

# The Delta Model: Adaptive Management for a Changing World

Arnoldo C. Hax • Dean L. Wilde II



*A new management framework addresses the current business environment of complexity and uncertainty by expanding the spectrum of strategic positions.*

Arnoldo C. Hax is the Alfred P. Sloan Professor of Management, MIT Sloan School of Management. Dean L. Wilde II is chairman, Dean & Company, and a visiting lecturer, MIT Sloan School of Management.

The most influential contemporary strategic framework, espoused by Michael Porter, is based on two exclusive ways to compete: low cost or differentiation.<sup>1</sup> A company can achieve low cost by aggressively reducing costs or differentiate by creating something that is perceived industrywide as unique. Although low cost and differentiation call for fairly distinct strategies, both center on product economics or on delivering the “best product.” Customers are attracted by a low price or by the differentiating product characteristics that go beyond price.

Although the best-product strategy continues to be relevant, our research shows

that it does not describe all the ways companies compete in the current environment. Two companies illustrate this point:

- Microsoft has been a phenomenal success, perhaps the model for a modern business in a complex environment. By 1998, Microsoft had created \$270 billion of market value in excess of debt and equity. Did it do this by having the best product? Microsoft does not have a 90 percent share of the market for personal computer operating systems because of low price. While it may have an effective cost infrastructure, its position is not based on being the low-cost provider. On

the other hand, its operating system and, most certainly, the MS DOS product that fueled its dominance, has never had the best features or been the easiest to use. In fact, many would argue that Apple had the best set of differentiated features. Nonetheless, Microsoft is unambiguously the market leader. The source of its success is a distinctive competitive position that is not best product, but rather one supported by the economics of the system as a whole, which we label system "lock-in."

- During a ten-year period, MCI WorldCom has grown to \$100 billion in market value, with about \$30 billion in annual revenue and a price-to-earnings ratio of more than 100. MCI WorldCom has generated the third highest shareholder return over the past ten years with a 53 percent annual growth from 1986 to 1996. How did MCI WorldCom do this? The predominant activity in Jackson, Mississippi, its headquarters, is acquisitions; MCI WorldCom has acquired more than thirty companies since its inception in 1985. The focus of the acquisitions is not to create the lowest cost product. On the contrary, acquisitions have expanded the breadth of its products from long distance to local through the acquisition of MFS and Brooks Fiber, to the Internet through the acquisition of UUNet and ANS, and to data services through the acquisition of WilTel. It now has a small product market share across many products. The focus of the acquisitions is not on product differentiation. In fact, each product could be considered almost a commodity when weighed against respective competitors. Notwithstanding this, MCI WorldCom created enormous market value by pursuing a distinctive competitive position in the industry, one focused on the customer, which we label "customer solutions."

Clearly, existing management frameworks do not address the challenges managers face today (*see the*

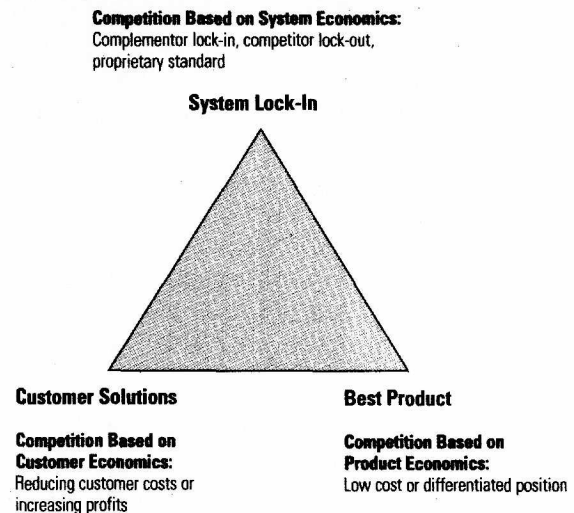
*sidebar*). Based on our research on more than 100 companies, we have developed the Delta model, which makes four major contributions. First, it defines strategic positions that reflect fundamentally new sources of profitability. Second, it aligns these strategic options with a firm's activities and thus provides congruency between strategic direction and execution. Third, it introduces adaptive processes with the capability to continually respond to an uncertain environment. And, finally, it shows that granular metrics are the drivers of performance in complex industries.

## The Triangle: Three Strategic Options

Our research gave rise to a new business model, the "triangle," that better reflects the many ways to compete in the current economy (*see Figure 1*). The new model fills a significant void in the development of strategic thinking by offering *three* potential options: best product, customer solutions, and system lock-in.

Figure 1

### The Triangle: Three Distinct Strategic Options



#### The Delta Project

Three years ago, we initiated a dialogue among some senior executives and faculty members at the MIT Sloan School of Management to identify the issues and challenges that managers were facing. The senior managers participating were Skip LeFauve, CEO of Saturn; Gerhard Schulmeyer, then CEO of Asea Brown Boveri; Iain Anderson, CEO of Chemical Coordination at Unilever; Judy Lewent, CFO of Merck; and Bert Morris, chief executive of operations at National West-

minster Bank. The faculty members were Charles Fine, Arnolde Hax, Henry Jacoby, Thomas Magnanti, Robert McKersie, Stewart Myers, John Rockart, Edgar Schein, Michael Scott Morton, and John Van Maanen. We explored in depth the forces confronting business worldwide to determine whether current frameworks responded to modern issues.

What resulted from the discussions was a coherent picture of a world that defies clear definition. The only common denominator is

continuous, inexorable change. Conventional theories and business practices are not providing the necessary guidance and support for decision making.

The Delta Project discussions were the foundation for our own reflections on how to respond effectively to these challenges and led to a new framework we call the "Delta model." It is anchored in a different business model and offers adaptive processes that can help managers deal with the new challenges of complexity, uncertainty, and change.

The *best-product* strategic option is built on the classic forms of competition through low cost or differentiation. Its relevant economic drivers are centered on a product or service. A company can achieve cost leadership by aggressively pursuing economies of scale, product and process simplification, and significant product market share that allow it to exploit experience and learning effects. A company can differentiate by enhancing product attributes in a way that adds value for the customer. It can achieve this differentiation through technology, brand image, additional features, or special services. Every strategic option searches for a way to bond with the customer, which is reflected in a significant switching cost. Through the best-product option, companies bond with customers through the intrinsic superiority of their product or service. Important aids for this purpose are introducing products rapidly, being first to market, and establishing a so-called dominant design.<sup>2</sup>

The *customer solutions* strategic option is based on a wider offering of products and services that satisfies most if not all the customer's needs. The focus here is on the customer's economics, rather than the product's economics. A company might offer a broad bundle of products and services that is targeted and customized to a specific customer's needs. In that respect, the most relevant performance measurement of this option is customer market share. Customer bonding, obtained through close proximity to the client, allows a company to anticipate needs and work jointly to develop new products. Bonding is enhanced by learning and customization. Learning has a dual effect: the investment the customer makes in learning how to use a product or service can constitute a significant switching cost; learning about customer needs will increase the company's ability to satisfy his or her requirements. Both have a positive impact in the final bonding relationship. Often this strategic option calls for the devel-

opment of partnerships and alliances, which could include other suppliers, competitors, and customers linked by their ability to complement a customer offering.

The *system lock-in* strategic option has the widest possible scope. Instead of narrowly focusing on the product or the customer, the company considers all the meaningful players in the system that contribute to the creation of economic value. In this strategic position, bonding plays its most influential role. The company is particularly concerned with nurturing, attracting, and retaining so-called "complementors,"<sup>3</sup> along with the normal industry participants. (A complementor is not a competitor but a provider of products and services that enhance a company's offering.) Typical examples include computer hardware and software producers; high-fidelity equipment manufacturers and CD disk providers; TV set, video recorder, and videocassette makers; and producers of telephone handsets and telecom networks. The critical issue here is looking at the overall architecture of the system: How can a company gain complementors' share in order to lock out competitors and lock in customers? The epitome of this position is achieving the de facto proprietary standard.

Although, in reality, these options are not mutually exclusive, and a business could decide on a blended strategy, it is useful to consider the three alternatives as distinct ways of competing, with different scope, scale, and bonding (see Figure 2). The scope significantly increases as we move from best product to system lock-in. At the extreme end of the best-product position, where a company often opts for low cost, the scope is trimmed to a minimum. The scope expands to include product features as a company moves to a differentiated best-product position. It further expands beyond the product to include the customer's activities in the case of customer solutions.

Figure 2  
Characteristics of Three Options for Strategic Positioning

	Best Product	Customer Solutions	System Lock-In
<b>Scope</b>	Defeated $\longleftrightarrow$ Fully featured • Low cost                      • Differentiated	Broad Product Range: • Bundling • Joint development • Outsourcing	Nurturing Complementors: • Variety and number • Open architecture
<b>Scale</b>	Product: • Market share	Customer: • Customer share	System: • Complementor share
<b>Bonding</b>	Link to Product: • First to market • Dominant design	Link to Customers: • Customer lock-in • Learning • Customization	Link to System: • Competitor lock-out • Proprietary standards

**Throughout Nucor, there is a strong alignment between the objectives and metrics critical to the strategy, namely, to be low cost, and to the measurements and incentives for teams and individuals.**

The company finally reaches the broadest possible scope as a system lock-in company when it includes complementors.

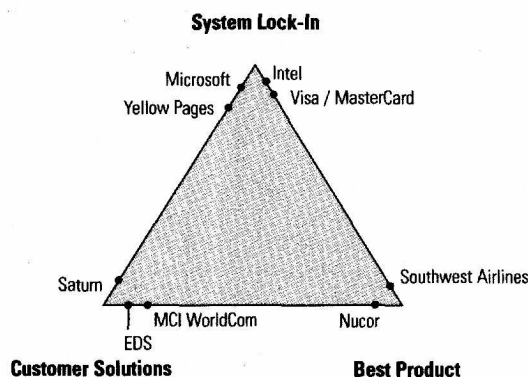
Scale is a critical strategic factor typically measured as product market share, which is appropriate when evaluating a best-product position. In the case of customer solutions, a company must consider its share of a customer's purchases. For a system lock-in position, complementor share is the most crucial consideration.

Ultimately, bonding deals with the forces that link the product or service with the customer. In the best-product option, this is done through the characteristics of the product itself. The customer solutions position achieves this through learning and customization. In the system lock-in position, the utmost bonding mechanism is the proprietary standard, which is a fundamental force in driving profitability and sustainability.

### Understanding the Strategic Positions

We can see the distinct nature of the three strategic positions by examining some companies that share the same outstanding business success but have

Figure 3  
Options for Strategic Positioning



achieved their high performance through strikingly different strategies and draw on fundamentally different sources of profitability (see Figure 3).

### Best-Product Position

Nucor Corporation is the fourth largest steel producer in the United States and the largest minimill producer. The objective of its classic best-product strategy is to be the lowest cost producer in the steel industry. Its costs are \$40 to \$50 per ton less than those in the modern, fully integrated mills. Its sales per employee are \$560,000 per year, compared to an average \$240,000 for the industry. It has achieved this performance through a single-minded focus on product economics. Nucor's CEO John Correnti attributes 80 percent of its low-cost performance to a low-cost culture and only 20 percent to technology. In fact, during Nucor's boom years, between 1975 and 1986, twenty-five of its minimill competitors were closed or sold. Metrics reinforce this low-cost culture. Throughout the corporation, there is a strong alignment between the objectives and metrics critical to the strategy, namely, to be low cost, and to the measurements and incentives for teams and individuals.

Nucor's financial performance resulting from this strategy is extraordinary. Before new management took over Nucor in 1966, the company was worth \$13 million in market value. Thirty-two years later, this management and the processes it employed took Nucor to \$5 billion in market value or 35 percent compounded growth — a spectacular result in the steel industry.

Southwest Airlines is another example of phenomenal performance through a best-product strategy. It relentlessly focuses on product economics and drives to cut product costs, sometimes reducing the scope and eliminating features from its service in the process. For example, it does not offer baggage handling, passenger ticketing, advance reservations, or hot food.

The activities that Southwest continues to perform it does differently. It emphasizes shuttle flights that efficiently utilize an aircraft on repeated trips between two airports, rather than using the hubs and spokes of the full-service carriers. It concentrates on the smaller and less congested airports surrounding large cities. It exclusively uses the Boeing 737, rather than the diverse fleets of the established carriers, thus reducing the costs of maintenance and training.

---

**New companies may have an advantage over existing firms in originating radically new strategic positions founded on low cost because they may find it easier to redefine activities.**

---

New companies may have an advantage over existing firms in originating radically new strategic positions founded on low cost because they may find it easier to redefine activities. Existing firms have embedded systems, processes, and procedures that are often obstacles to change and normally carry a heavy cost infrastructure. Many successful small companies have penetrated well-established industries and promptly reached a position of cost leadership in a more narrowly defined product segment, as in the cases of Nucor and Southwest, Dell and Gateway in personal computers, and WilTel in telecommunications. All these companies have had the same pattern: they narrowed the scope of their offering relative to the incumbents, they eliminated some features of the product, and they collapsed the activities of the value chain by eliminating some and outsourcing others. They perform the remaining activities differently, for either cost or product differentiation.

#### **Customer Solutions Position**

This competitive position reflects a shift in strategic attention from product to customer — from product economics to customer economics and the customer's experience.

Electronic Data Systems (EDS) is a clear example of a customer solutions provider. EDS has achieved prominence in the data processing industry by singularly positioning itself as a firm that has no interest in individual hardware or software companies. Its role is to provide the best solutions to cover total information needs, regardless of the components' origins. In the process, it has built a highly respected record by delivering cost-effective and tailor-made solutions to each customer. EDS has completely changed the perception of how to manage IT resources. While once IT was regarded as the brain of the company and every firm developed its own strong, internal IT group, now IT outsourcing is commonplace and even expected.

As a customer solutions provider, EDS measures its success by how much it improves the customer's bottom line or how it enhances the customer's economics. Typically, it goes into an organization that is currently spending hundreds of millions of dollars annually and delivers significant savings while, at the same time, enhancing the firm's current IT capabilities. This achievement is important in an industry that is cost sensitive, rapidly changing, and extremely complex and sophisticated. EDS achieves these gains by extending the scope of its services to include activities previously performed by the customer. By focusing on IT, operations scale, and experience relative to the customer, it can offer services at a lower cost and/or higher quality than the customers themselves can.

MCI WorldCom provides a contrasting example of a customer solutions position. Where EDS has built value by "vertically" expanding its service scope into activities previously performed by the customer, MCI WorldCom is an almost pure example of expanding "horizontally" across a range of related services for the targeted customer segment, or bundling. It bundles the services together to reduce complexity for the customer. The customer benefits from a single bill, one contact point for customer service and sales, and potentially a more integrated, highly utilized network, but the products are the same. MCI WorldCom benefits through higher revenue per customer and longer customer retention, because it is harder to change vendors, and through lower cost customer service and sales. Clearly, MCI WorldCom is following a strategy that is changing the rules of competition in the telecom industry and drawing on new sources of profitability. It is shifting the dimension of competitive advantage from product share to customer share.

Saturn, another example of the customer solutions position, is one of the most creative managerial initiatives in the past ten years. It abandoned a focus on products and turned its attention to changing the customer's full life-cycle experience. Saturn deliberately decided to design a car that would produce a driving experience close to the Toyota Corolla or the Honda Civic. It satisfied owners of these Japanese cars and therefore wanted to make the transition as easy as possible. Inherently, Saturn abandoned the best-product strategy and decided to create a product that was no different from the leading competition.

Instead, Saturn redefined the terms of engagement with the customer at the dealership. As any American

buyer knows, purchasing a car can be unpleasant, subject to all kinds of uncomfortable pressures. Saturn targeted its dealers from a list of the top 5 percent of dealers in the United States, regardless of the brands they represented. Saturn offered extraordinary terms, which required a major commitment from the dealers to learn the Saturn culture and to make multi-million-dollar investments in the dealership.

First, and not just symbolically, Saturn changed the name "dealer," with the implicit connotation of negotiation and haggling, to "retailer," which connotes loyalty and fairness. Next, it instituted a no-haggling policy. Every car, and every accessory in the car, had a fixed price throughout the United States. In fact, the dealers educated customers on the features and price of the car and how they compared to competitors. Saturn also established a complete rezoning and expansion of retailer areas, thus limiting competition and allowing for more effective use of a central warehouse that a circle of Saturn dealers could share to lower inventory and costs. Additionally, it broke with tradition in the auto industry by offering a remarkable deal: "Satisfaction guaranteed, or your money back, with no questions asked." Saturn also implemented, for the first time, a "full car" recall. It replaced the complete car, not simply a component, and issued the recall within two weeks of finding symptoms of the problem.

Not surprisingly, customer response was overwhelming, creating what has become a cult among Saturn owners and thus giving Saturn the highest customer satisfaction rating in the industry — a phenomenal accomplishment for a car that retails for about one-fourth the price of luxury cars. Saturn's most powerful advertising campaign became the "word of mouth" from pleased customers, proving that focusing on the customer can be as strong a force in achieving competitive advantage as focusing on the product.

### **System Lock-in Position**

In the system lock-in position are companies that can claim to own de facto standards in their industry. These companies are the beneficiaries of the massive investments that other industry participants make to complement their product or service. Microsoft and Intel are prime examples. Eighty percent to 90 percent of the PC software applications are designed to work with Microsoft's personal computer operating system (e.g., Windows 98) and with Intel's micro-

processor design (e.g., Pentium), the combination often referred to as Wintel. As a customer, if you want access to the majority of the applications, you have to buy a Microsoft Windows operating system; 90 percent do. As an applications software provider, if you want access to 90 percent of the market, you have to write your software to work with Microsoft Windows; most do.

---

## **Microsoft and Intel do not win on the basis of product cost, product differentiation, or a customer solution; they have system lock-in.**

---

This is a virtuous feedback loop that accelerates, independent of the product around which it is spinning. The same relationship supports the demand for Intel's microprocessors. Microsoft and Intel do not win on the basis of product cost, product differentiation, or a customer solution; they have system lock-in. Apple Computer has long had the reputation of having a better operating system or a better product. Motorola has frequently designed a faster microprocessor. Microsoft and Intel, nonetheless, have long held the lock on the industry.

Not every product or service can be a proprietary standard; there are opportunities only in certain parts of the industry architecture and only at certain times. Microsoft, Intel, and Cisco have a shrewd ability to spot this potential in their respective fields and then relentlessly pursue the attainment, consolidation, and extension of system lock-in. Some of the most spectacular value creation in recent history has resulted. By 1998, Microsoft had created \$270 billion of market value in excess of the debt and equity investment in the company, Intel had created \$160 billion, and Cisco had created \$100 billion.

In a nontechnology area, the Yellow Pages is one of the most widely recognized directories and most strongly held proprietary standards in the United States. The business, which has massive 50 percent net margins, is a fundamentally simple business. The Regional Bell Operating Companies, including Bell Atlantic, Ameritech, Bell South, and so on, owned the business and outsourced many of its activities, such as sales and book production. In 1984, when the

Yellow Pages market opened for competition, there were many new entrants, including the companies that had provided the outsourcing services. Experts predicted rapid loss of market share and declining margins. Afterward, the incumbent providers retained 85 percent of the market, and their margins were unchanged. How did this happen?

The Yellow Pages has tremendous system lock-in. Businesses want to place their ads in a book with the most readership, and consumers want to use the book that has the most ads. When new companies entered the market, they could distribute books to every household but could not guarantee usage. Even with the steep 50 percent to 70 percent discounts the new books offered, businesses could not afford to discontinue their ads in the incumbent book with proven usage. Despite enhancements like color maps and coupons, consumers found the new books with fewer and smaller ads to have more size advantage than utility and threw them out. The virtuous circle could not be broken, and the existing books sustained their market position.

Financial services are another industry in which standards have emerged and are a force in determining competitive success. The key players in the credit card system are merchants, cards, consumers, and banks. American Express was the dominant competitor early on, albeit with a charge card rather than a credit card. Its strategy was to serve high-end busi-

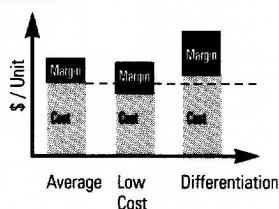
ness people, particularly those traveling abroad. The well-known slogan, "Don't leave home without it," and a worldwide array of American Express offices helped Amex achieve something close to a customer solutions position. Securing a lot of merchants was not part of Amex's strategy.

In contrast, Visa and MasterCard designed an open system, available to all banks, and aggressively pursued all merchants, in part through lower merchant fees. They created a virtuous loop — consumers prefer the cards accepted by the majority of the merchants, and merchants prefer the card held by the majority of the customers. This strategy culminated in strong system lock-in and MasterCard and Visa's achievement of a proprietary standard. Visa and MasterCard now represent more than 80 percent of the cards in circulation. It is interesting to note that at this time, Microsoft, Intel, and Visa and MasterCard are all under threats of suits by the U.S. Department of Justice. Excessive power can lead to alleged abuses that call the attention of regulatory agencies.

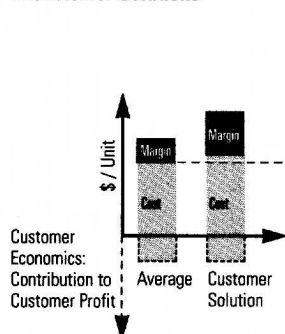
One should not necessarily conclude that the pursuit of one strategic position is always more attractive than the other. There are big winners and losers in every option. Apple failed at owning the dominant operating standard. Banyan failed at achieving a de facto standard in the local area network operating system market, relative to Novell. The right option for a firm depends on its particular circumstances.

Figure 4  
Economic Perspectives of the Strategic Positions

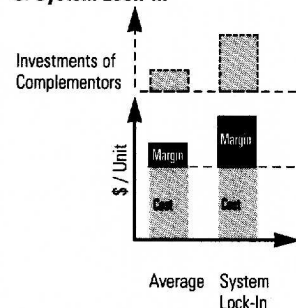
A. Best Product



B. Customer Solutions



C. System Lock-In



## Economic Perspectives of the Strategic Positions

The three strategic positions are focused on three distinct economic perspectives (see Figure 4). The economic implications of the best-product position are shown in Part A of the figure. The average business performer reflects the average cost of the industry and the margin available to the average player. In contrast are the low-cost competitor and the differentiated competitor; these two positions are the basic trade-offs represented in classic strategic positioning.

The lowest-cost performer is able to obtain a higher margin while still competitively pricing the product. This is a strong competitive advantage because the efficiency of the cost structure allows pricing below the cost of the average competitor that, in the long run, might put the average performers out of business. This is why the alternative to low cost must be

differentiation, offering unique product attributes that the customer values and will pay a premium for. The differentiated player could have a higher cost than the average performer while still enjoying a fairly high margin because of the inherent additional value of the product. While the graph is simplistic, it represents important economic hurdles: to have a genuine low-cost position, a company needs to demonstrate lower relative unit costs; to have the economic leverage of a differentiated product, a company needs to show clearly that the customer will pay more, and that this premium is more than the added costs.

By contrast, the customer solutions position (shown in Part B of *Figure 4*) centers on how products and services will impact the customer economics, either by lowering the customer's internal costs or by allowing the customers to have higher revenue. The customer solutions provider may have higher costs, but these are far outweighed by the economic contributions to the customer. The economic hurdle here is to show measurable and positive impact on the customer's profit.

Finally, we can contrast the economics of the system lock-in position with the other alternatives by recognizing that the scope is further enlarged to encompass the total system of which products or services are part. The economic hurdle is both to create additional value to the system as a whole through the heavy investment by complementors and then to be able to appropriate this value. Part C in *Figure 4* shows an average competitor whose complementors modestly add value to the over-

---

## If the strategic positioning is differentiation, the features or services that accompany the product could attract and retain the customer.

---

all system. In contrast, the owner of a proprietary standard has been able to get significant investments from its complementors, which adds value to its system. At the same time, its ability to appropriate this added value is evident in its higher margins.

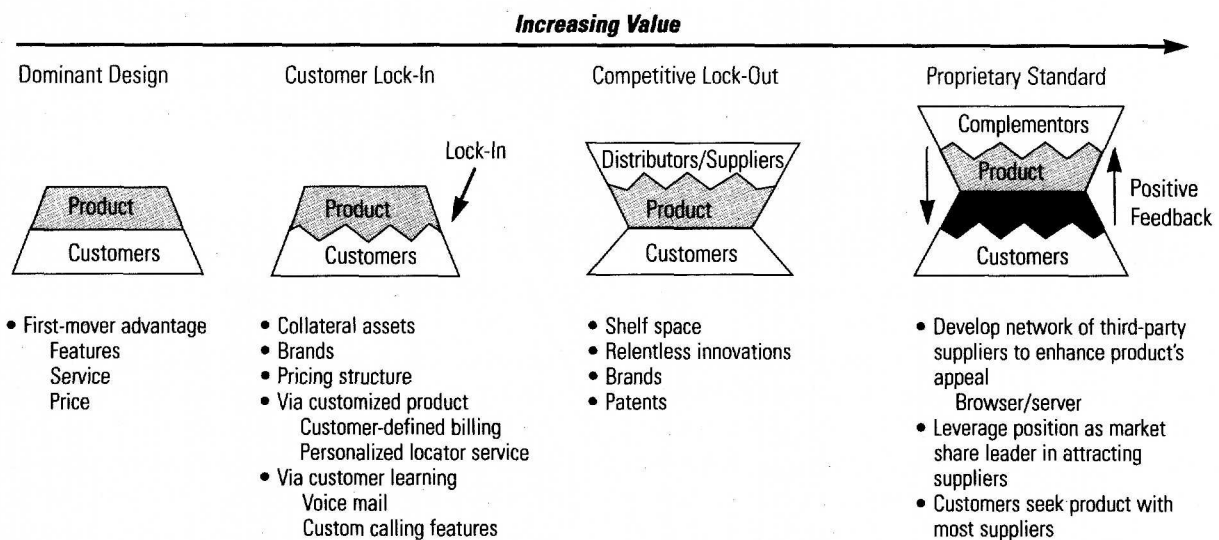
### The Bonding Continuum

Bonding is a primary element in each distinct strategic position and deserves closer examination. Bonding is a continuum that extends from the customer's first loyalty to a product to full system lock-in with proprietary standards. We have identified four stages in bonding (*see Figure 5*).

#### Establishing Dominant Design

In the first stage, dominant design, customers are attracted to a product because it uniquely excels in the dimensions they deeply care about. If the product positioning is one of low cost, then low price leads to loyalty. If the strategic positioning is differentiation, the features or services that accompany the product could attract and retain the customer. In an embryonic indus-

Figure 5  
Bonding Continuum



try that does not yet have a defined product design, various competitors do enormous experimentation. Product variety eventually consolidates to a common design that has the features and characteristics that customers expect from the product type.

This emerging dominant design fills the requirements of many users for a particular product, although it may not exactly meet the requirements of any particular segment of the customer base. In that regard, the dominant design is generic and standardized as opposed to customized. The competitor generating this design captures the first element of loyalty from customers and has first-mover advantage. For example, IBM benefited from a dominant design — the IBM PC. Its format included a monitor, a standard disk drive, the QWERTY keyboard, the Intel chip, open architecture, and the MS DOS operating system. They came together to define the ideal PC for the market, which every other PC-compatible manufacturer would later have to emulate.

---

**The source of National Starch's success is its extraordinary technological capabilities coupled with an intimate knowledge of all its key customers.**

---

**Locking In Customers**

Beyond the stage of dominant design, there are clear opportunities to achieve higher, more tangible switching costs on the part of the customer. One such move is to enhance the product's inherent characteristics by offering additional support that makes it more accessible and attractive and thus harder to switch from, thereby locking in the customer. Collateral assets, which the firm owns and which complement the core product, can be effective in achieving this goal. Ownership of distribution channels, of specialized salesforces, and of technical support staff and, very importantly, a brand-supporting image can significantly increase product function, make it more appealing to the customer, and make the whole package more difficult to imitate. Brands as a collateral asset can reinforce lock-in when the product is unfamiliar and the functionality unknown, so that the assurance of support can dissipate doubts about product performance and encourage repeat purchase.

National Starch, a customer solutions company, provides an excellent example of customer lock-in. National Starch appears deeply rooted in rather mundane and pedestrian products, glue and starch. However, it has an unsurpassed history of long-term superior performance, not only in its industry, but also compared to most U.S. corporations. The source of its success is its extraordinary technological capabilities coupled with an intimate knowledge of all its key customers. R&D personnel, technical service staff, and marketing and sales managers have accumulated enormous knowledge on customer needs, the state of new product development, and ways to aid customers in revenue expansion and cost containment. The essence of National Starch's business is a joint working relationship with the customer.

One spectacular product that emerged from this relationship was a most sophisticated adhesive that eliminated welding airplane wings to an aircraft body. This product has two critical characteristics: One, the product contributes to the total quality of the final product, the airplane. Second, despite its great criticality, the product accounts for a negligible portion of the total cost of the airplane. With these two conditions, National Starch faces high profit potential. The moral here is that by creatively constructing a tight working relationship with the customer, a company can "decommoditize" a product. The bonds are strong because the company is not only providing a product but embracing the customer's own activities and enhancing its economics.

Price structure can influence bonding with customers as well. Two of the most innovative marketing programs in the 1980s were American Airlines' Frequent Flyer program and MCI's "Friends and Family" promotion. Both programs were widely acclaimed because they created some lock-in for traditional commodity businesses.

Customized products and services can also lock in customers, through personalized services, customer care, and even billing. In the consumer market for the financial services industry, Merrill Lynch first introduced customer management accounts, but Fidelity, Schwab, and other institutions followed. The accounts are tailored to the user's circumstances; characteristics of bill payment, brokerage, mutual fund investments, IRA accounts, credit cards, and checking accounts are specific to and chosen by the customer. The effort to move this

information to a new account creates a switching cost for the customer.

Another benefit of close customer proximity is that the customer and the supplier bond over time. A newcomer finds it hard to break into a relationship that has developed mutual investments and benefits. Additionally, a product can create its own learning experience. For example, once you learn how to use the Lotus 1-2-3 spreadsheet application, there is a significant additional effort to switch to Microsoft Excel.

### **Locking Out Competitors**

There is a thin line between locking in customers and locking out competitors. First, once a company acquires a customer, it is hard for that customer to switch to an alternative. Second, significant barriers make it difficult for a competitor to imitate or to enter the business.

Four forces contribute to competitor lock-out. The first is based on the restrictions of distribution channels. Physical distribution channels, in particular, are limited in their ability to handle multiple product lines. At the extreme end of the spectrum are channels that carry only one product, such as soda fountains that serve only one brand of soda. If Coca-Cola captures the channel, Pepsi is preempted from that specific market and vice versa.

In this environment, brands can also generate competitor lock-out. They create customer demand that causes retailers to stock the branded product, at the expense of competitive products, given the physical constraints. In turn, shelf presence further enhances demand and the brand because people can buy only the products available. This reinforcing loop causes branding to be particularly effective for consolidating share and creating system lock-in when the industry structure includes physical distribution channels; this is in contrast to an industry that uses expandable channels such as telemarketing or direct mail.

Another way to lock out competitors is to establish a continuous stream of new products that can result in self-obsolescence and create enormous barriers to imitation or entry. Digital Equipment Corporation's origins in the 1950s provide a good example of competitor lock-out in an embryonic industry. DEC engineers had great freedom to both propose and follow through on their innovations.

There was an unprecedented stream of new computers, with one breakthrough after another. DEC produced more than fifteen new versions in less than six years. As a result, competitors had difficulty passing a moving target. Furthermore, DEC users had to develop tailor-made software applications. Most importantly, all DEC computers were compatible with each other; therefore legacy software could run on the new equipment. The DEC architecture was not open; competitors thus not only had to match the technical features, but also had to be compatible with the existing software base. In ten years, DEC became the second largest computer company in the world.

Patents can lock competitors out, but also offer some challenges. In the pharmaceutical industry, a significant portion of a patent's length is often consumed before the product is released because of the time required for trials and FDA approval. Sometimes, half a patent's life expires before the product is introduced. This is compounded when patents are required in other countries, each with different requirements for documentation, languages, testing, legal compliance, and so on. In this situation, speed is key to competitive lock-out.

### **Sustaining Proprietary Standards**

If a firm is able to reach and sustain proprietary standards, the rewards are immense. There are two requirements for this position. First, customer switching costs need to be high. Second, it has to be difficult or expensive for a competitor to copy the product. There are a number of ways to achieve system lock-in and to secure a proprietary standard. While one might presume that this would be the dominant of the three positions in our business model, it is not always possible to develop a standard in every market segment. Even if a standard can be developed, a single firm might not be able to appropriate it. And not all firms have the capabilities to achieve a proprietary standard.

Managers can ask several questions to assess whether their company can achieve a proprietary standard:

- Do we have an open architecture, or can we create one? An open architecture allows the attraction, development, and innovation of many complementors.
- Is there a potential for a large variety and number of complementors that can be enabled through a standard?
- Is the standard hard to copy? A complex interface

that is rapidly evolving makes it difficult for competitors to imitate.

- Is the industry architecture being redefined?

## Adaptive Processes to Link Strategy with Execution

By describing the three fundamental strategic positions, we have provided the mechanism to define the vision of a business — that elusive but indispensable requirement in successful management. The first challenge is to construct distinct business options that respond to the new realities of the current environment.

The next challenge is to link strategy with execution. More strategies fail because of ineffective execution than poor design. More often than not, a company's basic business processes are not aligned with the strategy. During the past few years, a proliferation of the so-called best business practices, including total quality management, business reengineering, continuous improvement, benchmarking, time-based competition, and lean production, have been primarily directed at improving a firm's operational effectiveness. In theory and in application, these practices are decoupled from strategy. As a result, they contribute to creating a pattern of commoditization as companies imitate each other, thus preventing a truly differentiated strategic position.

---

## The Delta model starts with the selection of a distinctive strategic position and calls for the integration of the collective processes.

---

The Delta model starts with the selection of a distinctive strategic position and then calls for the integration of the collective processes, not of one individual business process such as operational effectiveness. It is the *balance* of the fundamental processes that creates a unique and sustainable competitive position.

Complexity and uncertainty in the market create a problem in implementing any plan. The only assumption that remains valid over time is that the other assumptions will change. Strategy needs to adapt continuously, and therefore implementation

itself needs to respond to market changes and to an improved understanding of the market. That understanding becomes apparent only during implementation.

In the Delta model, adaptive processes link strategy with execution by: (1) defining the key business processes that are the repository of the primary operational tasks, (2) aligning their role with the desired strategic position, (3) seeking a coherent integration across these processes to produce unifying action, and (4) incorporating responsive mechanisms as a core part of each process to ensure flexibility and change in an uncertain market.

### Three Adaptive Processes

In the early 1990s, a powerfully simple idea developed: businesses should be viewed not just in terms of functions, divisions, or products, but also as processes.<sup>4</sup> Processes should be the central focus when companies want to link strategy and execution. We have identified three fundamental processes that are always present and are the repository of key strategic tasks:

1. *Operational effectiveness* — the delivery of products and services to the customer. Conceived in its broadest sense, this process includes all the supply chain elements. Its primary focus is to produce the most effective cost and asset infrastructure to support the business's desired strategic position. It is the heart of the productive engine and the source of capacity and efficiency. Although it is relevant for all businesses, it becomes most important when a company chooses a strategic position of best product.

2. *Customer targeting* — the activities that attract, satisfy, and retain the customer. This process ensures that the customer relationships are managed most effectively. It identifies and selects attractive customers and enhances customer performance, either by reducing the customer's cost base or by increasing its revenue stream. At its heart, this process establishes the best revenue infrastructure for the business. While customer targeting is critical to all businesses, it is most important when the strategic position is that of total customer solutions.

3. *Innovation* — a continuous stream of new products and services to maintain the business's future viability. This process mobilizes all the firm's creative resources including technical, production, and marketing capabilities to develop an innovative infra-

## A firm's actions must be aligned with its strategic position, and the results must give feedback for adapting the strategy.

structure. The center of this process is the renewal of the business in order to sustain its competitive advantage and its superior financial performance. While preserving the innovative capabilities is critical to all businesses, it becomes central when the strategic position is that of system lock-in.

### Alignment of Adaptive Processes with Strategy

The triangle we discussed earlier is the motor that drives the selection of strategic positioning, which, in turn, defines the role of each adaptive process. A firm's actions must be aligned with its strategic position, and the results must give feedback for adapting the strategy. This is the essence of adaptive management. Consistency, congruency, and feedback are the guiding principles. Not only does the role of each process need to adapt to each strategic option, but also

the priorities with regard to each are affected. Next we examine the role of each adaptive process in supporting each strategic position of the business (see Figure 6).

#### Operational Effectiveness

When operational effectiveness supports a best-product strategy, it is imperative to reduce the product costs by paying careful attention to the drivers of that cost. However, in the case of customer solutions, operational effectiveness is also concerned with the horizontal linkages between products in the bundled offer. The ultimate goal is to improve the customer's economics, even if that sometimes raises the product's costs. The relevant cost focus is the combined impact on the customer's business and the company's. In the system lock-in strategy, the product cost is perhaps the least relevant among all the positions. What is important is the value of the system through the creation of standards, the investments by the complementors, and their integration to improve overall performance.

For example, a data communications provider of private lines seeking a best-product position would focus on reducing maintenance costs to a minimum, given certain quality guidelines. A customer solutions provider would look closely at the customer's activities. It would reduce

Figure 6  
Role of Adaptive Processes in Supporting Strategy

		Strategic Positioning		
		Best Product	Customer Solutions	System Lock-In
Adaptive Process	Operational Effectiveness	Best Product Cost <ul style="list-style-type: none"> <li>Identify product cost drivers</li> <li>Improve stand-alone product cost</li> </ul>	Best Customer Value <ul style="list-style-type: none"> <li>Improve customer's economics</li> <li>Improve horizontal linkages across components of the total solutions</li> </ul>	Best System Performance <ul style="list-style-type: none"> <li>Improve system performance</li> <li>Integrate complementors</li> </ul>
	Customer Targeting	Target Distribution Channels <ul style="list-style-type: none"> <li>Maximize coverage through multiple channels</li> <li>Obtain low cost distribution</li> <li>Optimize channel mix and channel profitability</li> </ul>	Target Customer Bundles <ul style="list-style-type: none"> <li>Enhance customer interfaces</li> <li>Explore alliances to bundle solutions</li> <li>Select key vertical markets</li> <li>Examine channel ownership options</li> </ul>	Target System Architecture <ul style="list-style-type: none"> <li>Identify leading complementors in the system</li> <li>Enhance complementor interfaces</li> <li>Harmonize system architecture</li> <li>Expand number and variety of complementors</li> </ul>
	Innovation	Product Innovation <ul style="list-style-type: none"> <li>Develop family of products based on common platform</li> <li>First to market, or follow rapidly — stream of products</li> </ul>	Customer Sourced Innovation <ul style="list-style-type: none"> <li>Identify and exploit joint development linked to the customer value chain</li> <li>Expand your offer into the customer value chain to improve customer economics</li> <li>Integrate and innovate customer care functions</li> <li>Increase customer lock-in through customization and learning</li> </ul>	System Innovation <ul style="list-style-type: none"> <li>Emphasize features supporting lock-in</li> <li>Proliferate complementors</li> <li>Design proprietary standards within open architecture</li> <li>Complex interfaces</li> <li>Rapid evolution</li> <li>Backward compatibility</li> </ul>

the customer's costs by adding equipment to diagnose a problem or perhaps by adding large-scale alternate backup systems. In intranet services, in which a customer buys a highly secure private-line network using Internet protocols, a company might attempt a system lock-in position. Customers may find it increasingly expensive to switch or split vendors as they add applications and geographic locations to the same secure intranet. Establishing a low-cost infrastructure is less important than encouraging the customer to install more sites and to use more applications that run on an intranet platform.

---

**American Management Systems, which has a customer solutions position, implements customized software and thus targets vertical markets.**

---

**Customer Targeting**

When supporting a customer solutions position, companies seek to target key customers by offering a bundled solution, either alone or through alliances. This often requires targeting vertical markets and resorting to customized products as appropriate.

Channel ownership itself becomes an issue, in order to gain greater knowledge and access to the customer. For instance, in 1993, Merck, a leading research-based pharmaceutical company, acquired Medco, a premier distributor of generic drugs. This allowed Merck to obtain the leading mail-order catalog, have access to unique distribution, and gain ownership of a customer database covering patients, physicians, and proprietary formulary.

When locking in a system, the key "customer" targets are the complementors, so the company can consolidate the lock-in position and neutralize competitor's actions. In short, the targeted customer is fundamentally different in these three options. At times, the final consumer or product user, although important, is not the critical strategic target. For example, we all know that its customers do not universally love Microsoft. The power of the owner of the systems standards gives the end user few choices.

In the software industry, software game providers typically adhere to a best-product strategic position and target customers as a way to get access to as many cus-

tomers as possible. American Management Systems, which has a customer solutions position, implements customized software and thus targets vertical markets. Novell, which has a system lock-in position, has the proprietary standard for LAN operating systems and needs to put its premium effort into attracting and serving both application developers and the 30,000 value-added resellers that distribute and customize NetWare.

**Innovation**

When it comes to supporting a best-product strategy, renewal of the business is seen in terms of securing a continuous stream of products, often by sharing a common platform. If truly successful, that innovation will lead to establishment of a dominant design that represents the strongest base for competitive advantage with a best-product strategy. In the case of the customer solutions strategy, innovation plays an important role through the successful development of joint products with key customers. In this respect, this adaptive process is central not only for developing future customers, but for maintaining current ones. Furthermore, the customer is the primary source of innovation, not the conventional R&D labs.

The role of innovation in system lock-in is perhaps more critical than in any other strategic option. Often the technology is responsible for designing the architecture that will generate the system standard, that will allow the ownership of that standard, and that will preclude the standard from being copied or becoming obsolete. As we have indicated, it is more likely that a standard will be achieved if the architecture is based on open interfaces and characterized by rapid evolution with backward compatibility. In this instance, it is the innovation of the complementors that sustains the standard.

In the semiconductor industry, Hitachi and NEC are among the leading producers in dynamic random access memory (DRAM) semiconductors. This segment has been characterized by short product life cycles and declining prices. To succeed, every one to two years these companies develop new chips, which employ technology four times better than the previous generation, in facilities that cost more than \$1 billion to construct. These two companies have chosen the best-product position and pursue innovation to support their competitive advantage.

Motorola's semiconductor business follows a customer solutions strategy that focuses on the auto-

mobile industry, among others. The BMW 740 has fifty microprocessors that control many aspects of its functionality and are critical to its differentiation. Motorola works with the manufacturers to develop these customized chips; the innovations are joint.

As a system lock-in provider, Intel depends on the rapid development of a complex standard. It developed five microprocessors, from the 8086 to the Pentium, from 1978 to 1996. This innovation is unique in at least two respects. First, it requires backward compatibility, which allows old complementors to work with the new product and ensures the continuation of the standard. Second, having secured the standard, it has the luxury of occasionally incorporating a larger part of the system into its standard to enhance its features and to further extend the interfaces with applications. There is a balancing act in grabbing additional functions from one complementor and in preserving the relationships and open architecture with other complementors, but a proven standard allows the freedom to do this.

on giving equal importance to each process and argue for the criticality of simultaneously having low cost, excellent customer targeting, and superior innovation. Choosing priorities does not dismiss one process or another but recognizes the intrinsic difference of each strategic position with its unavoidable, inherent trade-offs.

We've ranked the adaptive process priorities for each strategic option (see Figure 7). The "consistency corridor" aligns the process of highest importance to each strategic position. Accordingly, the best-product position needs the lowest cost infrastructure, which originates in the operational effectiveness process. Second, it requires the support of a stream of new products to prolong its current vitality into the future, the innovation process. Finally, the customer targeting process ensures the massive access to distribution channels.

The customer solutions position has the effective targeting of the customer as its first priority. This is necessary to identify the required product bundles and to detect the needs for customization. Second, the operational effectiveness process ensures the delivery of the products and services to improve the customer economics. Innovation has the third ranking, not

### Priorities of Each Adaptive Process

The concept of assigning priorities to the adaptive processes could be controversial. Some might insist

Figure 7  
**Priorities of Adaptive Processes in Each Strategic Position**

		Strategic Positioning		
		Best Product	Customer Solutions	System Lock-In
		↓ Product Economics	↓ Customer Economics	↓ System Economics
Adaptive Process	Operational Effectiveness		2 Best Customer Benefits	3. Best System Performance
	Customer Targeting	3. Target Distribution Channels		2 Target System Complementors
	Innovation	2 Product Innovation	3. Customer Service Innovation	

because it is unimportant for joint product development with the customer, but because the customer solutions position does not necessarily require leadership in new products, services, and features relative to that called for in the other strategic positions. Often the new product capabilities to support this strategy originate through alliances and the close collaboration with the customer.

---

## The lynchpin of Capital One's customer targeting process is scientific trials, testing, and feedback.

---

The system lock-in position has innovation as its leading adaptive process. It contributes to the creation of the systems architecture that allows for standards to be conceived and owned. The next level of support comes from targeting the system's complementors to consolidate the lock-in position and, quite significantly, the lock-out of competitors. Finally, the operational effectiveness position is responsible for improving the system performance. While this process is important, the two previous adaptive processes are more relevant.

### Feedback

Feedback is a core attribute of the Delta model and addresses the additional problem in linking strategy with execution mentioned earlier — growing market uncertainties and the requirement for an adaptive strategy. During implementation, managers need to monitor its performance and intended results and make corrections as needed. Closely related to feedback is learning and communication. As actions are tested and their merits or limitations become apparent, managers can understand more deeply the business issues they intend to solve.

Feedback is an integral part of the processes. For example, Capital One, a leader in the credit card industry, strongly emphasizes customer targeting. It has realized huge competitive advantage by recognizing that the credit card industry isn't one market, but millions. While the credit card may seem simple — money and interest rates — the potential variations are infinite. The challenge is to identify these segments before the competition. The lynchpin of Capital One's customer targeting process is scientific

trials, testing, and feedback. At the beginning of the process, Capital One managers brainstorm offers, drawing from a broad range of sources, including intuition and research. Next, they vary the core offer along the key dimensions — product, price, promotion, and channel — and identify a range of customer cells for test marketing. Then they screen the results to select the offers with the highest profit or net present value in view of the full customer life cycle.

In-depth metrics are critical in this screening. Capital One dissects profitability down to the smallest microsegment, for example, types of customers, frequency of use, type of use (credit or transactions), bill paying, tenure, and costs of acquiring the customer. Having the right data is clearly important because acquisition costs have risen from \$40 to more than \$200 per customer during the past ten years.

If an offer passes the test, Capital One rolls it out to the whole target group. More importantly, information generated in the process yields hypotheses for other offers that may be more profitable. Capital One designs a family of offers with the understanding that they will not necessarily be successful, but that they provide seeds for future success. This approach contrasts starkly with the conventional "trial," in which a company launches a test of one product variation to a nonsegmented group of customers. When this fails, the company learns little in the process that can indicate a more successful variation.

Capital One's approach has enabled it to be the first to exploit innovations, such as balance transfers and secured cards. It is a competence that extends well beyond credit cards and is applicable to many other products, such as cellular phones, installment loans, auto loans, mortgages, life insurance, and mutual funds.

All three adaptive processes have common responsive mechanisms for obtaining feedback:

1. *Set hypotheses* in the context of the vision expressed by the Delta model and the role of each adaptive process based on the business strategic position.
2. *Identify variations* to reflect the drivers of cost, revenue, and profit for the business. Each adaptive process has its own set of drivers that change according to the role of the process as the company moves from best product to customer solutions to system lock-in.
3. *Admit that the future is unpredictable* by conducting trials and tests. In a basic sense, optimization represents

an unreachable ideal that can be more destructive than helpful; instead we are committed to a continuous stream of experimentation.

4. *Measure and screen performance* to allow the company to separate success from failure and learn from both. In-depth measures are essential; high-level, aggregate indicators do not sort out the pockets of high profitability.

## Granular Segmentation

Metrics are fundamental to the Delta model; they chart the course for implementing the desired strategic position and are at the heart of adaptation. Unfortunately, most business are limited in their ability to identify and track effective performance metrics, for two key reasons.

First, metrics have heavily depended on financial and accounting data, which explain how the business *has* performed but provide little insight on *future* performance. To anticipate the future, it is necessary to track performance against the adaptive processes, which are the initiatives enabling the strategy. Most importantly, the metrics need to clearly align with the strategic position. *Figure 8* shows distinctly different metrics for each strategic position, according to the adaptive process. Operational effectiveness goes well beyond the conventional role of ensuring a low-cost infrastructure for the delivery of products and services. In the case of cus-

tomers solutions, it also allows inquiry into the best way to add value to the customer by quantifying the economics of the value chain and how alternative products affect it. Moreover, in a system lock-in strategy, it also examines the total potential of the product's system and how the system can contribute to product enhancement and profitability. Likewise, customer targeting goes beyond the stereotype of customer identification and prioritization to get to the roots of customer profitability and the ability to appropriate system profits. Finally, innovation is not simply a process of new product development but also a way to secure customer bonding and competitive lock-out.

Aggregation is the second reason that conventional metrics are inadequate. Most top executives have information based on broad aggregates and averages. However, our research shows that the inherent variability beneath the averages points to the root cause or fundamental drivers of cost, revenue, or profit. Managing by averages leads to below-average performance.

An example in the telecommunications industry illustrates the nature and value of granular metrics. The overall activities and cost chain for providing a local data circuit are shown in *Figure 9*. Dissection of the cost into finer elements reveals wide variability. The highest cost order was more than ten times the lowest cost order. Also, these high costs were

Figure 8  
Key Performance Metrics for Different Strategic Positions

	Best Product	Customer Solutions	System Lock-In
<b>Operational Effectiveness</b> (Cost Drivers)	<ul style="list-style-type: none"> <li>• Cost performance               <ul style="list-style-type: none"> <li>Unit cost</li> <li>Life cycle cost</li> <li>Variable and total cost</li> </ul> </li> <li>• Cost drivers</li> <li>• Quality performance</li> <li>• Degree of differentiation</li> </ul>	<ul style="list-style-type: none"> <li>• Customer value chain; total cost               <ul style="list-style-type: none"> <li>Total revenue and profit</li> </ul> </li> <li>• Customer economic drivers</li> <li>• Impact on customer profit due to service versus competitors</li> </ul>	<ul style="list-style-type: none"> <li>• Description of system infrastructure</li> <li>• Total system costs/revenues</li> <li>• Complementor's investments and profits</li> <li>• Complementor's costs of adhering to standard</li> <li>• System performance drivers</li> </ul>
<b>Customer Targeting</b> (Profit Drivers)	<ul style="list-style-type: none"> <li>• Product market share</li> <li>• Channel cost</li> <li>• Product profit               <ul style="list-style-type: none"> <li>By product type</li> <li>By offer, by channel</li> </ul> </li> <li>• Profit drivers</li> </ul>	<ul style="list-style-type: none"> <li>• Customer share</li> <li>• Customer retention</li> <li>• Profitability by customer, individual, and segment</li> <li>• Customer bonding, switching costs</li> </ul>	<ul style="list-style-type: none"> <li>• System market share</li> <li>• Share of complementors               <ul style="list-style-type: none"> <li>Percentage of investment tied to proprietary standard</li> </ul> </li> <li>• Profit by complementor</li> </ul>
<b>Innovation</b> (Renewal Drivers)	<ul style="list-style-type: none"> <li>• Rate of product introduction</li> <li>• Time to market</li> <li>• Percentage of sales from new products</li> <li>• Cost of product development</li> <li>• R&amp;D as percentage of sales</li> </ul>	<ul style="list-style-type: none"> <li>• Relative involvement in customer value chain</li> <li>• Percentage of product development               <ul style="list-style-type: none"> <li>From joint development</li> <li>Customized</li> </ul> </li> <li>• Degree of product scope               <ul style="list-style-type: none"> <li>Current versus potential bundling</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Switching costs for complementors and customers</li> <li>• Rate of product development</li> <li>• Cost for competitors to imitate standard</li> </ul>

concentrated in a few orders; 20 percent of the orders generated 75 percent of the total costs in order fulfillment. It was not possible from the averages to know how well or poorly the company was fulfilling orders.

Other dimensions of this cost variability, such as location, explain the cost behavior. Among this telephone company's five locations, the unit cost was more than twice as high at some sites than at others. These differences were driven by structural factors, such as the scale of the facilities or the density of the service area, and managerial factors, such as training, incentives, or practices.

At one location, we dissected the interconnected activities such as order entry, design, facilities configuration, switch testing, and so on. In 70 percent of the orders, each step proceeded flawlessly and resulted in on-time, low-cost delivery. In the other 30 percent, the order failed in one or more steps and required expensive, time-consuming remedial attention. The high-cost order path was ten times the cost of the low-cost path. Some of the high costs were caused by the people involved and some by the particular facility. Some groups consistently operated at three to five times the cost or speed of others. By comparing the groups and their different work practices, training, experience, or incentives,

we began to formulate specific, focused efforts to address the high pockets of cost.

This pattern of economic behavior is the rule, not the exception. In our research, the concentrations of cost became more pronounced and the solutions more focused. Granular segmentation allows a company to focus, to measure, to learn, and to innovate.

The same pattern was evident in profit performance. *Figure 10* shows a huge variation in profit margin by individual credit-card customers. The customers were ranked from most to least profitable. The top 10 percent of the customers contributed 99 percent of the business profits, the next 10 percent accounted for 43 percent of additional profits, and the next 16 percent of the customers added 25 percent more. Only 36 percent of the customers contributed to profitability and collectively accounted for 167 percent of the business profits. Unfortunately, the remaining 64 percent of the customers produced losses equivalent to 67 percent of the total profits.

While many companies tend to dwell on one measure of customer attractiveness, we found that no one factor adequately explains the variation in customer profitability. A high-usage customer can be unprofitable due to low outstanding balances. Given high acquisition costs, a long-time customer can make a

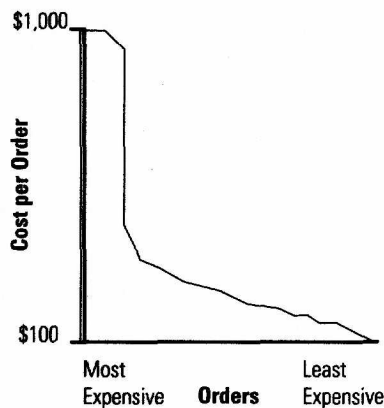
Figure 9  
Cost Behavior in the Telecommunications Industry

Value Chain of Local Business Data Circuit

Switching	Transmission	Order Fulfillment	Billing	Marketing	...
-----------	--------------	-------------------	---------	-----------	-----

Average Cost = \$395 per order

Individual Order Cost



80-20 Cost Effect

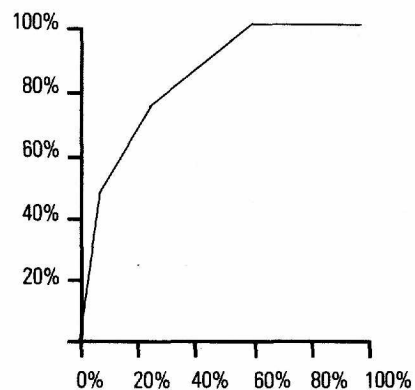
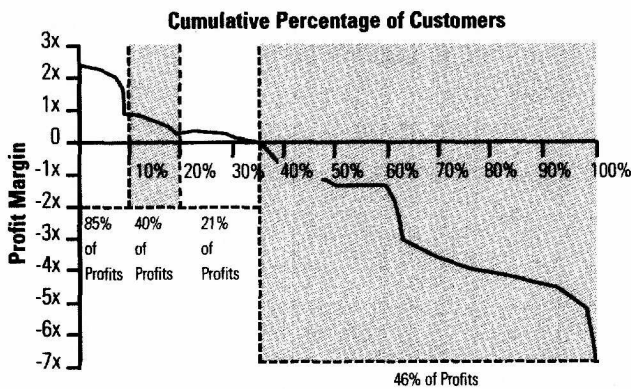


Figure 10  
**Credit Card Customers' Profit Margin Contribution**



Source: Dean & Company analysis

low-balance customer profitable. The combination of all these factors, which seem to grow with the complexity of the business, leads to greater profit concentrations.

Business has become a complex interaction of many employees, customers, suppliers, teams, procedures, and processes, with each unit operating according to straightforward rules. When combined into a system, however, certain accelerating or stagnating patterns emerge — in demand, revenue, or cost. Companies that can adaptively capture the unpredictable explo-

sions in market growth, while arresting the eruptions in cost, will generate massive market value. A company needs to segment at granular levels, but retain a strategic perspective within a unified framework.

## Conclusion

The Delta model answers current challenges by significantly expanding the spectrum of available strategic positions. It recognizes customer-focused options and the emergence of proprietary standards to create an unassailable competitive advantage.

A firm's day-to-day activities need to change to realize the different strategies described by aligning the adaptive processes with the strategic positions. Inherent in the adaptive processes are trade-offs and different priorities critical for intelligent implementation. Feedback is central to the adaptative capabilities for competing in a radically changing and uncertain world. Granular segmentation is necessary to the effectiveness of the adaptive processes.

As complexity permeates the business environment, it is dangerous to give simple answers to complex questions. The Delta model deals with complexity by providing a rich overall framework that integrates a firm's options and activities without running the risk of oversimplifying the context in which it makes decisions.

## References

- 1. M.E. Porter, *Competitive Strategy* (New York: Free Press, 1980).
- 2. J.M. Utterback, *Mastering the Dynamics of*

*Innovation* (Boston: Harvard Business School Press, 1994).

- 3. For the concept of complementors, see: A.M. Brandenburger and B.J. Nalebuff, *Co-opetition* (New York: Doubleday, 1996).
- 4. The chief proponents of this thinking were

Hammer and Champy. See:

M. Hammer and J. Champy, *Reengineering the Corporation* (New York: Harper, 1993).

Reprint 4021