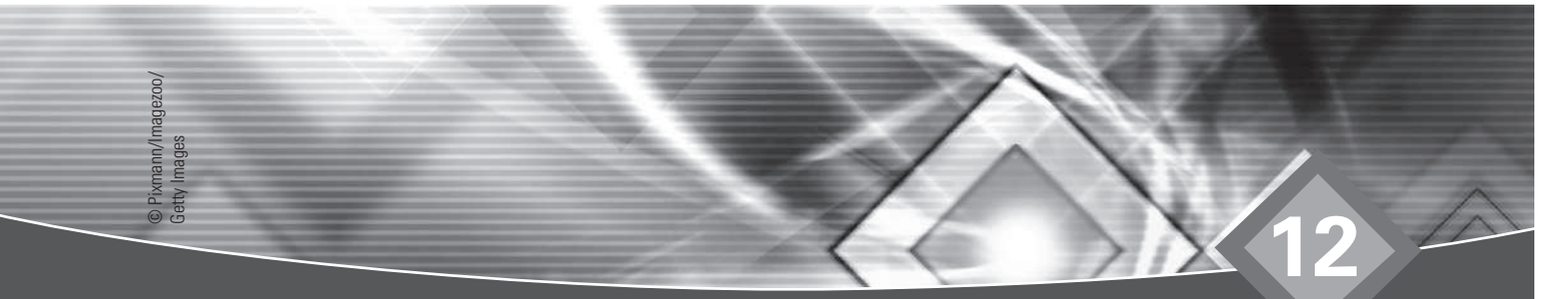


12

Restructuring Organizations

learning objectives

Describe the most common organization structures used today and understand their strengths and weaknesses.

Present the process of downsizing.

Describe and evaluate the reengineering intervention.

In this chapter, we begin to examine techno-structural interventions—change programs focusing on the technology and structure of organizations. Increasing global competition and rapid technological and environmental changes are forcing organizations to restructure themselves from rigid bureaucracies to leaner, more flexible designs. These new forms of organizing are highly adaptive and innovative, but require more sophisticated managerial capabilities to operate successfully. They often result in fewer managers and employees and in streamlined work flows that break down functional barriers.

Interventions aimed at structural design include moving from more traditional ways of dividing the organization's overall work, such as functional, divisional, and matrix structures, to more integrative and flexible forms, such as process, customer-centric, and network structures. Diagnostic guidelines help determine which structure is appropriate for particular organizational environments, technologies, and conditions.

Downsizing seeks to reduce costs and bureaucracy by decreasing the size of the organization. This reduction in personnel can be accomplished through layoffs, organization redesign, and outsourcing, which involves moving functions that are not part of the organization's core competence to outside contractors. Successful downsizing is closely aligned with the organization's strategy.

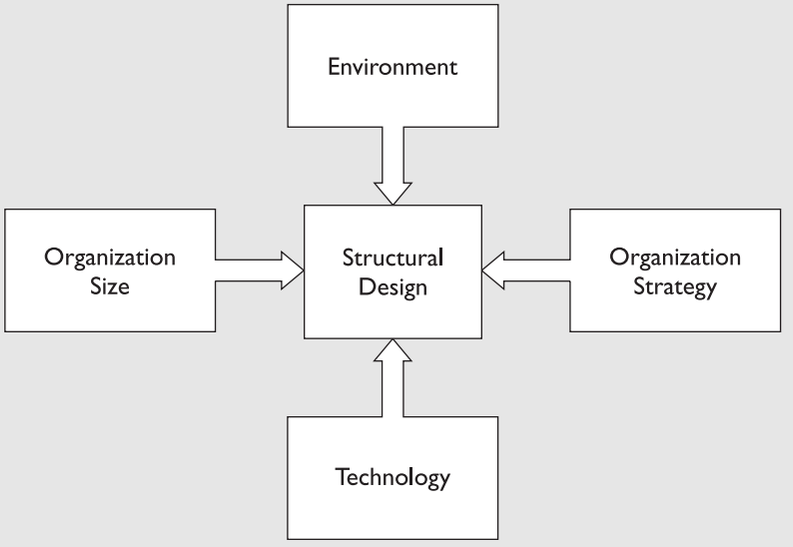
Reengineering radically redesigns the organization's core work processes to give tighter linkage and coordination among the different tasks. This workflow integration results in faster, more responsive task performance. Reengineering often is accomplished with new information technology that permits employees to control and coordinate work processes more effectively.

12-1 Structural Design

Organization structure describes how the overall work of the organization is divided into subunits and how these subunits are coordinated for task completion. Based on a contingency perspective shown in Figure 12.1, organization structures should be designed to fit with at least four factors: the environment, organization size, technology, and

FIGURE 12.1

Contingencies Influencing Structural Choices



organization strategy. Organization effectiveness depends on the extent to which its structure is responsive to these contingencies.[1]

Organizations traditionally have structured themselves into one of three forms: functional departments that are task specialized; self-contained divisional units that are oriented to specific products, customers, or regions; or matrix structures that combine both functional specialization and self-containment. Faced with accelerating changes in competitive environments and technologies, however, organizations increasingly have redesigned their structures into more integrative and flexible forms. These more recent innovations include process structures that design subunits around the organization's core work processes, customer-centric structures that focus attention and resources on specific customers or customer segments, and network-based structures that link the organization to other, interdependent organizations. The advantages, disadvantages, and contingencies of the different structures are described below.

12-1a The Functional Structure

The most widely used organizational structure in the world today is the basic *functional structure*, depicted in Figure 12.2. The organization usually is divided into functional units, such as marketing, operations, research and development, human resources, and finance. This structure is based on early management theories regarding specialization, line and staff relations, span of control, authority, and responsibility.[2] The major functional units are staffed by specialists from those functions. It is considered easier to manage specialists if they are grouped together under the same head and if the head of the department has been trained and has experience in that particular function.

Table 12.1 lists the advantages and disadvantages of functional structures. On the positive side, functional structures promote specialization of skills and resources by

FIGURE 12.2

The Functional Structure

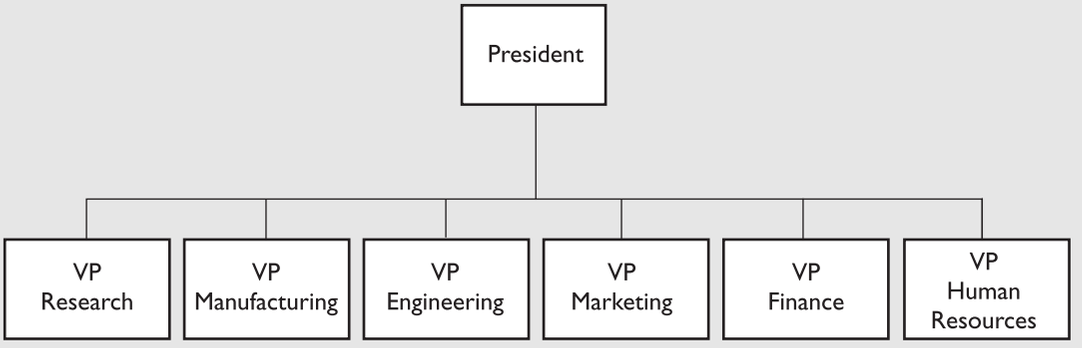


TABLE 12.1

Advantages, Disadvantages, and Contingencies of the Functional Structure

ADVANTAGES
• Promotes and develops technical specialization • Supports flexibility of deployment and reduces duplication of scarce resources • Enhances career development for specialists within large departments • Facilitates communication and performance because superiors share expertise with their subordinates • Supports the development of common processes
DISADVANTAGES
• Emphasizes routine tasks, which encourages short time horizons • Fosters narrow perspectives by managers, not business metrics and broader criteria for decision making • Processes cut across functions, which can make coordination and scheduling difficult (the "white space" problem) • Obscures accountability for overall outcomes; managers and employees may not have a line of sight to the business • Difficulty developing general management capability
CONTINGENCIES
• Stable and certain environment • Small- to medium-size • Routine technology, interdependence within functions • Goals of efficiency and technical quality

grouping people who perform similar work and face similar problems. This grouping facilitates communication within departments and allows specialists to share their expertise through standardized processes. It also enhances career development within the specialty, whether it is accounting, finance, engineering, or sales. The functional

structure reduces duplication of services because it makes the best use of people and resources.

On the negative side, functional structures tend to promote routine tasks behaviors with a limited orientation. Department members focus on their own tasks, rather than on the organization's overall value-added processes. This can lead to conflict across functional departments when each group tries to maximize its own performance without considering the performances of other units. Coordination and scheduling among departments, often called the "white space" problem, can be difficult when each emphasizes its own perspective. As shown in Table 12.1, the functional structure tends to work best in small- to medium-size firms in environments that are relatively stable and certain, although there are exceptions. Cisco Systems claims to be one of the largest functionally organized companies in the world. These organizations typically have a small number of products or services, and coordination across specialized units is relatively easy. This structure also is best suited to routine technologies in which there is interdependence within functions, and to organizational goals emphasizing efficiency and technical quality.

12-1b The Divisional Structure

The *divisional structure* represents a fundamentally different way of organizing. Also known as a product or self-contained-unit structure, it was developed at about the same time by General Motors, Sears, Standard Oil of New Jersey (now ExxonMobil), and DuPont.[3] It groups organizational activities on the basis of products, services, customers, or geography. All or most of the resources and functions necessary to accomplish a specific objective are set up as a division headed by a product or division manager. For example, General Electric has plants that specialize in making jet engines and others that produce household appliances. Each plant manager reports to a particular division or product vice president, rather than to a manufacturing vice president. In effect, a large organization may set up smaller (sometimes temporary) special-purpose organizations, each geared to a specific product, service, customer, or region. Many organizations use the divisional structure to expand globally. Samsung Electronics, for example, structures self-contained business units around particular product groups that are responsible for their respective products worldwide. Colgate-Palmolive forms self-contained units around geographic regions with each region responsible for the firm's products in that area. A typical division structure is shown in Figure 12.3. It is interesting to note that the formal structure within a self-contained unit often is functional in nature.

Table 12.2 lists the advantages and disadvantages of divisional structures. These organizations recognize key interdependencies and coordinate resources toward an overall outcome. This strong outcome orientation ensures accountability and promotes cohesion among those contributing to the self-contained unit. These structures provide employees with opportunities for learning new skills and expanding knowledge because workers can move more easily among the different specialties within the unit. As a result, divisional structures are well suited for developing general managers.

Divisional structures do have certain problems. They may not have enough specialized work to use people's skills and abilities fully. Specialists may feel isolated from their professional colleagues and may fail to advance in their career specialty. The structures may promote allegiance to a specific product, service, customer, or region rather than to the organization's objectives. They also place multiple demands on people, thereby creating stress.

The divisional structure works best in conditions almost the opposite of those favoring a functional organization, as shown in Table 12.2. The organization needs to be relatively large to support the duplication of resources assigned to the units. Because each unit is

FIGURE 12.3

The Divisional Structure

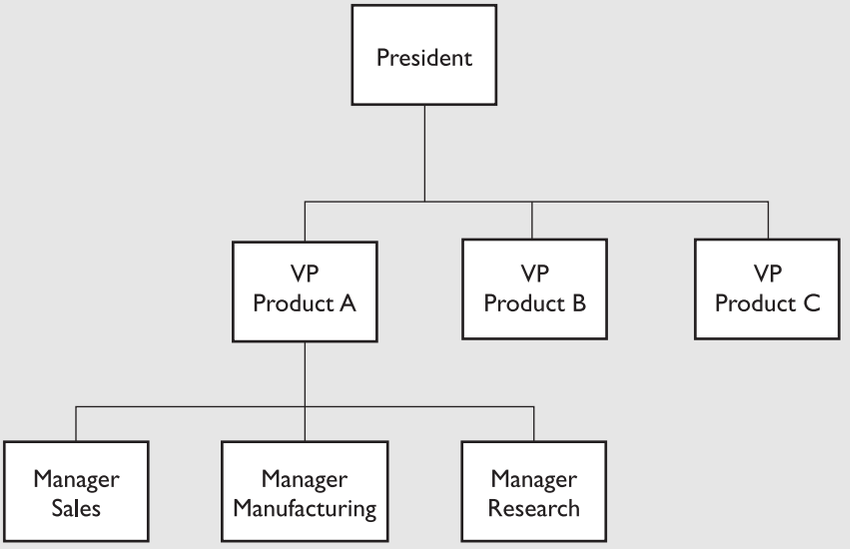


TABLE 12.2

Advantages, Disadvantages, and Contingencies of the Divisional Structure

ADVANTAGES
• Recognizes sources of interdepartmental dependencies, reduces complexity • Fosters an orientation toward divisional outcomes and clients • Allows diversification and expansion of skills and training • Ensures accountability by departmental managers and so promotes delegation of authority and responsibility • Heightens departmental cohesion and involvement in work
DISADVANTAGES
• May use skills and resources inefficiently: coordination, sharing, and learning across divisions is difficult • Limits career advancement by specialists to movements out of their departments • Impedes specialists' exposure to others within the same specialties; hard to create common processes • Puts multiple-role demands on people and so creates stress • Line of sight is to business and may promote divisional objectives over organization objectives
CONTINGENCIES
• Unstable and uncertain environments • Large-size • Technological interdependence across functions • Goals of product specialization and innovation

designed to fit a particular niche, the structure adapts well to uncertain conditions. Divisional units also help to coordinate technical interdependencies falling across functions and are suited to goals promoting product or service specialization and innovation.

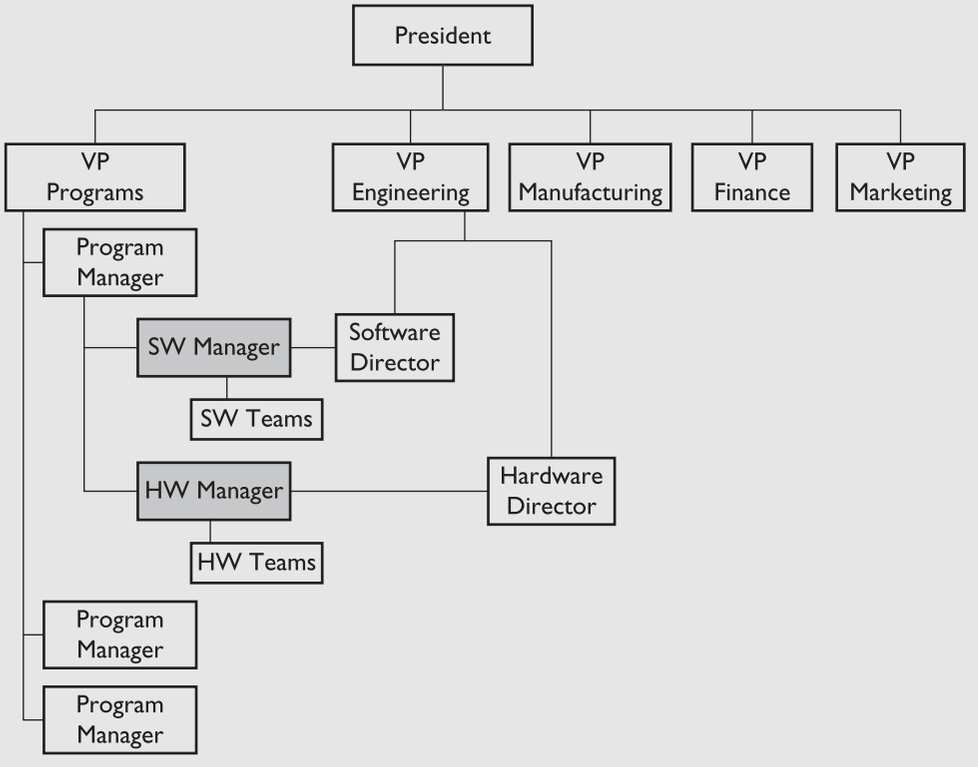
12-1c The Matrix Structure

Some organization development (OD) practitioners have focused on maximizing the strengths and minimizing the weaknesses of both the functional and the divisional structures, and this effort has resulted in the *matrix structure*.[4] It superimposes a lateral structure that focuses on product or project coordination on a vertical functional structure, as shown in Figure 12.4. Matrix structures originally evolved in the aerospace industry where changing customer demands and technological conditions caused managers to focus on lateral relationships between highly specialized functions to develop a flexible and adaptable system of resources and procedures, and to achieve a series of project objectives. Matrix structures now are used widely in manufacturing, service, nonprofit, governmental, and professional organizations.[5]

Every matrix organization contains three unique and critical roles: the top manager (e.g., President or General Manager), who heads and balances the dual chains of command; the matrix bosses (functional and product or program vice presidents), who share subordinates; and a few "two-boss" managers, who report to the two different

FIGURE 12.4

The Matrix Structure



matrix leaders and manage workers deployed to the specific product or program. In Figure 12.4, only the Software (SW) Manager and Hardware (HW) Manager have two bosses. The SW and HW team members take their day-to-day direction from the software and hardware managers but belong to the Engineering function.

Each of these roles has its own unique requirements. For example, functional matrix leaders are expected to maximize their respective technical expertise within constraints posed by market realities. Two-boss managers, however, must accomplish work within the demands of supervisors who want to achieve technical sophistication on the one hand, and to meet customer expectations on the other. Thus, a matrix organization has more than its matrix structure. It also must be reinforced by matrix performance management systems that get input from both functional and project bosses, by matrix leadership behavior that operates comfortably with lateral decision making, and by a matrix culture that fosters open conflict management and a balance of power.[6]

Matrix structures, like all organization structures, have both advantages and disadvantages, as shown in Table 12.3. On the positive side, they enable multiple orientations. Specialized, functional knowledge is integrated with a focus on a particular business or project. New products or projects can be implemented quickly by using people flexibly and by moving between product and functional orientations as circumstances demand. Matrix structures allow functional expertise learned in one business or program to be transferred to another product, program, or business. For many people, matrix structures are motivating and exciting.

TABLE 12.3

Advantages, Disadvantages, and Contingencies of the Matrix Structure

ADVANTAGES
• Emphasizes cross-functional product or program focus and integration of functional excellence • Uses people flexibly, because departments maintain reservoirs of specialists • Permits functional learning to be carried between projects or programs • Recognizes and provides mechanisms for dealing with legitimate, multiple sources of power in the organization • Can adapt to environmental changes by shifting emphasis between project and functional aspects
DISADVANTAGES
• Can be very difficult to introduce without a preexisting supportive management climate • Conflicts between businesses and functions over methods, resources, priorities is always present • Increases role ambiguity, stress, and anxiety by assigning people to more than one department • Without power balancing between product and functional forms, lowers overall performance • Makes inconsistent demands, which may result in unproductive conflicts and short-term crisis management • May reward political skills as opposed to technical skills
CONTINGENCIES
• Dual focus on unique product demands and technical specialization • Pressure for high information-processing capacity • Pressure for shared resources

On the negative side, these structures can be difficult to manage. To implement and maintain them requires heavy managerial costs and support. IT managers must deal with the often conflicting tensions between technical excellence and customer responsiveness. When people are assigned to more than one department, there may be role ambiguity and conflict, and overall performance may be sacrificed if there are power conflicts between functional departments and project structures. People can get confused about how the matrix operates, and that can lead to chaos and inefficiencies. To make matrix structures work, organization members need interpersonal and conflict management skills as well as some tolerance for ambiguity.

As shown in Table 12.3, matrix structures are appropriate under three important conditions.[7] First, there must be real outside pressures for a dual focus. For example, a matrix structure works well when there are many customers with unique demands, on the one hand, and strong requirements for technical sophistication, on the other. The OD practitioner must work with management to determine whether there is real pressure for a dual focus. Managers often agree, without carefully testing the assumption, that both functional and product orientations are important. Second, a matrix organization is appropriate when the organization must process a large amount of information. Circumstances requiring such capacity are few and include the following: when external environmental demands change unpredictably; when the organization produces a broad range of products or services, or offers those outputs to a large number of different markets; when the relevant technologies evolve quickly; and when there is reciprocal interdependence among the tasks in the organization's technical core. In each case, there is considerable complexity in decision making and pressure on communication and coordination systems. Third, there must be pressures for shared resources. When customer demands vary greatly and technological requirements are strict, valuable human and physical resources are likely to be scarce. The matrix works well under those conditions because it facilitates the sharing of scarce resources. If any one of the foregoing conditions is not met, a matrix organization is likely to fail.

12-1d The Process Structure

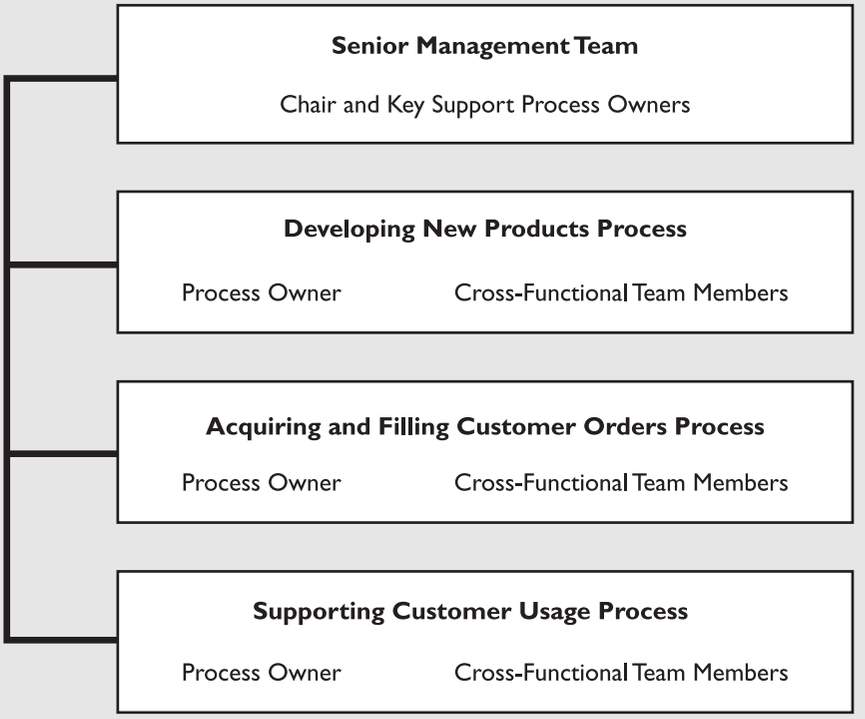
A relatively new logic for structuring organizations is to form multidisciplinary teams around core processes, such as product development, order fulfillment, sales generation, and customer support.[8] As shown in Figure 12.5, *process-based structures* emphasize lateral rather than vertical relationships.[9] All functions necessary to produce a product or service are placed in a common unit usually managed by a role labeled a "process owner." There are few hierarchical levels, and the senior executive team is relatively small, typically consisting of the chief executive officer, the chief operating officer, and the heads of a few key support services such as strategic planning, human resources, and finance.

Process structures eliminate many of the hierarchical and departmental boundaries that can impede task coordination and slow decision making and task performance. They reduce the enormous costs of managing across departments and up and down the hierarchy. Process-based structures enable organizations to focus most of their resources on serving customers, both inside and outside the firm.

The use of process-based structures is growing rapidly in a variety of manufacturing and service companies. Typically referred to as "horizontal," "boundaryless," or "team-based" organizations, they are used to enhance customer service at such firms as American Express Financial Advisors, Healthways, Johnson & Johnson, 3M, Xerox, and General Electric Capital Services. Although there is no one right way to design process-based structures, the following features characterize this new form of organizing:[10]

FIGURE 12.5

The Process Structure



- **Processes drive structure.** Process-based structures are organized around the three to five key processes that define the work of the organization. Rather than products or functions, processes define the structure and are governed by a "process owner." Each process has clear performance goals that drive task execution.
- **Work adds value.** To increase efficiency, process-based structures simplify and enrich work processes. Work is simplified by eliminating nonessential tasks and reducing layers of management, and it is enriched by combining tasks so that teams perform whole processes.
- **Teams are fundamental.** Teams are the key organizing feature in a process-based structure. They manage everything from task execution to strategic planning, are typically self-managing, and are responsible for goal achievement.
- **Customers define performance.** The primary goal of any team in a process-based structure is customer satisfaction. Defining customer expectations and designing team functions to meet those expectations command much of the team's attention. The organization must value this orientation as the primary path to financial performance.
- **Teams are rewarded for performance.** Appraisal systems focus on measuring team performance against customer satisfaction and other goals, and then provide real recognition for achievement. Team-based rewards are given as much, if not more, weight than is individual recognition.

- **Teams are tightly linked to suppliers and customers.** Through designated members, teams have timely and direct relationships with vendors and customers to understand and respond to emerging concerns.
- **Team members are well informed and trained.** Successful implementation of a process-based structure requires team members who can work with a broad range of information, including customer and market data, financial information, and personnel and policy matters. Team members also need problem-solving and decision-making skills and abilities to address and implement solutions.

Table 12.4 lists the advantages and disadvantages of process-based structures. The most frequently mentioned advantage is intense focus on meeting customer needs, which can result in dramatic improvements in speed, efficiency, and customer satisfaction. Process-based structures remove layers of management, and consequently information flows more quickly and accurately throughout the organization. Because process teams comprise multiple functional specialties, boundaries between departments are removed, thus affording organization members a broad view of the workflow and a clear line of sight between team performance and organization effectiveness. Process-based structures also are more flexible and adaptable to change than are traditional structures.

TABLE 12.4

Advantages, Disadvantages, and Contingencies of the Process-Based Structure

ADVANTAGES
• Clear line of sight focuses resources on customer satisfaction • Improves speed and efficiency, often dramatically • Responds to environmental change and customer requests rapidly • Strong cross-functional collaboration and integration • Develops broad knowledge and increases ability to see total work flow • Enhances employee involvement • Lowers costs because of less overhead structure
DISADVANTAGES
• Changing to this structure can threaten middle managers and staff specialists • Must learn to balance competing demands for fluidity and efficiency • Can be difficult to supervise multiple functions, requires changes in command-and-control mindsets • Duplicates scarce resources, sharing learnings can be difficult • Requires new skills and knowledge to manage lateral relationships and teams • May take longer to make decisions in teams and result in internal focus • Can be ineffective if wrong processes are identified
CONTINGENCIES
• Uncertain and changing environments • Moderate- to large-size • Nonroutine and highly interdependent technologies • Customer-oriented goals

A major disadvantage of process structures is the difficulty of changing to this new organizational form. These structures typically require radical shifts in mindsets, skills, and managerial roles—changes that involve considerable time and resources and can be resisted by functional managers and staff specialists. Managers must learn to balance competing demands for organization fluidity and efficiency.[11] Moreover, process-based structures may result in expensive duplication of scarce resources and, if teams are not skilled adequately, an overly internal focus and slower decision making as they struggle to define and reach consensus. Finally, implementing process-based structures relies on properly identifying key processes needed to satisfy customer needs. If critical processes are misidentified or ignored altogether, performance and customer satisfaction are likely to suffer.

Table 12.4 shows that process structures are particularly appropriate for highly uncertain environments where customer demands and market conditions are changing rapidly. They enable organizations to manage nonroutine technologies and coordinate workflows that are highly interdependent. Process-based structures generally appear in medium- to large-size organizations having several products or projects. They focus heavily on customer-oriented goals and are found in both domestic and global organizations.

Application 12.1 describes the process-based structure proposed as part of the structural change process at Healthways Corporation.

12-1e The Customer-Centric Structure

Closely related to the process-based structure, the *customer-centric structure* focuses subunits on the creation of solutions and the satisfaction of key customers or customer groups.[12] As shown in Figure 12.7, these customer or market-facing units are supported by other units that develop new products, manufacture components and products, and manage the supply chain. A variety of organizations, including the Lord Corporation, Dow, IBM, and Citibank, have implemented these complex structures. Also known as front–back organizations, these structures excel at putting customer needs at the top of an organization's agenda.

Galbraith notes that globalization, e-commerce, and the desire for solutions have greatly enhanced the power of the customer to demand organizational structures that service their needs. These new structures highlight the radical differences between product-focused organizations, like the function or divisional structure, and customer-centric organizations as shown in Table 12.5. In a product-centric organization, the goal is to provide customers with the best product possible and to create value by developing new products and innovative features. Product-centric structures have core structural features that include product groups and teams that are measured by product margins. The most central process is new-product development.

Customer-centric structures have a very different look and feel. In a customer-centric structure, the organization develops the best solution for the customer by offering a customized bundle of products, services, support, and education. Their core structures focus attention and resources on customers with market-facing units organized around large individual customers or customer segment teams that attempt to maximize customer profit and loss. These core units are supported by sophisticated customer relationship management processes and integrating mechanisms that link the market-facing units with the support units.

While any one of these differences may seem obvious, a careful look will show that the product-centric dimensions represent important and deeply rooted assumptions in

application 12.1

HEALTHWAYS' PROCESS STRUCTURE

Healthways Corporation (HC) (www.healthways.com) is a provider of specialized disease management services to health plans and hospitals. In fiscal year 2002, HC had revenues of $122 million. The company, founded in 1981 as American Healthcorp (AMHC), originally owned and managed hospitals. In 1984 it offered its first disease management service focused on diabetes. Under the name Diabetes Treatment Centers of America, it worked with hospitals to create "centers of excellence" to improve hospital volumes and lower costs. After going public in 1991, it offered in 1993 its first diabetes management program to health plans—an entirely new customer segment. This shift in customer base was a key event in the company's history, and two new disease management programs for cardiac and respiratory diseases were offered in 1998 and 1999, respectively. By 2000, hospital revenues, once 100% of the company's mix, had dropped to 38% as the health plan business grew.

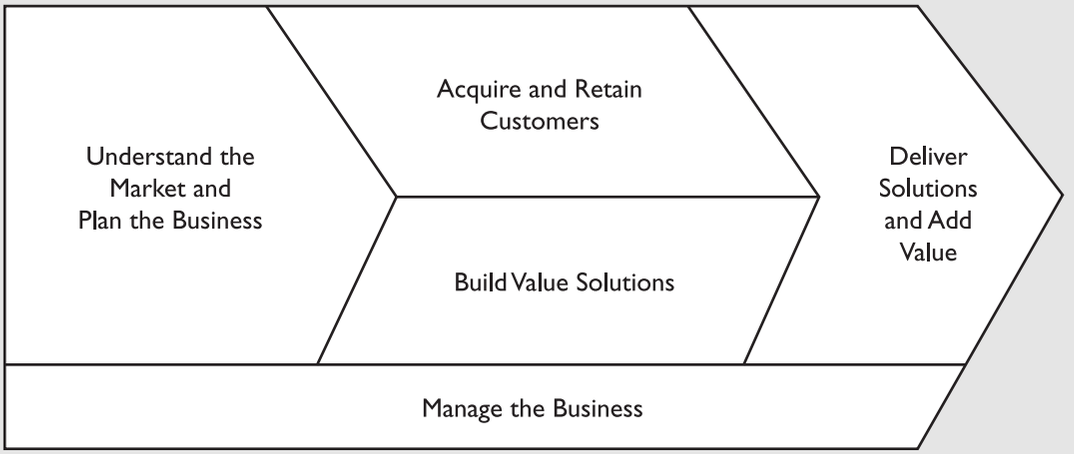
The organization recognized that its current structure would not support the expected growth. As part of its structural change effort, the initial organization design and development task force (the ODD group) recommended a process-based organization structure to the senior leadership team. The organization was described in terms of five core processes: understand the market and plan the business, acquire and retain customers, build value solutions, deliver solutions and add value, and manage the business (Figure 12.6).

- The *understand-the-market process* was responsible for scanning AMHC's external environment for business opportunities, trends, regulatory changes, and competitive intelligence. The process also was responsible for generating new product ideas, based on their environmental scanning activities, and for developing and driving the strategic planning process of the organization.
- Based on the outputs of the understand-the-market process, the *build-value-solutions process* was responsible for translating business or product opportunities into reproducible products. This included more fully developing the business case initially identified by the understand-the-market process, devising performance metrics, developing new products and testing them, and creating marketing materials.
- The *acquire-and-retain-customers process* involved the sales and marketing organization. It was responsible for finalizing marketing materials, identifying new customers, selling and signing contracts, developing relationships with key stakeholders, implementing marketing plans, and responding to requests for proposals.
- The *deliver-solutions-and-add-value process* was responsible for delivering on contractual commitments, managing accounts and upselling, maintaining product integrity, and building delivery capacity.
- In the *manage-the-business process*, the small corporate headquarters was responsible for human resources, financial governance, information technology standards, medical leadership, and corporate image and branding. It was to act as a shared services organization supporting the value-adding process organizations.

Each process was to be staffed with an appropriate mix of functional experts. The operational basis of the new organization was a cross-functional team that could represent the different perspectives at each stage of the business. For example, the acquire-and-retain-customers process included not only sales and marketing expertise, but also functional expertise in account management, information technology, finance, medical and clinical specialties, and product development. In recommending that a core process be staffed with the appropriate mix of functional expertise, the task force also suggested that the structure within a core process be team-based. The acquire-and-retain-customers process could flexibly organize cross-functional teams to address a specific customer's requirements and then recombine resources to pursue a different customer.

FIGURE 12.6

HC's Proposed Process Structure



In addition, appropriate metrics for monitoring the effectiveness of each process as well as the relationships between any two processes in the organization were specified. In terms of effectiveness metrics, the key outcome for all processes was customer satisfaction. The acquire-customer process was judged primarily on the extent to which it acquired customers and contracts that the deliver-solutions-and-add-value process believed could be managed. In terms of relationships, any new business opportunities identified by the understand-the-market process required certain approvals by senior management before being handed off to the build-value-solutions process. This "go-no go" decision assured that the organization had sufficient investment resources to fund new business or product development and that good opportunities, not just a lot of opportunities, were being forwarded to the build-value-solutions process.

most organizations. Deciding to execute a customer-centric organization is a substantial undertaking.

As shown in Table 12.6, customer-centric structures have important strengths and weaknesses. Customer-centric structures present one face to the customer. Divisional structures, for example, can confuse customers when each division sends its own sales team. When one team is dedicated to a customer or customer group, it develops a deep understanding of the customer's needs, preferences, and industry trends. This knowledge supports the customization of solutions and helps to build a robust customer-satisfaction capability.

In terms of weaknesses, customer teams can become too inwardly focused and lose sight of the larger organization strategy. This can make it difficult to share learning from successful innovation or customization with the rest of the organization. One of the most important weaknesses of the customer-centric organization is its reliance on lateral

FIGURE 12.7

The Customer-Centric Structure

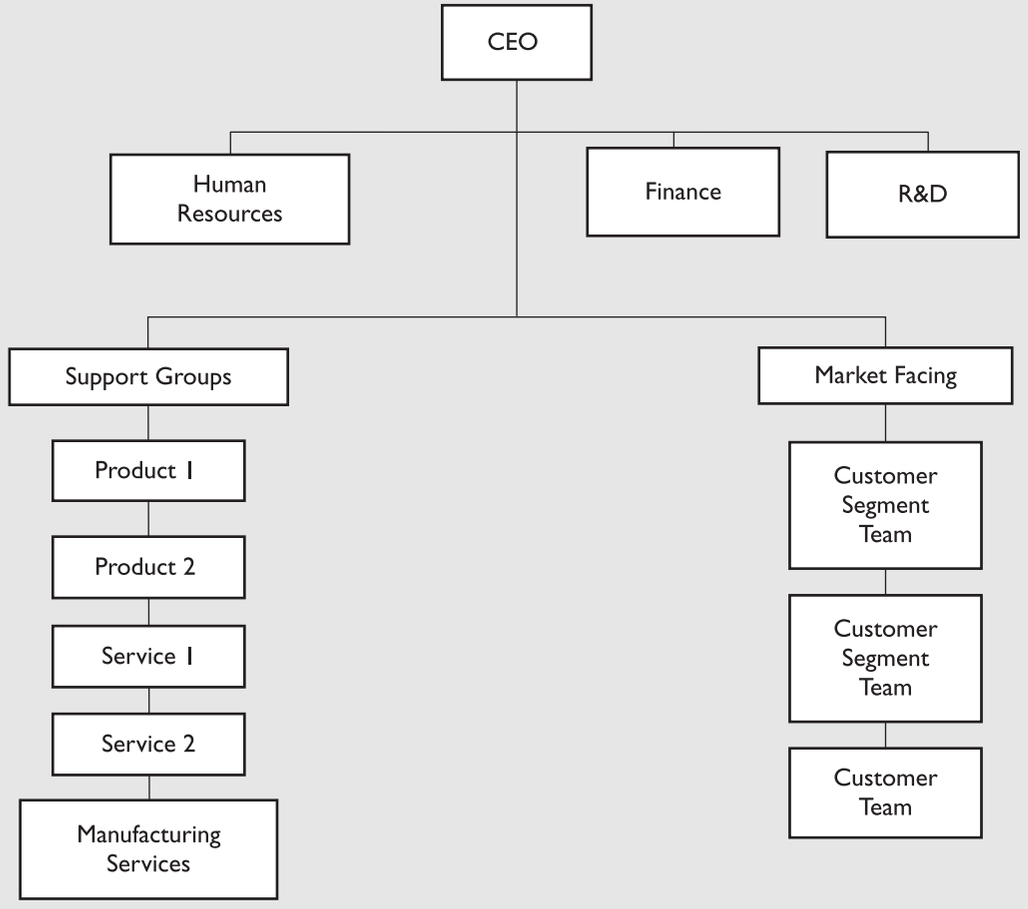


TABLE 12.5

Comparing Product-Centric with Customer-Centric Structures

Organizational Feature	Product-Centric	Customer-Centric
Goal	Best product for customer	Best solution for customer
Source of value	New products, new features	Customized bundles of products, services, support, education, and consulting
Core structures	Product teams, product reviews, product profit centers	Customer teams and segments, customer P&Ls
Core processes	New-product process	Customer relationship management processes and integration/solutions

SOURCE: Adapted from J. Galbraith, *Designing the Customer-centric Organization* (San Francisco: Jossey-Bass, 2005).

TABLE 12.6

Advantages, Disadvantages, and Contingencies of the Customer-Centric Structure

ADVANTAGES
• Presents one integrated face to the customer • Generates a deep understanding of customer requirements • Enables organization to customize and tailor solutions for customers • Builds a robust customer response capability
DISADVANTAGES
• Customer teams can be too inwardly focused • Sharing learnings and developing functional skills is difficult • Managing lateral relations between customer-facing and back office units is difficult because some processes are split apart • Developing common processes in the front and back is problematic • Clarifying the marketing function is problematic
CONTINGENCIES
• Highly complex and uncertain environments • Large organizations • Goals of customer focus and solutions orientation • Highly uncertain technologies

mechanisms and relationships. To be effective, a customer-centric organization must have strong lateral capabilities, including information systems, capital allocation processes, resource prioritization systems, and the like, to integrate the front and back end of the organization. Few organizations have developed this capability. Finally, customer-centric organizations must decide where to put the marketing function. Should marketing be done by the "front" or "back" of the organization? This is a question not easily answered.

Customer-centric organizations work best in large organizations, where there are strong and powerful customer forces in the industry and where technology and market changes are highly complex and uncertain. In addition, as noted above, the organization has to have a certain amount of maturity. It is unlikely that an organization can successfully implement a customer-centric structure without a strong lateral capability.

12-1f The Network Structure

A *network structure* manages the diverse, complex, and dynamic relationships among multiple organizations or units, each specializing in a particular business function or task.[13] Organizations that utilize network structures have been called shamrock organizations and virtual, modular, or cellular corporations.[14] Less formally, they have been described as pizza structures, spiderwebs, starbursts, and cluster organizations. Some of the confusion over the definition of a network can be clarified by a typology describing four basic types of networks.[15]

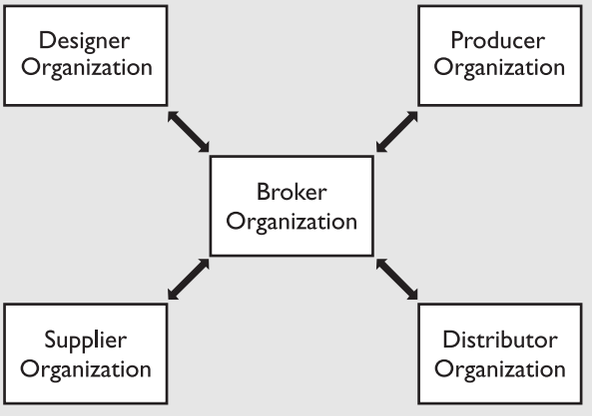
1. An *internal market network* exists when a single organization establishes each subunit as an independent profit center that is allowed to trade in services and resources with each other as well as with the external market. Asea Brown Boveri's (ABB) 50 worldwide businesses consist of 1,200 companies organized into 4,500 profit centers that conduct business with each other.
2. A *vertical market network* is composed of multiple organizations linked to a focal organization that coordinates the movement of resources from raw materials to end consumer. Nike, for example, has its shoes manufactured in different plants around the world and then organizes their distribution through retail outlets.
3. An *intermarket network* represents alliances among a variety of organizations in different markets and is exemplified by the Japanese *keiretsu*, the Korean *chaebol*, and the Mexican *grupos*.
4. An *opportunity network* is the most advanced form of network structure. It is a temporary constellation of organizations brought together to pursue a single purpose. Once accomplished, the network disbands. Li and Fung is a Hong Kong–based trading company that pulls together a variety of specialist supplier organizations to design and manufacture a wide range of products.

These types of networks can be distinguished from one another in terms of whether they are single or multiple organizations, single or multiple industries, and stable or temporary.[16] For example, an internal market network is a stable, single-organization, single-industry structure; an opportunity network is a temporary, multiple-organization structure that can span several different industries.

As shown in Figure 12.8, the network structure redraws organizational boundaries and links separate organizations or business units to facilitate task interaction. The essence of networks is the relationships among organizations that perform different aspects of work. In this way, organizations do the things that they do well. For example, a firm that is good at selling products might outsource manufacturing to other organizations that perform that task better than it does. Network organizations use strategic

FIGURE 12.8

The Network Structure



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alliances, joint ventures, research and development consortia, licensing agreements, and wholly owned subsidiaries to design, manufacture, and market advanced products, enter new international markets, and develop new technologies. Companies such as Apple Computer, Benetton, Liz Claiborne, Nike, and Merck have implemented fairly sophisticated vertical market and intermarket network structures. Opportunity networks also are commonplace in the construction, fashion, and entertainment industries, as well as in the public sector.[17]

Network structures typically have the following characteristics:

- **Vertical disaggregation.** This refers to the breaking up of the organization's business functions, such as production, marketing, and distribution, into separate organizations performing specialized work. In the film industry, for example, separate organizations providing transportation, cinematography, special effects, set design, music, actors, and catering all work together under a broker organization, the studio. The particular organizations making up the opportunity network represent an important factor in determining its success.[18] Increasingly, disintermediation, or the replacement of whole steps in the value chain by information technology—specifically the Internet—has fueled the development and numbers of network structures.
- **Brokers.** Networks often are managed by broker organizations or "process orchestrators" that locate and assemble member organizations. The broker may play a central role and subcontract for needed products or services, or it may specialize in linking equal partners into a network. In the construction industry, the general contractor typically assembles and manages drywall, mechanical, electrical, plumbing, and other specialties to erect a building.
- **Coordinating mechanisms.** Network organizations generally are not controlled by hierarchical arrangements or plans. Rather, coordination of the work in a network falls into three categories: informal relationships, contracts, and market mechanisms. First, coordination patterns can depend heavily on interpersonal relationships among individuals who have a well-developed partnership. Conflicts are resolved through reciprocity; network members recognize that each likely will have to compromise at some point. Trust is built and nurtured over time by these reciprocal arrangements. Second, coordination can be achieved through formal contracts, such as ownership control, licensing arrangements, or purchase agreements. Finally, market mechanisms, such as spot payments, performance accountability, technology standards, and information systems, ensure that all parties are aware of each other's activities and can communicate with each other.

Network structures have a number of advantages and disadvantages, as shown in Table 12.7.[19] They are highly flexible and adaptable to changing conditions. The ability to form partnerships with different organizations permits the creation of a "best-of-the-best" company to exploit opportunities, often global in nature. They enable each member to exploit its distinctive competence. They can accumulate and apply sufficient resources and expertise to large, complex tasks that single organizations cannot perform. Perhaps most important, network organizations can have synergistic effects whereby members build on each other's strengths and competencies, creating a whole that exceeds the sum of its parts.

The major problems with network organizations are in managing such complex structures. Galbraith and Kazanjian describe network structures as matrix organizations extending beyond the boundaries of single firms but lacking the ability to appeal to a higher authority to resolve conflicts.[20] Thus, matrix skills of managing lateral relations across organizational boundaries are critical to administering network structures. Most organizations, because they are managed hierarchically, can be expected to have

TABLE 12.7

Advantages, Disadvantages, and Contingencies of the Network-Based Structure

ADVANTAGES
• Enables highly flexible and adaptive response to dynamic environments • Creates a "best-of-the-best" organization to focus resources on customer and market needs • Enables each organization to leverage a distinctive competency • Permits rapid global expansion • Can produce synergistic results
DISADVANTAGES
• Managing lateral relations across autonomous organizations is difficult • Motivating members to relinquish autonomy to join the network is troublesome • Sustaining membership and benefits can be problematic • May give partners access to proprietary knowledge/technology
CONTINGENCIES
• Highly complex and uncertain environments • Organizations of all sizes • Goals of organizational specialization and innovation • Highly uncertain technologies

difficulties managing lateral relations. Other disadvantages of network organizations include the difficulties of motivating organizations to join such structures and of sustaining commitment over time. Potential members may not want to give up their autonomy to link with other organizations and, once linked, they may have problems sustaining the benefits of joining together. This is especially true if the network consists of organizations that are not the "best of breed." Finally, joining a network may expose the organization's proprietary knowledge and skills to others.

As shown in Table 12.7, network organizations are best suited to highly complex and uncertain environments where multiple competencies and flexible responses are needed. They seem to apply to organizations of all sizes, and they deal with complex tasks or problems involving high interdependencies across organizations. Network structures fit with goals that emphasize organization specialization and innovation.

Application 12.2 describes how Amazon.com's network structure was configured to align with its strategy and how relationships are managed.[21]

12-2 Downsizing

Downsizing refers to interventions aimed at reducing the size of the organization.[22] This typically is accomplished by decreasing the number of employees through layoffs, attrition, redeployment, or early retirement or by reducing the number of organizational units or managerial levels through divestiture, outsourcing, reorganization, or delayering.

application 12.2

AMAZON.COM'S NETWORK STRUCTURE

Amazon.com (www.amazon.com) was launched in mid-1995 as the "Earth's Biggest Bookstore." It offered more than one million titles to online buyers, more than three times the number offered at traditional bookstores. Since then, it has evolved into a powerful network structure involving both other Internet retailers as well as more traditional retailers, including other bookstores. Amazon also has expanded into information services, offering a variety of network services to firms under the banner Amazon Web Services. At the center of it all is Amazon's massive website, Amazon.com. By pairing Amazon's state-of-the-art technology, built-in traffic, and industry-leading fulfillment and customer-service processes with its partners' products and their own strengths, a complex network of organizations is working together to make everyone more successful.

The company went public in the first quarter of 1997 riding the dot.com wave. Its revenue grew from $147.8 million in 1997 to over $61 billion in fiscal year 2012 and is predicted to exceed $100 billion in 2015. Despite this impressive sales growth, there has been increasing pressure to deliver profits, which occurred for the first time in fiscal year 2002. From at least one point of view, the development of Amazon's network structure is an important reason for this profitability.

From the beginning, Amazon operated as a virtual organization and leveraged its network structure. For example, it developed and operated the Amazon.com website to draw in customers and to learn about creating an effective online customer experience. However, the company owned little or no inventory, warehouses, distribution centers, or customer-service operations. Early on, order fulfillment was left to Ingram Book Distributors, one of the largest book wholesalers, who also contracted out delivery to third-party vendors, such as UPS.

In June of 1998, Amazon began selling CDs, and added DVDs and videos in November 1998. It added electronic products, toys, software, and video games in 1999, and tools, health and beauty products, kitchen products, and photo services in 2000. It also expanded internationally starting in 1999, opening up markets in Canada, Europe, and Asia over the next decade. Amazon's first West Coast distribution center was built in 1996 and an East Coast distribution center was added in 1997. In 1999, in anticipation of the Christmas rush, Amazon built five warehouse and distribution facilities and several customer-service centers to improve its order fulfillment capabilities.

Amazon's initial forays into a broader network began in 1999 but were compartmentalized on the website. Non-Amazon products, such as used books or individuals auctioning off different products, were not allowed to infiltrate Amazon's millions of book, CD, and DVD pages. Third-party products were put under "tabs" that roughly described the kind of commerce to be conducted, such as the "auction" tab or the "zShops" tab, which contained a variety of vendor products. Thus, traditional Amazon products were separated from products offered by others. Continued profit pressure, however, forced the organization to look at relationships differently.

Jeff Bezos, company founder and CEO, stated as follows:

> "We realized that what was most important to the marketplace sellers was demand—access to prospective buyers. So, the idea of the "single store" was to give them a level of access equal to our own—listing their goods right alongside ours."

With the "single store" strategy, Amazon.com transformed itself from an Internet retailer to a platform for commerce. Small businesses and individuals, which used to be in the Auctions or zShops sections, were given the opportunity to place their products on Amazon's most visited sites. In exchange for this visibility, Amazon developed a contract that included a fee schedule and described the responsibilities and activities that each organization would perform. Amazon quickly expanded its network to include partnerships with large companies as well as partially- and fully-owned affiliates, gaining over

two million third-party sellers by 2013. It leveraged its state-of-the-art transaction-processing systems and networking capabilities to provide sellers with access to an immense customer base and rapid, low-cost sales and order fulfillment. Driven by a "culture of metrics," Amazon was able to provide its sellers with access to unprecedented amounts of real-time data on customer product preferences and purchasing behavior.

Amazon also engaged in more traditional marketing arrangements where the Amazon.com website served as a marketing vehicle for other companies. From the Amazon website, users were transferred over to the vendor's website and Amazon received a fee based on the number of customers exposed to the vendor's marketing message or on the number of customers referred. Amazon made its first set of partnerships with Drugstore.com, Living.com, and Wine.com among others. As Amazon affiliates, they paid Amazon placement and referral fees for advertising on the Amazon website. This was called the Amazon Commerce Network.

Given the vast scale of the information storage and computing infrastructure needed to run Amazon's marketplace, Amazon Web Services was launched in 2002 to sell excess infrastructure capacity as well as information services to other companies. This logical extension of Amazon's network grew rapidly into over 25 proprietary Web-based services that have attracted over 300,000 developer customers, making Amazon the market leader in cloud computing worldwide. Amazon Web Services is expected to have revenue of $3.8 billion in 2013 and could be worth up to $30 billion if it were a standalone company.

By excelling at particular aspects of retailing in the Internet environment, Amazon has been able to leverage those competencies into a powerful network of alliances and partnerships. It has been able to expand its business beyond the Internet marketplace to the information services arena. The network structure is one important reason Amazon has been one of the few Internet start-ups to actually post a profit.

In practice, downsizing generally involves layoffs where a certain number or class of organization members is no longer employed by the organization. Although traditionally associated with lower-level workers, downsizing increasingly has claimed the jobs of staff specialists, middle managers, and senior executives especially during the recent economic turndown.

An important consequence of downsizing has been the rise of the contingent workforce. In companies like Cisco or Motorola, less expensive temporary or permanent part-time workers often are hired by the same organizations that just laid off thousands of employees. A study by the American Management Association found that nearly a third of the 720 firms in the sample had rehired recently terminated employees as independent contractors or consultants because the downsizings had not been matched by an appropriate reduction in or redesign of the workload.[23] Overall cost reduction was achieved by replacing expensive permanent workers with a contingent workforce.

Few corporations or government agencies have escaped the massive downsizing brought on by the recent global recession. In the United States, for example, layoffs reached a yearly peak of over three million workers in 2009; although declining in subsequent years, almost 8% of the workforce was unemployed in 2012.[24] In addition to layoffs, organizations have downsized by redeploying workers from one function or job to another. When IBM's business shifted from hardware to software and services in the 1990s, more than 69,000 people were laid off, yet the size of the total workforce increased by 16,000 employees.[25]

Downsizing is generally a response to at least four major conditions. First, it is associated increasingly with mergers and acquisitions as redundant jobs are eliminated to gain labor efficiencies. Second, it can result from organization decline caused by loss of revenues and market share and by technological and industrial change. As a result of fuel oil prices, terrorism, and other changes, nearly a quarter of U.S. airline jobs were lost in the first decade of the twentieth century. Third, downsizing can occur when organizations implement one of the new organizational structures described previously. For example, creation of network-based structures often involves outsourcing work that is not essential to the organization's core competence. Fourth, downsizing can result from beliefs and social pressures that smaller is better.[26] In the United States, there is strong conviction that organizations should be leaner and more flexible. Hamel and Prahalad warned, however, that organizations must be careful that downsizing is not a symptom of "corporate anorexia."[27] Organizations may downsize for their own sake and not think about future growth. They may lose key employees who are necessary for future success, cutting into the organization's core competencies and leaving a legacy of mistrust among members. In such situations, it is questionable whether downsizing is developmental as defined in OD.

12-2a Application Stages

Successful downsizing interventions tend to proceed by the following steps:[28]

1. **Clarify the organization's strategy**. As a first step, organization leaders specify corporate strategy and communicate clearly how downsizing relates to it. They inform members that downsizing is not a goal in itself, but a restructuring process for achieving strategic objectives. Leaders need to provide visible and consistent support throughout the process. They can provide opportunities for members to voice their concerns, ask questions, and obtain career counseling if necessary.
2. **Assess downsizing options and make relevant choices.** Once the strategy is clear, the full range of downsizing options can be identified and assessed. Table 12.8 describes three primary downsizing methods: workforce reduction, organization redesign, and systemic change. A specific downsizing strategy may use elements of all three approaches. Workforce reduction is aimed at reducing the number of employees, usually in a relatively short timeframe. It can include attrition, retirement incentives, outplacement services, and layoffs. Organization redesign attempts to restructure the firm to prepare it for the next stage of growth. This is a medium-term approach that can be accomplished by merging organizational units, eliminating management layers, and redesigning tasks. Systemic change is a longer-term option aimed at changing the culture and strategic orientation of the organization. It can involve interventions that alter the responsibilities and work behaviors of everyone in the organization and that promote continual improvement as a way of life in the firm.

   Case Construction, a manufacturer of heavy construction equipment, used a variety of methods to downsize in the mid-1990s, including eliminating money-losing product lines; narrowing the breadth of remaining product lines; bringing customers to the company headquarters to get their opinions of new-product design (which surprisingly resulted in maintaining, rather than changing, certain preferred features, thus holding down redesign costs); shifting production to outside vendors; restructuring debt; and spinning off most of its 250 stores. Eventually, these changes led to closing five plants and to payroll reductions of almost 35%.[29] The number of

TABLE 12.8

Three Downsizing Tactics

Downsizing Tactic	Characteristics	Examples
Workforce reduction	Aimed at headcount reduction Short-term implementation Fosters a transition	Attrition Transfer and outplacement Retirement incentives Buyout packages Layoffs
Organization redesign	Aimed at organization change Moderate-term implementation Fosters transition and, potentially, transformation	Eliminate functions Merge units Eliminate layers Eliminate products Redesign tasks
Systemic redesign	Aimed at culture change Long-term implementation Fosters transformation	Change responsibility Involve all constituents Foster continuous improvement and innovation Simplification Downsizing: a way of life

SOURCE: K. Cameron, S. Freeman, and A. Mishra, "Best Practices in White-Collar Downsizing: Managing Contradictions," *Academy of Management Executive* 5 (1991), 62.

jobs lost would have been much greater, however, if Case had not implemented a variety of downsizing methods.

Unfortunately, organizations often choose obvious solutions for downsizing, such as layoffs, because they can be implemented quickly. This action produces a climate of fear and defensiveness as members focus on identifying who will be separated from the organization. Examining a broad range of options and considering the entire organization rather than only certain areas can help allay fears that favoritism and politics are the bases for downsizing decisions. Moreover, participation of organization members in such decisions can have positive benefits. It can create a sense of urgency for identifying and implementing options to downsizing other than layoffs. Participation can provide members with a clearer understanding of how downsizing will proceed and can increase the likelihood that whatever choices are made are perceived as reasonable and fair.

3. **Implement the changes.** This stage involves implementing methods for reducing the size of the organization. Several practices characterize successful implementation. First, downsizing is best controlled from the top down. Many difficult decisions are required, and a broad perspective helps to overcome people's natural instincts to protect their enterprise or function. Second, specific areas of inefficiency and high cost need to be identified and targeted. The morale of the organization can be hurt if areas commonly known to be redundant are left untouched. Third, specific actions should be linked to the organization's strategy. Organization members need to be

reminded consistently that restructuring activities are part of a plan to improve the organization's performance. Finally, communicate frequently using a variety of media. This keeps people informed, lowers their anxiety over the process, and makes it easier for them to focus on their work.

4. **Address the needs of survivors and those who leave**. Most downsizing eventually involves reduction in the size of the workforce, and it is important to support not only employees who remain with the organization but also those who leave. When layoffs occur, employees are generally asked to take on additional responsibilities and to learn new jobs, often with little or no increase in compensation. This added workload can be stressful, and when combined with anxiety over past layoffs and possible future ones, it can lead to what researchers have labeled the "survivor syndrome."[30] This involves a narrow set of self-absorbed and risk-averse behaviors that can threaten the organization's survival. Rather than working to ensure the organization's success, survivors often are preoccupied with whether additional layoffs will occur, with guilt over receiving pay and benefits while coworkers are struggling with termination, and with the uncertainty of career advancement.

   Organizations can address these survivor concerns with communication processes that increase the amount and frequency of information provided. Communication should shift from explanations about who left or why to clarification of where the company is going, including its visions, strategies, and goals. The linkage between employees' performance and strategic success is emphasized so that remaining members feel they are valued. Organizations also can support survivors through training and development activities that prepare them for the new work they are being asked to perform. Senior management can promote greater involvement in decision making, thus reinforcing the message that people are important to the future success and growth of the organization.

   Given the negative consequences typically associated with job loss, organizations have developed an array of methods to help employees who have been laid off. These include outplacement counseling, personal and family counseling, severance packages, office support for job searches, relocation services, and job retraining. Each service is intended to assist employees in their transition to another work situation.

5. **Follow through with growth plans.** This final stage of downsizing involves implementing an organization renewal and growth process. Failure to move quickly to implement growth plans is a key determinant of ineffective downsizing.[31] For example, a study of 1,020 human resource directors reported that only 44% of the companies that had downsized in the previous five years shared details of their growth plans with employees; only 34% told employees how they would fit into the company's new strategy.[32] Organizations must ensure that employees understand the renewal strategy and their new roles in it. Employees need credible expectations that, although the organization has been through a tough period, their renewed efforts can move it forward.

Application 12.3 describes how the City of Menlo Park, California, successfully responded to a serious fiscal downturn through effective downsizing initiatives.[33] It demonstrates how straightforward communication and active engagement with key stakeholders can inform downsizing decisions, gain commitment to implementing them, and mitigate their negative consequences. The application also shows the complexity of downsizing in the public sector where there are often multiple competing interests and that even a relatively small organization can mount a sophisticated and effective downsizing intervention.

application 12.3

DOWNSIZING IN MENLO PARK, CALIFORNIA

Menlo Park is a modest-sized city of around 32,000 residents located in the San Francisco Bay area. Like many California municipalities, Menlo Park experienced challenging fiscal problems well before the global economic crisis erupted in 2008. In 2004–2005, the city had an operating budget of $29.2 million and 230 full-time equivalent (FTE) employees. Over the previous four years, Menlo Park was forced to reduce spending in line with declining revenues. Sales-tax revenue had dropped about 50% in two years (from $12 million to $6 million) and the state of California had diverted local government revenue to help balance its budget. Worse yet, the city's costs had been rising significantly primarily because of retiree benefit expenses.

According to Audrey Seymour, the Assistant City Manager at the time, Menlo Park moved strategically to remedy these fiscal problems. It trimmed more than $4 million from its annual operating budget and reduced its workforce by about 13%, the equivalent of 30 FTEs. To minimize the negative impact of these changes on the city and its employees, Menlo Park's elected officials and administrators implemented the following downsizing initiatives:

- Involve employees early and often. All-employee forums were used to communicate to members and to listen to their reactions and suggestions. These meetings helped everyone clearly understand the magnitude and causes of the city's fiscal problem. Then, action teams were formed in each city department comprised of employees from all levels. The teams were given guidelines and support and asked to devise plans to streamline operations, cut costs, and enhance revenues. The city also used suggestion boxes and the intranet to solicit ideas from employees. To keep everyone abreast of what was occurring, the city manager used both personal and electronic forms of communication, frequently holding employee briefings and sending emails. After cuts were implemented, informal debriefing sessions were held and counselors from the city's employee assistance program helped employees deal with the impacts of the changes on their lives.
- Work with unions to achieve common goals. Cost cutting started with reducing expenses and eliminating vacant positions, and then moved to filled positions. The city worked closely with union representatives to find ways to avoid layoffs while still reducing the size of the workforce. The union offered several ideas and worked with the city to develop a voluntary separation process that offered employees in service areas targeted for reduction early retirement, enhanced severance, or shorter hours.
- Seek community input. Because the downsizing efforts would adversely affect city services, Menlo Park started an initiative called "YourCity/YourDecision." This program included sending a survey to community households asking residents to rank order the importance of city services. From a total of 15,500 households, more than 1,000 surveys were returned. As a follow-up to the survey, interactive community workshops were conducted across the city to gain further input into specific ideas residents would recommend to balance the budget in line with the priorities identified in the survey. In addition, each of the city's commissions was asked for suggestions to simplify policies and procedures to save money. The feedback from all of these outreach efforts helped the City Council make tough choices about which services to fund and at what level. The information also guided city staff in developing budget-balancing strategies.
- Keep elected officials in the loop. City administrators held a half-day retreat and a series of meetings with City Council members to discuss the details of the fiscal problems and to get guidance about high-priority service areas and possible cost reductions. Council members were asked to rate city services and these

data, along with the community survey results, were used to determine service-area cuts. Council members also spent time discussing which criteria were most important to consider when weighing potential budget cuts. Follow-up activities included periodic phone calls to Council members to update them on the downsizing process and to answer any questions. This kept members informed in case they had to respond to questions from employees, union leaders, or the press. The city also brought in a panel of experts to give projections on the regional economy, thus providing information about what the fiscal future might hold for Menlo Park. All of these activities made the difficult decision-making process and the adoption of the city budget easier.

As a result of these downsizing initiatives, Menlo Park was able to bring its operations and spending in line with tough fiscal realities. It did this in a way that mitigated damage to community services and to workplace morale. The city was better able to prioritize community services and to allocate funds accordingly. Because the downsizing process had wide involvement from the union, City Council, the community, and employees, the city gained the necessary guidance and commitment from these stakeholders to make tough decisions and to continue to deliver on core community priorities. In the end, Menlo Park was able to reduce the size of its workforce without having to make any layoffs. It was able to trim its operating budget without having to reduce essential community services.

12-2b Results of Downsizing

The empirical research on downsizing is mostly negative.[34] A review conducted by the National Research Council concluded, "From the research produced thus far, downsizing as a strategy for improvement has proven to be, by and large, a failure." A number of studies have documented the negative productivity and employee consequences. One survey of 1,005 companies that used downsizing to reduce costs reported that fewer than half of the firms actually met cost targets. Moreover, only 22% of the companies achieved expected productivity gains, and consequently about 80% of the firms needed to rehire some of the same people that they had previously terminated. Fewer than 33% of the companies surveyed reported that profits increased as much as expected, and only 21% achieved satisfactory improvements in shareholder return on investment. Another survey of 1,142 downsized firms found that only about a third achieved productivity goals. In addition, the research points to a number of problems at the individual level, including increased stress and illness, loss of self-esteem, reduced trust and loyalty, and marriage and family disruptions.[35]

Research on the effects of downsizing on financial performance also shows negative results.[36] One study examined an array of financial-performance measures, such as return on sales, assets, and equity, in 210 companies that announced layoffs. It found that increases in financial performance in the first year following the layoff announcements were not followed by performance improvements in the next year. In no case did a firm's financial performance after a layoff announcement match its maximum levels of performance in the year before the announcement. These results suggest that layoffs may result in initial improvements in financial performance, but such gains are temporary and not sustained at even prelayoff levels. In a similar study of 16 firms that wrote off more than 10% of their net worth in a five-year period, stock prices, which averaged 16% below the market average before the layoff announcements, increased on

the day that the restructuring was announced but then began to decline steadily. Two years after the layoff announcements, 10 of the 16 stocks were trading below the market by 17–48%, and 12 of the 16 were below comparable firms in their industries by 5–45%.

These research findings paint a rather bleak picture of the success of downsizing. The results must be interpreted cautiously, however, for three reasons. First, many of the survey-oriented studies received responses from human resources specialists who might have been naturally inclined to view downsizing in a negative light. Second, the studies of financial performance may have included a biased sample of firms. If the companies selected for analysis had been poorly managed, then downsizing alone would have been unlikely to improve financial performance. There is some empirical support for this view because low-performing firms are more likely to engage in downsizing than are high-performing firms.[37] Third, disappointing results may be a function of the way downsizing was implemented. A number of organizations, such as Florida Power and Light, General Electric, Motorola, Texas Instruments, Boeing, and Hewlett-Packard, have posted solid financial returns following downsizing.[38] A study of 30 downsized firms in the automobile industry showed that those companies that implemented effectively the process described above scored significantly higher on several performance measures than did firms that had no downsizing strategy or that implemented the steps poorly.[39] Several studies have suggested that when downsizing programs adopt appropriate OD interventions or apply strategies similar to the process outlined above, they generate more positive individual and organizational results.[40] Thus, the success of downsizing efforts may depend as much on how effectively the intervention is applied as on the size of the layoffs or the amount of delayering.

12-3 Reengineering

The final restructuring intervention is *reengineering*—the fundamental rethinking and radical redesign of business processes to achieve dramatic improvements in performance.[41] Reengineering transforms how organizations traditionally produce and deliver goods and services. Beginning with the Industrial Revolution, organizations have increasingly fragmented work into specialized units, each focusing on a limited part of the overall production process. Although this division of labor has enabled organizations to mass-produce standardized products and services efficiently, it can be overly complicated, difficult to manage, and slow to respond to the rapid and unpredictable changes experienced by many organizations today. Reengineering addresses these problems by breaking down specialized work units into more integrated, cross-functional work processes. This streamlines work processes and makes them more efficient with faster cycle times and better information handling capabilities. Consequently, work processes are more responsive to changes in competitive conditions, customer demands, product life cycles, and technologies.[42] Reengineering has been applied to work processes in manufacturing and service industries, in business firms, not-for-profits, and government agencies; and in diverse global settings, such as Australia, India, Ireland, Turkey, and South Africa.

As might be expected, successful reengineering requires an almost revolutionary change in how organizations design their work structures. It identifies and questions the often-unexamined assumptions underlying how organizations perform work and why do they do it in a particular way. This effort typically results in major changes in thinking and work methods—a shift from specialized jobs, tasks, and structures to integrated processes that deliver value to customers. Such revolutionary change differs considerably from incremental approaches to performance improvement, such as continuous

improvement and total quality management (Chapter 13), which emphasize small, yet constant, changes in existing work processes. Because reengineering radically alters the status quo, it seeks to produce dramatic increases in organization performance.

Reengineering seeks to leverage the latest developments in information technology to enable significant change in large-scale business processes, such as supply-chain logistics.[43] It can help organizations break out of traditional ways of thinking about work and embrace entirely new ways of producing and delivering products. For example, the most popular software systems, SAP and PeopleSoft, standardize information flows and help to integrate data on a range of tasks and to link work processes together. On the other hand, many existing information systems do not provide the data needed to operate integrated business processes.[44] Such legacy systems can make reengineering difficult if not impossible to implement because they do not allow interdependent departments to interface with each other; they often require new information to be entered manually into separate computer systems before people in different work areas can access it.

Reengineering has been associated with downsizing. Reengineering can result in production and delivery processes that require fewer people and fewer layers of management. Conversely, downsizing may require subsequent reengineering interventions. When downsizing occurs without fundamental changes in how work is performed, the same tasks simply are being performed with a smaller number of people. Thus, expected cost savings may not be realized because lower salaries and fewer benefits are offset by lower productivity.

Reengineering also can be linked to transformation of organization structures and work design. Its focus on work processes helps to break down the vertical orientation of functional and divisional organization structures. Reengineering identifies and assesses core business processes and redesigns work to account for key task interdependencies running through them. That typically results in new jobs or teams that emphasize multifunctional tasks, results-oriented feedback, and employee empowerment—characteristics associated with motivational and sociotechnical approaches to work design (Chapter 14). Regrettably, reengineering initially failed to apply these approaches' attention to individual differences in people's reactions to work to its own work-design prescriptions. It advocated enriched work and teams, without consideration for the wealth of research that shows that not all people are motivated to perform such work.[45]

12-3a Application Stages

Early reengineering interventions emphasized identifying which business processes to reengineer and technically assessing the workflow. Efforts that are more recent have extended reengineering practice to address issues of managing change, such as how to deal with resistance to change and how to manage the transition to new work processes.[46] The following application steps are included in most reengineering efforts, although the order may change slightly from one situation to another:[47]

1. **Prepare the organization.** Reengineering begins with clarification and assessment of the organization's competitive environment, strategy, and objectives. This effort establishes and communicates the need for reengineering and the strategic direction that the process should follow. For example, preparing for reengineering at the U.S. Veterans Administration (VA) health care system was made easier because everyone agreed the health care delivery process was broken. Veterans' groups were outspoken in their complaints of quality care, the system was publicly ridiculed in the movie *The Fourth of July* with Tom Cruise, and many patients were figuratively

"falling through the cracks." The old way of doing business, reinforced by years of government protection and a long period of peace, seriously saddled the organization with high costs, old systems, and siloed processes.[48] The VA's leadership, led by Kenneth Kizer, recognized that the keys to the health care system's success were low costs and customer satisfaction. Consequently, they set dramatic goals of increasing patient visits while holding annual cost per patient steady. Defining these objectives gave the reengineering effort a clear focus.

A final task in preparing the organization is to communicate clearly—through words and deeds—why reengineering is necessary and the direction it will take. The VA's preparation included not only traditional communications through speeches, newsletters, and meetings, but visible commitments such as reorganizing the pharmacy organization and making substantial technology commitments to an electronic medical record system. Thus, senior executives were careful to communicate, both verbally and behaviorally, that they were fully committed to the change effort. Demonstration of such unwavering support seems necessary if organization members are to challenge their traditional thinking about how business should be conducted.

2. **Fundamentally rethink the way work gets done.** This step lies at the heart of reengineering and involves these activities: identifying and analyzing core business processes, defining their key performance objectives, and designing new processes. These tasks are the real work of reengineering and typically are performed by a cross-functional design team that is given considerable time and resources to accomplish them.[49]
   a. **Identify and analyze core business processes.** Core processes are considered essential for strategic success. They include activities that transform inputs into valued outputs. Core processes typically are assessed through development of a process map that identifies the three to five activities required to deliver an organization's products or services. For a health care system, the core processes include the intake of patients through the primary care physician, inpatient and outpatient services, and medical records and billing.

      Analysis of core business processes can include assigning costs to each of the major phases of the workflow to help identify costs that may be hidden in the activities of the production process. Traditional cost-accounting systems do not store data in process terms; they identify costs according to categories of expense, such as salaries, fixed costs, and supplies.[50] This method of cost accounting can be misleading and can result in erroneous conclusions about how best to reduce costs. For example, most traditional accounting systems suggest that salaries and fringe benefits account for the largest percentage of total costs—an assessment that supports workforce downsizing as the most effective way to lower costs. An activity-based accounting system often reveals a different picture—that rework, errors, and delays during the workflow are major sources of unnecessary cost.

      Business processes also can be assessed in terms of value-added activities—the amount of value contributed to a product or service by a particular step in the process. For example, early in the VA's process, senior managers learned that only 10% of the patients covered by the VA had a primary care physician. By assigning a primary care physician to each veteran patient, the total cost of care was greatly reduced. Patients saw one physician who could address many issues rather than making multiple visits to a variety of specialists. Conversely, organizations often engage in a variety of process activities that have little or no added value.

b. **Define performance objectives.** Challenging performance goals are set in this step. The highest possible level of performance for any particular process is identified, and dramatic goals are set for speed, quality, cost, or other measures of performance. These standards can derive from customer requirements or from benchmarks of the best practices of industry leaders. For example, at Andersen Windows, the demand for unique window shapes pushed the number of different products from 28,000 to more than 86,000.[51] The pressure on the shop floor for a "batch of one" resulted in 20% of all shipments containing at least one order discrepancy. As part of its reengineering effort, Andersen set targets for ease of ordering, manufacturing, and delivery. Each retailer and distributor was sold an interactive, computerized version of Andersen's catalog that allowed customers to design their own windows. The resulting design is then given a unique "license plate number" and the specifications are sent directly to the factory. Four years later, new sales had tripled at some retail locations, the number of products had increased to 188,000, and fewer than 1 in 200 shipments had a discrepancy.

c. **Design new processes.** This task involves designing new business processes to achieve breakthrough goals. It often starts with a clean sheet of paper and addresses the question "If we were starting this company today, what is the most effective and efficient way to deliver this product or service?" Each essential process is then designed according to the following guidelines:[52]
   - Begin and end the process with the needs and wants of the customer.
   - Simplify the current process by combining and eliminating steps.
   - Use the "best of what is" in the current process.
   - Attend to both technical and social aspects of the process.
   - Do not be constrained by past practice.
   - Identify the critical information required at each step in the process.
   - Perform activities in their most natural order.
   - Assume the work gets done right the first time.
   - Listen to people who do the work.

   An important activity that appears in many successful reengineering efforts is implementing "early wins" or "quick hits." Analysis of existing processes often reveals obvious redundancies and inefficiencies for which appropriate changes may be authorized immediately. These early successes can help generate and sustain momentum in the reengineering effort.

3. **Restructure the organization around the new business processes.** This last step in reengineering involves changing the organization's structure to support the new business processes. This endeavor typically results in the kinds of process-based structures that were described earlier in this chapter. Reengineered organizations typically have the following characteristics:[53]
   - Work units change from functional departments to process teams.
   - Jobs change from simple tasks to multidimensional work.
   - People's roles change from controlled to empowered.
   - The focus of performance measures and compensation shifts from activities to results.
   - Organization structures change from hierarchical to flat.
   - Managers change from supervisors to coaches; executives change from scorekeepers to leaders.

The VA's experience reflects many of these features. As suggested earlier, the key to a reengineered organization is often its commitment to and development of an

integrated information system. During the VA's reengineering, it was an electronic medical record system that integrated nearly every step in the patient care process. The following examples support how the information system radically transformed the way patient care was delivered:

- A physician gets a computerized reminder that one of his patients in the hospital, a 44-year-old diabetic, is due to have an eye exam. Through the system, the doctor asks the floor nurse to send the patient to the eye clinic on the second floor, where an ophthalmologist administers the test. An alert soon flashes on the doctor's monitor saying the exam has been completed.
- A nurse on a different floor uses the same computer network to make sure she's giving the right medication to a 60-year-old patient with high blood pressure. With a handheld device, she scans a bar-coded bracelet on her patient's wrist and then a bar code on the drug bottle. A nearby computer linked to the hospital pharmacy confirms that she's giving the right drug to the right patient.
- In the Tele-Health unit, a nurse reads the vital statistics of a 57-year-old patient that were sent to her computer via an electronic system that the VA has rigged at the patient's home. Today the news is worrisome: The patient, who is suffering from heart disease, has gained three pounds overnight, indicating that he's retaining fluids. After a few quick phone calls to the patient and his doctor, the nurse tells him to double his diuretic medication today. "We caught him before his condition got worse," she says with satisfaction.

Application 12.4 describes the reengineering efforts at Honeywell's Industrial Automation and Control business. It highlights the importance of mapping current processes and aligning the rest of the organization to support the change, especially information technology.[54]

12-3b Results from Reengineering

The results from reengineering vary widely. Industry journals and the business press regularly contain accounts of dramatic business outcomes attributable to reengineering. On the other hand, the best-selling book on reengineering reported that as many as 70% of the efforts failed to meet their cost, cycle time, or productivity objectives.[55] One study polled 497 companies in the United States and 1,245 companies in Europe, and found that 60% of U.S. firms and 75% of European firms had engaged in at least one reengineering project. Eighty-five percent of the firms reported little or no gain from the efforts.[56] Despite its popularity, reengineering is only beginning to be evaluated systematically, and there is little research to help unravel the disparate results.[57]

One evaluation of business process reengineering examined more than one hundred companies' efforts.[58] In-depth analyses of 20 reengineering projects found that 11 cases had total business-unit cost reductions of less than 5%, whereas six cases had total cost reductions averaging 18%. The primary difference was the scope of the business process selected. Reengineering broad value-added processes significantly affected total business-unit costs; reengineering narrow business processes did not.

Similarly, performance improvements in particular processes were associated strongly with changes in six key levers of behavior, including structure, skills, information systems, roles, incentives, and shared values. Efforts that addressed all six levers produced average cost reductions in specific processes by 35%; efforts that affected only one or two change levers reduced costs by 19%. Finally, the percentage reduction in total unit costs was associated with committed leadership. Similarly, a survey of 23 "successful"

application 12.4

HONEYWELL IAC'S TOTALPLANT™ REENGINEERING PROCESS

Honeywell (www.honeywell.com) is a diversified technology and manufacturing organization that serves customers worldwide with aerospace products and services; control technologies for buildings, homes, and industry; automotive products; and specialty materials. Its industrial automation and control (IAC) business unit in Phoenix, Arizona, is responsible for the design, manufacture, and configuration of world-class process control equipment marketed as the TDC 3000X family of systems. IAC's customer base includes refineries, chemical plants, and paper mills around the world.

In response to declining performance results, IAC management set out to implement an ISO 9000 certified quality program named TotalPlant™ as part of an effort to optimize global customer satisfaction. The objectives of this initiative were reducing defects, minimizing production cycles, and optimizing resource management. The TotalPlant™ initiative was a business process reengineering intervention based upon four principles: process mapping, fail-safing, teamwork, and communication. Cross-functional multiskilled teams were created and given responsibility for an entire module or product line. Each team member was then trained in each of the principles and empowered to enact them to create improvements within their work groups.

Process mapping is a methodology that converts any business activity into a graphical form. It creates a common visual language that can be used to enhance an employees' ability to see beyond the boundaries of their work process. It is also the basis of radical change in business processes. As part of the TotalPlant™ initiative, process mapping consisted of eight major stages.

- The first three stages were to select the process to be reviewed, identify all customers, and set the boundaries of the process. Through consensus decision making, these simple steps kept the participants focused on the process being mapped. In addition, the team reviewed its composition to ensure that all appropriate functions were represented.
- Fourth, the team developed an "as is" map. This required members to outline and document the existing process. By creating a visual map the team was able to identify the flow of both the product and the information related to the process. Cross-functional decision points and dependencies became visually apparent through the process. Fifth, the "as is" map was used by the team to calculate cycle times, the elapsed times between the start of a process and the conclusion of a process, as well as the distance the product travels during that cycle. Both the mean and the range were calculated for each process cycle time.
- Sixth, the team identified areas of improvement that did not require additional costs or resources. Non-value-added steps, extended approval processes, and processes with highly variant cycle times were analyzed and either streamlined or completely eliminated. Following this step, the seventh stage was to develop a "should be" map that described the improved process.
- Finally, the eighth step directed the team to develop a process implementation plan, establish confirmation from a steering committee, and then implement it. New goals were established and results tracked for each of the process steps.

The second major component of the TotalPlant™ process was the *fail-safing process*. Fail-safing is a five-step process intended to create a product that is defect free by identifying and analyzing defects, and understanding their root causes. A root cause has three characteristics: (1) it is defined as being the cause of the defect; (2) it is possible to change the cause; and (3) if eliminated, the defect will be removed or at least significantly reduced. Once the root cause is identified, a set of alternative solutions

is developed to eliminate the defect in future products. Each alternative is evaluated for ease of implementation, cost, and time to implement.

Once a solution is agreed upon, the team implements the PDCA (Plan, Do, Check, Act) process to move the solution forward. Planning includes developing a full implementation plan, which includes areas impacted, timing, resource requirements, and costs. This becomes a living document outlining the action items needed to implement the change. "Doing" consists of executing against the implementation plan. Once the new process has been implemented, the results are "checked" to ensure that they are in line with the desired results. Finally, the team must "act" to determine the next steps for continuous improvement.

Teamwork was the critical third piece of the TotalPlant™ process. Honeywell realized that the transition to a team environment needed to happen gradually. Through the process mapping and failsafing process, they gave people real problems to address and systematic tools with which to solve them. With the addition of education and training around teams, these "hard-skill" activities became the fertile soil for team development. As team members were asked to own the whole process, an environment that fosters teamwork was created. Creativity, innovation, and risk taking were rewarded and the values of the organization moved to trust, respect, and empowerment. Managers were trained to support the teams, not to run them, in order to further enrich the team environment.

The final and foundational element of the TotalPlant™ process was *communication*. Top management's successful communication of the TotalPlant™ paradigm shift was pivotal to the initiative's success. Through their everyday actions, top managers lived the values of open communication throughout the organization. In addition, teams were given training in conflict resolution, problem solving, and listening skills to enhance the overall effectiveness of communication within the teams. The creation of a positive, open environment became critical to the success of the change initiative. Top management understood that the environment needed to shift to consistently support teamwork, creativity, and "new thinking." The major challenges within the process took the form of middle-management resistance. The new team concepts made managers, who had been functional or process experts, move outside their comfort zone by requiring them to look at processes across functions and to broaden their view of success. Top management was required to move from command and control to a more facilitative and empowering approach to support this type of behavior change.

In addition to the four major components of the TotalPlant™ process, Honeywell made significant changes in the technology strategy to support the business strategy. The information systems group was converted into an information technology shop where all technology was developed in direct support of the ICA business unit and its operations. All systems were fully integrated to optimize the timeliness and accuracy of information.

After three years, performance results indicated a reduction in defects of 70%, customer rejects declined by 57%, and there was a 46% reduction in inventory investments. Honeywell's execution against its vision is what set this business process reengineering apart from others. Top managers did not just speak the vision, they lived and supported it through active participation in the entire change process. Another critical component was that the organizational structure was redesigned to align with the new processes and strategies. Top management at Honeywell understood that change of this magnitude takes time and therefore was able to set the organization's expectations accordingly. Additionally, it committed appropriate levels of training and financial resources to make the initiative a success.

The Honeywell case provides some excellent learning for making a reengineering initiative successful. First, people are the key enablers of change. They must be trained, developed, and rewarded to support the change process. Second, people must be able to question all of their assumptions. Nothing can be sacred as each process is deconstructed and then rebuilt. Third, process mapping provides people with a systematic process for analyzing and improving existing systems and processes. Next, management must be able to create dissatisfaction with the existing process and allow the teams to own the solution. An environment conducive to change must be created and supported by management's attitudes and behaviors. This includes active participation at all stages of the process.

However, while support and participation from the top is important, implementation should take place by empowering decision makers at the level where the work is being done. Honeywell also demonstrated that reengineering must be a business-driven and continuous process. Initiatives like fail-safing demonstrated the need to challenge the status quo continuously. Stretch goals must be set throughout the process to keep employees motivated. Finally, the most critical component of a successful reengineering initiative is the ability to actively implement and execute against the plan. By keeping its eye on the end goal, Honeywell was able to successfully optimize its customer satisfaction through this process.

reengineering cases found that they were characterized by a clear vision of the future, specific goals for change, use of information technology, top management's involvement and commitment, clear milestones and measurements, and the training of participants in process analysis and teamwork.[59]

SUMMARY

This chapter presented interventions aimed at restructuring organizations. Several basic structures, such as the functional, divisional, and matrix structures, dominate most organizations. Three newer forms, process-based, customer-centric, and network-based structures, were also described. Each of these structures has corresponding strengths and weaknesses, and supportive conditions must be assessed when determining which structure is an appropriate fit with the organization's environment, strategy, technology, and size.

Two restructuring interventions were described: downsizing and reengineering. Downsizing decreases the size of the organization through workforce reduction or organizational redesign. It generally is associated with layoffs where a certain number or class of organization member are no longer employed by the organization. Downsizing can contribute to organization development by focusing on the organization's strategy, using a variety of downsizing tactics, addressing the needs of all organization members, and following through with growth plans. Reengineering involves the fundamental rethinking and radical redesign of business processes to achieve dramatic improvements in performance. It seeks to transform how organizations traditionally produce and deliver goods and services. A typical reengineering project prepares the organization, rethinks the way work gets done, and restructures the organization around the newly designed core processes.

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