

## Lesson:-06 ORGANIZING

### Organizational Design

#### Chapter overview:

Organizational design, six key elements of organizational design, different types of organizational design, advantages and disadvantages of different types of organizational design, organizational structure, dimensions of structure, situational influences on organization design. Students, today we will be discussing regarding organizations, their design, and structure.

#### Organizational Design

! An organization is a pattern of relationships-many interwoven, simultaneous relationships-through which people, under the direction of managers, pursue their common goals.

! Goals are the products of the decision-making processes in planning. Members of an organization need a stable, understandable framework within which they can work together toward organizational goals. The managerial process of organizing involves making decisions about this type of framework so that organizations can last from the present well into the future.

! Managers must take into account two kinds of factors when they organize:

! They must outline their goals for the organization, their strategic plans for pursuing those goals, and the capabilities at their organizations for carrying out those strategic plans.

! Simultaneously, managers must consider what is going on now, and what is likely to happen in the future, in the organizational environment.

At the intersection of these two sets of factors-plans and environments-managers make decisions that match goals, strategic plans, and capabilities with environmental factors. This crucial first step in organizing, which logically follows from planning, is the process of organizational design.

The specific pattern of relationships that managers create in this process is called the organizational structure.

! Organizing is important because it follows from strategy. Strategy defines *what* to do; organizing defines *how* to do it. Organization structure is a tool that managers use to harness resources for getting things done.

! Organizational structure is a framework that managers device for dividing and coordinating the

activities of members of an organization. Because strategies and environmental circumstances differ from one organization to the next, there are a variety of possible organizational structures.

#### Six Key Elements of Organizational Design

! Organizing is the deployment of organizational resources to achieve strategic goals. The deployment of resources is reflected in the organization's division of labor into specific departments and jobs, formal lines of authority, and mechanisms for coordinating diverse organization tasks. ! When managers develop or change the organization's structure, they are engaging in organization design. This process involves making decisions about:  
! How specialized jobs should be allocated, ! The rules to guide employee behavior, and,!  
At what level decisions are to be made.

**Organization design decisions are typically made by senior managers.**

! The process of organizing consists of breaking down the required work into individual departments and jobs, and then providing the necessary coordination to ensure that these departments and jobs fit together.

! For very small jobs, the process of organizing is not very complicated. But for larger jobs, such as managing a hospital, the process of organizing can become quite complex. It involves dividing the work of the organization into departments; delegating authority; and establishing coordination and control systems to ensure that everyone is working in unison to fulfill the organization's goals.

! Organizational design involves the following six key elements which also formulate the process of organizing:

1. Determine what is to be done: ***Division of Work:***

Adam Smith's *Wealth of Nations* advocated that jobs should be divided into smaller parts. A job is broken down into a number of steps, and each step is completed by a separate individual leading to work specialization. In essence, individuals specialize in doing part of an activity rather than the entire activity. Installing only the motherboards and hard-disk drives in a computer assembly line is an example of this.

Division of work creates simplified tasks that can be learned and completed relatively quickly. This fosters specialization, as each person becomes expert in a certain job. And, because it creates a variety of jobs, people can choose or be assigned to positions that match their talents and interests.

**How work specialization improves productivity in organizations:**

In most organizations, some tasks require highly developed skills; others can be performed by those who have lower skill levels. If all workers were engaged in all the steps of, say, a manufacturing process, all would have the skills necessary to perform both the most demanding and the least demanding

jobs. Thus, except when performing the most highly skilled or highly sophisticated tasks, employees would be working below their skill level. In addition, skilled workers are paid more than unskilled

workers, and, because wages tend to reflect the highest level of skill, all workers would be paid at highly skilled rates to do easy tasks-an inefficient use of resources. That is why you rarely find a cardiac surgeon closing up a patient after surgery. Doctors doing their residency in open-heart surgery and learning the skill usually stitch and staple the patient after the surgeon has performed bypass surgery. This division of work by skill-level work specialization leads to increased productivity.

Work specialization also has its disadvantages. If tasks are divided into small, discrete steps and if each worker is responsible for only one step, then alienation—the absence of a sense of control—may easily develop. This can lead to boredom, fatigue stress, low productivity, poor quality, increased absenteeism, and high turnover.

## 2. Assign tasks: **Departmentalization:**

Work specialization creates specialists who need coordination. This coordination is facilitated by putting specialists together in departments under the direction of a manager. These departments are typically based on the work functions performed, the product or service offered, the target customer or client, the geographic territory covered, or the process used to turn inputs into outputs. The method or methods used should reflect the grouping that would best contribute to the attainment of the organization's objectives and the goals of individual units.

To keep track of the complex web of formal relationships in an organization, managers typically draw up an organization chart to depict how work is divided. Organization charts visually represent the organization at a particular point in time and show the skeleton of the organization structure in chart form.

Organization structure is defined as:

- 1) The set of formal tasks assigned to individuals and departments;
- 2) Formal reporting relationships, including lines of authority, decision responsibility, number of hierarchical levels, and span of manager's control; and,
- 3) The design of systems to ensure effective coordination of employees across departments.

## 3. Link departments: **Hierarchy Development:** Chain of command and span of control.

Since the early days of industrialization, managers worried about the number of people and departments one could effectively handle. This question pertains to the span of management control (frequently shortened to span of control or span of management). The span of management control refers to the number of people and departments that report directly to a particular manager. Once work is divided, departments created, and the span of control chosen, managers can decide on a chain of command plan that specifies who reports to whom. The result of these decisions is a pattern of multiple levels that is called a hierarchy. Choosing an appropriate span of management control for an organizational hierarchy is important for two reasons:

- 1) The span can affect what happens to work relationships in one particular department. Too wide a span may mean that managers are overextended and employees are receiving too little guidance or control. Too narrow a span, in contrast, is inefficient because managers are underutilized.
- 2) The span can affect the speed of decision making in situations where multiple levels in the organizational hierarchy are necessarily involved. Narrow spans of management create tall hierarchies with many levels between the highest and lowest managers. In these organizations, a long chain of command slows decision making, a disadvantage in a rapidly changing environment.

Wide spans, in contrast, create flat hierarchies, with fewer management levels between top and bottom. One of the most noticeable trends in recent years is a move toward flatter organizational hierarchies.

Early management writers tried to determine the maximum number of people one manager could supervise, and many concluded that the universal maximum was six.

However, several writers did acknowledge level in the organization as a contingency variable. They argued that as a manager rises in an organization, he or she has to deal with a greater number of ill-structured problems, so top managers need a smaller span than do middle managers, and middle managers require a smaller span than do supervisors.

Many organizations today are increasing their spans of control. The span of control is increasingly being determined by looking at contingency variables. It is obvious that the more training and experience employees have, the less direct supervision they need.

Managers who have well-trained and experienced employees can function with a wider span. Other contingency variables that will determine the appropriate span include similarity of employee tasks, the complexity of those tasks, the physical proximity of employees, the degree to which standardized procedures are in place, the sophistication of the organization's management information system, the strength of the organization's value system, and the preferred managing style of the manager. The chain of command is an unbroken line of authority that links all persons in an organization and shows who reports to whom. It is associated with two underlying principles. *Unity of command* means that each employee is held accountable to only one supervisor. The *scalar principle* refers to a clearly defined line of authority in the organization that includes all employees. Authority and responsibility for different tasks should be distinct. All persons in the organization should know to whom they report as well as the successive management levels all the way to the top.

#### 4. Decide how much authority to designate: ***Authority, Responsibility and Delegation:***

The chain of command illustrates the authority structure of the organization. Authority is the formal and legitimate right of a manager to make decisions, issue orders, and allocate resources to achieve organizationally desired outcomes. Authority is distinguished by three characteristics:

1) Authority is vested in organizational positions, not people. Managers have authority because of the positions they hold, and other people in the same positions would have the same authority.

2) Authority is accepted by subordinates.

Although authority flows top down through the organizations hierarchy, subordinates comply because they believe that managers have a legitimate right to issue orders. The acceptance theory of authority argues that a manager has authority only if subordinates choose to accept his or her commands.

3) Authority flows down the vertical hierarchy.

Positions at the top of the hierarchy are vested with more formal authority than are positions at the bottom.

Responsibility is the duty to perform the task or activity an employee has been assigned. Typically, managers are assigned authority commensurate with responsibility. When managers have responsibility for task outcomes but little authority, the job is possible but difficult. They have to rely on persuasion and luck. When managers have authority exceeding responsibility, they may become tyrants, using authority toward frivolous outcomes.

Accountability means that the people with authority and responsibility are subject to reporting and justifying task outcomes to those above them in the chain of command. Accountability is the mechanism through which authority and responsibility are brought

into alignment. Subordinates must be aware that they are accountable for a task and accept the responsibility and authority for performing it.

Delegation is the process managers use to transfer authority and responsibility to positions below

them in the hierarchy. Most organizations today encourage managers to delegate authority to the lowest possible level to provide maximum flexibility to meet customer needs and adapt to the environment.

### **Line and Staff Authority.**

An important distinction in many organizations is between line authority and staff authority, reflecting whether managers work in line or staff departments in the organization's structure. *Line departments* perform tasks that reflect the organization's primary goal and mission. In a manufacturing organization, line departments make and sell the product. *Staff departments* include all those that provide specialized skills in support of line departments. Staff departments have an advisory relationship with line departments and typically include marketing, labor relations, research, accounting and human resources. Line authority means that people in management positions have formal authority to direct and control immediate subordinates. Staff authority is narrower and includes the right to advice, recommend, and counsel in the staff specialists' area of expertise. Staff authority is a communication relationship; staff specialists advise managers in technical areas. For example, the finance department of a manufacturing firm would have staff authority to coordinate with line departments about which accounting forms to use to facilitate equipment purchases and standardize payroll services.

5. Decide the levels at which decisions are to be made: *Centralization Vs. Decentralization:*

Centralization and decentralization pertain to the hierarchical level at which decisions are made.

Centralization means that decision authority is located near the top of the organization. With decentralization, decision authority is pushed downward to lower organization levels. Organizations may have to experiment to find the correct hierarchical level at which to make decisions, that is, the degree of centralization. This means that no organization can be either completely centralized or completely decentralized.

Early management writers proposed that centralization in an organization depended on the situation. Their objective was the optimum and efficient use of employees. Traditional organizations were structured in pyramid, with power and authority concentrated near the top of the organization. Given this structure, historically centralized decisions have been the most common. However, organizations today have become more complex and are responding to dynamic changes in their environments. As such, many managers believe that decisions need to be made by those individuals closest to the problems faced regardless of their organizational level. In fact, the trend has been a movement toward more decentralization in organizations.

Today, managers often choose the amount of centralization or decentralization that will allow them to best implement their decisions and achieve organizational goals. What works in one organization, however, won't necessarily work in another. So managers must determine the amount of decentralization for each organization and work units

within it. Factors that typically influence centralization versus decentralization are as follows:

- 1) Greater change and uncertainty in the environment are usually associated with decentralization.
- 2) The amount of centralization or decentralization should fit the firm's strategy.
- 3) In times of crisis or risk of company failure, authority may be centralized at the top.

6. Decide how to achieve coordination: **Coordination:**

Coordination is the process of integrating the activities of separate departments in order to pursue organizational goals effectively. Without coordination, people would lose sight of their roles within the total organization and would be tempted to pursue their own departmental interests at the expense of organizational.

The extent of coordination depends on the nature of the tasks performed and the degree of interdependence of the people in the various units performing them. When these tasks require or can benefit from communication between units, then a high degree of coordination is best. When information exchange is less important, work may be completed more efficiently with less interaction between units. A high degree of coordination is likely to be beneficial for work that is non-routine and unpredictable, for work in which factors in the environment are changing, and for work in which interdependence is high. In addition, organizations that set high performance objectives usually require a higher level of coordination. Coordination can also occur among people working at different organizations. Coordination is a complement, even a counterbalance, to the division of work and job specialization. Specialization tends to separate people in organizations, because jobs are, by definition, separate identifiable collections of activities. Coordination involves bringing people back together to ensure that work relationships between people with different but related jobs can contribute to organizational goals.

Managers use many techniques for achieving coordination. The main ones include:

**1) Coordination by Rules or Procedures:**

If the work that needs to be done is predictable and can be planned for in advance, you can specify ahead of time what actions your subordinates will take. Rules and procedures are thus useful for coordinating routine, recurring activities. They specify in detail, ahead of time, what course of action each subordinate should take if some situation should arise. Thus a restaurant manager could have a rule that "busers will bus tables as soon as a customer is finished eating." This helps ensure that the table is clear before the next course is served, and that the work of the waiters and busers is coordinated.

**2) Coordination by Targets or Goals:**

Most managers assign subordinates targets or goals to facilitate coordination. For example, a president might tell his or her sales vice president to sell 10,000 units next year, the production vice president to produce 10,000 units, and the finance vice president to finance 10,000 units next year. Then, if each vice president achieves his or her goal, their efforts should be coordinated since the company will sell, produce, and be ready to finance 10,000 units.

**3) Coordination through the hierarchy.**



In addition to using rules and targets, all managers use the chain of command to achieve coordination. Thus, when situations arise that are not covered by rules or targets, subordinates are trained to bring the problem to the manager.

#### **4) Coordination through departmentalization.**

Some forms of departmentalization facilitate coordination better than do others. For instance, suppose

a company is organized functionally, with separate departments for production, finance, and sales. These departments are highly interdependent, which means the president must work hard to coordinate production, finance, and sales for all the company's products. Now suppose the company switches to a product-type departmentalization. Now there are separate managers for each of the company's products, each of whom has his or her own production, finance, and sales group. The president does not have to work as hard coordinating the work of the product divisions, because they are not as interdependent as were the production, finance, and sales departments that previously reported to him. At the same time, having a single manager and department for each product helps ensure that all the work needed to produce, finance, and sell each product is tightly coordinated. As a rule, functional departmentalization creates additional demands for coordination, since the functional departments are so interdependent. Product departmentalization reduces the interdependence, and the need for coordination. Switching to a matrix departmentalization also improves coordination. This is because the matrix approach means each project has the continuous and undivided attention of its own project manager and project team.

#### **5) Using a Staff Assistant for Coordination.**

Some managers hire an "assistant" to make the manager's job of coordinating his or her subordinates easier. When subordinates bring a problem to the manager, the assistant can compile information on the problem, research the problem, and advice on what alternatives are available. This effectively increases the manager's ability to handle problems and coordinate the work of his or her subordinates.

#### **6) Using a Liaison for Coordination.**

When the volume of contacts between two departments (like production and sales) grows, many managers appoint a special liaison person to facilitate coordination. For example, the sales department might appoint one salesperson to be its liaison with the production department. This person would be based in the sales department but would travel frequently to the production plant to learn as much as possible about the plant's production schedule. Then when an order comes in to the sales department, the sales manager could quickly determine from this liaison person what the production schedules are, and whether the order can be accepted and delivered when promised.

#### **7) Using a Committee for Coordination:**

Many managers achieve coordination by creating interdepartmental committees, task forces, or teams. These are usually composed of representatives of five or six interdependent departments, and they meet periodically to discuss common problems and ensure interdepartmental coordination.

#### **8) Using Independent Integrators for Coordination.**

An independent integrator's job is to coordinate the activities of several interdependent departments.

Integrators differ from liaison personnel in that integrators are independent of (not attached to) the departments they coordinate. Instead, they report to the manager that the departments they coordinate report to. Independent integrators may be either individuals or departments. This coordination technique has proved useful in high-technology companies where the work of several interdependent departments must be coordinated under rapidly changing conditions. In the electronics industry, for instance, developing new products involves close coordination between research, engineering, sales and production departments in a situation where competitors are constantly introducing new and innovative products. Here, a successful firm might decide to establish a new product development department. This department's entire role is to coordinate (or "integrate") the research, marketing analysis, sales, and production activities that are necessary for developing and introducing a new product.

#### **9) Coordination through Mutual Adjustment:**

Mutual adjustment achieves coordination through informal communication. This is a simple coordinating approach, and is thus used in the simplest of organizations—for example, by two people moving a heavy log. Here coordination could be achieved by just having two persons count "one, two, three, lift" at which time both people lift the object in unison. Paradoxically, mutual adjustment is also used in the most complex of situations, where the situation changes so quickly and where the work to be done is so unpredictable that standard procedures and organizations will not suffice.

We will now delve into the different organizational design approaches and the situational influences on the organizational designs.

#### **Different types of Organizational Design**

Organizational design, as we have seen, is the decision-making process by which managers choose an organizational structure appropriate to the strategy for the organization and the environment in which members of the organization carry out that strategy. Organizational design thus has managers looking in two directions simultaneously: inside their organization and outside their organization.

Initially, organizational design processes were concentrated on the internal workings of an organization. Gradually, the external outlook of the organizational design aspect has been given more and more managerial attention.

#### **The Classical Approach:**

Early managers and management writers sought the "one best way"—a set of principles for creating an organizational structure that would work well in all situations. Max Weber, Frederick Taylor, and Henri Fayol were major contributors to the classical approach. They believed that the most efficient

and effective organizations had a hierarchical structure in which members of the organization were guided in their actions by a sense of duty to the organization and by a sense of rational rules and regulations. When fully developed, according to Weber, such organizations were characterized by specialization of tasks, appointment by merit, provision of career opportunities for members, routinization of activities, and a rational, impersonal organizational climate. Weber called this a bureaucracy. Weber praised bureaucracy for its establishment of rules for decision making, its clear chain of



command, and its promotion of people on the basis of ability and experience rather than favoritism or whim. He also admired the bureaucracy's clear specification of authority and responsibility, which he believed made it easier to evaluate and reward performance.

### **The Task-Technology Approach:**

A different set of variables internal to the organization are prominent in the task-technology approach to organizational design that emerged in the 1960s. "Task-technology" refers to the different kinds of production technology involved in making different kinds of products. Classical studies conducted in the mid-1960s by Joan Woodward and her colleagues found that an organization's task-technology affected both its structure and its success. Woodward's team divided about 100 British manufacturing firms into three groups according to their respective task technologies:

1) Unit production refers to the production of individual items tailored to a customer's specifications custom-made clothes, for example. The technology used in unit production is the least complex because the items are produced largely by individual craftspeople.

Small-batch production refers to products made in small quantities in separate stages, such as machine parts that are later assembled.

2) Large-batch and mass production refer to the manufacture of large quantities of products, sometimes on an assembly line (such as computer chips).

3) Process production refers to the production of materials that are sold by weight or volume, such as chemicals or drugs. These materials are usually produced with highly complex equipment that operates in a continuous flow.

### **Different Types of Organizational Design**

Woodward's studies led to three general conclusions:

1. The more complex the technology-ranging from unit to process production-the greater the number of managers or managerial levels. In other words, complex technologies lead to tall organizational structures and require more supervision and coordination.

2. The span of management for first-level managers increases as we move from unit to mass production, but decreases as we move from mass to process production. Because lower level employees in both unit and process production firms usually do highly skilled work, they tend to form small work groups, making a narrow span inevitable. In contrast, one manager can supervise a large number of assembly-line workers who perform similar tasks.

3. As a firm's technological complexity increases, its clerical and administrative staffs become larger because managers need help with paperwork and non-production-related work so they can concentrate on specialized tasks. Also, complex equipment requires more maintenance and scheduling, both of which generate additional paperwork.

Woodward's studies provided evidence of the influence of technology on organizational structure. Other research has suggested that the impact of technology on structure is strongest in small firms.

For large firms, the impact of technology seems to be felt mainly at the lowest levels of the organization.

### **The Environmental Approach:**

Tom Burns and G. M. Stalker have developed an approach to organizational design that incorporates the organizational environment into design considerations. Burns and Stalker distinguished between two organizational systems: mechanistic and organic.

1. The mechanistic organizational system is a rigid and tightly controlled structure. In this system, the activities of the organization are broken down into separate, specialized tasks. Objectives for each individual and unit are precisely defined by higher-level managers following the classical bureaucratic chain of command. It's characterized by high specialization, rigid departmentalization, narrow spans of control, high formalization, a limited information network (mostly downward communication), and little participation in decision-making by lower-level employees. This organizational design tries to minimize the impact of differing personalities, judgments, and ambiguity because these human traits are seen as inefficient and inconsistent. Although no pure form of mechanistic organization exists in reality, almost all large corporations and governmental agencies have some of these mechanistic characteristics.

2. The organic organizational system is a highly adaptive and flexible structure. In this system, individuals are more likely to work in a group setting than alone. There is less emphasis on taking orders from a manager or giving orders to employees. Instead members communicate across all levels of the organization to obtain information and advice. Rather than having standardized jobs and regulations, the organic organization is flexible, which allows it to change rapidly as needs require. Organic organizations have division of labor, but the jobs people do are not standardized.

Employees are highly trained and empowered to handle diverse job activities and problems, and these organizations frequently use employee teams. Employees in organic-type organizations require minimal formal rules and little direct supervision. Their high levels of skills and training and the support provided by other team members make formalization and tight managerial controls unnecessary.

After studying a variety of companies, Burns and Stalker concluded that the mechanistic system was best suited to a stable environment, whereas organic systems were best suited to a turbulent one. Organizations in changing environments would probably use some combination of the two systems.

In a stable environment, each organization member is likely to continue performing the same task. Thus, skill specialization is appropriate. In a turbulent environment, however, jobs must constantly be redefined to cope with the ever-changing world. Organization members must therefore be skilled at solving a variety of problems, not at repetitively performing a set of specialized activities. In addition, the creative problem solving and decision-making required in turbulent environments are best carried out in groups in which members can communicate openly. Thus, for turbulent environments, an organic system is appropriate.

### **Situational influences on organization design**

Top managers of most organizations typically put a great deal of thought into designing an appropriate structure. What that appropriate structure is depends on four contingency variables: the organization's strategy, size, technology, and degree of environmental uncertainty. *Strategy and Structure*: An organization's structure should facilitate the achievement of goals. Because goals are influenced by the organization's strategies, it's only logical that strategy and structure should be closely linked. More specifically,

structure should follow strategy. If managers significantly change the organization's strategy, they will need to modify the structure to accommodate and support the change. Alfred Chandler initially researched the strategy-structure relationship. He studied several large U.S. companies over a period of 50 years and concluded that changes in corporate strategy led to changes in an organization's structure. He found that these organizations usually began with a single product or product line that required only a simple or loose form of organization. However, as these organizations grew, their strategies became more ambitious and elaborate and the structure changed to support the chosen strategy. Most current strategy frameworks tend to focus on three dimensions: (1) innovation, which reflects the organization's pursuit of meaningful and unique innovations; (2) cost minimization, which reflects the organization's pursuit of tightly controlled costs; and (3) imitation, which reflects an organization's seeking to minimize risk and maximize profit opportunities by copying the market leaders. What structural design works best with each? Innovators need the flexibility and free-flowing information of the organic structure, whereas cost minimizers seek the efficiency, stability, and tight controls of the mechanistic structure. Imitators use structural characteristics of both—the mechanistic structure to maintain tight controls and low costs and the organic structure to pursue new and innovative directions.

*Size and Structure:* There's considerable evidence that an organization's size significantly affects its structure. For instance, large organizations—those with 2,000 or more employees—tend to have more specialization, departmentalization, centralization, and rules and regulations than do small organizations. However, the relationship isn't linear. Rather, size affects structure at a decreasing rate; that is, size has less impact as an organization grows. Why? Essentially, once an organization has around 2,000 employees, it's already fairly mechanistic. Adding an additional 500 employees to a firm with 2,000 employees won't have much of an impact. On the other hand, adding 500 employees to an organization that has only 300 members is likely to result in a shift toward a more mechanistic structure.

*Technology and Structure:* Every organization has at least one form of technology to convert its inputs into outputs. For instance, workers at Maytag Corporation build its washers, dryers, and other home appliances on a standardized assembly line. Employees at Kinkos Copies produce custom jobs for individual customers. And employees at Bayer AG work on a continuous-flow production line for manufacturing its pharmaceuticals. Each of these organizations represents a different type of technology.

The initial interest in technology as a determinant of structure can be traced to the work of a British scholar, Joan Woodward. She studied several small manufacturing firms in southern England to determine the extent to which structural design elements were related to organizational success. Woodward was unable to find any consistent pattern until she segmented the firms into three categories based on the size of their production runs. The three categories, representing three distinct technologies, had increasing levels of complexity and sophistication. The first category, *unit production*, described the production of items in units or small batches. The second category, *mass production*, described large batch manufacturing. Finally, the third and most technically complex group, *process production*, included continuous-process production. A summary of her findings indicated that an organic structure was most suited for unit production and process production; whereas a mechanistic structure was

most suited for mass production. Since Woodward's initial work, numerous studies have been done on the technology-structure relationship. These studies generally demonstrate that organizations adapt their structures to their technology. The processes or methods that transform an organization's inputs into outputs differ by their degree of routine ness. In general, the more routine the technology, the more standardized and mechanistic the structure can be. Organizations with more nonroutine technology are more likely to have organic structures.

**Woodward's Findings on Technology, Structure, and Effectiveness**

	Unit Production	Mass Production	Process Production
Structural characteristics	Low vertical differentiation Low horizontal differentiation Low formalization	Moderate vertical differentiation High horizontal differentiation High formalization	High vertical differentiation Low horizontal differentiation Low formalization
Most effective structure	Organic	Mechanistic	Organic

*Environmental Uncertainty and Structure:* Why should an organization's structure be affected by its environment? Because of environmental uncertainty! Some organizations face relatively stable and simple environments; others face dynamic and complex environments. Because uncertainty threatens an organization's effectiveness, managers will try to minimize it. One way to reduce environmental uncertainty is through adjustments in the organizational structure. The greater the uncertainty, the greater the need for the flexibility offered by an organic design. On the other hand in stable, simple environments, mechanistic designs tend to be most effective. The evidence on the environment-structure relationship helps to explain why so many managers are restructuring their organizations to be lean, fast, and flexible. Global competition, accelerated product innovation by competitors, and increased demands from customers for high quality and faster deliveries are examples of dynamic environmental forces. Mechanistic organizations are not equipped to respond to rapid environmental change and environmental uncertainty. As a result, we're seeing organizations being designed to be more organic.

**Common Organizational Designs**

What organizational designs do Ford, Toshiba, Procter & Gamble, and eBay have? In making organizational design decisions, managers have some common structural designs

from which to choose. We'll first look at some traditional organizational designs and then at some more contemporary designs.

### **Traditional Organizational Designs**

In designing a structure to support the efficient and effective accomplishment of organizational goals, managers may choose to follow more traditional organizational designs. These designs—the simple structure, functional structure, and divisional structure—tend to be more mechanistic. *Simple Structure*: Most organizations start as entrepreneurial ventures with a simple structure consisting of owners and employees. A simple structure is an organizational design with low departmentalization, wide spans of control, authority centralized in a single person, and little formalization. This structure is most commonly used by small businesses in which the owner and manager are one and the same. Many organizations, do not, by choice or by design, remain simple structures. As 'an organization grows, it generally reaches a point where it has to add employees to help cope with the additional duties and requirements of operating at that level. As the number of employees rises, the structure tends to become more specialized and formalized. Rules and regulations are introduced, work becomes specialized, departments are created, levels of management are added, and the organization becomes increasingly bureaucratic. At this point, a manager might choose to organize around a functional structure or a divisional structure. *Functional Structure*: A functional structure is an organizational design that groups similar or related occupational specialties together. It's the functional approach to departmentalization applied to the entire organization. For instance, organized around the functions of operations, finance, human resources, and product research and development. *Divisional Structure*: The divisional structure is an organizational structure made up of separate units or divisions. In this design, each unit or division has relatively limited autonomy, with a division manager responsible for performance and who has strategic and operational authority over his or her unit. In divisional structures, however, the parent corporation typically acts as an external overseer to coordinate and control the various divisions, and it often provides support services such as financial and legal. Take Wal-Mart Stores, Inc., for example. Its divisions include Wal-Mart Realty, International, Specialty Stores, Sam's Clubs, and Supercenters.

### **Strengths and Weaknesses of common Traditional Organizational Designs**

#### **Simple Structure**

Strengths: Fast; flexible; inexpensive to maintain; clear accountability

Weaknesses: Not appropriate as organization grows; reliance on one person is risky

### **Common Organizational Designs**

#### **Functional Structure**

Strengths: Cost-saving advantages from specialization (economies of scale, minimal duplication of people and equipment) and employees are grouped with others who have similar tasks  
Weaknesses: Pursuit of functional goals can cause managers to lose sight of what's best for overall organization; functional specialists become insulated and have little understanding of what other units are doing  
**Divisional Structure**  
Strengths: Focuses on results—division managers are responsible for what happens to their products



and services Weaknesses: Duplication of activities and resources increases costs and reduces efficiency

### **Contemporary Organizational Designs**

Manager's Dilemma illustrated, managers in contemporary organizations are finding that these traditional hierarchical designs often aren't appropriate for the increasingly dynamic and complex environments they face. In response to marketplace demands for being lean, flexible, and innovative, managers are finding creative ways to structure and organize work and to make their organizations more responsive to the needs of customers, employees, and organizational constituents. Now, we want to introduce you to some of the more contemporary concepts in organizational design.

*Team-Based Structures.* In a team-based structure, the entire organization is made up of work groups or teams that perform the organization's work. Needless to say, in a team-based structure, employee empowerment is crucial because there is no line of managerial authority from top to bottom. Rather, employee teams are free to design work in the way they think is best. However, the teams are also held responsible for all work activity and performance results in their respective areas. Let's look at some examples of organizations that are organized around teams. Whole Foods Market, Inc., the largest natural-foods grocer in the United States, is structured entirely around teams. Everyone of Whole Foods' stores is an autonomous profit center composed of an average of self-managed teams, each with a designated team leader. The team leaders in each store are a team; store leaders in each region are a team; and the company's six regional presidents are a team. At Sun Life Assurance of Canada's U.S. office in Wellesley, Massachusetts, customer representatives have been reorganized into eight-person teams trained to expedite all customer requests. Now, when customers call in, they're not switched from one specialist to another but to one of the teams that takes care of every aspect of the customer's request. In large organizations, the team structure complements what is typically a functional or divisional structure. This allows the organization to have the efficiency of a bureaucracy while providing the flexibility that teams provide. To improve productivity at the operating level, for instance, companies such as Saturn, Motorola, and Xerox extensively use self-managed teams. And at Boeing, Baxter International, and Hewlett-Packard, cross-functional teams are used to design new products or coordinate major projects.

*Matrix and Project Structures:* Other popular contemporary designs are the matrix and project structures. The matrix structure is an organizational structure that assigns specialists from different functional departments to work on one or more projects being led by project managers. The figure shows an example of the matrix structure used in an aerospace firm. Along the top are the familiar organizational functions. The specific projects the firm is currently working on are listed along the left hand side. Each project is managed by an individual who staffs his or her project with people from each of the functional departments. The addition of this vertical dimension to the traditional horizontal functional departments, in effect, "weaves together" elements of functional and product departmentalization—hence, the term *matrix*. One other unique aspect you need to know about the matrix design is that it creates a *dual chain of command*. It explicitly violates the classical organizing principle of unity of command. How does the matrix work in reality?



Employees in a matrix organization have two managers: their functional department manager and their product or project manager, who share authority. The project managers have authority over the functional members who are part of their project team in areas relative to the project's goals. However, decisions such as promotions, salary recommendations, and annual reviews remain the functional manager's responsibility. To work effectively, project and functional managers have to communicate regularly, coordinate work demands on employees and resolve conflicts together. Although the matrix structure works well and continues to be an effective structural design choice for many organizations—some organizations are using, more “advanced” type of project structure, in which employees continuously work on projects. Unlike the matrix structure, a project structure has no formal departments to which employees return at the completion of a project. Instead employees take their specific skills, abilities, and experiences to other work projects. In addition, all work activities in project structures are performed by teams of employees who become part of a project team because they have the appropriate work skills and abilities. For instance, at Oticon Holding A/S, a Danish hearing-aid manufacturer, there are no organizational departments or employee job titles. All work activities are project based, and these project teams form, disband and form again as the work requires. Employees “join” project teams because they bring needed skills and abilities to that project.

Once the project is completed however, they move on to the next one.

#### **A Matrix Organization in an Aerospace Firm**

Project structures tend to be very fluid and flexible organizational designs. There's no departmentalization or rigid organizational hierarchy to slow down decision-making or taking actions. In this type of structure, managers serve as facilitators, mentors, and coaches. They “serve” the project teams by eliminating or minimizing organizational obstacles and by ensuring that the teams have the resources they need to effectively and efficiently complete their work.

*Autonomous Internal Units:* Some large organizations with numerous business Divisions have adopted a design that's nothing more than a collection of autonomous internal units—that is, independent decentralized business unit with its own products, clients, competitors, and profit goals. Although this may sound similar to the divisional structure we described earlier, the key difference is that these business units are *autonomous*. There is no centralized control or resource allocation, as you'd find in the divisional structure. An example of an organization using this structure is ABB (Asea Brown Boveri), global organization annual revenues exceeding \$24 billion. It makes equipment for power transmission- and distribution; automation systems; petroleum technologies and equipment;- and electrical and mechanical products. ABB is actually about 1000 companies operating in more than 140 countries around the globe. The whole operation managed by just eight top executives at headquarters in Zurich, Switzerland. The autonomous internal unit structure allows ABB remarkable flexibility to acquire new businesses, respond to competitors, and exploit market opportunities.

*The boundary less Organization:* Another approach to contemporary organization design is the idea of the boundary less organization, an organization whose design is not defined by, or limited to, the horizontal, vertical, or external boundaries imposed by a predefined structure. The term was coined by Jack Welch, former chairman of General Electric, who wanted to eliminate vertical and horizontal boundaries within GE and break down

external barriers between the company and its customers and suppliers. This idea may sound odd, yet many of today's most successful organizations are finding that they can most effectively operate in today's environment by remaining flexible and *unstructured* that the ideal structure for them is *not* having a rigid, predefined structure. Instead, the boundary less organization seeks to eliminate the chain of command, to have appropriate spans of control, and to replace departments with empowered teams. What do we mean by "boundaries"? Think of the horizontal boundaries imposed by work specialization and departmentalization, the vertical boundaries that separate employees into organizational levels and hierarchies, and the external boundaries that separate the organization from its customers, suppliers, and other stakeholders. By removing *vertical* boundaries through such structural approaches as cross-hierarchical teams and participative decision-making, the hierarchy is flat-tened. Managers can remove *horizontal* boundaries by using cross-functional teams and organizing work activities around work processes instead of around functional departments. And *external* boundaries be minimized or eliminated by using strategic alliances with suppliers, or value chain management customer-organization linkages. *The learning Organization:* The concept of a learning organization doesn't involve a specific organizational design per se but instead describes an organizational mind-set or philosophy that has significant design implications. What is a learning organization? It's an organization that has developed the capacity to continuously adapt and change because all members take an active role in identifying and resolving work-related issues. In a learning organization, employees are practicing knowledgemanagement by continually acquiring and sharing new knowledge and are willing to apply that knowledge in making decisions or performing their work. Some organizational design theorists even go so far as to say that an organization's ability to do this-that is, to learn and to apply that learning as they perform the organization's work-may be the only sustainable source of competitive advantage.