more comfort, they offer first-class or business-class service. To accommodate passengers who must change planes, they coordinate schedules and check and transfer baggage. Because some passengers will be traveling for many hours, full-service airlines serve meals.

Southwest, in contrast, tailors all its activities to deliver low-cost, convenient service on its particular type of route. Through fast turnarounds at the gate of only 15 minutes, Southwest is able to keep planes flying longer hours than rivals and provide frequent departures with fewer aircraft. Southwest does not offer meals, assigned seats, interline baggage checking, or premium classes of service. Automated ticketing at the gate encourages customers to bypass travel agents, allowing Southwest to avoid their commissions. A standardized fleet of 737 aircraft boosts the efficiency of maintenance.

Southwest has staked out a unique and valuable strategic position based on a tailored set of activities. On the routes served by Southwest, a full-service airline could never be as convenient or as low cost.

Ikea, the global furniture retailer based in Sweden, also has a clear strategic positioning. Ikea targets young furniture buyers who want style at low cost. What turns this marketing concept into a strategic positioning is the tailored set of activities that make it work. Like Southwest, Ikea has chosen to perform activities differently from its rivals.

Consider the typical furniture store. Showrooms display samples of the merchandise. One area might contain 25 sofas; another will display five dining tables. But those items represent only a fraction of the choices available to customers. Dozens of books displaying fabric swatches or wood samples or alternate styles offer customers thousands of product varieties to choose from. Salespeople often escort customers through the store, answering questions and helping them navigate this maze of choices. Once a customer makes a selection, the order is relayed to a third-party manufacturer. With luck, the furniture will be delivered to the customer's home within six to eight weeks. This is a value chain that maximizes customization and service but does so at high cost.

In contrast, Ikea serves customers who are happy to trade off service for cost. Instead of having a sales associate trail customers around the store, Ikea uses a self-service model based on clear, in-store displays. Rather than rely solely on third-party manufacturers, Ikea designs its own low-cost, modular, ready-to-assemble furniture to fit its positioning. In huge stores, Ikea displays every product it sells in room-like settings, so customers don't need a decorator to help them imagine how to put the pieces together. Adjacent to the furnished showrooms is a warehouse section with the products in boxes on pallets. Customers are expected to do their own pickup and delivery, and Ikea will even sell you a roof rack for your car that you can return for a refund on your next visit.

Although much of its low-cost position comes from having customers 'do it themselves', Ikea offers a number of extra services that its competitors do not. In-store child care is one. Extended hours are another. Those services are uniquely aligned with the needs of its customers, who are young, not wealthy, likely to have children (but no nanny), and, because they work for a living, have a need to shop at odd hours.

The origins of strategic positions

Strategic positions emerge from three distinct sources, which are not mutually exclusive and often overlap. First, positioning can be based on producing a subset of an industry's products or services. I call this *variety-based positioning* because it is based on the choice of product or service varieties rather than customer segments. Variety-based positioning makes economic sense when a company can best produce particular products or services using distinctive sets of activities.

Jiffy Lube International, for instance, specializes in automotive lubricants and does not offer other car repair or maintenance services. Its value chain produces faster service at a lower cost than broader line repair shops, a combination so attractive that many customers subdivide their purchases, buying oil changes from the focused competitor, Jiffy Lube, and going to rivals for other services.

The Vanguard Group, a leader in the mutual fund industry, is another example of variety-based positioning. Vanguard provides an array of common stock, bond, and money market funds that offer predictable performance and rock-bottom expenses. The company's investment approach deliberately sacrifices the possibility of extraordinary performance in any one year for good relative performance in every year. Vanguard is known, for example, for its index funds. It avoids making bets on interest rates and steers clear of narrow stock groups. Fund managers keep trading levels low, which holds expenses down; in addition, the company discourages customers from rapid buying and selling because doing so drives up costs and can force a fund manager to trade in order to deploy new capital and raise cash for redemptions. Vanguard also takes a consistent low-cost approach to managing distribution, customer service, and marketing. Many investors include one or more Vanguard funds in their portfolio, while buying aggressively managed or specialized funds from competitors.

The people who use Vanguard or Jiffy Lube are responding to a superior value chain for a particular type of service. A variety-based positioning can serve a wide array of customers, but for most it will meet only a subset of their needs.

A second basis for positioning is that of serving most or all the needs of a particular group of customers. I call this *needs-based positioning*, which comes closer to traditional thinking about targeting a segment of customers. It arises when there are groups of customers with differing needs, and when a tailored set of activities can serve those needs best. Some groups of customers are more price sensitive than others, demand different product features, and need varying amounts of information, support, and services. Ikea's customers are a good example of such a group. Ikea seeks to meet all the home furnishing needs of its target customers, not just a subset of them.

A variant of needs-based positioning arises when the same customer has different needs on different occasions or for different types of transactions. The same person, for example, may have different needs when traveling on business than when traveling for pleasure with the family. Buyers of cans – beverage companies, for example – will likely have different needs from their primary supplier than from their secondary source.

It is intuitive for most managers to conceive of their business in terms of the customers' needs they are meeting. But a critical element of needs-based positioning is not at all intuitive and is often overlooked. Differences in needs will not translate into meaningful positions unless the best set of activities to satisfy them *also* differs. If that were not the case, every competitor could meet those same needs, and there would be nothing unique or valuable about the positioning.

In private banking, for example, Bessemer Trust Company targets families with a minimum of \$5 million in investable assets who want capital preservation combined with wealth accumulation. By assigning one sophisticated account officer for every 14 families, Bessemer has configured its activities for personalized service. Meetings, for example, are more likely to be held at a client's ranch or yacht than in the office. Bessemer offers a wide array of customized services, including investment management and estate administration, oversight of oil and gas investments, and accounting for racehorses and aircraft. Loans, a staple of most private banks, are rarely needed by Bessemer's clients and make up a tiny fraction of its client balances and income. Despite the most generous compensation of account officers and the highest personnel cost as a percentage of operating expenses, Bessemer's differentiation with its target families produces a return on equity estimated to be the highest of any private banking competitor.

Citibank's private bank, on the other hand, serves clients with minimum assets of about \$250,000 who, in contrast to Bessemer's clients, want convenient access to loans – from jumbo mortgages to deal financing. Citibank's account managers are primarily lenders. When clients need other services, their account manager refers them to other Citibank specialists, each of whom handles prepackaged products. Citibank's system is less customized than Bessemer's and allows it to have a lower manager-to-client ratio of 1:125. Biannual office meetings

are offered only for the largest clients. Both Bessemer and Citibank have tailored their activities to meet the needs of a different group of private banking customers. The same value chain cannot profitably meet the needs of both groups.

The third basis for positioning is that of segmenting customers who are accessible in different ways. Although their needs are similar to those of other customers, the best configuration of activities to reach them is different. I call this *access-based positioning*. Access can be a function of customer geography or customer scale – or of anything that requires a different set of activities to reach customers in the best way.

Segmenting by access is less common and less well understood than the other two bases. Carmike Cinemas, for example, operates movie theaters exclusively in cities and towns with populations under 200,000. How does Carmike make money in markets that are not only small but also won't support big-city ticket prices? It does so through a set of activities that result in a lean cost structure. Carmike's small-town customers can be served through standardized, low-cost theater complexes requiring fewer screens and less sophisticated projection technology than big-city theaters. The company's proprietary information system and management process eliminate the need for local administrative staff beyond a single theater manager. Carmike also reaps advantages from centralized purchasing, lower rent and payroll costs (because of its locations), and rock-bottom corporate overhead of 2% (the industry average is 5%). Operating in small communities also allows Carmike to practice a highly personal form of marketing in which the theater manager knows patrons and promotes attendance through personal contacts. By being the dominant if not the only theater in its markets – the main competition is often the high school football team – Carmike is also able to get its pick of films and negotiate better terms with distributors.

Rural versus urban-based customers are one example of access driving differences in activities. Serving small rather than large customers or densely rather than sparsely situated customers are other examples in which the best way to configure marketing, order processing, logistics, and after-sale service activities to meet the similar needs of distinct groups will often differ.

Positioning is not only about carving out a niche. A position emerging from any of the sources can be broad or narrow. A focused competitor, such as Ikea, targets the special needs of a subset of customers and designs its activities accordingly. Focused competitors thrive on groups of customers who are overserved (and hence overpriced) by more broadly targeted competitors, or underserved (and hence underpriced). A broadly targeted competitor – for example, Vanguard or Delta Air Lines – serves a wide array of customers, performing a set of activities designed to meet their common needs. It ignores or meets only partially the more idiosyncratic needs of particular customer groups.

Whatever the basis – variety, needs, access, or some combination of the three – positioning requires a tailored set of activities because it is always a function of differences on the supply side; that is, of differences in activities. However, positioning is not always a function of differences on the demand, or customer, side.

Variety and access positionings, in particular, do not rely on any customer differences. In practice, however, variety or access differences often accompany needs differences. The tastes – that is, the needs – of Carmike’s small-town customers, for instance, run more toward comedies, Westerns, action films, and family entertainment. Carmike does not run any films rated NC-17.

Having defined positioning, we can now begin to answer the question, ‘What is strategy?’ Strategy is the creation of a unique and valuable position, involving a different set of activities. If there were only one ideal position, there would be no need for strategy. Companies would face a simple imperative – win the race to discover and preempt it. The essence of strategic positioning is to choose activities that are different from rivals’. If the same set of activities were best to produce all varieties, meet all needs, and access all customers, companies could easily shift among them and operational effectiveness would determine performance.

A sustainable strategic position requires trade-offs

Choosing a unique position, however, is not enough to guarantee a sustainable advantage. A valuable position will attract imitation by incumbents, who are likely to copy it in one of two ways.

First, a competitor can reposition itself to match the superior performer. J.C. Penney, for instance, has been repositioning itself from a Sears clone to a more upscale, fashion-oriented, soft-goods retailer. A second and far more common type of imitation is straddling. The straddler seeks to match the benefits of a successful position while maintaining its existing position. It grafts new features, services, or technologies onto the activities it already performs.

For those who argue that competitors can copy any market position, the airline industry is a perfect test case. It would seem that nearly any competitor could imitate any other airline’s activities. Any airline can buy the same planes, lease the gates, and match the menus and ticketing and baggage handling services offered by other airlines.

Continental Airlines saw how well Southwest was doing and decided to straddle. While maintaining its position as a full-service airline, Continental also set out to match Southwest on a number of point-to-point routes. The airline dubbed the new service Continental Lite. It eliminated meals and first-class service, increased departure frequency, lowered fares, and shortened turnaround time at the gate. Because Continental remained a full-service airline on other routes, it continued to use travel agents and its mixed fleet of planes and to provide baggage checking and seat assignments.

But a strategic position is not sustainable unless there are trade-offs with other positions. Trade-offs occur when activities are incompatible. Simply put, a trade-off means that more of one thing necessitates less of another. An airline can

choose to serve meals – adding cost and slowing turnaround time at the gate – or it can choose not to, but it cannot do both without bearing major inefficiencies.

Trade-offs create the need for choice and protect against repositioners and straddlers. Consider Neutrogena soap. Neutrogena Corporation's variety-based positioning is built on a 'kind to the skin', residue-free formulated for pH balance. With a large detail force calling on dermatologists, Neutrogena's marketing strategy looks more like a drug company's than a soap maker's. It advertises in medical journals, sends direct mail to doctors, attends medical conferences, and performs research at its own Skincare Institute. To reinforce its positioning, Neutrogena originally focused its distribution on drugstores and avoided price promotions. Neutrogena uses a slow, more expensive manufacturing process to mold its fragile soap.

In choosing this position, Neutrogena said no to the deodorants and skin softeners that many customers desire in their soap. It gave up the large-volume potential of selling through supermarkets and using price promotions. It sacrificed manufacturing efficiencies to achieve the soap's desired attributes. In its original positioning, Neutrogena made a whole raft of trade-offs like those, trade-offs that protected the company from imitators.

Trade-offs arise for three reasons. The first is inconsistencies in image or reputation. A company known for delivering one kind of value may lack credibility and confuse customers – or even undermine its reputation – if it delivers another kind of value or attempts to deliver two inconsistent things at the same time. For example, Ivory soap, with its position as a basic, inexpensive everyday soap, would have a hard time reshaping its image to match Neutrogena's premium 'medical' reputation. Efforts to create a new image typically cost tens or even hundreds of millions of dollars in a major industry – a powerful barrier to imitation.

Second, and more important, trade-offs arise from activities themselves. Different positions (with their tailored activities) require different product configurations, different equipment, different employee behavior, different skills, and different management systems. Many trade-offs reflect inflexibilities in machinery, people, or systems. The more Ikea has configured its activities to lower costs by having its customers do their own assembly and delivery, the less able it is to satisfy customers who require higher levels of service.

However, trade-offs can be even more basic. In general, value is destroyed if an activity is overdesigned or underdesigned for its use. For example, even if a given salesperson were capable of providing a high level of assistance to one customer and none to another, the salesperson's talent (and some of his or her cost) would be wasted on the second customer. Moreover, productivity can improve when variation of an activity is limited. By providing a high level of assistance all the time, the salesperson and the entire sales activity can often achieve efficiencies of learning and scale.

Finally, trade-offs arise from limits on internal coordination and control. By clearly choosing to compete in one way and not another, senior management makes organizational priorities clear. Companies that try to be all things to all customers,

in contrast, risk confusion in the trenches as employees attempt to make day-to-day operating decisions without a clear framework.

Positioning trade-offs are pervasive in competition and essential to strategy. They create the need for choice and purposefully limit what a company offers. They deter straddling or repositioning, because competitors that engage in those approaches undermine their strategies and degrade the value of their existing activities.

Trade-offs ultimately grounded Continental Lite. The airline lost hundreds of millions of dollars, and the CEO lost his job. Its planes were delayed leaving congested hub cities or slowed at the gate by baggage transfers. Late flights and cancellations generated a thousand complaints a day. Continental Lite could not afford to compete on price and still pay standard travel-agent commissions, but neither could it do without agents for its full-service business. The airline compromised by cutting commissions for all Continental flights across the board. Similarly, it could not afford to offer the same frequent-flier benefits to travelers paying the much lower ticket prices for Lite service. It compromised again by lowering the rewards of Continental's entire frequent-flier program. The results: angry travel agents and full-service customers.

Continental tried to compete in two ways at once. In trying to be low cost on some routes and full service on others, Continental paid an enormous straddling penalty. If there were no trade-offs between the two positions, Continental could have succeeded. But the absence of trade-offs is a dangerous half-truth that managers must unlearn. Quality is not always free. Southwest's convenience, one kind of high quality, happens to be consistent with low costs because its frequent departures are facilitated by a number of low-cost practices – fast gate turnarounds and automated ticketing, for example. However, other dimensions of airline quality – an assigned seat, a meal, or baggage transfer – require costs to provide.

In general, false trade-offs between cost and quality occur primarily when there is redundant or wasted effort, poor control or accuracy, or weak coordination. Simultaneous improvement of cost and differentiation is possible only when a company begins far behind the productivity frontier or when the frontier shifts outward. At the frontier, where companies have achieved current best practice, the trade-off between cost and differentiation is very real indeed.

After a decade of enjoying productivity advantages, Honda Motor Company and Toyota Motor Corporation recently bumped up against the frontier. In 1995, faced with increasing customer resistance to higher automobile prices, Honda found that the only way to produce a less-expensive car was to skimp on features. In the United States, it replaced the rear disk brakes on the Civic with lower-cost drum brakes and used cheaper fabric for the back seat, hoping customers would not notice. Toyota tried to sell a version of its best-selling Corolla in Japan with unpainted bumpers and cheaper seats. In Toyota's case, customers rebelled, and the company quickly dropped the new model.

For the past decade, as managers have improved operational effectiveness greatly, they have internalized the idea that eliminating trade-offs is a good thing.

But if there are no trade-offs companies will never achieve a sustainable advantage. They will have to run faster and faster just to stay in place.

As we return to the question, ‘What is strategy?’, we see that trade-offs add a new dimension to the answer. Strategy is making trade-offs in competing. The essence of strategy is choosing what *not* to do. Without trade-offs, there would be no need for choice and thus no need for strategy. Any good idea could and would be quickly imitated. Again, performance would once again depend wholly on operational effectiveness.

Fit drives both competitive advantage and sustainability

Positioning choices determine not only which activities a company will perform and how it will configure individual activities but also how activities relate to one another. While operational effectiveness is about achieving excellence in individual activities, or functions, strategy is about *combining* activities (Figure 1.1).

Southwest’s rapid gate turnaround, which allows frequent departures and greater use of aircraft, is essential to its high-convenience, low-cost positioning. But how does Southwest achieve it? Part of the answer lies in the company’s well-paid gate and ground crews, whose productivity in turnarounds is enhanced by flexible union rules. But the bigger part of the answer lies in how Southwest performs other activities. With no meals, no seat assignment, and no interline baggage transfers, Southwest avoids having to perform activities that slow down other airlines. It selects airports and routes to avoid congestion that introduces delays. Southwest’s strict limits on the type and length of routes make standardized aircraft possible: every aircraft Southwest turns is a Boeing 737.

What is Southwest’s core competence? Its key success factors? The correct answer is that everything matters. Southwest’s strategy involves a whole system of activities, not a collection of parts. Its competitive advantage comes from the way its activities fit and reinforce one another.

Fit locks out imitators by creating a chain that is as strong as its *strongest link*. **As in most companies with good strategies, Southwest’s activities complement one another in ways that create real economic value.** One activity’s cost, for example, is lowered because of the way other activities are performed. Similarly, one activity’s value to customers can be enhanced by a company’s other activities. That is the way strategic fit creates competitive advantage and superior profitability.

Types of fit

The importance of fit among functional policies is one of the oldest ideas in strategy. Gradually, however, it has been supplanted on the management agenda. Rather than seeing the company as a whole, managers have turned to ‘core’ competencies,

‘critical’ resources, and ‘key’ success factors. In fact, fit is a far more central component of competitive advantage than most realize.

Fit is important because discrete activities often affect one another. A sophisticated sales force, for example, confers a greater advantage when the company’s product embodies premium technology and its marketing approach emphasizes customer assistance and support. A production line with high levels of model variety is more valuable when combined with an inventory and order processing system that minimizes the need for stocking finished goods, a sales process equipped to explain and encourage customization, and an advertising theme that stresses the benefits of product variations that meet a customer’s special needs. Such complementarities are pervasive in strategy. Although some fit among activities is generic and applies to many companies, the most valuable fit is strategy-specific because it enhances a position’s uniqueness and amplifies trade-offs.²

There are three types of fit, although they are not mutually exclusive. First-order fit is *simple consistency* between each activity (function) and the overall strategy. Vanguard, for example, aligns all activities with its low-cost strategy. It minimizes portfolio turnover and does not need highly compensated money managers. The company distributes its funds directly, avoiding commissions to brokers. It also limits advertising, relying instead on public relations and word-of-mouth recommendations. Vanguard ties its employees’ bonuses to cost savings.

Consistency ensures that the competitive advantages of activities cumulate and do not erode or cancel themselves out. It makes the strategy easier to communicate to customers, employees, and shareholders, and improves implementation **through single-mindedness in the corporation.**

Second-order fit occurs when *activities are reinforcing*. Neutrogena, for example, markets to upscale hotels eager to offer their guests a soap recommended by dermatologists. Hotels grant Neutrogena the privilege of using its customary packaging while requiring other soaps to feature the hotel’s name. Once guests have tried Neutrogena in a luxury hotel, they are more likely to purchase it at the drugstore or ask their doctor about it. Thus Neutrogena’s medical and hotel marketing activities reinforce one another, lowering total marketing costs.

In another example, Bic Corporation sells a narrow line of standard, low-priced pens to virtually all major customer markets (retail, commercial, promotional, and giveaway) through virtually all available channels. As with any variety-based positioning serving a broad group of customers, Bic emphasizes a common need (low price for an acceptable pen) and uses marketing approaches with a broad reach (a large sales force and heavy television advertising). Bic gains the benefits of consistency across nearly all activities, including product design that emphasizes ease of manufacturing, plants configured for low cost, aggressive purchasing to minimize material costs, and in-house parts production whenever the economics dictate.

Yet Bic goes beyond simple consistency because its activities are reinforcing. For example, the company uses point-of-sale displays and frequent packaging changes to stimulate impulse buying. To handle point-of-sale tasks, a company

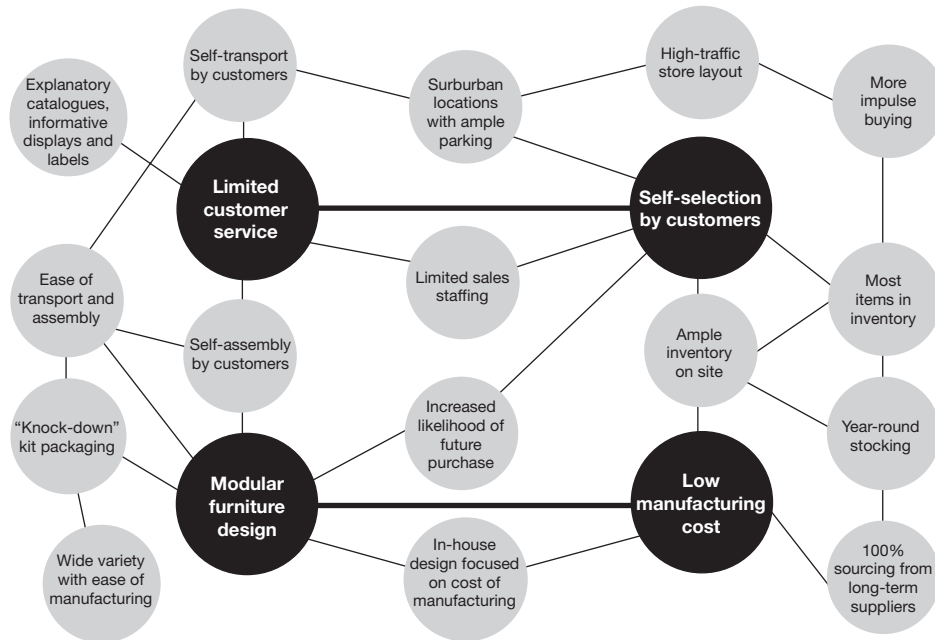


Figure 1.1 *Mapping activity systems*

Activity-system maps, such as this one for Ikea, show how a company's strategic position is contained in a set of tailored activities designed to deliver it. In companies with a clear strategic position a number of higher-order strategic themes can be identified and implemented through clusters of tightly linked activities.

needs a large sales force. Bic's is the largest in its industry, and it handles point-of-sale activities better than its rivals do. Moreover, the combination of point-of-sale activity, heavy television advertising, and packaging changes yields far more impulse buying than any activity in isolation could.

Third-order fit goes beyond activity reinforcement to what I call *optimization of effort*. The Gap, a retailer of casual clothes, considers product availability in its stores a critical element of its strategy. The Gap could keep products either by holding store inventory or by restocking from warehouses. The Gap has optimized its effort across these activities by restocking its selection of basic clothing almost daily out of three warehouses, thereby minimizing the need to carry large in-store inventories. The emphasis is on restocking because the Gap's merchandising strategy sticks to basic items in relatively few colors. While comparable retailers achieve turns of three to four times per year, the Gap turns its inventory seven and a half times per year. Rapid restocking, moreover, reduces the cost of implementing the Gap's short model cycle, which is six to eight weeks long.³

Coordination and information exchange across activities to eliminate redundancy and minimize wasted effort are the most basic types of effort optimization. But there are higher levels as well. Product design choices, for example, can eliminate the need for after-sale service or make it possible for customers to

perform service activities themselves. Similarly, coordination with suppliers or distribution channels can eliminate the need for some in-house activities, such as end-user training.

In all three types of fit, the whole matters more than any individual part. Competitive advantage grows out of the *entire system* of activities. The fit among activities substantially reduces cost or increases differentiation. Beyond that, the competitive value of individual activities – or the associated skills, competencies, or resources – cannot be decoupled from the system or the strategy. Thus in competitive companies it can be misleading to explain success by specifying individual strengths, core competencies, or critical resources. The list of strengths cuts across many functions, and one strength blends into others. It is more useful to think in terms of themes that pervade many activities, such as low cost, a particular notion of customer service, or a particular conception of the value delivered. These themes are embodied in nests of tightly linked activities.

Fit and sustainability

Strategic fit among many activities is fundamental not only to competitive advantage but also to the sustainability of that advantage. It is harder for a rival to match an array of interlocked activities than it is merely to imitate a particular sales-force approach, match a process technology, or replicate a set of product features. Positions built on systems of activities are far more sustainable than those built on individual activities.

Consider this simple exercise. The probability that competitors can match any activity is often less than one. The probabilities then quickly compound to make matching the entire system highly unlikely ($0.9 [x] 0.9 = 0.81$; 0.81 ; $0.9 [x] 0.9 x 0.9 = 0.66$ and so on). Existing companies that try to reposition or straddle will be forced to reconfigure many activities. And even new entrants, though they do not confront the trade-offs facing established rivals, still face formidable barriers to imitation.

The more a company's positioning rests on activity systems with second- and third-order fit, the more sustainable its advantage will be. Such systems, by their very nature, are usually difficult to untangle from outside the company and therefore hard to imitate. And even if rivals can identify the relevant interconnections, they will have difficulty replicating them. Achieving fit is difficult because it requires the integration of decisions and actions across many independent subunits.

A competitor seeking to match an activity system gains little by imitating only some activities and not matching the whole. Performance does not improve, it can decline. Recall Continental Lite's disastrous attempt to imitate Southwest.

Finally, fit among a company's activities creates pressures and incentives to improve operational effectiveness, which makes imitation even harder. Fit means that poor performance in one activity will degrade the performance in others, so that weaknesses are exposed and more prone to get attention. Conversely, improvements in one activity will pay dividends in others. Companies with strong

Table 1.1 *Alternative views of strategy*

The implicit strategy model of the past decade	Sustainable competitive advantage
One ideal competitive position in the industry	Unique competitive position for the company
Benchmarking of all activities and achieving best practice	Activities tailored to strategy
Aggressive outsourcing and partnering to gain efficiencies	Clear trade-offs and choices <i>vis-à-vis</i> competitors
Advantages rest on a few key success factors, critical resources, core competencies	Competitive advantage arises from fit across activities
Flexibility and rapid responses to all competitive and market changes	Sustainability comes from the activity system, not the parts
	Operational effectiveness is a given

fit among their activities are rarely inviting targets. Their superiority in strategy and in execution only compounds their advantages and raises the hurdle for imitators.

When activities complement one another, rivals will get little benefit from imitation unless they successfully match the whole system. Such situations tend to promote winner-take-all competition. The company that builds the best activity system – Toys R Us, for instance – wins, while rivals with similar strategies – Child World and Lionel Leisure – fall behind. Thus finding a new strategic position is often preferable to being the second or third imitator of an occupied position.

The most viable positions are those whose activity systems are incompatible because of tradeoffs. Strategic positioning sets the trade-off rules that define how individual activities will be configured and integrated. Seeing strategy in terms of activity systems only makes it clearer why organizational structure, systems, and processes need to be strategy-specific. Tailoring organization to strategy, in turn, makes complementarities more achievable and contributes to sustainability.

One implication is that strategic positions should have a horizon of a decade or more, nor of a single planning cycle. Continuity fosters improvements in individual activities and the fit across activities, allowing an organization to build unique capabilities and skills tailored to its strategy. Continuity also reinforces a company's identity.

Conversely, frequent shifts in positioning are costly. Not only must a company reconfigure individual activities, but it must also realign entire systems. Some activities may never catch up to the vacillating strategy. The inevitable result of frequent shifts in strategy, or of failure to choose a distinct position in the first place, is 'me-too' or hedged activity configurations, inconsistencies across functions, and organizational dissonance.

What is strategy? We can now complete the answer to this question. Strategy is creating fit among a company's activities. The success of a strategy depends on doing many things well – not just a few – and integrating among them. If there is no fit among activities, there is no distinctive strategy and little sustainability. Management reverts to the simpler task of overseeing independent functions, **and operational effectiveness determines an organization's relative performance (Table 1.1).**

Rediscovering strategy

The failure to choose

Why do so many companies fail to have a strategy? Why do managers avoid making strategic choices? Or, having made them in the past, why do managers so often let strategies decay and blur?

Commonly, the threats to strategy are seen to emanate from outside a company because of changes in technology or the behavior of competitors. Although external changes can be the problem, the greater threat to strategy often comes from within. A sound strategy is undermined by a misguided view of competition, by organizational failures, and, especially, by the desire to grow.

Managers have become confused about the necessity of making choices. When many companies operate far from the productivity frontier, trade-offs appear unnecessary. It can seem that a well-run company should be able to beat its ineffective rivals on all dimensions simultaneously. Taught by popular management thinkers that they do not have to make trade-offs, managers have acquired a macho sense that to do so is a sign of weakness.

Unnerved by forecasts of hypercompetition, managers increase its likelihood by imitating everything about their competitors. Exhorted to think in terms of **revolution, managers chase every new technology for its own sake (Box 1.2).**

Box 1.2

Emerging industries and technologies

Developing a strategy in a newly emerging industry or in a business undergoing revolutionary technological changes is a daunting proposition. In such cases, managers face a high level of uncertainty about the needs of customers, the products and services that will prove to be the most desired, and the best configuration of activities and technologies to deliver them. Because of all this uncertainty, imitation and hedging are rampant: unable to risk being wrong or left behind, companies match all features, offer all new services, and explore all technologies.

During such periods in an industry's development, its basic productivity frontier is being established or reestablished. Explosive growth can make such times profitable for many companies, but profits will be temporary because imitation and strategic convergence will ultimately destroy industry profitability. The companies that are enduringly successful will be those that begin as early as possible to define and embody in their activities a unique competitive position. A period of imitation may be inevitable in emerging industries, but that period reflects the level of uncertainty rather than a desired state of affairs.

In high-tech industries, this imitation phase often continues much longer than it should. Enraptured by technological change itself, companies pack more features –

most of which are never used – into their products while slashing prices across the board. Rarely are trade-offs even considered. The drive for growth to satisfy market pressures leads companies into every product area. Although a few companies with fundamental advantages prosper, the majority are doomed to a rat race no one can win.

Ironically, the popular business press, focused on hot, emerging industries, is prone to presenting these special cases as proof that we have entered a new era of competition in which none of the old rules are valid. In fact, the opposite is true.

The pursuit of operational effectiveness is seductive because it is concrete and actionable. Over the past decade, managers have been under increasing pressure to deliver tangible, measurable performance improvements. Programs in operational effectiveness produce reassuring progress, although superior profitability may remain elusive. Business publications and consultants flood the market with information about what other companies are doing, reinforcing the best-practice mentality. Caught up in the race for operational effectiveness, many managers simply do not understand the need to have a strategy.

Companies avoid or blur strategic choices for other reasons as well. Conventional wisdom within an industry is often strong, homogenizing competition. Some managers mistake ‘customer focus’ to mean they must serve all customer needs or respond to every request from distribution channels. Others cite the desire to preserve flexibility.

Organizational realities also work against strategy. Trade-offs are frightening, and making no choice is sometimes preferred to risking blame for a bad choice. Companies imitate one another in a type of herd behavior, each assuming rivals know something they do not. Newly empowered employees, who are urged to seek every possible source of improvement, often lack a vision of the whole and the perspective to recognize trade-offs. The failure to choose sometimes comes down to the reluctance to disappoint valued managers or employees.

The growth trap

Among all other influences, the desire to grow has perhaps the most perverse effect on strategy. Trade-offs and limits appear to constrain growth. Serving one group of customers and excluding others, for instance, places a real or imagined limit on revenue growth. Broadly targeted strategies emphasizing low price result in lost sales with customers sensitive to features or service. Differentiators lose sales to price-sensitive customers.

Managers are constantly tempted to take incremental steps that surpass those limits but blur a company’s strategic position. Eventually, pressures to grow or apparent saturation of the target market lead managers to broaden the position by extending product lines, adding new features, imitating competitors’ popular

services, matching processes, and even making acquisitions. For years, Maytag Corporation's success was based on its focus on reliable, durable washers and dryers, later extended to include dishwashers. However, conventional wisdom emerging within the industry supported the notion of selling a full line of products. Concerned with slow industry growth and competition from broad-line appliance makers, Maytag was pressured by dealers and encouraged by customers to extend its line. Maytag expanded into refrigerators and cooking products under the Maytag brand and acquired other brands – Jenn-Air, Hardwick Stove, Hoover, Admiral, and Magic Chef – with disparate positions. Maytag has grown substantially from \$684 million in 1985 to a peak of \$3.4 billion in 1994, but return on sales has declined from 8% to 12% in the 1970s and 1980s to an average of less than 1% between 1989 and 1995. Cost cutting will improve this performance, but laundry and dishwasher products still anchor Maytag's profitability.

Neutrogena may have fallen into the same trap. In the early 1990s, its US distribution broadened to include mass merchandisers such as Wal-Mart Stores. Under the Neutrogena name, the company expanded into a wide variety of products – eye makeup remover and shampoo, for example – in which it was not unique and which diluted its image, and it began turning to price promotions.

Compromises and inconsistencies in the pursuit of growth will erode the competitive advantage a company had with its original varieties or target customers. Attempts to compete in several ways at once create confusion and undermine organizational motivation and focus. Profits fall, but more revenue is seen as the answer. Managers are unable to make choices, so the company embarks on a new round of broadening and compromises. Often, rivals continue to match each other until desperation breaks the cycle, resulting in a merger or downsizing to the original positioning.

Profitable growth

Many companies, after a decade of restructuring and cost-cutting, are turning their attention to growth. Too often, efforts to grow blur uniqueness, create compromises, reduce fit, and ultimately undermine competitive advantage. In fact, the growth imperative is hazardous to strategy.

What approaches to growth preserve and reinforce strategy? Broadly, the prescription is to concentrate on deepening a strategic position rather than broadening and compromising it. One approach is to look for extensions of the strategy that leverage the existing activity system by offering features or services that rivals would find impossible or costly to match on a stand-alone basis. In other words, managers can ask themselves which activities, features, or forms of competition are feasible or less costly to them because of complementary activities that their company performs.

Deepening a position involves making the company's activities more distinctive, strengthening fit, and communicating the strategy better to those customers who should value it. But many companies succumb to the temptation to chase

‘easy’ growth by adding hot features, products, or services without screening them or adapting them to their strategy. Or they target new customers or markets in which the company has little special to offer. A company can often grow faster – and far more profitably – by better penetrating needs and varieties where it is distinctive than by slugging it out in potentially higher growth arenas in which the company lacks uniqueness. Carmike, now the largest theater chain in the United States, owes its rapid growth to its disciplined concentration on small markets. The company quickly sells any big-city theaters that come to it as part of an acquisition.

Globalization often allows growth that is consistent with strategy, opening up larger markets for a focused strategy. Unlike broadening domestically, expanding globally is likely to leverage and reinforce a company’s unique position and identity.

Companies seeking growth through broadening within their industry can best contain the risks to strategy by creating stand-alone units, each with its own brand name and tailored activities. Maytag has clearly struggled with this issue. On the one hand, it has organized its premium and value brands into separate units with different strategic positions. On the other, it has created an umbrella appliance company for all its brands to gain critical mass. With shared design, manufacturing, distribution, and customer service, it will be hard to avoid homogenization. If a given business unit attempts to compete with different positions for different products or customers, avoiding compromise is nearly impossible.

The role of leadership

The challenge of developing or reestablishing a clear strategy is often primarily an organizational one and depends on leadership. With so many forces at work against making choices and tradeoffs in organizations, a clear intellectual framework to guide strategy is a necessary counterweight. Moreover, strong leaders willing to make choices are essential.

In many companies, leadership has degenerated into orchestrating operational improvements and making deals. But the leader’s role is broader and far more important. General management is more than the stewardship of individual functions. Its core is strategy: defining and communicating the company’s unique position, making trade-offs, and forging fit among activities. The leader must provide the discipline to decide which industry changes and customer needs the company will respond to, while avoiding organizational distractions and maintaining the company’s distinctiveness. Managers at lower levels lack the perspective and the confidence to maintain a strategy. There will be constant pressures to compromise, relax trade-offs, and emulate rivals. One of the leader’s jobs is to teach others in the organization about strategy – and to say no. Strategy renders choices about what not to do as important as choices about what to do. Indeed, setting limits is another function of leadership. Deciding which target group of customers, varieties, and needs the company should serve is fundamental to developing a strategy. But so is deciding not to serve other customers or needs

and not to offer certain features or services. Thus strategy requires constant discipline and clear communication. Indeed, one of the most important functions of an explicit, communicated strategy is to guide employees in making choices that arise because of trade-offs in their individual activities and in day-to-day decisions.

Improving operational effectiveness is a necessary part of management, but it is *not* strategy. In confusing the two, managers have unintentionally backed into a way of thinking about competition that is driving many industries toward competitive convergence, which is in no one's best interest and is not inevitable.

Managers must clearly distinguish operational effectiveness from strategy. Both are essential, but the two agendas are different.

The operational agenda involves continual improvement everywhere there are no trade-offs. Failure to do this creates vulnerability even for companies with a good strategy. The operational agenda is the proper place for constant change, flexibility, and relentless efforts to achieve best practice. In contrast, the strategic agenda is the right place for defining a unique position, making clear trade-offs, and tightening fit. It involves the continual search for ways to reinforce and extend the company's position. The strategic agenda demands discipline and continuity; its enemies are distraction and compromise.

Strategic continuity does not imply a static view of competition. A company must continually improve its operational effectiveness and actively try to shift the productivity frontier; at the same time, there needs to be ongoing effort to extend its uniqueness while strengthening the fit among its activities. Strategic continuity, in fact, should make an organization's continual improvement more effective.

A company may have to change its strategy if there are major structural changes in its industry. In fact, new strategic positions often arise because of industry changes, and new entrants unencumbered by history often can exploit them more easily. However, a company's choice of a new position must be driven by the ability to find new trade-offs and leverage a new system of complementary activities into a sustainable advantage.

Notes

- 1 I first described the concept of activities and its use in understanding competitive advantage in *Competitive Advantage* (New York: The Free Press, 1985). The ideas in this article build on and extend that thinking.
- 2 Paul Milgrom and John Roberts have begun to explore the economics of systems of complementary functions, activities, and functions. Their focus is on the emergence of 'modern manufacturing' as a new set of complementary activities, on the tendency of companies to react to external changes with coherent bundles of internal responses, and on the need for central coordination – a strategy – to align functional managers. In the latter case, they model what has long been a bedrock principle of strategy. See Paul Milgrom and John Roberts, 'The Economics of Modern Manufacturing: Technology, Strategy,

- and Organization', *American Economic Review* 80 (1990): 511–528; Paul Milgrom, Yingyi Qian, and John Roberts, 'Complementarities, Momentum, and Evolution of Modern Manufacturing', *American Economic Review* 81 (1991) 84–88; and Paul Milgrom and John Roberts, 'Complementarities and Fit: Strategy, Structure, and Organizational Changes in Manufacturing', *Journal of Accounting and Economics* 19 (March–May 1995): 179–208.
- 3 Material on retail strategies is drawn in part from Jan Rivkin, 'The Rise of Retail Category Killers', unpublished working paper, January 1995. Nicolaj Siggelkow prepared the case study on the Gap.