

Chapter 2

So You Have a Mission Statement . . . Now What?

Visioning is big in corporate America. Everyone from IBM to the Little League team has mission statements, visions, philosophies, and core values. Mission statements started appearing in the 1980s when corporations faced the issues of diversity, empowerment, globalization, environmental responsibility, total quality, teamwork, and customer focus--and they've rapidly multiplied since. Let's look at a few examples.¹

Some mission statements clarify what business a company is in--for Levi Strauss it's "*branded casual apparel*"; for Intel it's supplying "*building blocks to the computing industry*"; for Lowe's it's helping "*customers build, improve, and enjoy their homes*"; for Binney & Smith (Crayola) it's "*colorful visual expression*"; and for Currency Doubleday it's "*ideas that link business with life's meaning.*"

Other mission statements reflect the character of the company--Southwest Airlines delivers its service "*with a sense of warmth, friendliness, individual pride, and Company Spirit*"; Ben and Jerry's creates "*a new corporate concept of linked prosperity*" that includes a social mission; Hanna Andersson wants to "*enhance the richly textured experience of family and community*"; and Ritz Carlton proclaims "*we are ladies and gentlemen serving ladies and gentlemen.*"

Still others are short and focused--Motorola: "*Total Customer Satisfaction,*" and Delta Air Lines: "*Worldwide Airline of Choice.*"

Finally, some mission statements signal a radical change in the way the company does business--General Electric: "*Boundaryless . . . Speed . . . Stretch.*"

Mission statements are the "constitution" for an organization, the corporate directive. But they aren't any good, as Dilbert implies, unless they can be converted into action. And that's what this chapter is all about--converting strategy into results.

◆ Pause and Reflect ◆

2-1. Gather mission or vision statements from five different companies. (These are usually printed in annual reports, posted in a place of business, or accessible from the company Web site.) What do they tell you about the organizations? Is their mission or vision reflected in the way they do business?

¹ The examples are taken from Patricia Jones and Larry Kahaner, *Say it and Live it: The 50 Corporate Mission Statements That Hit the Mark* (New York: Currency Doubleday, 1995).

Strategy Formulation

Strategy is a common vision that unites an organization, provides consistency in decisions, and keeps the organization moving in the right direction. Strategy formulation consists of four basic steps:

1. *Defining a primary task.* The **primary task** represents the purpose of a firm--what the firm is in the business of doing. It also determines the competitive arena. As such, the primary task should not be defined too narrowly. For example, Norfolk Southern Railways is in the business of transportation, not railroads. Paramount is in the business of communication, not making movies. Disney goes one step further--its primary task is not entertainment, it's making people happy! The primary task is usually expressed in a firm's *mission* statement. The mission may be accompanied by a *vision* statement that describes what the organization sees itself becoming.

2. *Assessing core competencies.* **Core competency** is what a firm does better than anyone else, its *distinctive competence*, its *competitive advantage*. A firm's core competence can be exceptional service, higher quality, faster delivery, or lower cost. One company may strive to be first to the market with innovative designs, whereas another may look for success arriving later but with better quality.

To be successful, companies must identify and capitalize on what sets them apart from other firms--their core competencies. But beware--competencies can become obsolete! Existing competencies should be nurtured and enhanced and new competencies developed over time as needed. In a later section, we will examine how to develop and fully utilize core competencies.

3. *Determining order winners and order qualifiers.* A firm is in trouble if the things it does best are not important to the customer. That's why it's essential to look toward customers to determine what influences their purchase decision.

Order qualifiers are characteristics of a product or service that qualify it to be considered for purchase by a customer. An **order winner** is the characteristic of a product or service that wins orders in the marketplace--the final factor in the purchasing decision. For example, when purchasing a CD player, customers may determine a price range (order qualifier) and then choose the product with the most features (order winner) within that price range. Or they may have a set of features in mind (order qualifiers) and then select the least expensive CD player (order winner) that has all the required features.

Order winners and order qualifiers can evolve over time, just as competencies can be gained and lost. Japanese automakers initially competed on price but had to assure certain levels of quality before the U.S. consumer would consider their product. Over time, the consumer was willing to pay a higher price (within reason) for the assurance of a superior-quality Japanese car. Price became a qualifier, but quality won the orders. Today, high quality, as a standard of the automotive industry, has become an order qualifier, and innovative design wins the orders.

It is important for a firm to meet the order qualifiers and excel on the order winner. Ideally, a firm's distinctive competence should match the market's order winner. If it does not, perhaps a segment of the market could be targeted that more closely matches the firm's expertise. Or the firm could begin developing additional competencies that are more in tune with market needs.

4. *Positioning the firm.* No firm can be all things to all people. **Positioning** involves making choices--choosing one or two important things to concentrate on and doing them extremely well. A firm's positioning strategy defines how it will compete in the

marketplace. An effective positioning strategy considers the strengths and weaknesses of the organization, the needs of the marketplace, and the position of competitors.²

Let's look at companies that have positioned themselves to compete on cost, quality, flexibility, and speed.

Competing on Cost

Companies that compete on cost relentlessly pursue the elimination of all waste. In the past, companies in this category produced standardized products for large markets. They improved yield by stabilizing the production process, tightening productivity standards, and investing in automation. Today, the entire cost structure is examined for reduction potential, not just direct labor costs. High-volume production and automation may or may not provide the most cost-effective alternative.

Take the example of Lincoln Electric, a manufacturer that has reduced costs by \$10 million a year for 10 years. One example of cost-cutting measures: Air currents from ducts behind a waterfall draw paint that has missed its mark during the painting process and carry it into a filtering system so that it can be reused. Skilled machine operators, working on a strict piece-rate system, earn around \$80,000 a year. They make their own tools, maintain and repair the equipment themselves, and check their own quality. Called "million-dollar men," these workers have saved the company millions of dollars that would have been spent on automated equipment.

Southwest Airlines' strategy of low cost and controlled growth is supported by carefully designed service, efficient operations, and committed personnel. Southwest uses only one type of airplane, the Boeing 737, to facilitate crew changes and to streamline training, record-keeping, maintenance, and inventory costs. Turnaround time between flights is 15 minutes. Since its flights are limited to short routes (about an hour), all flights are direct. That means no baggage transfers and no meals to be served. There are no assigned seats and no printed boarding passes for flights. Passengers show their ID at the gate, are checked off the reservation list, and are issued plastic boarding passes that the airline can use again and again. Southwest saves \$30 million annually in travel agent commissions by requiring customers to call the airline directly to book flights. The airline carefully selects employees and reinforces its commitment with a model profit sharing plan. The result? Southwest boasts the lowest cost per passenger mile and the highest number of passengers per employee in the industry, as well as the most on-time arrivals and the fewest number of mishandled baggage complaints.

Companies that compete successfully on cost realize that low cost cannot be sustained as a competitive advantage if increases in productivity are obtained solely by short-term cost reductions. A long-term productivity "portfolio" is required that trades off current expenditures for future reductions in operating cost. The portfolio consists of investments in updated facilities and equipment, programs and systems to streamline operations, and training and development that enhances the skills and capabilities of people.

Competing on Quality

Most companies approach quality in a defensive or reactive mode; quality is confined to minimizing defect rates or conforming to design specifications. To compete on quality,

companies must view quality as an opportunity to please the customer, not just a way to avoid problems or reduce rework costs.

To please the customer, one must first understand customer attitudes toward and expectations of quality. One good source is the American Customer Satisfaction Index compiled each year by the American Society for Quality and the National Quality Research Center. Examining recent winners of the Malcolm Baldrige National Quality Award and the criteria on which the award are based also provides insight into companies that compete on quality.

The Ritz Carlton Hotel Company is a Baldrige Award winner and a recognized symbol of quality. The entire service system is designed to understand the individual expectations of more than 500,000 customers and to "move heaven and earth" to satisfy them. Every employee is empowered to take immediate action to satisfy a guest's wish or resolve a problem. Processes are uniform and well-defined. Teams of workers at all levels set objectives and devise quality action plans. Each hotel has a quality leader who serves as a resource and advocate for the development and implementation of those plans. Daily quality reports submitted from the 720 work systems track such measures as guest room preventive maintenance cycles, percentage of check-ins with no waiting, and time spent to achieve industry-best clean room appearance. Guest Incident Action Reports completed by every employee help to identify patterns of problems so that they can be resolved permanently. Guest Preference Reports are recorded in a sophisticated customer database for service delivery throughout the company. For example, if a guest in Atlanta likes fresh fruit and five different newspapers each morning, that wish is stored in the database and automatically fulfilled whether the guest's next stay occurs at a Ritz in Naples or Hong Kong. Ritz-Carlton provides exceptional service quality--one customer at a time.

Competing on Flexibility

Marketing always wants more variety to offer its customers. Manufacturing resists this trend because variety upsets the stability (and efficiency) of a production system and increases costs. The ability of manufacturing to respond to variation has opened up a new level of competition. **Flexibility** has become a competitive weapon. It includes the ability to produce a wide variety of products, to introduce new products and modify existing ones quickly, and to respond to customer needs.

An example of the strategic importance of flexibility is provided by the so-called H-Y war in Japan in the early 1980s, when Yamaha challenged Honda's dominance of the motorcycle market. Before the challenge, both companies offered about 60 different models of motorcycles. Within 18 months, Honda had introduced and retired 113 models. Yamaha was able to introduce only 37 new models in that time frame. Honda's new models had four-valve engines, direct drive, and other innovations. Compared to a Honda, a Yamaha motorcycle was perceived as old and outdated. Two years later, with its complete field inventory rendered obsolete, Yamaha conceded defeat. Honda "won" the war with innovation and variety. Its key to achieving market dominance was flexibility through superior methods for developing, manufacturing, and introducing new products.

Technology can also provide the tools for flexibility. Handmade shoes begin with custom-sculpted models, called *lasts*, that can cost hundreds of dollars and take ten to twenty hours to construct. The entire shoemaking process takes about eight months and is very expensive. At Custom Foot shoe store, a customer's feet are scanned electronically to capture twelve

different three-dimensional measurements. The measurements are sent to a factory in Italy, where a library of 3,000 computerized "lasts" can be modified digitally instead of manually and then milled by a machine out of plastic. Custom shoes are mailed to the customer's home within a month, and since the shoe store carries no inventory, the prices are comparable to off-the-shelf shoes.

The National Bicycle Industrial Company fits bicycles to exact customer measurements. Bicycle manufacturers typically offer customers a choice between 20 or 30 different models. National offers 11,231,862 variations and delivers within 2 weeks at costs only 10 percent above standard models. Computerized design and computer-controlled machinery allow customized products to be essentially mass produced. The popular term for this phenomenon is *mass customization*.

Competing on Speed

Speed has become a new source of competitive advantage. Service organizations such as McDonald's, LensCrafters, and Federal Express have always competed on speed. Citicorp advertises a fifteen-minute mortgage approval, L. L. Bean ships orders the day they are received, and Wal-Mart replenishes its stock twice a week instead of the industry average of every two weeks. Now manufacturers are discovering the advantages of *time-based competition*. In the garment industry, Saks Fifth Avenue has terminals from the French national Videotex system that link retailers to manufacturers abroad. Tailors in New York send suit measurements via satellite to France, where a laser cuts the cloth and tailors begin their work. The suit is completed and shipped back to New York within four days. That's about the same amount of time required for alterations in most clothing stores. The standard for custom-made suits is ten weeks.

In five days, Hewlett-Packard can produce electronic testing equipment that used to take four weeks to produce. General Electric has reduced the time of manufacture for circuit-breaker boxes from three weeks to three days and the manufacture of dish-washers from six days to eighteen hours. Motorola now needs sixty minutes to build to order and ship pagers that used to take three weeks!

THE COMPETITIVE EDGE

Andersen Windows Gets Flexible

Andersen Windows, like most manufacturers, used to produce a limited range of standard products in large volumes. As customers demanded more uniqueness, Andersen introduced more and more options to their standard windows--so many, in fact, that the number of products offered grew from 28,000 to 86,000. Thick catalogs allowed customers to combine thousands of options into truly unique windows. However, a price quote took several hours to calculate, required a working knowledge of trigonometry, and was as long as 15 pages. With this degree of complexity, the rate of error in the finished product was also high (one in five truckloads shipped had at least one error), and Andersen's reputation as a quality manufacturer was threatened.

In 1992, Andersen introduced an electronic version of its catalog that salespeople can use to add, change, and strip away features until the customer is pleased with the design. The computer then checks the window specs for structural soundness, generates a price quote, and transmits the order to an Andersen factory. At the factory, standard parts from inventory are used to assemble custom products, and bar codes keep track of the customer order as it moves through assembly. In five years, demand for Andersen windows has tripled, the number of different products offered has topped 188,000, and errors are down to one per 200 truckloads. Flexibility has provided Andersen Windows with a competitive edge.



Andersen Windows of Bayport, Minnesota, is a \$1 billion private company skilled at meeting the demands of individual customers with efficient operations. Retail store customers worldwide can design their own windows by computer and then send their creations to Andersen's Minnesota factory for delivery within a month's time.

Source: Justin Martin, "Are You as Good as You Think You Are?" *Fortune* (September 30, 1996): 142-44.

Competing on speed requires an organization characterized by fast moves, fast adaptations, and tight linkages.³ Decision making is pushed down the organization as levels of management are collapsed and work is performed in cross-functional teams. Change is embraced and risk taking encouraged. Close contact is maintained with both suppliers and customers. Performance metrics reflect time, speed, and rate, in addition to cost and profit. Strategy is *time paced* to create a predictable rhythm for change. Intel's time-paced strategy involves doubling the capacity of computer chips every eighteen months and adding a new fabrication facility every nine months. 3M mandates that 30 percent of its revenues come from new products each year. Dell computer's "Dell-ocity" sets the pace for the entire industry.

Forming alliances is one of the most effective avenues for competing on speed. The best example is the textile industry's quick response (QR) initiative, designed to improve the flow of information, standardize recording systems, and reduce turnaround times along the entire supply chain from fiber to textiles to apparel to retailing. Automotive, electronics, and

equipment manufacturers encourage similar alliances within their respective industries with an initiative called agile manufacturing.



Competing at Lands' End

Doing Business in the Global Arena

International sales are not new to Lands' End (LE).

The company first started servicing Canadian customers through its regular U.S. mailings in 1987. But overseas expansion presented new challenges and opportunities for the midwestern retailer.

It was agreed from the start that no international venture would compromise the competencies that had made Lands' End successful--its culture, its principles, its customer focus, how it treats its employees, its way of doing business. But how would those values mix with foreign business cultures?

Lands' End's first overseas foray was to the United Kingdom in 1991. A pound-denominated catalog was developed by LE copywriters in Dodgeville, Wisconsin. Phone operators in London handled calls on a contractual basis, and distribution was managed jointly through the Dodgeville facility and a contract U.K. facility. The venture was a success, but there were a few problems.

First, the British ad agencies didn't like the copy specs for the newspaper inserts--large photos, detailed descriptions of products, testimonials, even some company history. They argued that it was silly and a waste of money. But Lands' End prevailed, and the ads were well received.

Second, the American English of the catalog confused British customers. LE corrected the obvious problems in the next issue and hired a U.K. executive with mail-order experience to direct all British marketing and merchandising initiatives thereafter. Within two years, Lands' End had leased a 60,000-square-foot telephone and distribution center near London and hired its own creative staff to write copy especially for its British customers.

Japan was next. Again, Lands' End had difficulty getting local authorities to go along with its style of newspaper inserts. But LE stood firm.

"Our catalogue and ads are our store," explained VP of international operations, Frank Buettner. "So we have to make sure that the photography is big, bright, and beautiful--it must capture the tone, the texture, and the essence of what the product is like. Further, the ads must describe how the product is made, why our product has an edge over the competition, and even the occasions at which the garment might be worn."

As was the case in Britain, the newspaper ads were well received by customers. Then came the biggest challenge--*the guarantee*. No one believed it. Interest in the American company and its unusual guarantee led to a nationwide press conference carried on all three networks. The Japanese media asked to examine a number of actual returns so that they could verify the guarantee. The shipment that came from the United States included monogrammed items, items that were soiled and torn, and items that were years old. True to the guarantee, all the customers had received a full refund, no questions asked.

With that, Japanese consumers were convinced they could trust Lands' End. Now it was time for Lands' End to trust the Japanese consumer. Unlike in the United States where checks and credit cards are used to pay for an order before it is received, Japanese customers order an item, receive it, try it on, and, if they like it, send in payment. Although this approach was unusual for LE, the company complied with the Japanese way of doing business. And so far Lands' End has had very few problems!

◆ Pause and Reflect ◆

2-2. List and explain the four steps of strategy formulation.

2-3. What is the difference between an order winner and an order qualifier?

2-4. Explain the concept of core competencies in your own words. Provide examples of a core competency for a bank, a retail store, and an auto manufacturer with which you are familiar.

*2-5. Companies that compete on quality would certainly be interested in determining customer satisfaction. The American Society for Quality Control (ASQC) sponsors an annual survey to assess customer satisfaction. Link to this year's customer satisfaction index and evaluate industry "scores." Any surprises? Put the raw data into a bar chart showing progress (or change) over the years by industry. Also, summarize how the data is collected and which companies are chosen to participate.

2-6. Discuss the requirements from an operations perspective of competing on (a) quality; (b) cost; (c) flexibility; (d) speed; (e) dependability; (f) service. Give examples of manufacturing or service firms that successfully compete on each of the criteria listed.

*2-7. Companies that compete on speed or flexibility must have close relationships with their suppliers. Take some time to look around the Demand Activated Management Architecture site. Link to the Quick Response Consortia and MIT's fast and flexible site. Read about agility in manufacturing. What is meant by the terms *quick response*, *flexible*, and *agile*? What competencies does a company need to become fast, flexible, and agile? Summarize the type of research that is being performed at each site. What types of industries are represented? How do the four sites differ in emphasis?

*These exercises require a direct link to a specific Web site. Click [Internet Exercises](#) for the list of internet links for these exercises.

¹The examples are taken from Patricia Jones and Larry Kahaner, *Say It and Live It: The 50 Corporate Mission Statements That Hit the Mark* (New York: Currency Doubleday, 1995).

²These factors can be depicted in a SWOT matrix, which lists the current strengths (S) and weaknesses (W) internal to the company, and the opportunities (O) and threats (T) external to the company.

³See Tom Peters, *Thriving on Chaos* (New York: Alfred A. Knopf, 1987) and Kathleen Eisenhardt and Shona Brown, *Competing on the Edge* (Boston: HBR Press, 1998).

Process-Centered Strategies⁴

Core competencies are the essential capabilities that create a firm's sustainable competitive advantage. Based on experience, knowledge, and know-how, they are built up over time and cannot be easily imitated. For this reason, products and technologies are seldom core competencies. The advantage they provide is short-lived, and other companies can readily purchase, emulate, or improve upon them. Core competencies are more likely to be *processes*.

Processes cut across functional lines and departments. [Figure 2.1](#) shows the processes of product development, order fulfillment, supply chain management, and customer service in contrast to typical business functions such as sales, manufacturing, purchasing, and accounting.

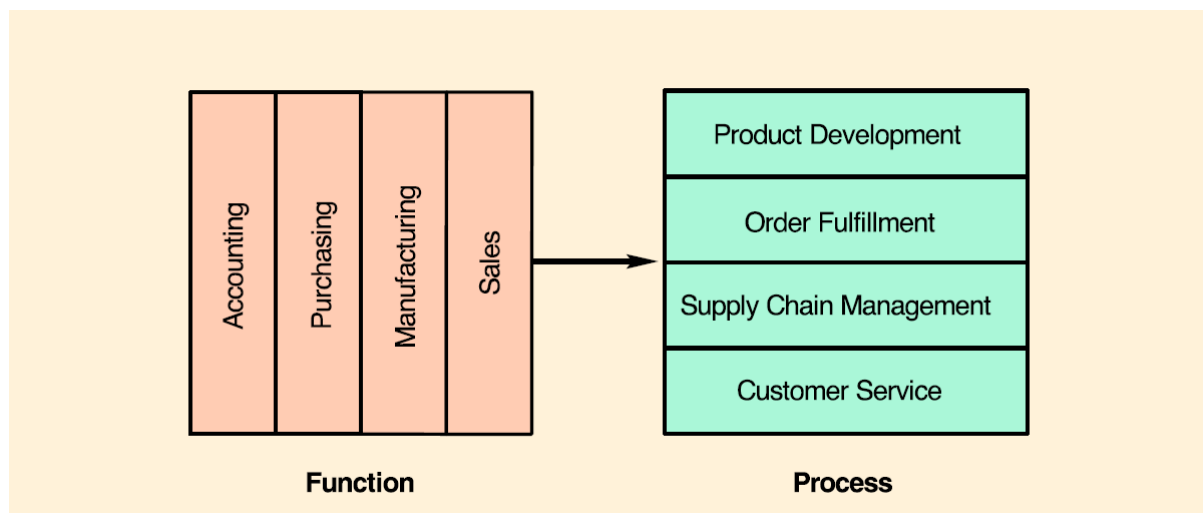


FIGURE 2.1 Changing Focus from Function to Process

As companies become skilled at thinking *processes*, instead of functional departments or products or markets, a new dimension of strategy opens up. Consider Chaparral Steel, the tenth largest steel producer in the United States, a minimill of less than 1,000 workers that nevertheless has set world productivity records several times and was the first American steel company to receive a Japanese Industrial Quality Certification.⁵ Chaparral management allows its competitors to tour its plants at will because "they can't take [what we do best] home with them." Although Chaparral is known for its low cost and high technology, its core competency is not technology, but *the ability to transform technology rapidly into new*

products and processes. By the time a competitor copies its current technology, Chaparral is confident they will have moved on to something else.

Similarly, the Gap can't predict what young consumers will wear any better than other retailers, but it can offer them more choices and react quickly when styles or colors "hit." The Gap's core competency in sourcing, logistics, and supply chains allows the company to introduce more than twenty new fashion lines into its stores each year, instead of the traditional four.

Centering strategy around processes makes it easier to identify core competencies. Do you remember the classic strategy tale of the buggy-whip manufacturer whose primary task of making buggy whips drove him out of business when other modes of transportation came on the scene? Would the buggy whip manufacturer have succeeded if it had defined itself in terms of the transportation industry and converted to making cars? Probably not. The company had no expertise in internal combustion engines or metal chassis. But its competence in leather fabrication might have positioned it to manufacture leather gloves or handbags. Strategy is led by competencies.



Circuit City, the retail electronics store, applied its competencies in high-tech selling techniques, managing large inventories, and handling customer credit applications, to an entirely new line of business—used cars. A Circuit City subsidiary, called CarMax: The Auto Superstore offers a huge selection of quality used cars (from 500 to 1,500 at each location), lots of information for the customer in an electronic format, and one-price, no-haggle sales. Customers enter their requirements for a vehicle into sales kiosks on the lot, from area shopping malls, or from the Internet. In seconds, the system reviews the inventory of cars available and directs the customer to the appropriate sales lot and car location, where the car can be inspected and taken for a test drive. Fixed prices speed the selling process, as do electronic loan approvals on the spot. CarMax's new concept for selling cars has revolutionized the used car business and also brought out scores of competitors. Car dealerships across the country have instituted no-haggle pricing, and Blockbuster Video's Auto Nation USA has replicated the CarMax concept. Armed with purchases of two rental car companies and new-car dealerships, AutoNation has a ready source of used cars. In the meantime, CarMax has centralized its reconditioning centers, freeing up repair facilities in its superstores to service cars. Servicing cars is a dealer's biggest source of profitability, and CarMax hopes top-notch servicing will attract customers and build customer loyalty.

As a firm learns more about its competencies, a process orientation allows several interesting options for capitalizing on what a firm does best. Companies can further develop and exploit their core competencies by:

- *Enhancing the value a competency provides to customers.* As a starting point, companies should determine which processes matter most to their customers and work to improve the competencies related to them. This may lead to new opportunities.⁶ For

example, Goodyear no longer just delivers tires to Navistar's warehouse. It operates the tire warehouse for Navistar and mounts and balances the tires on Navistar's trucks. Federal Express not only delivers small parts and critical supplies for computer manufacturers and medical services, it maintains their inventory levels as well.

- *Transforming an internal competence into a salable item.* American Airlines markets its SABRE reservation system to airlines and travel agents, and its maintenance system to other airlines. Trigon of Massachusetts sells its telemarketing services; L. L. Bean markets its customer service process; and Xerox, Westinghouse, AT&T, and others have spun off firms to market their quality-improvement processes.
- *Applying competencies in a creative way to new products and services.* Circuit City, the retail electronics store, excelled in managing inventory levels and handling customer credit applications. The company discovered that these competencies were also critical to success in the used-car business. Circuit City's subsidiary, CarMax, is now a hugely successful used-car business that is setting new standards of performance in that industry. H&R Block used its expertise in recruiting and managing short-term employees during tax season to create a competitive advantage in the field of temporary services.
- *Creating new competencies and finding new markets.* John Deere, a farm equipment manufacturer, developed competencies in financial services so that it could provide its retail dealer network with insurance. The company later sold these processes to automobile dealers, boat dealers, and recreational dealers.

◆ Pause and Reflect ◆

2-8. Do you have a core competency? Make a list of the core competencies you will need to successfully compete in the job market. Design a strategy for developing the competencies that you do not have and capitalizing on the competencies that you do have.

2-9. How can competencies help in formulating strategy? Give three examples of competency-based strategies.

2-10. Visit the web site of two companies in the same industry. Examine their most recent annual reports. Can you identify how each company has chosen to compete? Use quotes from the reports to describe each company's overall strategy and their specific goals for the year. Does their overall strategy match their specific goals?

⁴The discussion of process-centered strategy is adapted from Michael Hammer, *Beyond Reengineering* (New York: Harper Collins, 1996).

⁵The discussion of Chaparral Steel and core competencies is adapted from Dorothy Leonard-Barton, *Wellsprings of Knowledge* (Boston: Harvard Press, 1996), Chapters 1 and 2.

⁶Similarly, processes that have a marginal impact on customers, and for which a company has no particular expertise, are candidates for outsourcing.

Strategy Deployment

"The difficulty is not in knowing what to do. It's doing it," said Kodak's CEO, George Fisher.⁷ Implementing strategy can be more difficult than formulating strategy. Strategies unveiled with much fanfare may never be followed because they are hard to understand, too general, or unrealistic. Strategies that aim for results five years or so down the road mean very little to the worker who is evaluated on his or her daily performance. Different departments or functional areas in a firm may interpret the same strategy in different ways. If their efforts are not coordinated, the results can be disastrous.

Consider Schlitz Brewing Company, whose strategy called for reduced costs and increased efficiency. Operations achieved its goals by dramatically shortening its brewing cycle--and, in the process, lost six out of every ten customers when the clarity and taste of the beer suffered. The efficiency move that was to make the company the most profitable in its industry instead caused its stock value to plummet from \$69 per share to \$5 per share.

THE COMPETITIVE EDGE

Bendix Uses Its Expertise to Open New Markets

Does your car have antilock brakes? Most do these days, but there was a time when the market for antilock brakes was limited to luxury vehicles. That's because the part was too heavy and too expensive. Through market research, Bendix Automotive Services, a subsidiary of Allied-Signal, discovered that the market for antilock brakes could be increased 500 percent to 1,000 percent if their weight and cost could be cut in half.

So Bendix engineers, production managers, and accountants got together and pooled their expertise to design a product with 70 percent fewer parts that takes half as much time to produce and costs 60 percent less. And that opened up a huge new market.

Source: David Carr, Kevin Dougherty, Henry Johansson, Robert King, and David Moran, *Breakpoint Business Process Redesign* (Arlington, Va.: Coopers & Lybrand, 1992), pp. 6-7, 20.

Companies struggling to align day-to-day decisions with corporate strategy have found success with a planning system known in Japan as *hoshin kanri*, and in the United States as strategy deployment, policy deployment, or hoshin planning.⁸ *Hoshin kanri* is roughly translated from Japanese as "shining metal pointing direction"--a compass. That's what Harvard professor Robert Hayes suggests we need from strategy:

When you are lost on a highway, a roadmap is very useful; but when you are lost in a swamp whose topography is constantly changing, a roadmap is of little help. A simple *compass*--which indicates the general direction to be taken and allows you to use your own ingenuity in overcoming various difficulties--is much more valuable.⁹

Policy Deployment

Policy deployment tries to focus everyone in an organization on common goals and priorities by translating corporate strategy into measurable objectives throughout the various functions and levels of the organization. As a result, everyone in the organization should understand the strategic plan, be able to derive several goals from the plan, and determine how each goal ties into their own daily activities.

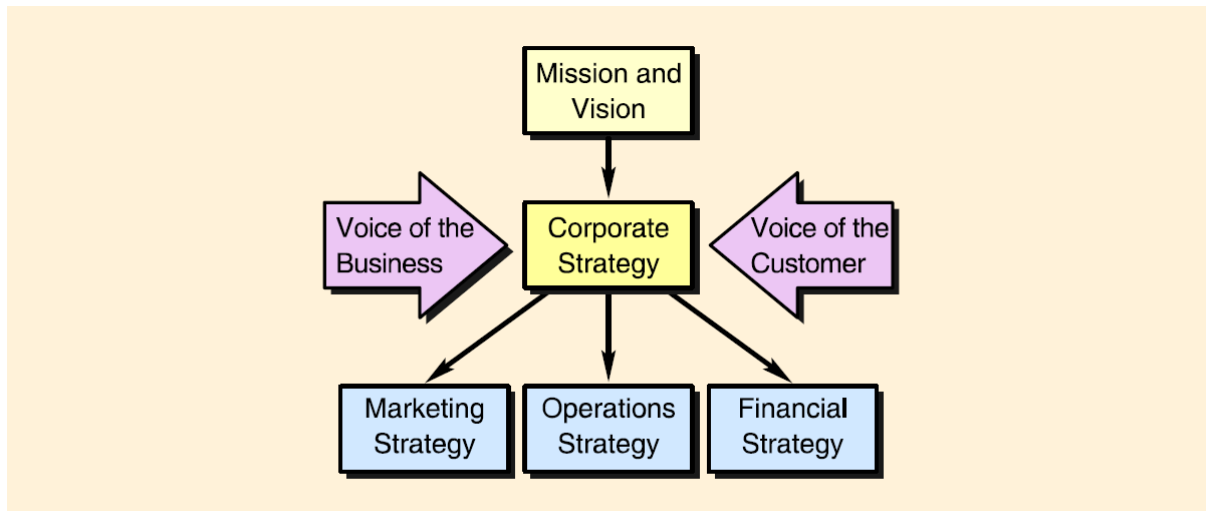


FIGURE 2.2 Strategic Planning

Source: Adapted from AT&T Quality Steering Committee, *Policy Deployment* (Indianapolis: AT&T Technical Publications Center, 1992).

[Figure 2.2](#) outlines the strategic planning hierarchy. Senior management, with input and participation from different levels of the organization, develops a corporate strategic plan in concurrence with the firm's mission and vision, customer requirements (*voice of the customer*), and business conditions (*voice of the business*). The strategic plan focuses on the gap between the firm's vision and its current position. It identifies and prioritizes what needs to be done to close the gap and provides direction for formulating strategies in the functional areas of the firm such as marketing, operations, and finance.



Is your company pointed in one direction? AT&T uses the analogy of migrating geese to explain the concept of policy deployment. Naturalists believe the instinctive V-formation allows the geese to follow one leader and migrate in a cohesive unit toward their destination. Policy deployment does the same thing—it enables business leaders to mobilize the organization toward a common destination, aligning all employees behind a common goal and a collective wisdom.

Suppose the corporate strategic plan called for a reduction of 50 percent in the length of the business cycle. Senior management from each functional area would gather together to assess how their activities contribute to the business cycle, confer on the feasibility of reducing the cycle by 50 percent, and agree upon each person's particular role in achieving the reduction. Marketing might decide that creating strategic alliances with its distributors would shorten the average time to release a new product. Operations might try to reduce its purchasing and production cycles by reducing its supplier base, certifying suppliers, and implementing a just-in-time (JIT) system. Finance might decide to eliminate unnecessary approval loops for expenditures, begin prequalifying sales prospects, and explore the use of electronic funds transfer (EFT) in conjunction with operations' JIT strategy.

The process for forming objectives would continue in a similar manner down the organization with the *means* of achieving objectives for one level of management becoming the *target* or objectives for the next level. The outcome of the process is a cascade of action plans (or **hoshins**) aligned to complete each functional objective which will, in turn, combine to achieve the strategic plan.

[Figure 2.3](#) shows the derivation of an action plan for reducing cycletime. For simplicity, only the top branch of the tree diagram is completed in which Bill Wray is given \$5,000 to reduce the average queue time per job by 50 percent.

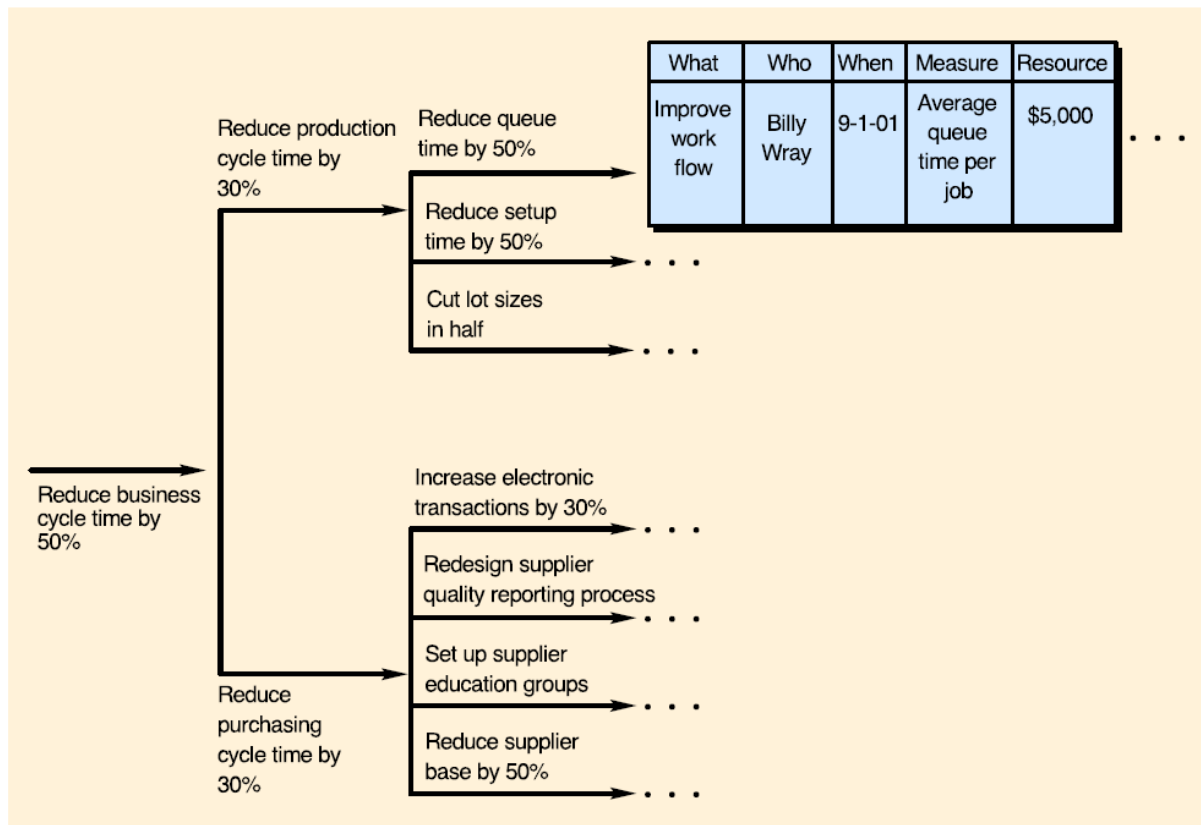


FIGURE 2.3 Derivation of an Action Plan Using Policy Deployment

Now that we've seen how corporate strategies provide the framework for functional strategies, let's look at the issues involved in formulating a consistent strategy within the operations function.

◆ Pause and Reflect ◆

2-11. Why do companies need policy deployment? What does it do?

***2-12.** Find out more about Policy Deployment (also known as hoshin planning) by exploring TQE's hoshin planning site. Be sure to access the software demo. Print out the sample hoshin forms and create a hoshin example of your own using TQE's format.

***2-13.** There are seven management and planning tools commonly used in policy deployment. Read about hoshin kanri from NASA's website, then link to GOAL/QPC's description of the seven "new" tools. Which of these tools are familiar? Which ones are new to you? Choose any *one* tool to apply at your university or place of business.

**These exercises require a direct link to a specific Web site. Click [Internet Exercises](#) for the list of internet links for these exercises.*

⁷Hammer, *Beyond Reengineering*, p. 193.,

Operations Strategy

Operations can play two roles in corporate strategy--it can provide *support* for the overall strategy of a firm, and it can serve as a firm's *distinctive competence*. It is important that operations strategy be internally consistent, as well as consistent with the firm's overall strategy. Strategic decisions in operations involve products and services, processes and technology, capacity and facilities, human resources, quality, sourcing, and operating systems. As shown in [Figure 2.4](#), all these decisions should "fit" like pieces in a puzzle. Let's briefly discuss what is involved in each set of decisions.

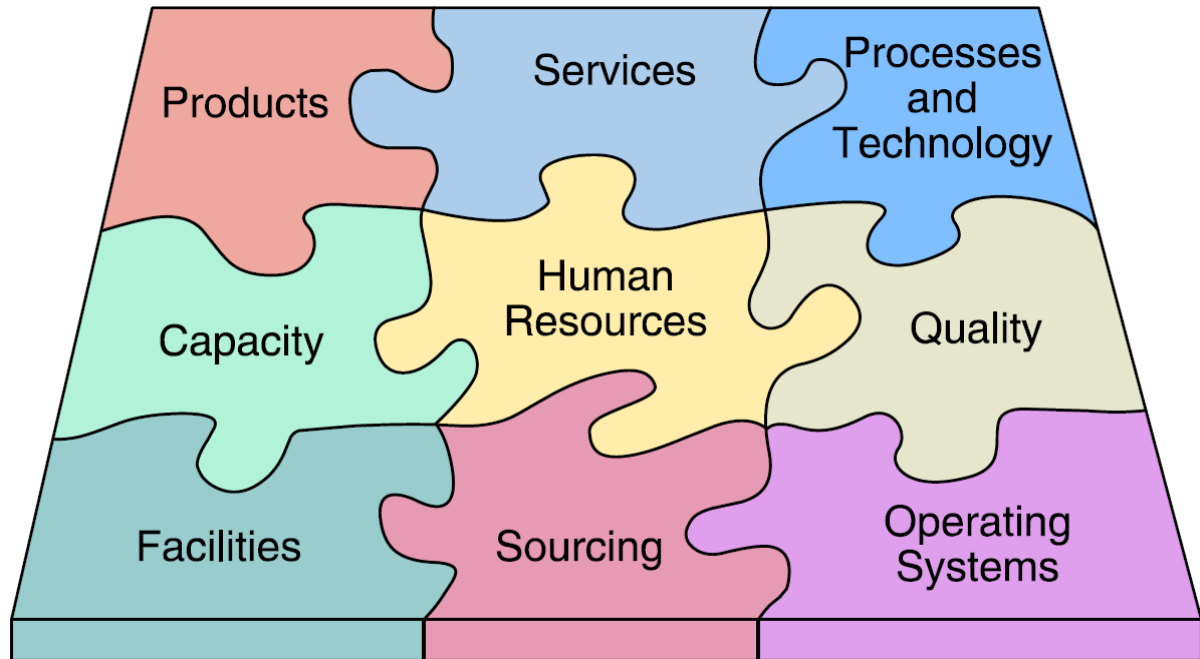


FIGURE 2.4 Operations Strategy

Products and Services

The kinds of products and services offered by a company drive operations strategy. Products and services can be classified as make-to-order, make-to-stock, or assemble-to-order. **Make-to-order** products and services are designed, produced, and delivered to customer specifications in response to customer orders.¹⁰ Examples include wedding invitations, custom-built homes, custom-tailored clothes, charter airline flights, component parts, and most professional services (such as medical, legal, and financial services). Critical operations issues relate to satisfying the customer (since each customer wants something different) and minimizing the time required to complete the order.

Make-to-stock products and services are designed and produced for "standard" customers in anticipation of demand. Shelves are prestocked with the items, and customers choose from among the products or services that are available for purchase. Examples include ready-to-wear apparel, books, televisions, airline flights, spec homes, and standard vacation packages. Critical operations issues are forecasting future demand and maintaining inventory levels that meet customer service goals.

Assemble-to-order products and services are produced in standard modules to which options are added according to customer specifications. Thus, components are made-to-stock and then assembled-to-order after the customer order has been received. Examples include computer systems, corporate training, and industrial equipment. The operations function is concerned with minimizing the inventory level of standard components, as well as the delivery time of the finished product.

Processes and Technology

Processes can be classified into *projects*, *batch production*, *mass production*, and *continuous production*, as shown in [Figure 2.5](#). We introduce the classifications here and discuss them more thoroughly in Chapter 6.

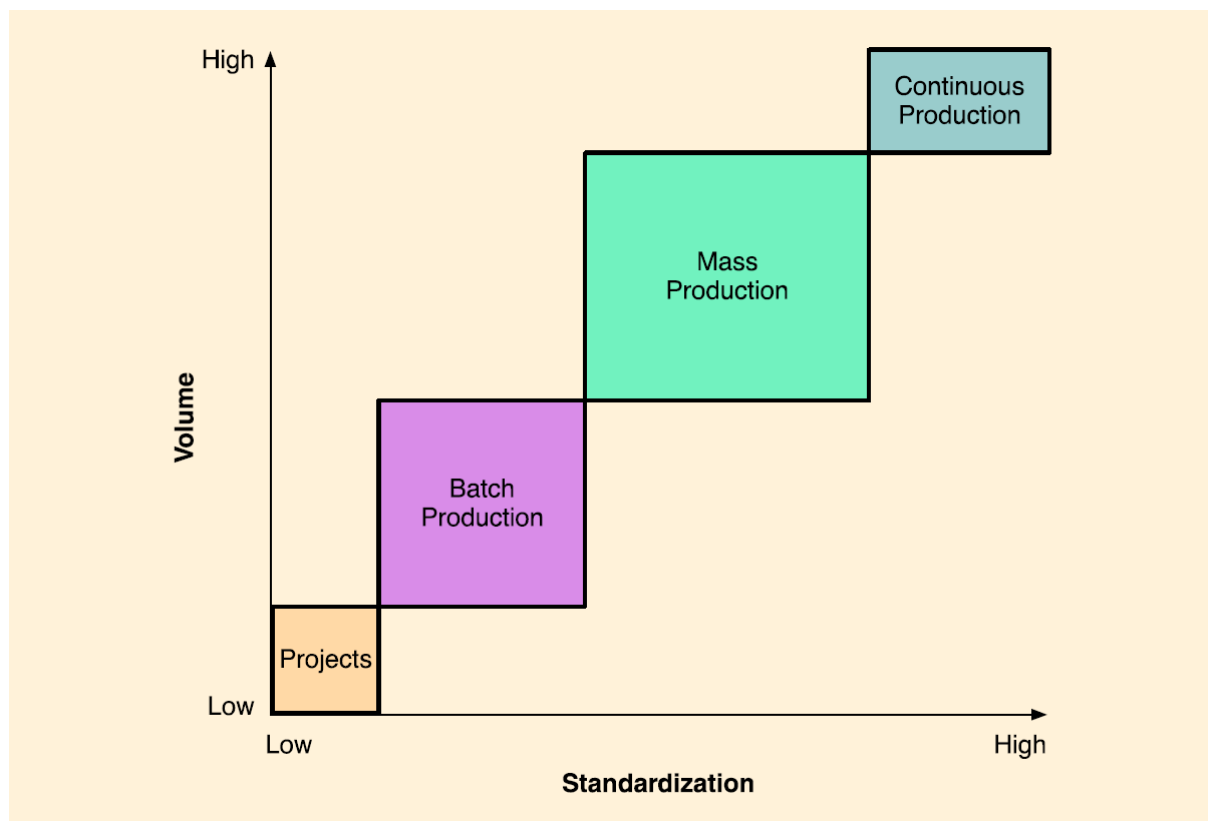


FIGURE 2.5 The Product-Process Matrix

A **project** takes a long time to complete, involves a large investment of funds and resources, and produces one item at a time to customer order. Examples include construction projects, shipbuilding, new-product development, and aircraft manufacturing.

Batch production processes many different jobs through the production system at the same time in groups or batches. Products are made to customer order, volume (in terms of customer order size) is low, and demand fluctuates. Examples of batch production include printers, bakeries, machine shops, education, and furniture making.

Mass production produces large volumes of a standard product for a mass market. Product demand is stable, and product volume is high. Goods that are mass-produced include automobiles, televisions, personal computers, fast food, and most consumer goods.

Continuous production is used for *very* high-volume commodity products that are *very* standardized. The system is *highly* automated and is typically in operation continuously 24 hours a day. Refined oil, treated water, paints, chemicals, and foodstuffs are produced by continuous production.

The process chosen to create the product or service must be consistent with product and service characteristics. The most important product characteristics (in terms of process choice) are degree of *standardization* and *demand volume*. Figure 2.5 shows a product-process matrix that matches product characteristics with process choice.

The best process strategy is found on the diagonal of the matrix. Companies or products that are off the diagonal have either made poor process choices or have found a means to execute a competitive advantage. For example, technological advancements in flexible automation allow Motorola to mass-produce customized pagers. Volvo and Rolls Royce occupy a special market niche by producing cars in a crafted, customized fashion. Examples of poor process choice include Texas Instrument's attempt to produce consumer products for mass markets by the same process that had been successful in the production of scientific products for specialized markets, and Corning's production of low-volume consumer items, such as range covers, with the same continuous process used for other items formed from glass.

Continuous Production. A paper manufacturer produces a continuous sheet of paper from wood pulp slurry, which is mixed, pressed, dried, and wound onto reels. Later, winders will cut the paper into customer-size rolls for wrapping and labeling. Production per day exceeds 1,700 tons of paper.



Mass Production. Here in a clean room a worker performs quality checks on a computer assembly line.



Batch Production. A skilled worker shapes, fits, and glues wooden strips to a guitar frame by hand.



Project. The construction of the aircraft carrier the USS Nimitz was a huge project that took almost ten years to complete.

More Standardized,
Higher Volume

Although most services can be classified into the same types of processes as manufactured products, a more natural classification system for services emphasizes degree of *customization* (rather than standardization) and degree of *labor intensity* (rather than volume). [Figure 2.6](#) shows a service-process matrix based on these two service characteristics. A *professional service*, such as accountant, lawyer, or doctor, is highly customized and very

labor intensive. A *service shop*, such as schools and hospitals, is less customized and labor intensive but still attentive to individual customers. A *mass service*, such as retailing and banking, offers the same basic services to all customers and allows less interaction with the service provider. Services with the least degree of customization and labor intensity, such as airlines and trucking, are most like manufactured products and are thus best processed by a *service factory*.

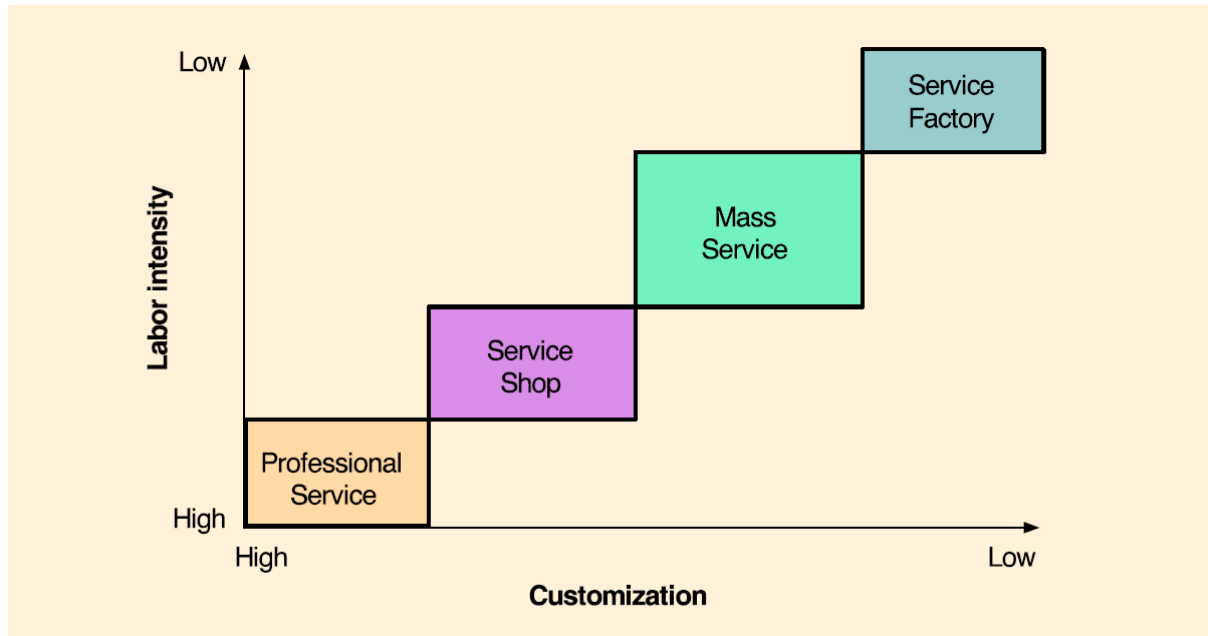


FIGURE 2.6 The Service-Process Matrix

Source: Adapted from Roger Schmenner, "How Can Service Businesses Survive and Prosper?" *Sloan Management Review* 27 No. 3: 29.



Capacity and Facilities

Strategic issues in terms of capacity and facilities begin with determining how much capacity should be provided--to meet all demand, to meet average demand, or to meet some established level of demand? Should capacity be provided in large chunks or in small increments? Does the company prefer to handle excess demand with overtime, extra shifts, or subcontracting? At what point should workers be hired or fired? At what point should new facilities be built?

What is the best size for a facility? Should demand be met with a few large facilities or with several smaller ones? Should a facility focus on serving certain geographic regions, product lines, or customers? Should the entire product be made (or service provided) in one facility, or should the process be broken down and placed in a series of facilities? Where should facilities be located--near markets, near raw materials, or near labor sources?

If globalization is part of the firm's strategy, should items be made, as well as sold, in foreign countries? If so, what kind of relationship is needed with manufacturers in the foreign countries--licensing agreement, joint venture, partnership, alliance, merger? What legal and cultural issues might arise? Who should manage these facilities? How should they be operated?

Human Resources

Strategic issues in human resources involve determining the skill levels and degree of autonomy required to operate the productive system, outlining training requirements and

selection criteria, and setting up policies on performance evaluations, compensation, and incentives. Will workers be salaried, paid an hourly rate, or paid a piece rate? Will profit sharing be allowed, and if so, on what criteria? Will workers perform individual tasks or work in teams? Will they have supervisors or work in self-managed work groups? How many levels of management will be required? Will extensive worker training be necessary? Should the work force be cross-trained? What efforts will be made in terms of retention?

Quality

Quality permeates virtually every strategic decision. What is the target level of quality for our products and services? How will it be measured? How will employees be involved with quality? What types of training are necessary? What will be the responsibilities of the quality department? What types of systems will be set up to ensure quality? How will quality awareness be maintained? How will quality efforts be evaluated? How will customer perceptions of quality be determined? How will decisions in other functional areas affect quality?

Sourcing

A firm that sells the product, assembles the product, makes all the parts, and extracts the raw material is completely **vertically integrated**. But most companies cannot (or do not want to) make all of the parts that go into a product. A major strategic decision, then, is how much of the work should be done outside the firm. The decision involves questions of dependence, competency building, and proprietary knowledge, as well as cost.

On what basis should particular items be made in-house? When should items be outsourced? How should suppliers be selected? What type of relationship should be maintained with suppliers--arm's length, controlling, partnership, alliance? What is expected from our suppliers? How many suppliers should be used? How can the quality and dependability of suppliers be assured? How can suppliers be encouraged to work together?

Operating Systems

Operating systems execute strategic decisions on a day-to-day basis, so it is important that they be designed to support how the firm competes in the marketplace. The information technology system must be able to support both customer and worker demands for rapid access, storage, and retrieval of information. Planning and control systems must be set up with timely feedback loops and consistent decision-making criteria. Inventory levels, scheduling priorities, and reward systems should align with strategic goals.

Strategy, at both the corporate and functional levels, involves setting direction into an uncertain future. Decision making under these conditions can be scary at best. Fortunately, there are quantitative tools available for making decisions under uncertain conditions. The supplement to this chapter reviews several of them for us.

◆ Pause and Reflect ◆

2-14. Explain the difference between make-to-stock, make-to-order, and assemble-to-order products and services. Give an example of each.

2-15. What are the four basic types of production processes? How do they differ? Give an example of each.

2-16. What two product characteristics have the most influence on process choice?

***2-17.** How do the product-process and service-process matrices relate to operations strategy?

2-18. What role should operations play in corporate strategy?

2-19. Name several strategic decisions that involve the operations function.

**These exercises require a direct link to a specific Web site. Click [Internet Exercises](#) for the list of internet links for these exercises.*

¹⁰Some companies refer to products that are designed in response to the customer as *engineered-to-order*, and those that are built and delivered in response to the customer as *made-to-order*.

⁸We use the term "policy deployment" in this text to distinguish this particular planning system from the general process of strategy implementation.

⁹Robert Hayes, "Strategic Planning--Forward in Reverse," *Harvard Business Review* (May-June 1985): 111-19.

Summary

There is no one best way to design a product, make a product, manage operations, or serve customers. The "best way" depends on a firm's objectives, resources, competencies, and context (products and customers). Firms choose to compete in different ways. A firm's *strategy* defines how it will compete in the marketplace--its own best way.

Strategy formulation involves (1) defining the primary task, (2) assessing core competencies, (3) determining order winners and order qualifiers, and (4) positioning the firm. The secret to effective strategy? Excel on the order winners, meet the order qualifiers, capitalize on core competencies, and maintain focus.

Corporate strategy drives functional strategy. Functional strategies must be consistent with and supportive of corporate strategy. Strategic decisions in the operations function involve products and services, processes and technology, capacity and facilities, human resources, quality, sourcing, and operating systems. *Policy deployment* is a planning system that helps align day-to-day operating decisions with the company's overall strategy.