Organizational Structure and Design

The Key Point

Organizations are collections of people working together to achieve common goals. In this chapter, we discuss how organizations design and structure themselves to reach their goals. Effective managers need to know how to establish a hierarchy and control it, and how to organize the work to be done and effectively coordinate with others. ■

Chapter at a Glance

- What Is the Formal Structure of the Organization?
- How Is Work Organized and Coordinated?
- What Is Organizational Design?
- What Are Bureaucracies and Their Alternatives?

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Formal Organizational Structure

Once the goals of an organization are clear, managers must decide how to organize work to accomplish these goals.[1] The static aspect of the process is known as organizational structure. Specifically, the formal structure of an organization outlines the jobs to be done, the people who are to perform specific activities, and the ways the tasks of the organization are to be accomplished. In other words, the formal structure is the skeleton of the firm.[2]

The formal structure shows the planned pattern of positions, job duties, and the lines of authority among different parts of the company. Traditionally, the formal structure of the firm also has been called the division of labor. This terminology is still used to isolate decisions concerning formal structure from choices regarding the division of markets and/or technology. We will deal with environmental and technology issues after we discuss the structure as a foundation for managerial action.

◗ Organizations as Hierarchies

Vertical specialization is an organization's hierarchical division of labor.

In most organizations, there is a clear separation of authority and duties by rank. How authority is specialized is known as vertical specialization. **Vertical specialization** is an organization's hierarchical division of labor that distributes formal authority and establishes where and how critical decisions will be made. This division creates a hierarchy of authority—an arrangement of work positions in order of increasing authority.[3]

Organization charts are diagrams that depict the formal structures of organizations.

The Organization Chart
Organization charts are diagrams that depict the formal structures of organizations. A typical chart shows the various positions, the position holders, and the lines of authority that link them to one another. Figure 16.1 presents a partial organization chart for a large university. The chart allows university employees to locate their positions in the structure and to identify the lines of authority linking them with others in the organization. For instance, in this figure, the treasurer reports to the vice president of administration, who, in turn, reports to the president of the university.

Although an organization chart may indicate who each employee reports to, it is also important to recognize that it does not show how work is completed, who exercises the most power over specific issues, or how the firm will respond to its environment.
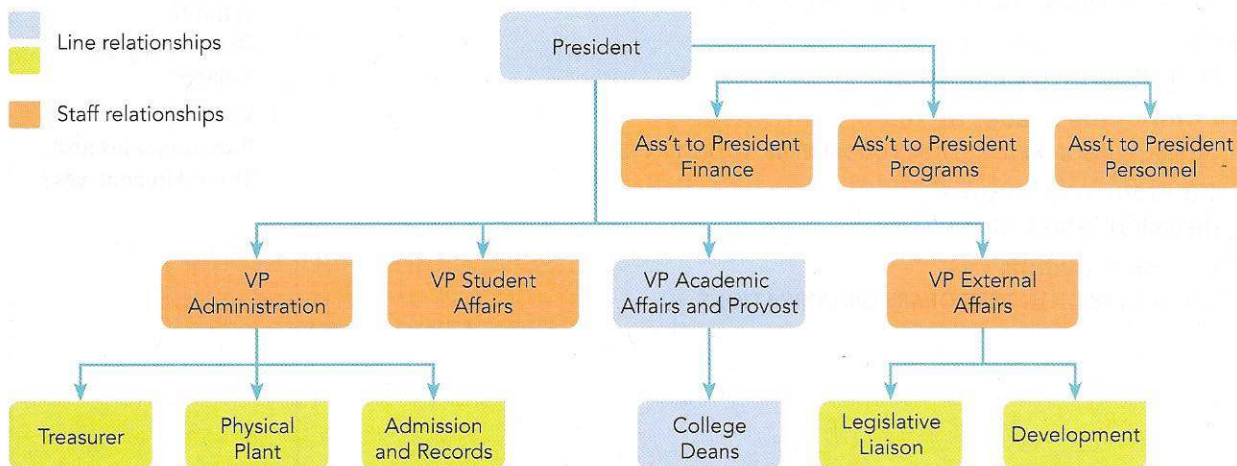

FIGURE 16.1 A partial organization chart for a state university.

However, organization charts can be important to the extent that they accurately represent the chain of command, a listing of who reports to whom up and down the firm's hierarchy and shows how executives, managers, and supervisors are connected. Traditional management theory suggests that each individual should have one boss, and each unit should have one leader. Under these circumstances, there is a unity of command which is necessary to avoid confusion, assign accountability to specific individuals, and provide clear channels of communication throughout the organization.

Span of Control   The number of individuals reporting to a supervisor is called the **span of control**. Narrower spans of control are expected when tasks are complex, when subordinates are inexperienced or poorly trained, or when tasks call for team effort. Unfortunately, narrow spans of control yield many organizational levels. The excessive number of levels is not only expensive, but it also makes the organization unresponsive to necessary change. Communications often becomes less effective because information is successively screened and modified and subtle but important changes can be ignored.

> The **span of control** is the number of individuals reporting to a supervisor.

CHECKING ETHICS IN OB

Flattened into Exhaustion

Dear Stress Doctor:

My boss has come up with this great idea of cutting some supervisor positions, assigning more workers to those of us who remain, and calling us "coaches" instead of supervisors. She says this is all part of a new management approach to operate with a flatter structure and more empowerment.

For me this means a lot more work coordinating the activities of seventeen operators instead of the six that I previously supervised. I can't get everything cleaned up on my desk most days, and I end up taking a lot of paperwork home.

As my organization "restructures" and cuts back staff, it puts a greater burden on those of us who remain. We get exhausted, and our families get shortchanged and even angry. I even feel guilty now taking time to watch my daughter play soccer on Saturday mornings. Sure, there's some decent pay involved, but that doesn't make up for the heavy price I'm paying in terms of lost family times.

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But you know what? My boss doesn't get it. I never hear her ask "Henry, are you working too much? Don't you think it's time to get back on a reasonable schedule?" No! What I often hear instead is "Look at Andy. He handles our new management model really well, and he's a real go-getter. I don't think he's been out of here one night this week before eight P.M."

What am I to do, just keep it up until everything falls apart one day? Is a flatter structure with fewer managers always best? Am I missing something in regard to this "new management?"

Sincerely,
Overworked in Cincinnati

Get the Ethics Straight   Is it ethical to restructure, cut management levels, and expect the remaining managers to do more work? Or is it simply the case that managers used to the "old" ways of doing things need extra training and care while learning "new" management approaches? And what about this person's boss—is she on track with her management skills? Aren't managers supposed to help people understand their jobs, set priorities, and fulfill them, while still maintaining a reasonable work–life balance?

When organizations have many levels, managers can get too far removed from the action and become isolated. Conversely with too few levels, organizations may experience coordination and control problems and managers are subject to burnout.

Line and Staff Units

Line units and personnel
conduct the major business of
the organization.

Staff units assist the line
units by providing specialized
expertise and services.

A useful way to examine the vertical division of labor is to separate line and staff units. **Line units** and personnel conduct the major business of the organization. The production and marketing functions are two examples. In contrast, **staff units** and personnel assist the line units by providing specialized expertise and services, such as accounting and public relations. For example, the vice president of administration in a university (see Figure 16.1) heads a staff unit, as does the vice president of student affairs.

Staff units can be assigned predominantly to senior-, middle-, or lower-level managers. When staff is assigned predominantly to senior management, the capability of senior management to develop alternatives and make decisions and monitor progress is expanded.

◾ Controls as a Basic Feature

Control is the set of
mechanisms used to keep
action or outputs within
predetermined limits.

Distributing formal authority calls for control. **Control** is the set of mechanisms used to keep action or outputs within predetermined limits.[4] Control deals with setting standards, measuring results versus standards, and instituting corrective action. We should stress that effective control occurs before action actually begins. For instance, in setting standards, managers must decide what will be measured and how accomplishment will be determined. Although there are a wide variety of organizational controls, they are roughly divided into output, process, and social controls.

Output Controls

Output controls focus on
desired targets for each unit.

We have defined output goals and suggested that systems goals should be a road map to desirable conditions that tie together units to achieve the organization's output and societal goals. **Output controls** focus on desired targets for each unit in the organization. Developing targets or standards, measuring results against these targets, and taking corrective action are all steps involved in developing effective output controls.[5] When executives stress output controls, managers can use their own methods to reach defined targets. Most organizations use output controls as part of an overall method of managing by exception.

Output controls are popular because they promote flexibility and creativity and facilitate dialogue concerning corrective actions. Reliance on outcome controls separates what is to be accomplished from how it is to be accomplished, and the discussion of goals is separated from the dialogue concerning methods. This separation can facilitate the movement of power down the organization, as managers are reassured that individuals at all levels will be working toward the goals management believes are important, even as lower-level managers innovate and introduce new ways to accomplish these goals.

Process Controls

Process controls attempt to
specify the manner in which
tasks are accomplished.

A **policy** sets forth a broad
guideline for action.

A **procedure** sets forth the
best method for performing a
task.

Few organizations run on outcome controls alone. Once a solution to a problem is found and successfully implemented, managers do not want the problem to recur, so they institute process controls. **Process controls** attempt to specify the manner in which tasks are accomplished.[6] There are many types of process controls, but three groups have received considerable attention: (1) policies, procedures, and rules; (2) formalization and standardization; and (3) total quality management controls.

Most organizations implement a variety of policies, procedures, and rules to help specify how goals are to be accomplished. Usually, we think of a **policy** as a guideline for action that outlines important objectives and broadly indicates how an activity is to be performed. It sets boundaries but typically allows for some individual discretion. **Procedures** indicate the best method for performing a task, show which aspects of a task are the most important, or outline how an individual is to be rewarded.

Rules are more specific, rigid, and impersonal than policies. They typically describe in detail how a task or a series of tasks is to be performed, or they indicate what cannot be done. They are designed to apply to all individuals, under specified conditions. For example, most car dealers have detailed instruction manuals for repairing a new car under warranty, and they must follow strict procedures to obtain reimbursement from the manufacturer for warranty work.

Rules, procedures, and policies are often employed as substitutes for direct managerial supervision. In OB, **formalization** refers to the written documentation of rules, procedures, and policies to guide behavior and decision making. Under the guidance of written rules and procedures, the organization can specifically direct the activities of many individuals. Written instructions allow individuals with less training to perform sophisticated tasks, as more complicated activities can be broken down into simplified steps. Written procedures may also ensure that a proper sequence of tasks is executed.

Formalization is the written documentation of rules, procedures and policies to guide behavior and decision making.

Most organizations have developed additional methods for dealing with recurring problems or situations. **Standardization** is the allowable actions in a job or series of jobs. It involves the creation of guidelines so that similar work activities are repeatedly performed in a consistent fashion. Such standardized methods may come from years of experience in dealing with typical situations, or they may come from outside training. For instance, if you are late in paying your credit card, the bank will automatically send you a notification and start an internal process of monitoring your account.

Standardization is the allowable actions in a job or series of jobs.

Total Quality Management

The process controls discussed so far—policies, procedures, rules, formalization, and standardization—represent the lessons of experience within an organization. Often there is no overall philosophy for using controls to improve the operations of the company. One way of instituting process controls is to establish a total quality management process within the firm.

The late W. Edwards Deming was the founder of the total quality management movement.[7] When Deming's ideas were not initially accepted in the United States, he found an audience in Japan. At the heart of Deming's approach is instituting a process approach to continual improvement based on statistical analyses of the firm's operations. Around this core idea, Deming developed a series of fourteen points for managers to implement. In Figure 16.2, note the emphasis on everyone working together using statistical controls in order to achieve continual improvement.

Deming's 14 Points of Quality Management

1. Create a consistency of purpose in the company to (a) innovate, (b) put resources into research and education, and (c) put resources into maintaining equipment and new production aids.
2. Learn a new philosophy of quality to improve every system.
3. Require statistical evidence of process control and eliminate financial controls on production.
4. Require statistical evidence of control in purchasing parts; this will mean dealing with fewer suppliers.
5. Use statistical methods to isolate the sources of trouble.
6. Institute modern on-the-job training.
7. Improve supervision to develop inspired leaders.
8. Drive out fear and instill learning.
9. Break down barriers between departments.
10. Eliminate numerical goals and slogans.
11. Constantly revamp work methods.
12. Institute massive training programs for employees in statistical methods.
13. Retrain people in new skills.
14. Create a structure that will push, every day, on the preceding thirteen points.

FIGURE 16.2 Deming's 14 Points of Quality Management.

When an organization's goals and outcomes are well defined, Deming's system and emphasis on quality work well. The approach is particularly effective when implemented in conjunction with empowerment and participative management. Success with a quality program requires high involvement by everyone as well as strong management support for skills training and keeping quality themes visible.

Centralization and Decentralization

Organizations use different mixes of vertical specialization, output controls, process controls, and managerial techniques to allocate the authority or discretion to act.[8] The farther up the hierarchy of authority the discretion to spend money, to hire people, and to make similar decisions is moved, the greater the degree of **centralization**. The more such decisions are delegated, or moved down the hierarchy of authority, the greater the degree of **decentralization**. Greater centralization is often adopted when the firm faces a single major threat to its survival. It is little wonder that armies tend to be centralized and that firms facing bankruptcy increase centralization. Recent research even suggests that governmental agencies may improve their performance via centralization when in a defensive mode.[9]

Centralization is the degree to which the authority to make decisions is restricted to higher levels of management.

Decentralization is the degree to which the authority to make decisions is given to lower levels in an organizations hierarchy.

BRINGING OB TO LIFE

"*We are decentralizing as much decision making as we can, so we also need to decentralize reviews.*"

Flattening Structures by Crowdsourcing Peer Evaluations

As executives look for ways to flatten organization structures and reduce administrative costs, going online with performance reviews and crowdsourcing feedback are becoming increasingly popular.

OB scholars have long suggested that it's good to get away from the traditional manager-driven, top-down performance evaluations. An example of how practice has responded to theory is the popularity of 360-degree reviews. They include feedback from peers and others working with or for the person under review.

Online reviews are in at the San Francisco-based social media outfit Hearsay Social, Inc. The firm runs on teamwork and involves constantly shifting projects. All ninety employees are part of a crowdsourced feedback system that allows them to comment on one another's work and the feedback is anonymous. Chief technology officer Steve Garrity says, "We are decentralizing as much decision making as we can, so we also need to decentralize reviews."

The daily deal company LivingSocial takes crowdsourcing of reviews a step further. Its employees can go online anytime and comment—in public or in private, on someone else's work. These peer reviews are factored into formal performance reviews done every

Bill O'Leary/The Washington Post/Getty

three months, and are also used in making pay bonus decisions.

With more employees on the giving and receiving ends of crowdsourced performance feedback, San Francisco State management professor John Sullivan worries that people may end up evaluating others whose jobs they don't know enough about. As online peer reviews become more common, managers should make sure they understand how they affect those involved, and how they can best be implemented.

Greater decentralization generally provides higher subordinate satisfaction and a quicker response to a diverse series of unrelated problems. Decentralization also assists in the on-the-job training of subordinates for higher-level positions. Decentralization is now a popular approach in many industries.[10] For instance, Union Carbide is pushing responsibility down the chain of command, as are SYSCO and Hewlett-Packard. In each case, the senior managers hope to improve both performance quality and organizational responsiveness.

Decentralization and Participation Closely related to decentralization is the notion of participation. Many people want to be involved in making decisions that affect their work. Participation results when a manager delegates some authority for such decision making to subordinates. For example, Macy's has successfully experimented with moving decisions down the chain of command and increasing employee participation. In many cases, employees want a say both in what the unit objectives should be and in how they can be achieved.

The Illusion of Control One of the myths in management is the illusion of control. There are many variations of this, but one centers on the formal controls themselves. Many managers want to believe they can specify all of the relevant goals for subordinates as well as how they are to be accomplished. With too many output and process goals, subordinates appear to have very little flexibility. However, as the number of output and process controls escalates, so do the conflicts between the two. The result is that subordinates begin to pick and choose which controls they follow and managers only have the illusion that subordinates are reaching toward the specified goals.[11]

Organizing and Coordinating Work

LEARNING ROADMAP TRADITIONAL TYPES OF DEPARTMENTS • COORDINATION

Managers must divide the total task into separate duties and group similar people and resources together.[12] Organizing work is formally known as **horizontal specialization**, which is a division of labor that establishes specific work units or groups within an organization. This aspect of the organization is also called departmentation. Whatever is divided horizontally into two or more departments must also be integrated.[13] **Coordination** is the set of mechanisms that an organization uses to link the actions of its units into a consistent pattern. This includes mechanisms to connect managers and staff units, operating units, and divisions with each other. Managers use a mix of personal and impersonal methods of coordination to tie together the efforts of departments.

> **Horizontal specialization** is a division of labor that establishes specific work units or groups within an organization.
>
> **Coordination** is the set of mechanisms that an organization uses to link the actions of their units into a consistent pattern.

Traditional Types of Departments

Since the pattern of departmentation is so visible and important in a firm, managers often refer to their pattern of departmentation as the departmental structure. Although most firms use a mix of various types of departments, it is important to look at the traditional types and what they do and do not provide the firm.[14]

Functional Departments Grouping individuals by skill, knowledge, and action yields a pattern of **functional departmentation**. Recall that Figure 16.1 shows the partial organization chart for a large university in which each department has a technical specialty. Marketing, finance, production, and personnel are important functions in business. In many small companies, this functional pattern dominates. Even large

> **Functional departmentation** groups individuals by skill, knowledge, and action.

Major Advantages and Disadvantages of Functional Specialization	
Advantages	**Disadvantages**
1. Yields clear task assignments, consistent with an individual's training. 2. Individuals within a department can build on one another's knowledge, training, and experience. 3. Provides an excellent training ground for new managers. 4. It is easy to explain. 5. Takes advantage of employee technical quality.	1. May reinforce the narrow training of individuals. 2. May yield narrow, boring, and routine jobs. 3. Communication across technical area is complex and difficult. 4. "Top-management overload" with too much attention to cross-functional problems. 5. Individuals may look up the organizational hierarchy for direction and reinforcement rather than focus attention on products, services, or clients.

FIGURE 16.3 Major advantages and disadvantages of functional specialization.

organizations use this pattern in technically demanding areas. Figure 16.3 summarizes the advantages and disadvantages of the functional pattern.
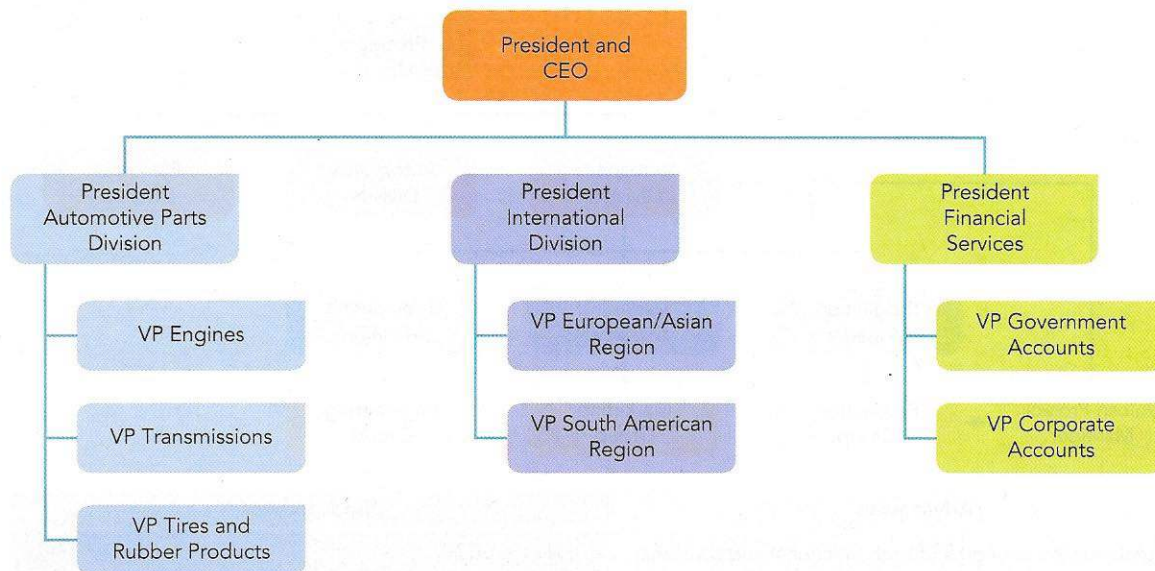
With all of these advantages, it is not surprising that the functional form is popular. It is used in most organizations, particularly toward the bottom of the hierarchy. The extensive use of functional departments does have some disadvantages. Organizations that rely heavily on functional specialization may expect the following tendencies to emerge over time: an emphasis on quality from a technical standpoint, rigidity to change, and difficulty in coordinating the actions of different functional areas.

Divisional departmentation groups individuals together by products, territories, services, clients, or legal entities.

Divisional Departments

With **divisional departments**, individuals and resources are grouped by products, territories, services, clients, or legal entities. A divisional pattern is often used to meet diverse external threats and opportunities. As shown in Figure 16.4, the major advantages of the divisional pattern are its flexibility in meeting external demands, spotting external changes, integrating specialized individuals deep within the organization, and focusing on the delivery of specific products to specific customers. Among its disadvantages are duplication of effort by function, the tendency for divisional goals to be placed above corporate interests, and conflict among divisions. It is also not the structure most desired for training individuals in technical areas. Firms relying on this pattern may fall behind technically to competitors with a functional pattern.

Many larger, geographically dispersed organizations that sell to national and international markets may rely on departmentation by geography. The savings in time, effort, and travel can be substantial, and each territory can adjust to regional differences. Organizations that rely on a few major customers may organize their people and resources by client. Here, the idea is to focus attention on the needs of the individual customer. To the extent that customer needs are unique, departmentation by customer can also reduce confusion and increase synergy. Organizations expanding internationally may also form divisions to meet the demands of complex host-country ownership requirements. For example, NEC, Sony, Nissan, and many other Japanese corporations have developed U.S. divisional subsidiaries to service their customers in the U.S. market. Some European-based corporations such as Philips and Nestlé have also adopted a divisional structure in their expansion to the United States.

Matrix Structures

Originally from the aerospace industry, a third unique form of departmentation is called the matrix structure.[15] In aerospace efforts, projects are technically complex, involving hundreds of subcontractors located throughout the world. Precise integration and control are needed across many functional specialties and

President and CEO

| President Automotive Parts Division | President International Division | President Financial Services |

President Automotive Parts Division:
- VP Engines
- VP Transmissions
- VP Tires and Rubber Products

President International Division:
- VP European/Asian Region
- VP South American Region

President Financial Services:
- VP Government Accounts
- VP Corporate Accounts

Major Advantages and Disadvantages of Divisional Specialization	
Advantages	**Disadvantages**
1. Promotes adaptability and flexibility in meeting the demands of important external groups. 2. Allows for spotting external changes as they emerge. 3. Provides for the integration of specialized personnel. 4. Focuses on the success or failure of particular products, services, clients, or territories.	1. Does not provide a pool of highly trained individuals with similar expertise to solve problems and train others. 2. Allows duplication of effort, since each division attempts to solve similar problems. 3. May give priority to divisional goods over the health and welfare of the overall organization. 4. Creates conflict between divisions over shared resources.

FIGURE 16.4 A divisional pattern of departmentation and the advantages and disadvantages of divisional specialization.

corporations. This is often more than a functional or divisional structure can provide, for many firms do not want to trade the responsiveness of the divisional form for the technical emphasis provided by the functional form. Therefore, **matrix departmentation** uses both the functional and divisional forms simultaneously. Figure 16.5 shows the basic matrix arrangement for an aerospace program. Note the functional departments on one side and the project efforts on the other. Workers and supervisors in the middle of the matrix have two bosses—one functional and one project manager.

Figure 16.5 summarizes the major advantages and disadvantages of the matrix form of departmentation. The key disadvantage of the matrix method is the loss of unity of command. Individuals can be unsure as to what their jobs are, who they report to for specific activities, and how various managers are to administer the effort. It can also be an expensive method because it relies on individual managers to coordinate efforts deep within the firm. Despite these limitations, the matrix structure provides a balance between functional and divisional concerns. Many problems can be resolved at the working level, where the balance among technical, cost, customer, and organizational concerns can be dealt with effectively.

Which form of departmentation should be used? As the matrix concept suggests, it is possible to departmentalize by two different methods at the same time. Actually, companies often use a mixture of departmentation forms. It is often desirable to divide the

Matrix departmentation uses both the functional and divisional forms simultaneously.

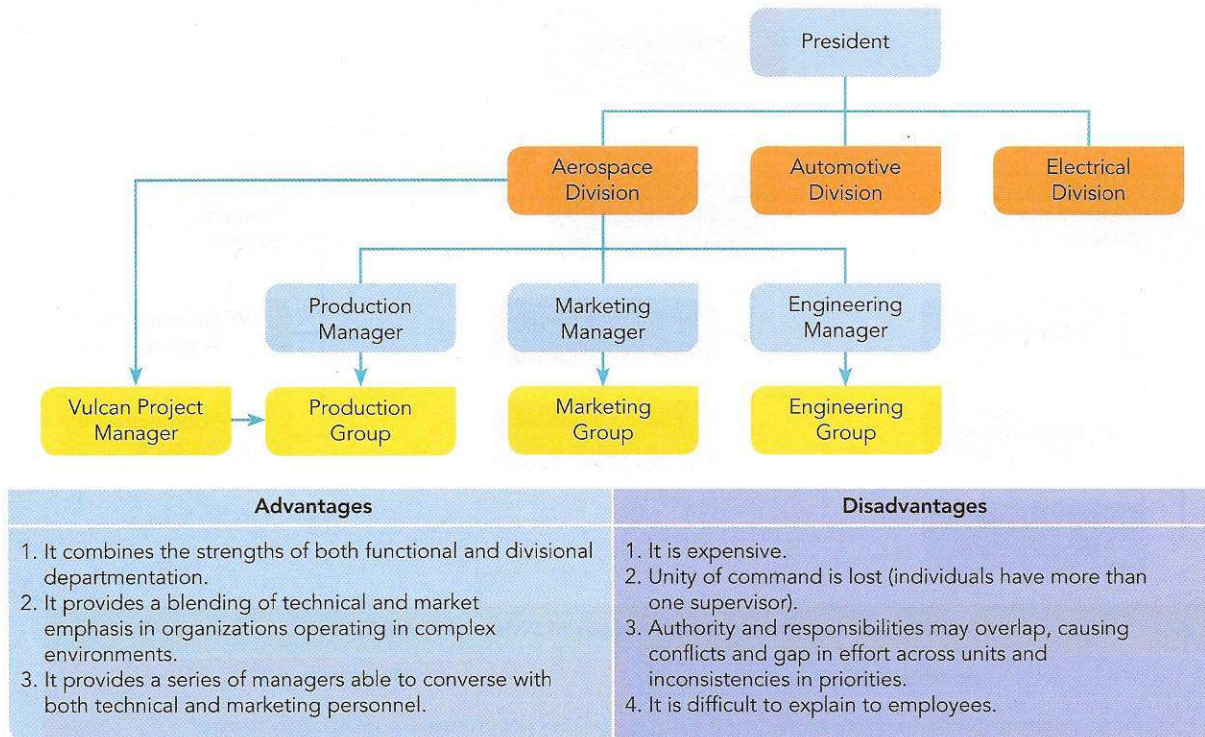| Advantages	Disadvantages
1. It combines the strengths of both functional and divisional departmentation.	1. It is expensive.
2. It provides a blending of technical and market emphasis in organizations operating in complex environments.	2. Unity of command is lost (individuals have more than one supervisor).
3. It provides a series of managers able to converse with both technical and marketing personnel.	3. Authority and responsibilities may overlap, causing conflicts and gap in effort across units and inconsistencies in priorities.
	4. It is difficult to explain to employees.

FIGURE 16.5 A matrix pattern of departmentation in an aerospace division.

effort (group people and resources) by two methods at the same time in order to balance the advantages and disadvantages of each. These mixed forms help organizations use their division of labor to capitalize on environmental opportunities, capture the benefits of larger size, and realize the potential of new technologies in pursuit of its strategy.

Coordination

Whatever is divided up horizontally in two departments should also be integrated.[16] Coordination, as noted previously, is the set of mechanisms that an organization uses to link the actions of its units into a consistent pattern. Coordination is needed at all levels of management, not just across a few scattered units. Much of the coordination within a unit is handled by its manager. Smaller organizations may rely on their management hierarchy to provide the necessary consistency and integration.

Personal Methods of Coordination Personal methods of coordination produce synergy by promoting dialogue and discussion, innovation, creativity, and learning, both within and across organizational units. Personal methods allow the organization to address the needs of distinct units and individuals simultaneously. There is a wide variety of personal methods of coordination.[17] Perhaps the most popular is direct contact between and among organizational members. As new information technologies have moved into practice, the potential for developing and maintaining effective contact networks has expanded. For example, many executives use electronic communication to supplement direct personal communication. Direct personal contact is also associated with the ever-present "grapevine." Although the grapevine is notoriously inaccurate in its role as a rumor mill, it is often accurate and quick enough that managers cannot ignore it. Instead, managers need to work with and supplement the rumor mill with accurate information.

Managers are often assigned to committees in order to improve coordination across departments. Committees can be effective in communicating complex qualitative information and in helping managers whose units must work together to adjust schedules, workloads, and work assignments to increase productivity.

The appropriate mix of personal coordination methods, and tailoring them to the individual skills, abilities, and experience of subordinates, also varies with the type of task. As the "Research Insight" feature suggests, a variety of personal methods can be tailored to match different individuals and the settings in which they operate. Personal

Research Insight

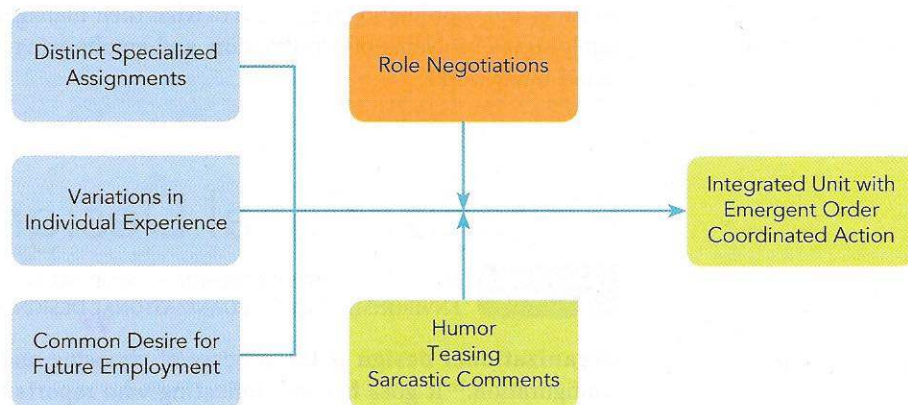# Coordination in Temporary Organizations

In today's world, many individuals have jobs that take them to a number of different temporary settings such as a corporate task force, an alliance, or a special project. Coordinating the actions of the members in these temporary arrangements is often a challenge. However, recent research by Beth Bechky offers some insight. She studied the workers on a movie set—not the actors or producer—but the crew who set up and run the equipment, shoot the movie, and make sure the sound is perfect. These individuals are generally independent contractors whose work must mesh quickly even though they have only been together a few hours.

How do they do it in the short-lived organization of a movie set? According to Bechky, they negotiate their roles with each other. Each has his or her own specialization and assignment, and these must be coordinated with all others. Although each recognizes the others' career progression (some have more experience and are looked to for help), all recognize that the current assignment is one among many they may want in the future. All are on their best behavior with the hopes that they will be hired for the next movie.

Bechky found that the more experienced crew may provide enthusiastic appreciation and polite admonishing to the less-experienced crew members. To enforce an emerging order and maintain coordination, many use humor, sarcasm, and teasing. Public displays of anger are rare and frowned upon. With these mechanisms in place it only takes a few hours for the crew to emerge as an integrated unit.

To transfer the findings to a student group, try and build a simplified model of the factors mentioned in the description. It might look somewhat like this:

Distinct Specialized Assignments		Role Negotiations	
Variations in Individual Experience			Integrated Unit with Emergent Order Coordinated Action
Common Desire for Future Employment		Humor Teasing Sarcastic Comments	

Pick a student group to perform a team case study with majors in different areas (such as accounting, finance, and management). See if the members self-assign to specialized areas based on their major. Look for variations in experience, and check if there is a common desire for high performance. As the group starts work on the project, observe if the members negotiate distinct roles. Do they use humor, teasing, or sarcastic comments to coalesce? Do they form an integrated group with an identified order and coordinated action, or do just a few actually run the show?

Do the Research Would you expect a student group to form much the way that professionals do? If the student group does not use humor or teasing, what do members use to gain coordinated action?

Source: Beth A. Bechky, "Gaffers, Gofers, and Grips: Role-Based Coordination in Temporary Organizations" *Organization Science* 17.1 (2006), pp. 3–23.

methods are only one important part of coordination. The manager may also establish a series of impersonal mechanisms.

Impersonal Methods of Coordination

Impersonal methods of coordination produce synergy by stressing consistency and standardization so that individual pieces fit together. Impersonal coordination methods are often refinements and extensions of process controls with an emphasis on formalization and standardization. Organizations often have written policies and procedures, such as schedules, budgets, and plans that are designed to mesh the operations of several units into a whole by providing predictability and consistency.

Managers often institute controls under the title of coordination. Since some of the techniques are used for both, many managers suggest that all efforts at control are for coordination. It is extremely important to separate these two functions because the reactions to controls and coordination are different. The underlying logic of control involves setting targets, measuring performance, and taking corrective action to meet goals normally assigned by higher management. Many employees see an increase in controls as a threat based on a presumption that they have been doing something wrong. The logic of coordination is to get unit actions and interactions meshed together into a unified whole. Although control involves the vertical exercise of formal authority, coordination stresses cooperative problem solving. Experienced employees recognize the difference between controls and coordination regardless of what their manager calls it.[18] Increasing controls rarely solves problems of coordination, and emphasizing coordination to solve control issues rarely works.

Organizational Design

LEARNING ROADMAP SIZE AND THE SIMPLE DESIGN • TECHNOLOGY AND ORGANIZATIONAL DESIGN ENVIRONMENT AND ORGANIZATIONAL DESIGN

Organizational design is the process of choosing and implementing a structural configuration.[19] It goes beyond indicating who reports to whom and what types of jobs are contained in each department. The design process takes the basic structural elements and molds them to the company's desires, demands, constraints, and choices. When managers chose their overall approach to reaching their mission, the choice of an appropriate organizational design is contingent on several factors, including the size of the organization, its operations and information technology, and its environment.

Organizational design is the process of choosing and implementing a structural configuration.

▶ Size and the Simple Design

The **simple design** is a configuration involving one or two ways of specializing individuals and units. Vertical specialization and control typically emphasize levels of supervision without elaborate formal mechanisms (e.g., rulebooks and policy manuals), and the majority of the control resides in the manager. The simple design tends to minimize bureaucracy and rest more heavily on the leadership of the manager.

The **simple design** is a configuration involving one or two ways of specializing individuals and units.

The simple design pattern is appropriate for many small companies such as family businesses, retail stores, and small manufacturing firms.[20] The strengths of the simple design are simplicity, flexibility, and responsiveness to the desires of a central manager—in many cases, the owner. Because a simple design relies heavily on the manager's personal leadership, however, this configuration is only as effective as is the senior manager.

◼ Technology and Organizational Design

Although the design for an organization should reflect its size, it must also be adjusted to fit technological opportunities and requirements. Successful organizations arrange their internal structures to meet the dictates of their dominant "operations technologies" or workflows and, more recently, information technology opportunities.[21]

Operations Technology and Organizational Design

Operations technology is the combination of resources, knowledge, and techniques that creates a product or service output for an organization.[22] As researchers in OB have charted the links between operations technology and organizational design, two common classifications for operations technology have received considerable attention: Thompson's and Woodward's classifications.

Thompson's View of Technology A classic description of alternative technologies was developed by James D. Thompson . As shown in Figure 16.6, it classified technologies based on degrees of specification and interdependence among work activities.[23] Under *intensive technology*, there is uncertainty as to how to produce desired outcomes. A group of specialists must be brought together and use a variety of techniques to solve problems. Examples are found in a hospital emergency room or a research and development laboratory. Coordination and knowledge exchange are of critical importance with this kind of technology.

Mediating technology links parties that want to become interdependent. For example, banks link creditors and depositors and store money and information to facilitate such exchanges. Whereas all depositors and creditors are indirectly interdependent, the reliance is pooled through the bank. The degree of coordination among the individual tasks with pooled technology is reduced, and information management becomes more important than coordinated knowledge application.

Under *long-linked technology*, also called mass production or industrial technology, the way to produce the desired outcomes is known. The task is broken down into a number of sequential steps. A classic example is the automobile assembly line. Control is critical, and coordination is restricted to making the sequential linkages work in harmony.

Joan Woodward's View of Technology Joan Woodward also divides technology into three categories: small-batch, mass production, and continuous-process manufacturing.[24] In units of *small-batch production*, a variety of custom products are tailored to fit customer specifications, such as tailor-made suits. The machinery and equipment used are generally not very elaborate, but considerable craftsmanship is often needed. In *mass production*, the organization produces one or a few products through an assembly-line system. The work of one group is dependent on that of another, the equipment is typically sophisticated, and the workers are given detailed instructions. Automobiles and refrigerators are produced in this way.

> **Operations technology** is the combination of resources, knowledge, and techniques that creates a product or service output for an organization.

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FIGURE 16.6 Three Types of Operations Technologies: Intensive, Mediating, and Long linked.

FINDING THE LEADER
IN YOU   Denise Wilson Keeps Structure Simple at Desert Jet

Founded in 2007, by Denise Wilson, Desert Jet provides private jet travel services to corporations throughout the United States. What makes this company, located in Thermal, California, really unique is that it also offers aircraft owners with professional aircraft management and the opportunity to generate revenue. When an aircraft would otherwise be sitting idle, Desert Jets enlists them in a certified leasing program.

Under this program, Desert Jet can lease an aircraft to a member of the general public for about $1,500 to $3,500 per hour. "Our clients will call us and tell us where they want to go and what time they want to go. We provide them not only with the aircraft, but also with ground transportation, catering on the flight, and any other special requests," says Wilson.

A quick look at the Desert Jet website shows that Wilson uses a simple organizational design. She has line positions (pilots) and staff slots (accountants). She has functional specialists (a certified head of maintenance, an accountant, a chief pilot, and a director of safety)

reporting to her. And recently, Desert Jet advertised for a specialist to clean aircrafts to join the team. Desert Jet is among the fastest-growing new firms according to Inc., and it will probably

Courtesy Denise Wilson

take more than a decade of growth for the current simple design to be outmoded.

What's the Lesson Here?

From the information provided in this chapter, speculate about the types of mechanisms you would likely see in use. What does the attention to the certifications and qualifications of the employees tell you about the use of controls in this firm?

Organizations using *continuous-process technology* produce a few products using considerable automation. Classic examples are automated chemical plants and oil refineries.

From her studies, Woodward concluded that the combination of structure and technology was critical to the success of organizations. When technology and organizational design were matched properly, a firm was more successful. Specifically, successful small-batch and continuous-process plants had flexible structures with small workgroups at the bottom; more rigidly structured plants were less successful. In contrast, successful mass-production operations were rigidly structured and had large workgroups at the bottom. Since Woodward's studies, other investigations supported this technological imperative. Today we recognize that operations technology is just one factor involved in the success of an organization.[25]

Operating Technology and Adhocracy
The influence of operations technology is seen in small organizations and in specific departments within large organizations. In some instances, managers and employees do not know the appropriate way to service a client or to produce a particular product. This is an extreme example of Thompson's intensive type of technology, and it may be found in some small-batch processes where a team of individuals must develop a unique product for a client.

Mintzberg suggests that at these technological extremes, the "adhocracy" may be an appropriate design.[26] An **adhocracy** is characterized by shared decentralized decision making, extreme horizontal specialization, few management levels and minimal formal controls with very few rules, policies, and procedures. This design emphasizes innovation. It is particularly useful when an operations technology presents two problems:

1. the tasks vary considerably and provide many exceptions, and

2. the problems are difficult to define and resolve.[27]

The adhocracy places a premium on professionalism and coordination in problem solving.[28] Large organizations may use temporary task forces, form special committees,

An **adhocracy** is characterized by shared decentralized decision making, extreme horizontal specialization, few management levels and minimal formal controls with very few rules, policies, and procedures.

and even contract with consulting firms to help solve problems the adhocracy promotes. For instance, Microsoft creates autonomous departments to encourage talented employees to develop new software programs. Allied Chemical and 3M set up groups to work through new ideas.

We should note that the adhocracy is notoriously inefficient. Further, many managers are reluctant to adopt this form because they appear to lose control of day-to-day operations. The strategy consistent with the adhocracy is a stress on quality and individual service as opposed to efficiency. With more advanced information technology, firms are beginning to combine an adhocracy with bureaucratic elements based on advanced information systems.

Information Technology and Organizational Design

Information technology is the combination of machines, artifacts, procedures, and systems used to gather, store, analyze, and disseminate information for translating it into knowledge.[29] Information technology (IT), the Web, and the computer (be it in tablet or phone form) are virtually inseparable and have fundamentally changed the organization design of firms to capture new competencies.[30]

From an organizational standpoint, IT can be used, among other things, as a substitute for some operations as well as some process controls and impersonal methods of coordination. IT has the capability to transform information to knowledge. For instance, most financial firms could not exist without IT, because it is now the base for the industry. Financial institutions created completely new aspects of their industry based on IT, such as exotic derivatives; it is now painfully obvious that these new aspects of the industry outpaced the ability of management to control them. Information technology, just as operations technology, can yield great good or great harm.

The Virtual Organization As IT has become widespread and it's importance for attaining valued goals has increased, some executives have started to develop "virtual organizations."[31]

A virtual organization is an ever-shifting constellation of firms, with a lead corporation (such as Amazon) that pools skills, resources, and experiences to thrive jointly. This ever-changing collection most likely has a relatively stable group of participants (usually independent firms) and includes key customers, research centers, suppliers, and distributors all connected to each other. The lead firm possesses a critical competence that all need and therefore directs the constellation. Although this critical competence may be a key operations technology or access to customers, it always includes IT as a base for connecting the firms.

The virtual organization works if it operates by some unique rules and is led in a most untypical way. First, the production system that yields the products and services needs to

> **Information technology (IT)** is the combination of machines, artifacts, procedures, and systems used to gather, store, analyze, and disseminate information for translating it into knowledge.

Too Much Technology May Cause Airline Flight Crews to Lose Critical Skills

As flight technology continues to evolve, pilots are spending more time monitoring computer readings. And that worries some observers. "They're becoming dependent on using the autopilot, the auto-throttles, the auto flight system, the computers, to actually operate the entire flight," says former pilot Kevin Hiatt.

Does the emphasis on computers in the cockpit reduce manual flying skills and a pilot's capacity to make judgments under unusual or crisis conditions?

Long ago the German sociologist Max Weber warned against trained incapacity in organizations when structure replaced human judgment. Are we at the point where it's time to put more manual flight time back into pilot training?

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be a partner network among independent firms where they are bound together by mutual trust and collective survival. As customers desire change, the proportion of work done by any member firm might also change and the membership itself may change. Second, this partner network needs to develop and maintain (1) an advanced information technology (rather than just face-to-face interaction), (2) trust and cross-owning of problems and solutions, and (3) a common shared culture.

The virtual organization can be highly resilient, extremely competent, innovative, and reasonably efficient—characteristics that are usually trade-offs. Executives in the lead firm need to have the vision to see how the network of participants will both effectively compete with patterns consistent enough to be recognizable and still rapidly adjust to technological and environmental changes.[32]

Many managers are involved with a "virtual" network of task forces and temporary teams in order to both define and solve problems. Here the members will only connect electronically. Recent work on participants of the virtual teams suggests managers will need to rethink what it means to "manage." Instead of telling others what to do, managers will need to treat colleagues as unpaid volunteers who expect to participate in governing the meetings and who are tied to the effort only by a commitment to identify and solve problems.[33]

■ Environment and Organizational Design

An effective organizational design reflects powerful external forces as well as size and technological factors. Organizations, as open systems, need to receive input from the environment and in turn to sell output to their environment. Therefore, understanding the environment is important.[34]

Segments of the Organization's Environment
The **general environment** is the set of cultural, economic, legal–political, and educational conditions found in the areas in which the organization operates. Firms expanding globally encounter multiple general environments.

The general environment is the set of cultural, economic, legal–political, and educational conditions found in the areas in which the organization operates.

The owners, suppliers, distributors, government agencies, and competitors with which an organization must interact in order to grow and survive constitute its **specific environment**. A firm typically has much more choice in the composition of its specific environment than its general environment. Although it is often convenient to separate the general and specific environmental influences on the firm, managers need to recognize the combined impact of both.

The specific environment is the set of owners, suppliers, distributors, government agencies, and competitors with which an organization must interact to grow and survive.

Environmental Complexity
A basic concern to address when analyzing the environment of the organization is its complexity. A more complex environment provides an organization with more opportunities and more problems. **Environmental complexity** refers to the magnitude of the problems and opportunities in the organization's environment, as evidenced by three main factors: the degree of richness, the degree of interdependence, and the degree of uncertainty stemming from both the general and the specific environment.

Environmental complexity refers to the magnitude of the problems and opportunities in the organization's environment.

Environmental Richness
Overall, the environment is richer when the economy is growing, when individuals are improving their education, and when everyone that the organization relies on is prospering. For businesses, a richer environment means that economic conditions are improving, customers are spending more money, and suppliers (especially banks) are willing to invest in the organization's future. In a rich environment, more organizations survive, even if they have poorly functioning organizational designs. A richer environment is also filled with more opportunities and dynamism—the potential for change. The organizational design must allow the company to recognize these opportunities and capitalize on them. The opposite of richness is decline. For most business firms, recession is a good example of a leaner environment.

Millennials Are Warming Up to Part-time Employment for Full-time Pay

As organizations streamline and adopt new forms, work preferences are also changing. Now it seems that free agency is in among millennials.

Look around your classroom and talk to friends. More and more of are opting to work freelance by personal choice, not just because there aren't alternatives. The term *permalancers* is even being used to describe recent college graduates who opt to string together multiple and shifting freelance and part-time contracts to create full-time income.

The key is employment independence and the personal flexibility that goes along with it. Judith Watson, an associate dean at the City University of New York, refers to this trend as employment entrepreneurship. "You have to craft your own career," she says.

Kzenon/Shutterstock

Environmental Interdependence The link between external interdependence and organizational design is often subtle and indirect. The organization may co-opt powerful outsiders by including them. For instance, many large companies have financial representatives from banks and insurance companies on their boards of directors.

The organization may also adjust its overall design strategy to absorb or buffer the demands of a more powerful external element. Perhaps the most common adjustment is the development of a centralized staff department to handle an important external group. Few large U.S. corporations lack some type of centralized governmental relations group.[35]

Uncertainty and Volatility Environmental uncertainty and volatility can be particularly damaging to large organizations. In times of change, investments quickly become outmoded, and internal operations no longer work as expected. The organizational design response to uncertainty and volatility is to opt for a more flexible organic form. At the extremes, movement toward an adhocracy may be important. However, these pressures may run counter to those that come from large size and operations technology. In these cases, it may be too hard or too time consuming for some organizations to make the design adjustments. The organization may continue to struggle while adjusting its design just a little bit at a time. Some firms can deal with the conflicting demands from environmental change and need for internal stability by developing alliances.

Networks and Alliances for Highly Complex Environments In today's complex global economy, organizational design must go beyond the traditional boundaries of the firm.[36] Firms must learn to alter their environment as well as merely adjust to it. Two ways are becoming more popular: (1) the management of networks and (2) the development of alliances. Many North American firms are learning from their European and Japanese counterparts to develop networks of linkages to the key firms they rely upon. In Europe, for example, one finds *informal combines* or *cartels*. Here, competitors work cooperatively to share the market in order to decrease uncertainty and improve favorability for all. Except in rare cases, these arrangements are often illegal in the United States.

In Japan, the network of relationships among well-established firms in many industries is called a *keiretsu*. There are two common forms. The first is a bank-centered *keiretsu*, in which firms link to one another directly through cross-ownership and historical ties to one bank. The Mitsubishi group is a good example of a company that grew through cross-ownership. In the second type, a *vertical keiretsu*, a key manufacturer, is at

the hub of a network of supplier firms or distributor firms. The manufacturer typically has both long-term supply contracts with members and cross-ownership ties. These arrangements help isolate Japanese firms from stockholders and provide a mechanism for sharing and developing technology. Toyota is an example of a firm at the center of a *vertical keiretsu*.

Another option is to develop **interfirm alliances**, which are cooperative agreements or joint ventures between two independent firms.[37] Often, these agreements involve corporations that are headquartered in different nations. In high-tech areas, such as robotics, semiconductors, advanced materials (ceramics and carbon fibers), and advanced information systems, a single company often does not have all of the knowledge necessary to bring new products to the market. Alliances are common in such high-technology industries. Via their international alliances, high-tech firms seek to develop technology and to ensure that their solutions standardize across regions of the world.

Developing and effectively managing an alliance is a managerial challenge of the first order. Firms are asked to cooperate rather than compete. The alliance's sponsors normally have different and unique strategies, cultures, and desires for the alliance itself. Both the alliance managers and sponsoring executives must be patient, flexible, and creative in pursuing the goals of the alliance and each sponsor.

Bureaucracy and Beyond

LEARNING ROADMAP   MECHANISTIC STRUCTURES AND THE MACHINE BUREAUCRACY
ORGANIC STRUCTURES AND THE PROFESSIONAL BUREAUCRACY
HYBRID STRUCTURES

Modern complex societies are not just dominated by organizations but contain a number of large powerful organizations know as *bureaucracies*. In OB this term has a special meaning, beyond its negative connotation. The German sociologist Max Weber suggested that organizations would thrive if they became bureaucracies by emphasizing legal authority, logic, and order.[38] Ideally, **bureaucracies** rely on a division of labor, hierarchical control, promotion by merit with career opportunities for employees, and administration by rule.

Weber argued that the rational and logical idea of bureaucracy was superior to building the firm based on charisma or cultural tradition. The "charismatic" ideal-type organization was overly reliant on the talents of one individual and could fail when the leader leaves. Too much reliance on cultural traditions blocked innovation, stifled efficiency, and was often unfair. Since the bureaucracy prizes efficiency, order, and logic, Weber hoped that it could also be fair to employees and provide more freedom for individual expression than is allowed when tradition dominates or dictators rule. Many interpreted Weber as suggesting that bureaucracy or some variation of this ideal form, although far from perfect, would dominate modern society.[39] For large organizations, the bureaucratic form is predominant. Yet, the bureaucracy poses a series of challenges for managers, including the following:

Challenges posed by ▶ bureaucracies

- ■ Overspecialization with conflicts between highly specialized units
- ■ Overreliance on the chain of command rather than bottom-up problem solving
- ■ Objectification of senior executives as rulers rather than problem solvers for others
- ■ Overemphasis on conformity
- ■ Rules as ends in and of themselves

Just as interpretations of Weber have evolved over time, so has the notion of a bureaucracy.[40] We will discuss some popular basic types of bureaucracies: the mechanistic structure and machine bureaucracy, the organic structure and professional bureaucracy,

OB IN POPULAR CULTURE

Hierarchy and *Ratatouille*

Buena Vista/Photofest

Bureaucracy tends to a get a bad rap most of the time. Yet organizations must have rules and structure to operate effectively. Large companies organize into departments and distribute responsibilities and authority in hierarchical fashion. This is known as vertical specialization, the division of labor that shows authority relationships, decision making, and the chain of command. This is usually spelled out in an organization chart.

Pixar's film *Ratatouille* is the story of a rat named Remy that aspires to be a great cook like his hero, Chef Auguste Gusteau. Following an accident, Remy is separated from the rest of his family and finds himself in Paris. He is soon peering down through a skylight into the restaurant made famous by the now departed Gusteau. He observes the cooking activity taking place in the kitchen and can name all the roles and relationships that exist between the staff. Guided by an apparition of Gusteau himself, he learns that all positions in the kitchen are critical—even that of the garbage boy.

What we learn from *Ratatouille* is that hierarchy and authority are necessary to keep the work flowing smoothly. Although some positions have more power and responsibility than others, each individual has a contribution to make and must be willing to do so if the organization is to be successful.

Get to Know Yourself Better By now, you are probably quite used to participating in organizations with a lot of structure. Take a look at Assessment 21, Organizational Design Preference, in the *OB Skills Workbook* to determine your comfort level with this environment. If you score high, you will probably function effectively in an organization with a high degree of vertical specialization. On the other hand, if your score is low, you may like working for a smaller, newer company in which the structure is a more flexible.

and some hybrid approaches. Each type is a different mix of the basic elements discussed in this chapter, and each mix yields firms with a slightly different blend of capabilities and natural tendencies.

Mechanistic Structures and the Machine Bureaucracy

The **mechanistic (or machine) type of bureaucracy** emphasizes vertical specialization and control.[41] Organizations of this type stress rules, policies, and procedures; specify techniques for decision making; and emphasize developing well-documented control systems backed by a strong middle management and supported by a centralized staff. There is often extensive use of the functional pattern of departmentation throughout the company. Henry Mintzberg uses the term *machine bureaucracy* to describe an organization structured in this manner.[42]

The mechanistic design results in a management emphasis on routine for efficiency. Firms often used this design in pursuing a strategy of becoming a low-cost leader. Until the implementation of new information systems, most large-scale firms in basic industries were machine bureaucracies. Included in this long list were all of the auto firms, banks, insurance companies, steel mills, large retail establishments, and government offices. Efficiency was achieved through extensive vertical and

> The **mechanistic (or machine) type of bureaucracy** emphasizes vertical specialization and control.

horizontal specialization tied together with elaborate controls and impersonal coordination mechanisms.

There are, however, limits to the benefits of specialization backed by rigid controls. Employees generally do not like rigid designs, so motivation becomes a problem. Unions further solidify narrow job descriptions by demanding fixed work rules and regulations to protect employees from the extensive vertical controls. In short, using a machine bureaucracy can hinder an organization's capacity to adjust to subtle external changes or new technologies.

■ Organic Structures and the Professional Bureaucracy

The organic (or professional) type of bureaucracy emphasizes horizontal specialization, use of personal coordination devices, and professional-based controls.

The **organic (or professional) type of bureaucracy** is less vertically oriented than its mechanistic counterpart is; it emphasizes horizontal specialization. Procedures are minimal, and those that do exist are not as formalized. The organization relies on the judgments of experts and personal means of coordination. When controls are used, they are often based on professional standards, training, and individual reinforcement. Staff units are placed toward the middle of the organization. Because this is a popular design in professional firms, Mintzberg calls it a professional bureaucracy.[43]

Your university is probably a professional bureaucracy that looks like a broad, flat pyramid with a large bulge in the center for the professional staff. Power in this ideal type rests with knowledge. Other examples of organic types include most hospitals and social service agencies.

Compared to the machine bureaucracy, the professional bureaucracy is better for problem solving and for serving individual customer needs. Since lateral relations and coordination are emphasized, centralized direction by senior management is less intense. This type is good at detecting external changes and adjusting to new technologies, but at the sacrifice of responding to central management direction. Firms using this pattern have found it easier to pursue product quality, quick response to customers, and innovation as strategies.

■ Hybrid Structures

Many large firms have found that neither the mechanistic nor the organic approach is suitable for all of their operations. Adopting a machine bureaucracy overloads senior management and yields too many levels of management. Yet, adopting an organic type would mean losing control and becoming too inefficient. Senior managers may opt for one of a number of hybrid types.

We have briefly introduced two of the more common hybrid types. One is an extension of the divisional pattern of departmentation and is sometimes called a divisional firm. Here, the firm is composed of quasi-independent divisions so that different divisions can be more or less organic or mechanistic. Although the divisions may be treated as separate businesses, they often share a similar mission and systems goals.[44] When adopting this hybrid type, each division can pursue a different strategy.

A conglomerate is a single corporation that contains a number of unrelated businesses.

A second hybrid is the true conglomerate. A **conglomerate** is a single corporation that contains a number of unrelated businesses. On the surface, these firms look like divisionalized firms, but when the various businesses of the divisions are unrelated, the term *conglomerate* is applied.[45] For instance, General Electric is a conglomerate that has divisions in unrelated businesses and industries, ranging from producing light bulbs, to designing and servicing nuclear reactors, to building jet engines. Most state and federal entities are also, by necessity, conglomerates. For instance, a state governor is the chief executive officer of those units concerned with higher education, welfare, prisons, highway construction and maintenance, police, and the like.

Do Flexible Factories Have Staying Power?

Flexibility at Harley Davidson's plant in York, Pennsylvania, means building "hogs" with less than half the workers previously employed. The factory has been consolidated from several buildings into one efficient facility. The thousand workers now fall into just five job classifications, versus sixty-two previously, and they perform many different tasks with a variety of skills. At least 10 percent are considered "casual workers" who are employed only as needed to meet production schedules. In addition, lots of robots are doing jobs once handled by human hands and computers are everywhere.

The company-wide cost savings due to Harley's new manufacturing strategy are estimated at $275+ million. It's enough to keep U.S.-made bikes on the road and at least some manufacturing jobs still in American hands. But flexibility means that workers take on more responsibilities, must learn more skills, and have to be "flexible" in working with management to solve problems and keep the production line moving.

Flexible manufacturing seems to be a way of saving some manufacturing jobs that might otherwise be lost overseas. However, companies need to invest in facilities and technology, and workers need to learn new skills and ways of working.
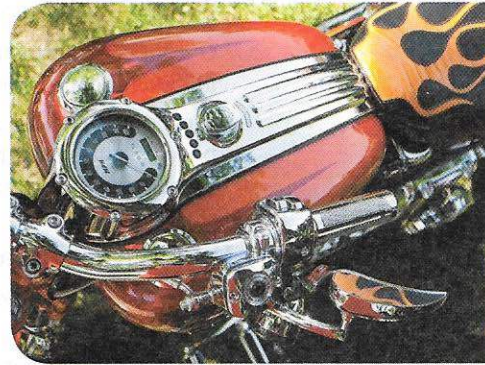
© Greg Dale/National GeographicSociety/Corbis

Do the Analysis

Just as organization structures and cultures are changing, work processes and human resource management practices are, too. Is this a win-win for everyone involved, or are there downsides to this move toward flexibility that may come back to haunt us in the future? Can you identify products or situations where manufacturing flexibility can't work? Overall, can we say that the recession prompted a shift into a new world of manufacturing strength for U.S. firms?

The conglomerate type illustrates three important points about organization structures. First, all structures are combinations of the basic elements. Second, no one structure is always best. What is best is situational and depends on a number of factors such as the size of the organization, its environment, its technology, and, of course, the goals it pursues. Third, no organization stands alone. It is always part of a larger complex network of other organizations and stakeholders.

16 Study Guide

Key Questions and Answers

What is the formal structure of the organization?

- The formal structure is also known as the firm's division of labor.
- The formal structure defines the intended configuration of positions, job duties, and lines of authority among different parts of the enterprise often as depicted in an organizational chart.

- Typically, a chain of command exists to link lower-level workers with senior managers.
- The distinction between line and staff units also indicates how authority is distributed, with line units conducting the major business of the firm and staff providing support.
- Control is the set of mechanisms the organization uses to keep action or outputs within predetermined levels.
- Output controls focus on desired targets and allow managers to use their own methods for reaching these targets.
- Process controls specify the manner in which tasks are to be accomplished through policies, rules, and procedures; formalization and standardization; and total quality management processes.

How is work organized and coordinated?

- Horizontal specialization results in various work units and departments in the organization.
- Three main types or patterns of departmentation are observed: functional, divisional, and matrix. Each pattern has a mix of advantages and disadvantages.
- Organizations may successfully use any type, or a mixture, as long as the strengths of the structure match the needs of the organization.
- Coordination is the set of mechanisms an organization uses to link the actions of separate units into a consistent pattern.
- Personal methods of coordination produce synergy by promoting dialogue, discussion, innovation, creativity, and learning.
- Impersonal methods of control produce synergy by stressing consistency and standardization so that individual pieces fit together.

What is organizational design?

- Organizational design is the process of choosing and implementing a structural configuration for an organization.
- The design of a large organization is far more complex than that of a small firm. Smaller firms often adopt a simple structure because it works, is cheap, and emphasizes the influence of the leader.
- Operations technology and organizational design should be interrelated to ensure that the firm produces the desired goods and/or services. Adhocracy is an organizational design used in technology-intense settings.
- Information technology is the combination of machines, artifacts, procedures, and systems used to gather, store, analyze, and disseminate information for translating it into knowledge and forms the basis for the virtual organization.
- The environment is more complex when it is richer and more interdependent with higher volatility and greater uncertainty. Firms need not stand alone but can develop network relationships and alliances to cope with greater environmental complexity.

What are bureaucracies and their alternatives?

- The bureaucracy is an ideal form based on legal authority, logic, and order that provides superior efficiency and effectiveness.
- Mechanistic, organic, and hybrid are common types of bureaucracies.
- Hybrid types include the divisionalized firm and the conglomerate. No one type is always superior to the others.