

Tomsk Polytechnic University

A.N. Dreval, M.V. Mitrofanova

General Management

Textbook

*Допущено Учебно-методическим объединением по образованию в области
производственного менеджмента в качестве учебного пособия на
английском языке по курсу «Основы менеджмента» для студентов,
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This textbook consists of 4 sections (chapters) devoted to management theory.

The textbook is prepared at the TPU Department of Management and International Management Department. It is recommended for foreign students following the Bachelor Degree Program and students of economics and management department following 060800 speciality at Tomsk Polytechnic University.

Reviewed by:

Deputy Director at Introscopy Research Institute of TPU, Doctor of Science O.A. Sidulenko.

Assistant Professor at International Management Department of TPU, Candidate of Science V.A. Pushnykh.

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PREFACE

For many people knowledge management skill remains ill-defined. A part of the problem may be that authors in KM have focused on either the minutiae of implementation or on abstract theories such as the value of trust in a knowledge sharing culture. *Why do we need knowledge management?* It aims to place KM in the broader context of the global economy.

The words "knowledge management" must make many a corporate heart sink, much as "quality circles" and "business process reengineering" did in the very recent past. What is the reason? It is another question that you either have tried and know how much it costs or you have not tried it but think you should because everyone else seems to be doing it.

As with quality circles and business process reengineering, there are benefits to be found in knowledge management. The problem is top management often has only a vague understanding of what it is and especially of why it might be a good thing.

It often helps to place new ideas in their context, to see why they have developed. In the case of knowledge management the changes taking place in the world economy have made knowledge management a business necessity, at least for large multinationals that operate on a global scale, or hope to. What has taken place in the world economy can be likened to a knowledge-based chain reaction.

This Textbook covers the topics:

1. Planning
2. Organizing
3. Motivating
4. Controlling

The Workbook contains assignments, which the student must fulfil. The material in the Workbook is presented in the same order and with the same section division as in the Textbook.

The authors welcome yours suggestions for improvements of future editions of this Textbook.

1. Management: an Overview

For most of us, organizations are an important part of our daily lives. By **organization** we mean two or more persons engaged in a systematic effort to produce goods or services. We all deal with organizations when we attend classes, deposit money at a bank and buy clothing. We are also influenced by organizations more indirectly through the products that we use. For example, people get used to those products they buy, so that they can't purchase anything else for some reasons: it can be quality, design or practicality. That is why one producer and products of one firm are chosen.

1.1 What Is Management?

Management is the process of achieving organizational goals through engaging in the four major functions of planning, organizing, motivating and controlling. This definition recognizes that management is an ongoing activity, entails reaching important goals, and involves knowing how to perform the four major functions of management. Since the four major functions are crucial to effective management, we use them as the basic framework for this book.

Further goes a brief overview of these major functions before considering how they relate to other major aspects of managerial work.

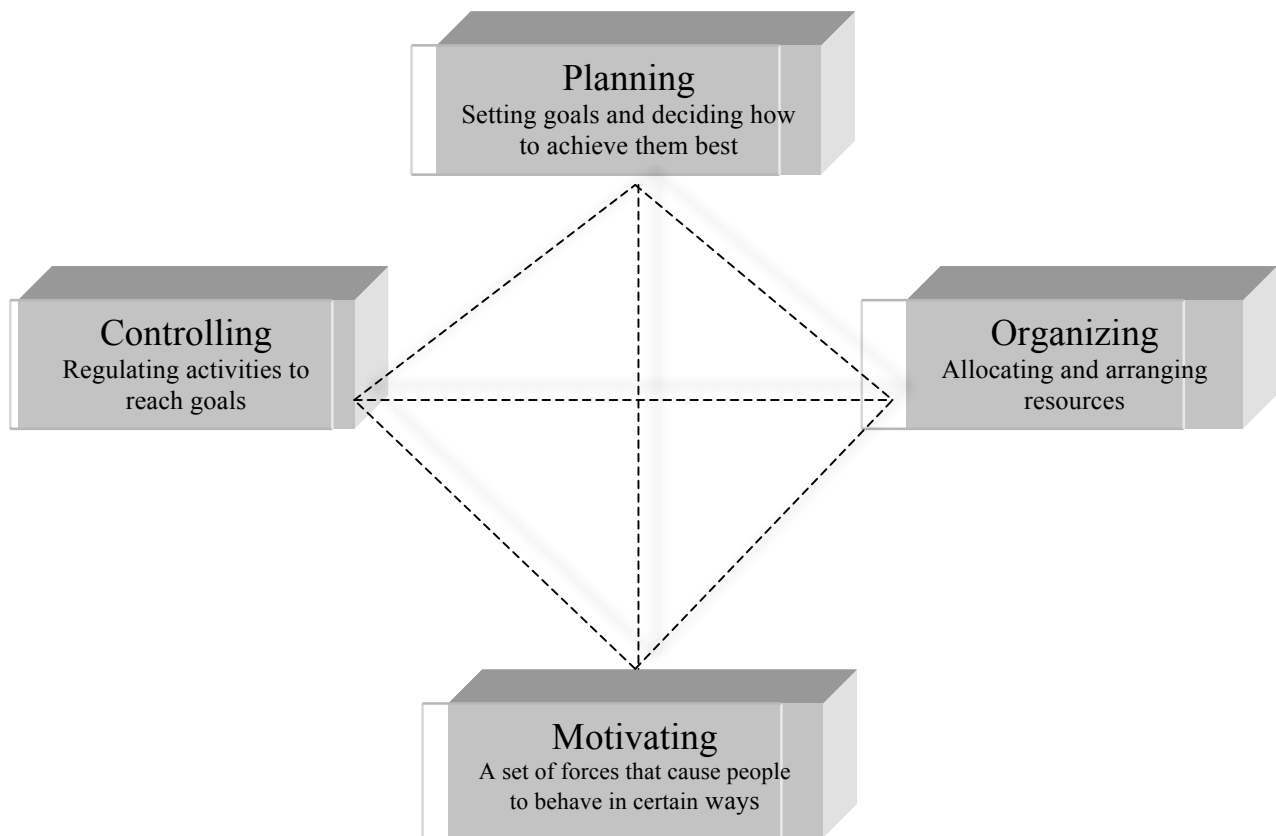
Planning. Planning is the management function that involves setting goals and deciding how to achieve them best. This function also includes considering what must be done to encourage necessary levels of changes and innovations. Planning involves resources and time. Hence, planning includes:

- setting objectives
- developing strategy, programs and plans for achieving goals
- determining necessary resources and its allocation.

Organizing. Organizing is the management function that focuses on allocating and arranging human and nonhuman resources so that plans can be carried out successfully.

It is through the organizing function that managers determine, which tasks are to be done, how tasks can best be combined into specific jobs, and how jobs can be grouped into various units that make up the structure of the organization. Staffing jobs with individuals who can successfully carry out plans is also a part of the organizing function. In addition, recruiting occurs with a careful eye toward bringing in individuals with the potential to take on leadership positions as the company continues to expand.

Motivating. Motivating is the force that makes organizations dynamic, acting systems rather than static structures. For an organization to achieve its goals, it is an essential that employees channel the motivation potential they bring to the organization toward goal attainment. This potential should not lie dormant, but rather should be activated or stimulated so that organizations receive the maximum possible energy from the employees.

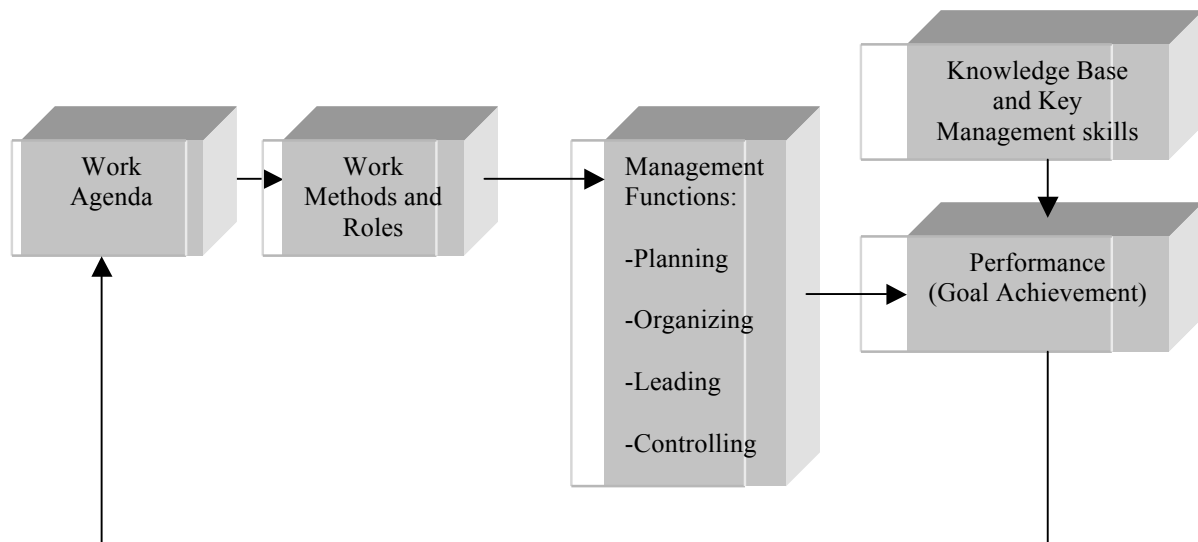


Controlling. **Controlling** is the management function that is aimed at regulating organizational activities so that actual performance conforms to the expected organizational standards and goals. To do the necessary regulating, managers need to monitor ongoing activities, compare the results with the expected standards or progress toward goals, and take corrective action as needed.

2. Modern Management Process Functions

Although the four major functions of management form the basis for the managerial process, several additional elements are considered key ingredients of this process as well. The additional elements were identified by management scholars Steven J. Carroll and Dennis J. Gillen, on the basis of their review of major studies on managerial work. As indicated, the functions of the management form the central part of the process. However, the model also shows that work methods and managerial roles, as well as work agendas, feed into the management functions. A manager's working knowledge and key management skills also are important factors that contribute to high performance (achieving goals). We consider each of these elements in greater detail in the next several sections of this chapter. As we examine these variables, it is useful to keep in mind that the management process applies not only to profit-making organizations, but also to not-for-profit organizations. A **not-for-profit organization** (sometimes called a *nonprofit organization*) is an organization

whose main purposes center on issues other than making profits. Common examples of not-for-profit organizations are government organizations (e.g., the federal government), educational institutions (college or university), cultural institutions (New York's Carnegie Hall), charitable institutions (United Way), and many health-care facilities (Mayo Clinic). Of course, environmental factors (such as the state of the economy and actions of competitors) also have a bearing on ultimate goal achievement.



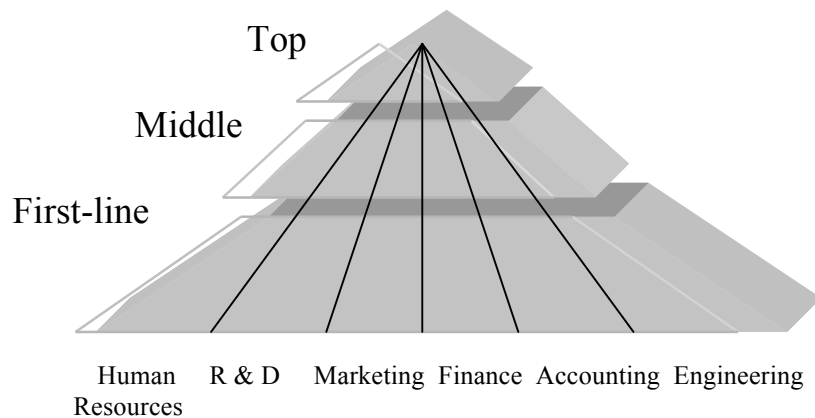
3. Managerial Job Types

Although we have been exploring the nature of managerial work in general, managerial jobs do vary somewhat on the basis of two important dimensions. One is a vertical dimension, focusing on different hierarchical levels in the organization. The other is a horizontal dimension, addressing variations according to the area for which managers have major responsibility. We'll explore these dimensions and their implications in this section. In the process, we'll give special attention to differences in the entrepreneurial role at various hierarchical levels as a means of fostering innovation.

3.1. Vertical Dimension: Hierarchical Levels

Along the vertical dimension, managerial jobs in organizations fall into three categories: first-line, middle, and top management. These categories can be viewed as vertical differentiation among managers because they involve three different levels of the organization.

First-Line Managers. First-line managers (or first-line supervisors) are managers at the lowest level in the hierarchy who are directly responsible for the work of operating (nonmanagerial) employees. They often have titles that include the word "supervisor." First-line managers are extremely important to the success of an organization because they have the major responsibility of seeing that day-to-day operations run smoothly in pursuit of organizational goals.



Because they operate at the interface between management and the rest of the work force, first-line supervisors can easily find themselves in the middle of conflicting demands. At the same time, the power of first-line supervisors has been gradually eroding because of such factors as union influence and the increasing educational level of workers.

According to one recent review of research literature on first-line supervisors, the autonomy and influence of first-line managers is likely to ebb still further in the future. One reason is the increasing attempts by organizations to emulate the Japanese emphasis on worker participation in managing the workplace. Another is the trend toward work teams. Still another is the use of computers to keep track of many activities formerly regulated by first-line managers. Finally, a growing number of specialists, particularly in fields involving sophisticated technology, provide advice and direction to work areas. One implication of these developments is that the job of the first-line supervisor is likely to change toward a greater emphasis on dealing with internal human relations and on representing the unit externally.

Middle Managers. Middle managers are managers beneath the top levels of the hierarchy who are directly responsible for the work of other managers below them. The managers for whom they have direct responsibility may be either middle managers or first-line managers. Middle managers also sometimes supervise operating personnel, such as administrative assistants and several specialists (such as engineers or financial analysts). Many different titles are used for middle managers. Some typical titles include such words as "manager," "director of," "chief," "department head," and "division head." Middle managers are mainly responsible for implementing overall organizational plans so that organizational goals are achieved as expected.

Organizations, particularly very large ones, often have several layers of middle managers. For example, in recent years, giant General Motors has generally had about 14 or 15 management levels. That number reflects a post-World War II trend aimed at adding layers of middle management to help coordinate expanding activities. By the early 1980s, however, that trend had begun to reverse. At that point, many companies began cutting the number of levels of management hierarchy in an attempt to lower costs, reduce the layers involved

in decision making, and facilitate communication. In fact, General Motors had had only five or six management layers by the mid-1990s.

One common result of having fewer layers is that the remaining middle-management levels gain greater autonomy and responsibility. For instance, when Xerox reduced some headquarters managerial layers, district sales managers acquired greater latitude in such areas as adjusting prices and extending credit to important customers. Now, as long as the district managers meet their goals, the upper-level managers do not generally interfere with their efforts. As one Xerox senior vice president notes, "Your reward for doing well is that you don't have to see your boss".

Not surprisingly, pressure on middle managers appears to be increasing in the face of these changes. More than half the respondents in one survey report that the middle managers in their organization are working longer hours than they did 5 years ago, and one-fourth said that they are spending more weekends in the office. Critics argue that many middle managers are being asked to carry an unreasonable burden. Defenders retort that reducing layers enables middle managers to do their work with less bureaucratic interference.

Although there may be fewer middle managers in the future, the distinction between managers and those managed is also declining. There will be less emphasis on hierarchical level and, instead, more weight on horizontal influence, increased reliance on peer networks, greater access to information, and more control over assignments at lower levels. Thus, it appears that many of the responsibilities of middle managers will be increasingly distributed to lower levels in the organization, thereby raising the importance of positions at those levels.

Top Managers. Top managers are managers at the very top levels of the hierarchy who are ultimately responsible for the entire organization. Top-level managers are few in number; their typical titles include words "president," "executive vice president," "executive director," "senior vice president," and sometimes "vice president." Top-level managers are often referred to as executives, although the term "executive" also is sometimes used to include the upper layers of middle managers as well. Top managers have direct responsibility for the upper layer of middle managers. They typically oversee the overall planning for the organization, work to some degree with middle managers in implementing that planning, and maintain overall control over the progress of the organization.

4. Corporate Culture

Many articles and books have been written in recent years about culture in organizations, usually referred to as "Corporate Culture." The dictionary defines culture as "the act of developing intellectual and moral faculties, especially through education." This writing will use a slightly different definition of culture: "the moral, social, and behavioral norms of an organization based on the beliefs, attitudes, and priorities of its members." The terms "advanced culture" or "primitive culture" could apply to the first definition, but not the latter.

Every organization has its own unique culture or value set. Most organizations don't consciously try to create a certain culture. The culture of the organization is typically created unconsciously, based on the values of the top management or the founders of an organization.

Hewlett-Packard is a company that has, for a long time, been conscious of its culture (The HP Way) and has worked hard to maintain it over the years. Hewlett-Packard's corporate culture is based on 1) respect for others, 2) a sense of community, and 3) plain hard work (Fortune Magazine, May 15, 1995). It has been developed and maintained through extensive training of managers and employees. HP's growth and success over the years has been due in large part to its culture.

Another successful company that expends a lot of energy in maintaining its workplace culture is Southwest Airlines. Southwest is the only major airline in the U.S. that has been profitable in each of the last five years. It also has a good reputation as an employer. It was written in the ACA (American Compensation Association) Journal, Herb Kelleher, Southwest's CEO, indicated how Southwest maintained its culture: "First of all, it starts with hiring. The company is looking for a particular type of a person, regardless of which job category it is, attitudes that are positive and for people who can lend themselves to causes. Another important thing is to spend a lot of time with your people and to communicate with them in a variety of ways. And a large part of it is demeanor. Sometimes companies tend to lose sight of the fact that demeanor - the way you appear and the way you act - is a form of communication. It is important for people to feel fulfilled and to be happy".

The behavior rules and boundaries are relatively clear and often communicated. However, this is not typical. Maybe most organizations operate with a diversity of cultures. This is especially true considering the increasing worldwide mobility of people and cultures and values.

There have been some recent models created to attempt to study and classify cultural diversity. One model, the Hofstede Cultural Orientation Model.

1. Individual vs. Collective Orientation. The level at which behavior is appropriately regulated.

2. Power-Distance Orientation. The extent to which less powerful parties accept the existing distribution of power and the degree to which adherence to formal channels is maintained.

3. Uncertainty-Avoidance Orientation. The degree to which employees are threatened by ambiguity, and the relative importance of rules, long-term employment for employees and steady progression through well defined career ladders.

4. Dominant-Values Orientation. The nature of the dominant values - e.g., assertiveness, monetary focus, well-defined gender roles, formal structure - vs. concern for others, focus on quality of relationships and job satisfaction, and flexibility.

5. Short-Term vs. Long-Term Orientation. The time frame used: short-term (involving more inclination toward consumption, saving face by keeping up) vs. long-term (involving preserving status-based relationships, thrift, deferred gratifications).

There's some debate over whether companies should design their personnel policies and reward systems around cultural values. Currently companies tend not to, because of the concern about stereotyping certain cultures.

A popular trend for companies is to "reengineer" themselves, which involves an attempt to change their culture, usually to a team orientation. Studies indicate that the following items are necessary for a company to change to a "team culture:"

- Common and consistent goals
- Organizational commitment
- Role clarity among team members
- Team leadership
- Mutual accountability with the team
- Complementary knowledge and skills
- Reinforcement of required behavioral competencies
- Power (real and perceived)
- Shared rewards

The importance of corporate culture is growing as the result of several recent developments. Companies are encouraging employees to be more responsible and act and think like owners. In exchange for more flexible work

schedules, employees are expected to be always "on-call." With the demise of more traditional communities (e.g. neighborhoods, etc.), companies are filling employees' need to belong to a community. At the same time companies are encouraging teamwork and the formation of teams.

Therefore, organizational leaders shouldn't ignore corporate culture. Rather, it should be addressed in the organization's mission, vision, and goal statements, and emphasized in company sponsored training and company communication.

5. Evolution of Management Theories

Henry Towne's call for establishing management as a separate field of inquiry usher in a major approach to management called the classical viewpoint. The **classical viewpoint** is a perspective on management that emphasizes finding ways to manage work and organizations more efficiently. It is made up of three different approaches: scientific management, administrative management, bureaucratic management.

5.1. Scientific Management

Scientific management is an approach within classical management theory that emphasizes the scientific study of work methods in order to improve worker efficiency. Major representatives of the scientific management approach include Frederic Winslow Taylor, Frank and Lillian Gilbreth, and Henry Gantt.

Frederic Winslow Taylor. Frederick Winslow Taylor (1856-1915) is known as the "father of scientific management". Born to a relatively wealthy Philadelphia family Taylor became an apprentice pattern maker and machinist for a local firm before moving on to Midvale Steel. At Midvale, his meteoric rise from laborer to chief engineer in 6 years gave him an opportunity to tackle a serious problem that he had observed — soldiering by workers. **Soldiering** is deliberately working at less than full capacity. Taylor believed that workers engaged in soldiering for three main reasons. First, they feared that increasing their productivity would cause them or other workers to lose their jobs. Second, faulty wage systems set up by management encouraged workers to operate at a slow pace. For example, pay by the hour or the day mainly encouraged attendance rather than output. On the other hand, companies that cut incentive pay when workers began to exceed standards also made workers reluctant to excel. Third, general methods of working and rules of thumb handed down from generation to generation often were very inefficient. These factors led Taylor to conclude that managers, not workers, were responsible for the soldiering because it was up to management to design jobs and wage systems that would encourage productivity.

Taylor believed that managers could resolve the soldiering problem by developing a *science* of management based on the four principles. Central to the approach was the concept of using scientific means to determine how tasks

should be done rather than relying on the past experience of each individual worker. Taylor felt that scientific methods represented a "mental revolution" in managing work. Specifically, Taylor pioneered a method now known as the *time-and-motion study* (Taylor called it a time study). This type of study involves breaking down the work task into its various elements, or motions, eliminating unnecessary motions, determining the best way to do the job, and then timing each motion to determine the amount of production that could be expected per day (with allowances for delays and rest periods).

In addition to advocating the use of scientific means to develop the best way to do a task, Taylor argued that several other principles were important. For one thing, workers with appropriate abilities had to be selected and trained in the appropriate task method. For another, supervisors needed to build cooperation among the workers to ensure that they followed the designated method of work. Building such cooperation included soliciting workers' suggestions and being willing to discuss ideas for improved work methods. Finally, there needed to be a clear division of work responsibilities. Previously, the workers planned how to approach a task, and then they executed it. Under the Taylor scheme, it was management's job to do the task planning, using scientific methods.

In order to solve the problem of wage systems that encouraged soldiering, Taylor also advocated the use of wage incentive plans. He argued that workers should be paid from 30 to 100 percent higher wages for using the scientifically developed work methods and for attaining daily standards.

After leaving Midvale, Taylor held a succession of jobs and consulting assignments, including consulting with Bethlehem Steel, where he conducted two of his most famous studies. His pig-iron handling study involved workers whose task consisted of picking up a "pig" of iron weighing 92 pounds, carrying it up a plank, loading it into a railroad car, and walking back to get another pig in order to repeat the process. When Taylor began his work, the pig handlers were loading an average of 12,5 tons per worker per day. By selecting workers most suited to the task, making changes in the way the work was done, adding carefully spaced rest periods, and offering incentive pay (\$1.85 per day for reaching standard versus a previous \$1.15), Taylor had workers loading the new expected standard of 47,5 tons per day.

His second famous study at Bethlehem Steel focused on shoveling. Until Taylor introduced scientific management, workers typically brought their own tools to the job. Taylor noted that a worker might use the same shovel for both iron ore and ashes, even though the relative weights of the materials were very different. On the basis of his studies, Taylor determined that the optimum weight for shoveling was 21 pounds. Therefore, he argued that it made sense to have shovels of different sizes for different classes of materials so that the weight at what was being shoveled would be about 21 pounds. Results of implementing his plan with company-owned shovels demonstrated that the average number of tons shoveled per worker per day increased from 16 to 59; the average earnings

per worker per day increased from \$1.15 to \$1.88; and the average cost of handling a long ton (2240 pounds) decreased from \$0.072 to \$0.033. Again, Taylor's plan included additional incentive pay for workers and was beneficial for the company.

Taylor, who had a tendency to become rather dogmatic when any aspect of his approach was questioned, ran into opposition from some members of management, citizens of Bethlehem, and others who argued that he was exploiting workers by getting them to produce more and causing large reductions in the work force at Bethlehem Steel. After being forced out of the company, he began to devote more attention to writing. He achieved great notoriety through his testimony in a case before the Interstate Commerce Commission in which the Eastern railroads sought to raise freight rates. Taylor's assertions that railroads could reduce their costs through the use of his scientific principles made newspaper headlines throughout the country in 1910 and raised scientific management to a high level of visibility. A strike at the Watertown (Massachusetts) Army Arsenal, where some of Taylor's ideas were being tested, led to a congressional investigation (1911-1912) that was not able to find any concrete evidence that workers were being abused by "Taylorism." Still, the negative publicity slowed the momentum of scientific management to some degree. Nonetheless, by the end of World War I scientific management, aided by several French management experts was spreading throughout Europe and was being used in such diverse places as English chocolate factories, Icelandic fisheries, German paper mills, and Swedish typewriter factories.

Critics argue that Taylor failed to acknowledge some previous work by others on the issue of shoveling and that data related to his pig-iron handling study were reported inconsistently and may even have been fabricated to some extent. On the other hand, supporters state that the issues raised by critics either are misguided or involve minor issues. Despite the controversy, there is little doubt that the innovative ideas that Taylor popularized remain in use today. This is particularly true of his strong support of science and its important role in management, but it applies to his methods of studying work as well. As we will see, the use of scientific management can sometimes make jobs overspecialized, often resulting in worker resentment, monotony, poor quality, absenteeism, and turnover.

The Gilbreths. Other major advocates of scientific management were the husband and wife team of Frank (1868-1924) and Lillian (1878-1972) Gilbreth. Although Frank had qualified for admission to the Massachusetts Institute of Technology, he decided to become a bricklayer because of the importance of the profession at the time. As Frank became involved in training young bricklayers, he noticed the inefficiencies that were handed down from experienced workers.

To remedy the situation, he proposed using motion studies to streamline the bricklaying process. Frank also designed special scaffolding for different types of jobs and devised precise directions for mortar consistency. On the basis of

these and other ideas, Frank was able to reduce the motions involved in bricklaying from 18,5 to 4. Using his approach, workers increased the number of bricks laid per day from 1000 to 2700 with no increase in physical exertion. As he conducted his studies, Frank became familiar with the work of Frederick Taylor and was a staunch supporter of scientific management.

Meanwhile, Frank married Lillian Moller, who began working with him on projects while she completed her doctorate in psychology. The two continued their studies aimed at eliminating unnecessary motions and expanded their interests to exploring ways of reducing task fatigue. Part of their work involved the isolation of 17 basic motions; each called a *therblig* ("Gilbreth" spelled backward, with the "t" and "h" reversed). Therbligs included such motions as select, position, and hold—motions that were used to study tasks in a number of industries. The Gilbreths used the therblig concept to study jobs and also pioneered the use of motion picture technology in studying jobs.

Lillian's doctoral thesis was published as a book, *The Psychology of Management*, making it one of the early works applying the findings of psychology to the workplace. At the insistence of the publisher, the author was listed as L. M. Gilbreth to disguise the fact that the book was written by a woman.

Lillian helped define scientific management by arguing that scientific studies of management must focus on both analysis and synthesis. With analysis, a task is broken down into its essential parts, or elements. With synthesis, the task is reconstituted to include only those elements necessary for efficient work.

She also had a particular interest in the human implications of scientific management, arguing that the purpose of scientific management is to help people to reach their maximum potential by developing their skills and abilities.

The Gilbreth family eventually numbered 12 children, two of whom wrote a book *Cheaper by the Dozen*, describing life with their efficiency-minded parents. For example, they report that their father learned to use two shaving brushes simultaneously to put shaving cream on his face, thereby saving 17 seconds. When he tried shaving with two razors, he found that the process took 44 seconds less than it did with one razor. Unfortunately, it took 2 minutes to apply each bandage to the resulting cuts. His children reported that it was the loss of 2 minutes, not the cuts that made him abandon the use of two razors.

In 1924, Frank died suddenly of a heart attack, leaving Lillian with their dozen children, ranging from age 2 to 19. She then continued their innovative studies and consulting, finally becoming a professor of management at Purdue University. Lillian Gilbreth ranks as the first woman to gain prominence as a major contributor to the development of management as a science.

Henry L. Gantt. One of Taylor's closest associates was Henry Gantt (1861-1919), who worked with Taylor in several companies, including Midvale Steel and Bethlehem Steel. Gantt later became an independent consultant and made several contributions of his own. The most well known is the *Gantt chart*,

a graphic aid to planning, scheduling, and control that is still in use today. He also devised a unique pay incentive system that not only paid workers extra for reaching standard in the aborted time but also awarded bonuses to supervisors when workers reached the standard. He wanted to encourage supervisors to coach workers who were having difficulties.

Later in his life, Gantt began to devote more attention to the social responsibilities of business and management. Writing around the time of the Russian Revolution (1917), Gantt expressed concern that business could run into severe difficulties if it did not find a reasonable balance between seeking profits and serving the welfare of society. He was especially concerned that large businesses might attempt to exert monopolistic power in the form of less customer responsiveness and excess profits. Thus, Gantt joins Owen as an early writer on the subject of the social responsibilities of business.

5.2. Bureaucratic Management

Another branch of the classical viewpoint is bureaucratic management, an approach that emphasizes the need for organizations to operate in a rational manner rather than relying on the arbitrary whims of owners and managers. The bureaucratic management approach is based mainly on the work of prominent German sociologist Max Weber.

Weber (1864-1920) was a son of an affluent family with strong political and social connections. He pursued a career as a consultant, professor, and author. Because his books were so well read, he was able to make contributions that cross a number of academic disciplines, such as management, sociology, economics, and philosophy. Among his most important contributions to the discipline of management are his ideas on the need for organizations to operate on a more rational basis.

In formulating his ideas, Weber was reacting to the prevailing norms of class consciousness and nepotism. For example, it was customary practice to allow only individuals of aristocratic birth to become officers in the Prussian Army or to attain high-level positions in government and industry. Weber felt that the situation was not only unfair but also led to a significant waste of human resources. He also believed that running organizations on the basis of *whom* one knows rather than *what* one knows and engaging in nepotism, the hiring of relatives regardless of their competence, tended to interfere with organizational effectiveness.

In an effort to visualize how large organizations evolving out of the industrial revolution might ideally operate, Weber formulated characteristics of the "ideal bureaucracy." He coined the term "bureaucracy" (based on the German *buero*, meaning office) to identify large organizations that operated on a rational basis. Weber understood clearly that his ideal bureaucracy did not actually exist. In fact, he never intended that his ideas be used as guidelines for managers. Rather, his purpose was to develop some ideas that could be used as a

starting point in understanding such organizations. However, when his work was translated into English in the late 1940s, many U.S. management scholars found his ideas useful in considering how organizations could be more effectively managed.

Several major characteristics of Weber's bureaucracy are shown in Table. For instance, Weber believed that large organizations would operate on a more rational, systematic basis if tasks were specialized, rules and regulations were formalized and uniformly applied to let people know what was expected, reporting relationships were established through a well-defined hierarchy, career advancement was based on merit, and authority was based on the official position one holds rather than on his personal status.

Because of the possibility of carrying Weber's ideas to excess, the term "bureaucracy" is sometimes used in a pejorative sense to denote red tape and excessive rules. Yet there are clearly some advantages of the bureaucratic characteristics, outlined by Weber.

Table 1. Major Characteristics of Weber's Ideal Bureaucracy

<i>Specialization of labor</i>	<i>Jobs are broken down into routine, well-defined tasks so that members know what is expected of them and can become extremely competent at their particular subset of tasks.</i>
<i>Formal rules and procedures</i>	<i>Written rules and procedures specify the behaviors desired from members, facilitate coordination, and ensure uniformity.</i>
<i>Impersonality</i>	<i>Rules, procedures, and sanctions are applied uniformly regardless of individual personalities and personal considerations</i>
<i>Well-defined hierarchy</i>	<i>Multiple levels of positions, with carefully determined reporting relationships among levels, provide supervision of lower offices by higher ones, a means of handling exceptions, and the ability to establish accountability of actions.</i>
<i>Career advancement based on merits</i>	<i>Selection and promotion are based on the qualifications and performance of members.</i>

For example, recent troubles at family-owned U-Haul can be traced to confusion over roles, clandestine meetings of the board of directors, secret rule changes, and advancement determined by family ties—all violations of Weber's ideal. The resulting feuds and court battles among family members are seriously threatening the viability of the national renter of trucks, trailers, and other equipment.

5.3. Administrative Management

While the advocates of scientific management concentrated on developing principles that could be used to help organize individual worker tasks more effectively and Weber struggled with the concept of bureaucracy, another branch within the classical viewpoint was also developing. The administrative management approach focuses on principles that can be used by managers to coordinate the internal activities of organizations. Major contributors include Henri Fayol and Chester Barnard, both of whom were executives of large enterprises.

Henri Fayol. French industrialist Henri Fayol (1841-1925), a well-known contributor to the administrative management approach, was born in a middle-class family near Lyon, France. Trained as a mining engineer, he joined the French coal-and-iron combine Commentary-Fourchambault Company as an apprentice and rose to the top position of managing director in 1888. He accomplished the difficult task of moving the company out of severe financial difficulties and into a strong position by the time of his retirement at the age of 77. The company survives today as part of LeCreusot-Loire, a large mining and metallurgical group in Central France.

On the basis of his experiences as a top-level manager, Fayol was convinced that it should be possible to develop theories about management that could then be taught to individuals with administrative responsibilities. His efforts toward developing such theories were published in *General and Industrial Management*, which originally appeared in a monograph form in 1916 but attained prominence in the United States after a second English translation appeared in 1949.

In one part of his work, Fayol attempted to isolate the major types of activities involved in industry or business. Of particular importance is his delineation of the major functions that are included within the category of "managerial activities": planning, organizing, commanding, coordinating, and controlling. Thinking of management as encompassing these functions is known as the *functional* approach to management. Many contemporary books on management use a form of the functional approach that has roots in Fayol's work.

Fayol also outlined a number of principles that he found useful in running his large coal-and-iron concern. These principles are outlined in Table 2. Fayol provided the principles as a starting point, envisioning that others would be added as knowledge about management expanded. Although contemporary

research has found exceptions to his principles under some conditions that will be discussed later, the principles are generally in widespread use today.

Table 2. Fayol's General Principles of Management

<i>Division of work</i>	<i>Work specialization can result in efficiencies and is applicable to both managerial and technical functions. Yet there are limitations to how much that work should be divided.</i>
<i>Authority</i>	<i>Authority is the right to give orders and the power to exact obedience. It derives from the formal authority of the office and from personal authority based on factors like intelligence and experience. With authority comes responsibility.</i>
<i>Discipline</i>	<i>Discipline is absolutely necessary for the smooth running of an organization, but the state of discipline depends essentially on the worthiness of its leaders.</i>
<i>Unity of command</i>	<i>An employee should receive orders from one superior only.</i>
<i>Unity of direction</i>	<i>Activities aimed at the same objective should be organized so that there is one plan and one person in charge.</i>
<i>Subordination of individual interest to general interest</i>	<i>The interests of one employee or group should not prevail over the interests and goals of the organization.</i>
<i>Remuneration</i>	<i>Compensation should be fair to both the employee and the employer.</i>
<i>Centralization</i>	<i>The proper amount of centralization or decentralization depends on the situation. The objective is the optimum use of the capabilities of personnel.</i>
<i>Scalar chain</i>	<i>A scalar (hierarchical) chain of authority extends from the top to the bottom of an organization and defines the communication path. However, horizontal communication is also encouraged as long as the managers in the chain are kept informed.</i>
<i>Order</i>	<i>Materials should be kept in well-</i>

	<i>chosen places that facilitate activities. Similarly, due to good organization and selection, the right person should be in the right place.</i>
<i>Equity</i>	<i>Employees should be treated with kindness and justice.</i>
<i>Stability of personnel tenure</i>	<i>Because time is required to become effective in new jobs, high turnover should be prevented.</i>
<i>Initiative</i>	<i>Managers should encourage and develop subordinate initiative to the fullest.</i>
<i>Esprit de Corps</i>	<i>Since union is strength, harmony and teamwork are essential.</i>

Source: Adapted from Henri Fayol, General and Industrial Management, Constance Storrs (trans.), Pitman & Sons, Ltd., London, 1949, pp. 19-42.

Chester Barnard. Another major contributor to administrative management was Chester Barnard (1886-1961). Born in Massachusetts, he attended Harvard but did not complete his degree work. After joining AT&T as a statistician, he rose rapidly and was named president of the New Jersey Bell Telephone Company in 1927. Both while and after he presided over New Jersey Bell, he also held a number of prestigious public service positions, such as head of the Rockefeller Foundation. Barnard recorded his observations about effective administration in a single classic book, *The Functions of the Executive*, published in 1938. The book was developed from a series of lectures, given by Barnard in 1937 at the Lowell Institute in Boston, that were intended to help stimulate the development of a theory of organizations.

Written just as the first notions of viewing organizations as systems were emerging, Barnard's work shows some influences of the systems viewpoint, which we will consider later. He viewed organizations as cooperative systems of consciously coordinated activities. In his own view, though, Barnard felt that an organizational system required three universal elements in order to operate: communication, a willingness to serve, and a common purpose. Therefore, according to Barnard, executives need to pay particular attention to arranging for a system of communication, nurturing a willingness to cooperate, and ensuring that there is a clearly articulated common purpose. Barnard saw the common purpose as helping to rally a willingness to cooperate and also as essential to giving meaning to the environment. Otherwise, he argued, the environment becomes "a mere mass of things" that have little meaning to managers. His emphasis on organizational purpose endures in the continuing contemporary concern with this concept. For example, a number of major companies, such as

Dayton-Hudson and Intel, have official statements that outline their basic purposes as organizations.

One of Barnard's best-known contributions is his acceptance theory of authority. The acceptance theory of authority argues that authority does not depend as much on "persons of authority" who give orders as on the willingness of those who *receive* the orders to comply. Thus, in Barnard's view, it is really the employees who decide whether or not to accept orders and directions from above. From a practical point of view, Barnard felt that managers generally are able to exert authority on a day-to-day basis because each individual possesses a "zone of indifference" within which the individual is willing to accept orders and directions without much question.

On the basis of his view that authority flows from the bottom to the top, Barnard argued that employees are more willing to accept directions from a manager if they (1) understand the communication, (2) see the communication as consistent with the purposes of the organization, (3) feel the actions indicated are in line with their needs and those of other employees, and (4) view themselves as mentally and physically able to comply. Barnard's acceptance theory has been somewhat controversial because of the degree of emphasis placed on subordinate acceptance. Still, it has helped emphasize that individuals do not necessarily comply with orders and directions from managers, making it important that managers give some thought to the way in which they attempt to exert power and authority. For example, James Dutt, one-time chairman of the Beatrice Company, earned a reputation for being a "fiery-tempered autocrat" who was prone to firing individuals who disagreed with him. Unfortunately, many of the executives left the firm or were fired, the company subsequently performed poorly, and Dutt was ultimately ousted during a takeover backed by the investment firm of Kohlberg Kravis Roberts & Company.

In considering worker reactions to orders and directions, Barnard helped bridge the concern with authority growing out of the administrative and bureaucratic approaches with the emphasis on worker needs that was simultaneously developing within the behavioral viewpoint. Barnard was familiar with the work of Max Weber and with that of Mary Parker Follett, an early behaviorist. He also knew of the Hawthorne studies, which were a primary force in the development of the behavioral viewpoint, to which we turn next.

6. Socio-psychological Movement

6.1. Elton Mayo's Hawthorne Experiments

In the training world, the Hawthorne Effect is a chameleon. Ask several trainers and you'll probably get several definitions, most of them legitimate and all of them true to some aspect of the original experiments by Elton Mayo, in Chicago that produced the term.

It has been described as the rewards you reap when you pay attention to people. The mere act of showing people that you're concerned about them usually spurs them to better job performance.

That's the Hawthorne Effect.

The Hawthorne Effect at Work

Suppose you've taken a management trainee and given her specialized training in management skills she doesn't now possess. Without saying a word, you've given the trainee the feeling that she is so valuable to the organization that you'll spend time and money to develop her skills. She feels she's on a track to the top, and that motivates her to work harder and better. The motivation is independent of any particular skills or knowledge she may have gained from the training session. That's the Hawthorne Effect at work.

In a way, the Hawthorne Effect can be construed as an enemy of the modern trainer. Carrying the theory to the edges of cynicism, some would say it doesn't make any difference what you teach because the Hawthorne Effect will produce the positive outcome you want.

A Sense of Belonging?

How do you respond to executives who denigrate training and credit the Hawthorne Effect when productivity rises? So what? Effective training performs a dual function: It educates people and it strokes them. And there's nothing wrong with using the Hawthorne Effect to reach this other training goal. In fact, the contention is that about 50% of any successful training session can be attributed to the Hawthorne Effect.

The Hawthorne Effect has also been called the 'Somebody Upstairs Cares' syndrome. It's not as simplistic as the ideal popular under the human relations craze over recent years that you just have to be nice to workers. It's more than etiquette.

When people spend a large portion of their time at work, they must have a sense of belonging, of being part of a team. When they do, they produce better. That's the Hawthorne Effect.

The Studies

The Hawthorne Studies (or experiments) were conducted from 1927 to 1932 at the Western Electric Hawthorne Works in Chicago, where Harvard Business School professor Elton Mayo examined productivity and work conditions.

The studies grew out of preliminary experiments at the plant from 1924 to 1927 on the effect of light on productivity. Those experiments showed no clear connection between productivity and the amount of illumination but researchers began to wonder what kind of changes would influence output.

Variables Affecting Productivity

Specifically, Mayo wanted to find out what effect fatigue and monotony had on job productivity and how to control them through such variables as rest breaks, work hours, temperature and humidity. In the process, he stumbled upon

a principle of human motivation that would help to revolutionize the theory and practice of management.

Mayo took six women from the assembly line, segregated them from the rest of the factory and put them under the eye of a supervisor who was more a friendly observer than disciplinarian. Mayo made frequent changes in their working conditions, always discussing and explaining the changes in advance.

He changed the hours in the working week, the hours in the workday, the number of rest breaks, the time of the lunch hour. Occasionally, he would return the women to their original, harder working conditions.

Relay Assembly

The investigators selected two girls for their second series of experiments and asked them to choose another four girls, thus making a small group of six. The group was employed in assembling telephone relays - a relay being a small but intricate mechanism composed of about forty separate parts which had to be assembled by the girls seated at a lone bench and dropped into a chute when completed.

The relays were mechanically counted as they slipped down the chute. It was intended that the basic rate of production should be noted at the start, and that subsequent changes would be introduced, the effectiveness of which would be measured by increased or decreased production of the relays.

Feedback mechanism

Through out the series of experiments, an observer sat with the girls in the workshop noting all that went on, keeping the girls informed about the experiment, asking for advice or information, and listening to their complaints.

The experiment began by introducing various changes, each of which was continued for a test period of four to twelve weeks. The results of these changes are as follows:

Conditions and results

Under normal conditions with a forty eight hour week, including Saturdays, and no rest pauses, the girls produced 2,400 relays a week each.

- They were then put on piece-work for eight weeks.
- Output went up.
- Two-five minute rest pauses, morning and afternoon, were introduced for a period of five weeks.
- Output went up once more.
- The rest pauses were lengthened to ten minutes each.
- Output went up sharply.
- Six-five minute pauses were introduced, and the girls complained that their work rhythm was broken by the frequent pauses.
- Output fell slightly.
- Return to the two rest pauses, the first with a hot meal supplied by the Company free of charge.
- Output went up

- The girls were dismissed at 4.30 p.m. instead of 5.00 p.m.
- Output went up.
- They were dismissed at 4.00 p.m.
- Output remained the same.
- Finally, all the improvements were taken away, and the girls went back to the physical conditions of the beginning of the experiment: work on Saturday, 48 hour week, no rest pauses, no piece work and no free meal. This state of affairs lasted for a period of 12 weeks.
 - Output was the highest ever recorded averaging 3000 relays a week.

What happened during the experiments?

What happened was that six individuals became a team and the team gave itself wholeheartedly and spontaneously to co-operation in the experiment. The consequence was that they felt themselves to be participating freely and without afterthought and were happy in the knowledge that they were working without coercion from above or limitation from below.

They were themselves satisfied at the consequence for they felt that they were working under less pressure than ever before. In fact regular medical checks showed no signs of cumulative fatigue and absence from work declined by 80 per cent.

It was noted too, that each girl had her own technique of putting the component parts of the relay together - sometimes she varied this technique in order to avoid monotony and it was found that the more intelligent the girl, the greater was the number of variations (similar to McClelland's findings into achievement motivated people.)

The experimental group had considerable freedom of movement. They were not pushed around or bossed by anyone. Under these conditions they developed an increased sense of responsibility and instead of discipline from higher authority being imposed, it came from within the group itself.

The Findings

To his amazement, Elton Mayo discovered a general upward trend in production, completely independent of any of the changes he made.

His findings didn't mesh with the then current theory (see F.W. Taylor) of the worker as motivated solely by self-interest. It didn't make sense that productivity would continue to rise gradually when he cut out breaks and returned the women to longer working hours.

Mayo began to look around and realized that the women, exercising a freedom they didn't have on the factory floor, had formed a social atmosphere that also included the observer who tracked their productivity. They talked, they joked, they began to meet socially outside of work.

Mayo had discovered a fundamental concept that seems obvious today. Workplaces are social environments and within them, people are motivated by much more than economic self-interest. He concluded that all aspects of that industrial environment carried social value.

When the women were singled out from the rest of the factory workers, it raised their self-esteem. When they were allowed to have a friendly relationship with their supervisor they felt happier at work. When he discussed changes in advance with them, they felt like part of the team.

He had secured their cooperation and loyalty; it explained why productivity rose even when he took away their rest breaks.

The power of the social setting and peer group dynamics became even more obvious to Mayo in a later part of the Hawthorne Studies, when he saw the flip side of his original experiments. A group of 14 men who participated in a similar study restricted production because they were distrustful of the goals of the project.

The portion of the Hawthorne Studies that dwelt on the positive effects of benign supervision and concern for workers that made them feel like part of a team became known as the Hawthorne Effect; the studies themselves spawned the human relations school of management that is constantly being recycled in new forms today, witness quality circles, participatory management, team building, et al.

Incidentally, the Hawthorne Works the place where history was made is history now itself. Western Electric closed it in 1983.

Hawthorne Experiments:

- Work is a group activity.
- The social world of the adult is primarily patterned about work activity.
- The need for recognition, security, and sense of belonging is more important in determining a worker's morale and productivity than the physical conditions under which he works.
- A complaint is not necessarily an objective recital of facts; it is commonly a symptom manifesting disturbance of an individual's status or position.
- The worker is a person whose attitudes and effectiveness are conditioned by social demands from both inside and outside the workplace.
- Informal groups within the workplace exercise strong social controls over the work habits and attitudes of the individual worker.
- The change from an established to an adaptive society tends continually to disrupt the social organization of a workplace and industry generally.
- Group collaboration does not occur by accident; it must be planned for and developed. If group collaboration is achieved, the work relations within a workplace may reach a cohesion which resists the disrupting effects of adaptive society.
-

6.2. Behavioral viewpoint

The classical theorists generally viewed individuals as mechanisms of production. As a result, their efforts were largely geared to finding ways for organizations to use these productive mechanisms more efficiently. The prospect that an employee's behavior might be influenced by internal reactions to various

aspects of the job situation was generally not seen as particularly germane to the quest for greater efficiency. In contrast, the behavioral viewpoint is a perspective on management that emphasizes the importance of attempting to understand the various factors that affect human behavior in organizations.

Why did the behavioral viewpoint emerge? The main reason was that although the classical viewpoint made some major contributions to management, the approach did not seem to be the whole answer to the problem of what constituted effective management. Other ideas started to surface as management began to develop as a separate field of knowledge. One of these ideas came from a study that seeks to apply the scientific approach to the question of whether brighter lighting would improve worker productivity. Researchers uncovered inexplicable results, which then led to a further search to explain the productivity increases found. In exploring the behavioral viewpoint, we examine four aspects of its development: the contributions of the early behaviorists, the Hawthorne studies, the human relations movement, and the more contemporary behavioral science approach.

6.3. Early Behaviorists

Some inkling that scientific management might not hold the entire answer to the management question began to appear even as scientific management was rising to prominence. With the growing interest in the subject of management, individuals from other backgrounds began to offer alternative perspectives to the emphasis on engineering that characterized the scientific management approach. Two early behaviorists, psychologist Hugo Munsterberg and political scientist Mary Parker Follett, offered pioneering ideas that contributed to the growth of the behavioral perspective into a major viewpoint.

Hugo Munsterberg. Born and educated in Germany, Hugo Munsterberg (1863-1916) earned both a Ph.D. in psychology and a medical degree. In 1892, he set up a psychological laboratory at Harvard and began seeking practical applications of psychology. Before long, his attention turned to industrial applications, leading him to publish an important book, *Psychology and Industrial Efficiency*, which appeared in 1913. The book argued that psychologists could help industry in three major areas. The first, closely allied to scientific management, focused on studying jobs and finding ways of identifying the individuals who are best suited to the particular jobs. The other two provided some recognition of the idea that factors besides those recognized by the classical theorists might influence behavior at work. For example, Munsterberg argued that the second area in which psychologists could help industry involved identifying the psychological conditions under which individuals are likely to do their best work. The third area centered on finding ways to influence individuals to behave in manners that are congruent with management interests. The ideas and examples he provided ignited the imagination of others and led to the establishment of the field of *industrial psychology*, the study of human behavior

in a work setting. Thus, Munsterberg is considered to be “the father of industrial psychology”.

Mary Parker Follett. Another well-known early behaviorist was Mary Parker Follett (1868-1933). Born in Boston and educated in political science at what is now Radcliffe College, Follett was a social worker who became interested in employment and workplace issues. Her experience in dealing with work issues, as well as her speaking and writing abilities, eventually led to consulting assignments with many large corporations. Although she lived mainly during the era of classical management, her thinking was more in line with the behavioral and, to some extent, the systems viewpoints of management.

Despite the fact that Frederick Taylor had recognized the importance of groups in conjunction with the soldiering problem, groups did not figure prominently in his scientific management approach. Instead, he focused mainly on efficient methods for completing individual tasks. In contrast, Follett attributed much greater significance to the functioning of groups in organizations. She argued that members of organizations are continually influenced by the groups within which they operate. In fact, she held that groups have the capacity to exercise control over themselves and their own activities, a concept that is congruent with the recent interest in self-managing teams in American business. For example, at General Motor's new Saturn plant, most of the work is done by teams that have no traditional boss.

Another of Follett's forward-looking ideas was her contention that organizations should operate on the principle of "power with" rather than "power over." Power, to her, was the general ability to influence and bring about a change. She argued that power should be a jointly developed, a cooperative concept involving employees and managers working together rather than a coercive concept based on hierarchical pressure. Although her views likely influenced Barnard's acceptance theory of authority, she had in mind sharing power, rather than Barnard's emphasis on engendering the appropriate response from below.

One of the important means she suggested for bringing about the "power with" concept was resolving conflict through *integration*. By integration she meant finding a solution to a conflict that would satisfy both parties. Giving an example of integration, she cited a situation in which a dairy cooperative almost disbanded because of a controversy over the pecking order in unloading milk cans at a creamery located on the downgrade of a hill. Members who came downhill and those who came uphill both thought they should be given precedence in unloading. The situation was at an impasse until an outsider pointed out that the position of the loading dock could be changed so that both groups could unload their cans at the same time. Follett noted, "Integration involves invention, and the clever thing is to recognize this, and not to let one's thinking stay within the boundaries of two alternatives that are mutually exclusive”.

Follett placed great importance on achieving what she called *integrative unity*, whereby the organization would operate as a functional whole, with the

various interrelated parts working together effectively to achieve organizational goals. Yet she saw the process of working together as a dynamic process because environmental factors would necessitate change. Her notion of integrative unity also likely influenced Barnard. As we will see, her ideas anticipated the systems viewpoint of management.

7. Human Relations Movement

However flawed the studies, the Hawthorne research set the stage for intense interest in the social dimension of human behavior in organizations. The key to productivity, at that point, appeared to be showing greater concern for workers so that they would feel more satisfied with their jobs and be willing to produce more. There was an emphasis on building more collaborative and cooperative relationships between supervisors and workers. One implication, though, was that managers now needed social skills in addition to technical skills. They also required a better understanding of how to make workers feel more satisfied with their jobs. While the Hawthorne studies provided some clues, managers needed more definitive help. Two major theorists, Abraham Maslow and Douglas McGregor, were among those who came forward with ideas that managers found helpful.

Abraham Maslow. Abraham Maslow (1908-1970) was born in Brooklyn, received his doctorate in psychology at the University of Wisconsin, and eventually became chairman of the psychology department at Brandeis University. Maslow developed a theory of motivation that was based on three assumptions about human nature. First, human beings have needs that are never completely satisfied. Second, a human action is aimed at fulfilling the needs that are unsatisfied at a given point in time. Third, needs fit into a somewhat predictable hierarchy ranging from basic, lower-level needs at the bottom to higher-level needs at the top. The hierarchy outlined by Maslow has five levels of needs: physiological (lowest), safety, belongingness, esteem, and self-actualization (highest). Self-actualization needs refer to the requirement to develop our capabilities and reach our full potential.

For now, it is sufficient to note that Maslow's work was particularly important for two reasons. For one thing, it dramatized to managers that workers have needs beyond the basics of earning money to put a roof over their heads. This concept conflicted with the views of scientific management, which emphasized the importance of pay. Second, it provided managers with some specific insights about other needs workers might have. Maslow's hierarchy of needs theory is probably the management-related theory that is best known to managers even today.

Douglas McGregor. The movement toward having managers think of workers in a new light also was given impetus by the work of Douglas McGregor (1906-1964). McGregor was born in Detroit, Michigan, earned a doctorate at Harvard, and spent most of his career as a professor of industrial

management at the Massachusetts Institute of Technology. A 6-year stint as president of Antioch College brought him to the realization that the notion of trying to have everyone like the boss (i.e., maintaining good human relations) offered inadequate guidance to managers.

To fill the void, he developed a well-known dichotomy, Theory X versus Theory Y, dealing with the possible assumptions that managers make about workers. McGregor felt that such assumptions exert a heavy influence on how managers operate. Theory X managers tend to assume that workers are lazy, need to be coerced, have little ambition, and are mainly focused on security needs. In contrast, Theory Y managers assume that workers do not inherently dislike work, are capable of self-control, have the capacity to be creative and innovative, and generally have higher-level needs that are often unmet on the job.

McGregor believed that managers who hold Theory X assumptions are likely to treat workers accordingly by means of such measures as setting up elaborate controls and attempting to motivate strictly through economic incentives. As a result, workers are likely to respond in a manner that reinforces the manager's original assumptions.

In contrast, managers with Theory Y assumptions have the potential for integrating individual goals with organizational goals. McGregor believed this integration could occur when managers give workers latitude in performing their tasks, encourage creativity and innovation, minimize the use of controls, and attempt to make the work more interesting and satisfying in regard to higher-level needs. Under such conditions, workers are likely to exhibit greater commitment to organizational goals, because the goals coincide more closely with their own. McGregor understood that there could be some relatively immature and dependent workers who might need greater controls at first in order to develop the maturity needed for the Theory Y approach.

Like Maslow's hierarchy, McGregor's Theory X and Theory Y approach helped managers develop a broader perspective on the likely nature of workers and new alternatives for interacting with them. The innovative ideas of both men had an intuitive appeal to managers searching for ways of operating more effectively; their theories became extremely popular and are still widely applied today.

7.1. Behavioral Science Approach

Maslow, McGregor, and others who helped develop the human relations viewpoint tried to show that there was an alternative to the rational economic perspective of workers held by the classical school. They brought into focus a view of workers as social creatures, who had a variety of needs to be met on the job. Still, the picture that they drew was fairly general, somewhat simplistic, and often left managers uncertain about the specific actions that they should take and

the implications of such actions. The need to take a more complex view of their work situation led to the rise of the behavioral science perspective.

The behavioral science approach emphasizes *scientific research* as the basis for developing theories about human behavior in organizations that can be used to develop practical guidelines for managers. The approach draws on findings from a variety of disciplines, including management, psychology, sociology, anthropology, and economics. Concepts are thoroughly tested in business organizations, and sometimes also in laboratory settings, before they are heralded as viable approaches for managers. The ultimate aim of the behavioral science approach is to develop theories that managers can use as guides in assessing various situations and deciding on appropriate actions. Since humans themselves *tax* complex and their interactions with others are even more so, the quest for an understanding of organizations and their members is an ongoing activity of admirable challenge.

One example of an outcome of behavioral science research that is helpful to managers is the idea that individuals perform better with challenging, but attainable, goals than they do without goals. Of course, the goals must be specific and measurable ("I want to get an A in my management course this semester"), rather than vague ("I want to do well in my courses this semester"). This idea that goal setting leads to better performance grew out of extensive research by management researcher Edwin A. Locke and others.

8. Modern Management

In order to apply the principle of "*Process Approach*", we must actually do something! A "process" as such gives us a higher level of confidence that we can deliver what our customer wants. Most of us can hit the target most of the time (or we wouldn't still be in business) but don't we want to hit it all the time? A process approach will help. Another action that is a part of this approach is identifying and measuring inputs and outputs of the process we are looking at. This helps us make better management decisions, too, because measurements allow us to replace "opinion" with "data". Better data, better business

decisions. At the same time, we need to look at how this process affects other processes in our organization and look at how this process is affected by other processes.

Situational or contingency management suggests that the correct theoretical framework to apply depends on the specifics of a given situation. The situational management approach has intuitive appeal and is a valuable approach for some lower- and middle-managers. But the ability to recognize situations and apply the appropriate paradigm depends on experience and memorization of normative rules or principles. *Systems* theory attempts to model an organization as a control system and assess the impact of management activity throughout the organization, not just within the manager's span of control. A significant benefit of systems theory of management is that it can draw on the systems engineering

field for concepts and models (open vs. closed systems, input/output flows, feedback, automation, synergy, chaos). The systems approach suffers from the complexity and the enormous information requirements of realistic models. **Theory Z.** The Theory Z manager assumes that employees are motivated by a strong sense of commitment to be a part of something worthwhile - the self-actualization need. The Theory Z manager believes that employees will not only seek out opportunities for responsibility, in fact, they crave opportunities to advance and learn more about the company. The Theory Z manager believes that employees should learn the business through the various departments, come up through the ranks slowly, and that the company will get the best benefits from that employee by making it possible for him/her to have "lifetime employment."

9. Environment

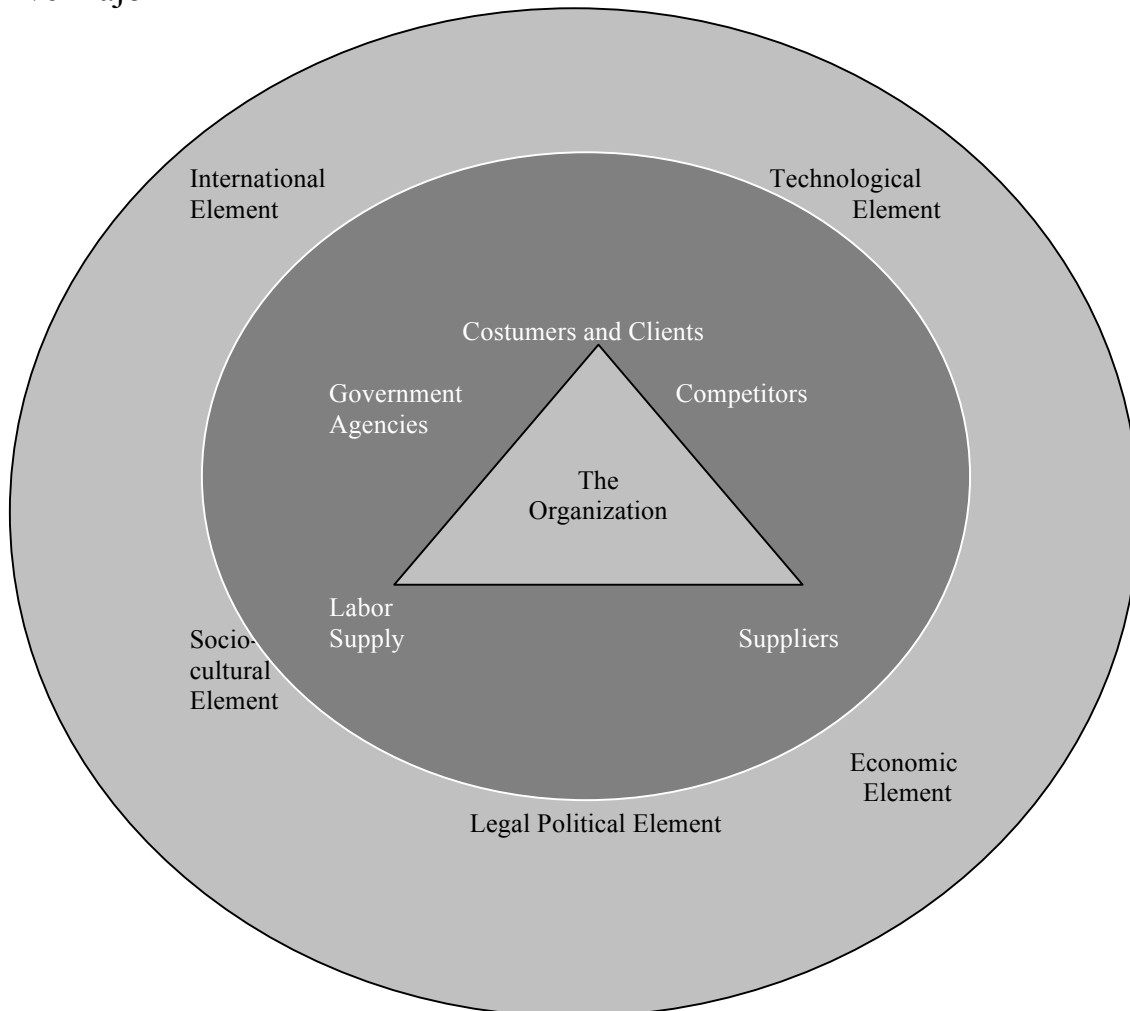
9.1. Types of external environments

While Liz Claiborne, Inc., was successful in catching the wave of a new trend, the Warren Featherbone Company had the opposite problem—recognizing the ebbing of a lucrative market. The Warren Featherbone Company built a thriving business about 100 years ago around its patented product, the featherbone. Made of finely split turkey quills combined to form a cord, the product was used to stiffen corsets, collars, bustles, and gowns. Although the company made it through the Great Depression in a fairly good shape, a technological change in the form of plastic was emerging. The company saw the trend and, in 1938, started making plastic baby pants to go over diapers, just as the demand for featherbone was sinking badly. The company also made a rocky expansion into baby clothing. Fortunately, its baby clothing developed into a solid business in the mid-1960s, just about the time that the emergence of the disposable diaper destroyed much of the demand for the plastic pants. As the history of the Warren Feather-bone Company makes clear, organizations can be drastically affected by the environment within which they operate.

Systems theory helps highlight the importance of the environment to organizations. According to the systems view, an organization is likely to be more successful if it operates as an open system that continually interacts with and receives feedback from its external environment. The implication is that organizations need to have managers who expend considerable effort understanding the nature of the external environment that their organizations face. The external environment of an organization can be divided into two major segments: the general environment, or mega-environment, and the task environment.

9.2. Mega-Environment

The mega-environment, or general environment, is the segment of the external environment that reflects the broad conditions and trends in the societies within which an organization operates. The mega-environment consists of five major



elements: technological, economic, legal-political, sociocultural, and international (see Figure above). Because these elements reflect major trends and conditions existing outside the organization, they tend to be beyond the ability of a single organization to affect or alter directly, at least in a short run.

Technological Element. The technological element is the part of the mega-environment that reflects the current state of knowledge regarding making products and providing services. Although specific organizations may have technical knowledge and patents that give them a competitive edge for some period of time, most organizations can be greatly affected, either positively or negatively, by technological progress.

Research in the minicomputer, cement, and airline industries indicates that technology tends to evolve through periods of incremental change punctuated by technological breakthroughs that either enhance or destroy the competence of firms in an industry. For example, Nobel prize-winning Bell Laboratory

physicists pioneered the computer age with the invention of a transistor in 1947. Subsequent developments with microchips have affected businesses and their products in a wide range of industries, from automobile and small-appliance manufacturing to home building. Recent breakthroughs in the ability to understand the structures of atoms and genes are raising the prospect of greatly accelerated changes in products and services. For example, scientists are at least talking about the possibility of such new products as an aircraft made of materials that will allow speeds of more than 1000 miles per hour, genetically engineered plants that will make their own fertilizer, and "designer" catalysts created through molecular engineering that will cheaply convert natural gas into gasoline.

After holding technological supremacy for several decades, U.S. companies have increasingly found that technological competition is global. Research and development spending as a percentage of gross national product in countries such as Japan, West Germany, and the Soviet Union has been steadily rising, and such spending in the United States is on the rise again after a slump during the 1970s. In order to remain competitive, organizations must, at a minimum, stay abreast of current technological developments that may affect their ability to offer desirable products and services. For example, some observers of the U.S. steel industry argue that low expenditures for R&D are threatening to put American companies technologically far behind their Japanese and European rivals.

Economic Element. The economic element is the part of the mega-environment that encompasses the systems of producing, distributing, and consuming wealth. Companies that are based in the United States function primarily within a capitalist economy, although they may do business with and/or operate in countries that have socialist economies. In a capitalist economy, economic activity is governed by market forces and the means of production are privately owned by individuals, either directly or through corporations. In a socialist economy, the means of production are owned by the state and economic activity is coordinated by plan.

In practice, countries tend to have hybrid economies. Although the United States operates close to the capitalist end of the continuum, there is a considerable government regulation in such areas as utilities and communications. Conversely, in the Soviet Union, which operates close to the socialist end of the continuum, there are aspects of capitalism at work. For example, recent reforms include a law encouraging private businesses, such as family-run shops, cafes, and even gypsy taxis, as long as they register to be taxed by the government. The economies of most countries, such as Sweden, France, and Yugoslavia, fall somewhere between the prevailing types in the United States and the Soviet Union. Third world countries (mainly poorer countries of the world with very low per capita income, little industry, and high birthrates) also provide many variations in patterns as they struggle to decide

whether to emulate the capitalist or socialist economic model. The result is that organizations that do business in variety of different countries can be confronted with quite different sets of economic ground rules within which they must operate.

Within economic systems, organizations are influenced by a variety of economic factors over which they have little independent control, such as inflation interest rates. High interest rates can drive up organizational mass, particularly for expansion, and reduce the amount of disposable income available to consumers. High interest rates during the early 1980s made it particularly difficult for companies to make capital investments.

Legal-Political Element. The legal-political element is the part of the mega-environment that includes the legal and governmental systems within which an organization must function. Trends in the areas of legislation, court decisions, politics, and government regulation are particularly important aspects of the Steal-political environment. For example, organizations must operate within the general legal framework of the countries in which they make business. They also are governed by a variety of laws that specifically address the manner in which they function. Such Jews in the United States include the Clean Air and Clean Water acts, which are aimed at controlling pollution; the Occupational Safety and Health Act, which specifies safety regulations; and the Employee Retirement Income Security Act, which regulates organizational pension funds.

At the same time, organizations are subject to an increasing number of lawsuits filed in courts by a growing variety of interest groups, ranging from employees to clients.

Possibly by the recent increase in the number of lawyers, product liability suits, in particular, have been on the rise, forcing companies like the Manville Corporation and the A. H. Robins Company into bankruptcy courts. There also have been a growing number of suits against corporate directors from disgruntled shareholders, sending directors and officers scurrying for insurance coverage at rates that have skyrocketed. The number of cases against directors has been rising, particularly since the Delaware Supreme Court found that the directors of the Trans Union Corporation had accepted a takeover bid without checking other alternatives. The court found the directors personally liable, forcing them to pay \$13.5 million of the \$23.5 million settlement (insurance covered only \$10 million). Employees and former employees are increasingly likely to sue employers for reasons ranging from age discrimination to defamation of character. Legal issues are causing companies to review procedures in areas likely to be involved in litigation, as well as to seek increased legal advice.

Various political processes also influence the legal system. The political parties of the incumbent President, as well as the relative numbers of Democrats and Republicans in the Senate and House of Representatives in the US, often have a bearing on the types of laws passed. Political issues also may influence

the extent of the government regulation of various laws. Insider trading involves stock transactions by individuals, such as company officers or investment bankers for a company, who are privy to company information that is likely to affect stock prices when it becomes public.

Sociocultural Element. The sociocultural element is the element of the mega-environment that includes the attitudes, values, norms, beliefs, behaviors, and associated demographic trends that are characteristic of a given geographic area. Sociocultural variables are often discussed in comparisons of different countries, such as the United States and Japan or Great Britain and Germany. Multinational companies face the challenge of understanding various sociocultural differences among countries that may influence competitive success. In recognition of such differences, McDonald's requires that its foreign franchisees stick closely to operating procedures, but it allows room for different marketing methods and even a few menu modifications. For example, in Brazil, McDonald's sells a soft drink made from an Amazonian berry, and in Malaysia the menu features milk shakes flavored with durian, a foul-smelling Southeast Asian fruit considered locally to be an aphrodisiac.

Because sociocultural aspects are subject to change, it is important for managers to monitor trends that might offer new opportunities or pose significant threats. Among the current changes affecting Americans are the delay of marriage until a later age, the emergence of the single head of household as a growing consumer element, the aging of the large baby-boomer group, the growing shortage of workers in the 18- to 24-year-old group, and the increasing influence of minorities in business, politics, and community life.

As we have seen, sociocultural trends can result in important shifts in the demands for certain types of products. Because of recent concerns for fitness Americans eat less bacon and fewer eggs, consuming more chicken and less pork, smoking fewer cigarettes, and increasingly passing up alcoholic beverages in favor of bottled water and diet soft drinks. Yet the trends are not always consistent. Although typically high in cholesterol, cheese is selling briskly, and candy sales are booming despite concerns about calories. Such shifting trends point out the need for organizations to carefully monitor sociocultural factors in areas related to their products and services, including regional differences within a given country.

International Element. The international element is the element of the mega-environment that includes the developments in countries outside an organization's home country that have the potential of impacting on the organization. Although we have discussed international aspects in conjunction with the other elements of the mega-environment, we single out the international element as a separate aspect of the mega-environment because of its growing importance. The international element can have a major impact on organizations.

For one thing, international developments can greatly affect the ability of an organization to conduct business abroad. For example, fluctuations of the dollar against foreign currencies influence the ability of an organization to compete in international markets. When the price of the dollar is high against foreign currencies, U.S. companies find it more difficult to compete in the world market. Conversely, when the dollar falls against foreign currencies, new business opportunities open up.

For example, when the Japanese yen rose 89 percent against the dollar between 1985 and 1987, the Campbell Soup Company took advantage of the situation by lowering prices on its soups by 16 percent, from 220 yen to 185 yen, while retaining retailer's profit margins at the same level. Arguing that the lower price would increase volume, the Campbell Soup representative was able to double the number of stores in Japan that were handling the soup. Because of the falling dollar, however, the Campbell Soup was able to reduce prices and increase profits at the same time. With the dollar worth 240 yen in 1985, a can of Campbell's soup sold for the equivalent of 91 cents. By 1987, even with the price cut a can of Campbell's soup sold for the equivalent of about \$1.30 because of the rise in the value of the yen relative to the dollar. Thus international factors largely beyond the direct manipulation of a particular organization can have profound effects on the ability of managers to operate successfully.

Another way that the international element influences organizations is by producing new global competitors. For example, a number of technological advances pioneered in the United States have led to successful products. Yet, in regard to such items as phonographs, color televisions, tape recorders (audio-video), telephones, semiconductors, and computers, U.S. producers have lost a significant share of the domestic market to foreign competitors who took the basic technology and successfully built upon it. A major Swedish furniture retailer, which conducted business in 18 countries considered many potential environmental factors in selecting its first business-site in the United States.

9.3. The task environment

The task environment depends largely on the specific products and services that an organization decides to offer and the locations where it chooses to conduct its business. A single organization usually has difficulty exerting a direct influence on the mega-environment, but it may be more successful in affecting its task environment. Major elements in the task environment of an organization typically include customers and clients, competitors, suppliers, labor supply, and government agencies. Each organization must assess its own situation in order to determine its specific task environment.

Customers and Clients. Organization's customers and clients are those individuals and organizations that purchase its products and/or services. A number of organizations have recently been making greater efforts to stay close to the

customer by paying particular attention to service and quality, looking for niches where they can serve the customer better than anyone else, and listening to customers about their needs—particularly customers that are themselves leaders in their industry. Staying close to the customer paid off well for Penny Wise Budoff, who guessed right when she figured that women were ready for a change at the doctor's office. As a physician, she was sensitive to women's accusations that doctors rushed them through appointments, told them little, and often were patronizing. So, in 1985, she raised \$3 million to open a full-service clinic for women in Bethpage, New York. Within a year, the clinic had 7000 patients.

Competitors. Organization's competitors are other organizations that either offer or have a high potential of offering rival products or services. Organizations need to be concerned with known competitors, as well as to monitor the competitive scene for potential newcomers. For example, the office supply store market is currently being invaded by three major discount merchants—Staples, Office Depot, and Office Club. The discounters run large stores that look almost like warehouses and offer discounts ranging from 20 to 75 percent off retail prices on a huge selection of office supplies. Customers use grocery store carts to gather their purchases and take them to checkout counters. Telephone orders can be delivered for a small fee. The pioneer, Staples, opened its first store in 1986. The discounters appear likely to make a major impact on the \$100-billion-per-year office supply market.

While organizations need to concern themselves with who their competitors are, they also need to keep abreast of what their competitors are doing. For example, Xerox uses a technique called benchmarking to estimate what the competitor does and how much it costs. To get a fix on Kodak's distribution and handling costs, for instance, Xerox managers ordered some Kodak copiers and then traced where and how they were shipped, including how they were packed.

Suppliers. Organization's suppliers are those organizations and individuals that supply the resources (such as raw materials, products, or services) the organization needs to conduct its operations. Traditionally, the conventional belief in the United States has been that it is best to have multiple suppliers in order to reduce dependence on any one source. World competition is changing that view. Companies are finding that they are better able to cut costs by reducing the number of suppliers they deal with and negotiating contracts with them. In 1980, Xerox ordered parts and components from 5000 vendors worldwide. Since then, by using fewer vendors, Xerox has been able to enforce tougher quality standards, get better prices, and build more cooperative working relationships with suppliers. One concrete outgrowth of the new Xerox policy is that 99.2 percent of the parts the company orders arrive defect-free, compared with 92 percent previously. In an attempt to increase its competitive position, General Motors, which traditionally made 70 percent of the component parts used in its cars, recently announced that it will continue to produce only those component

parts that are "world-class competitive." Parts that do not meet that standard will be purchased from outside suppliers.

Labor Supply. An organization's labor supply consists of those individuals who are potentially employable by the organization. The ability to attract, motivate, and retain the human resources necessary to provide competitive products and services is a crucial variable for most organizations. The economic boom in New England, for example, has caused a serious shortage of workers for employers in the region, particularly those operating in the area's urban centers, such as Boston, Hartford, and Providence. Unemployment in the area has been running 3 percentage points below the national average, making workers harder to recruit, more difficult to retain, and more expensive. Indicative of the difficulties, the tight labor market caused Boston's Shawmut Bank to offer a \$1000 signing bonus to qualified applicants who accepted secretarial positions. At the same time, high housing costs discourage workers from migrating to the area. Economic planners worry, with a good reason, that the severe worker shortage will encourage employers to head south, where workers are more readily available. The Automobile Association of America (AAA) moved its headquarters from a Washington, D.C., suburb to Orlando, Florida, primarily because of consultant reports projecting severe labor shortages in the D.C. area over the next several decades.

Similarly, the declining number of workers in the 18- to 24-year-old age group (mentioned earlier) is causing severe labor shortages in industries that rely on a large supply of entry-level workers. Employers are reacting with creative efforts to obtain the necessary help. A McDonald's franchisee in affluent Darien, Connecticut, buses teenage workers from the Bronx, 28 miles away, while TWA diverts some of the overflow calls from its telephone reservation system to young prisoners in Camarillo, California.

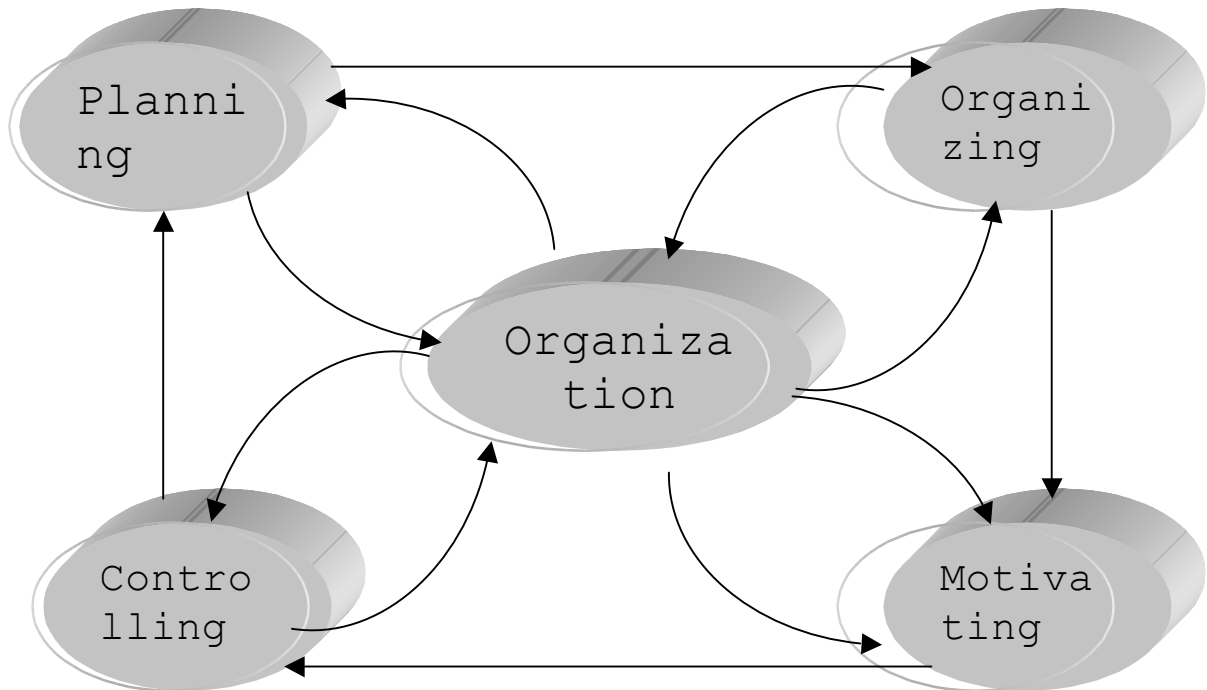
To switch to another topic we should talk about **Socio-technical subsystem:** men and machine are the systems, that's why these parts are called subsystems.

An organization is a socio-technical subsystem. System approach gives an opportunity to explain why different schools of management are used in limited boundary. Each school was concentrated on the certain subsystem. At present, there is a viewpoint that external environment plays an important role in organizational success.

10. Management Functions: Process Approach

The process of management is a complex and interrelated one. The major advantage of separating out and individually discussing the functions that compose that process is that this provides a helpful means (especially for individuals unfamiliar with management) to examine the various threads that are interwoven in the fabric of what managers actually do. The five functions covered in this book have wide acceptance as the basic elements of the

managerial process, although different theorists or writers might use slightly different terms or combine or subdivide some of the functions.



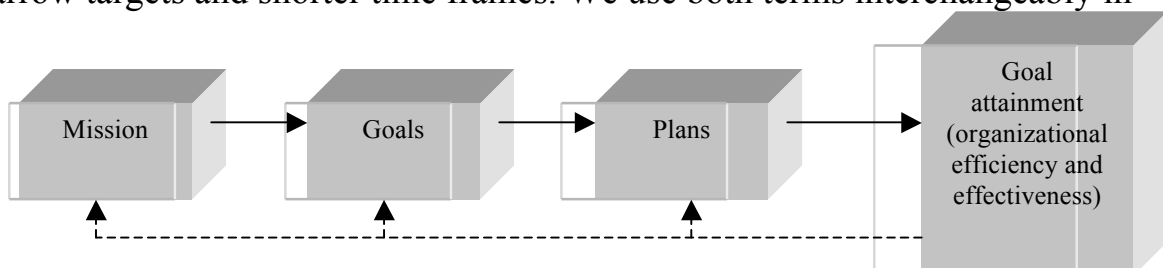
11. The overall planning process

A major element in planning and controlling operations involves the use of technology, innovation, and analysis to improve operations.

Day-to-day operations are guided and sustained by effective planning and control. The flow of products and services must be allocated, scheduled and directed through the system.

11.1. Major Components of Planning

One could argue that it is virtually impossible for organizations to function without at least some goals and plans. A **goal** is a future target or end result that organization wishes to achieve. Many managers and researchers use the term “goal” interchangeably with "objective." Others consider "goal" to be a broad term, encompassing a longer time horizon, and use "objective" to refer to narrow targets and shorter time frames. We use both terms interchangeably in



this text for the sake of simplicity and because it is clear from the context whether a broad or narrow scope or a long or short time frame is involved (at least when the distinction is important to the concepts being examined).

Whereas a goal is a future end result that an organization wants to achieve, a **plan** is the means devised for attempting to reach a goal. The planning function encompasses both goals and plans. *Planning* is the management function that involves setting goals and deciding how best to achieve them. An overall view of the planning process is shown in Figure above. Hopefully, the setting of goals and developing of plans leads to goal attainment and, ultimately, to organizational efficiency and effectiveness. As the diagram indicates, the planning process also involves the mission of the organization.

11.2. Organizational Mission

Essentially, the planning process builds on the **mission** of the organization, the organization's purpose or fundamental reason for existence. A **mission statement** is a broad declaration of the basic, unique purpose and scope of operations that distinguishes the organization from others of its type. A mission statement serves several purposes. For managers, it can be a benchmark against which to evaluate success, for employees, a mission statement defines a common purpose, nurtures organizational loyalty, and fosters a sense of community among members. For external agencies, such as investors, governmental agencies, and the public at large, mission statements help provide unique insight into organization's values and future directions. In highlighting the importance of mission statements, the noted management consultant Peter Drucker argues that the mission statement defines the organization. He points out, "Only a clear definition of the mission and purpose of the organization makes possible clear and realistic business objectives." In some organizations, the mission statement is explicit in the sense that it is a formal written document; in others, the mission may be more implicitly understood. Of course, in the latter case, there is the danger that various organization members may have different perceptions of the organization's mission, perhaps without realizing it.

One study estimates that about 60 percent of the Fortune 500 companies have written mission statements. A related study of the mission statements of 75 firms from the Business Week 1000 indicates that mission statements tend to be made up of some or all of the following nine components:

1. *Customers*. Who are the organization's customers?
2. *Products or services*. What are the organization's major products or services?
3. *Location*. Where does the organization compete?
4. *Technology*. What is the firm's basic technology?

5. *Concern for survival.* What is the organization's commitment to economic objectives?

6. *Philosophy.* What are the basic beliefs, values, aspirations, and philosophical priorities of the organization?

7. *Self-concept.* What are the organization's major strengths and competitive advantages?

8. *Concern for public image.* What are the organization's public responsibilities, and what image is desired?

9. *Concern for employees.* What is the organization's attitude toward its employees?

Laura Nash, a management researcher, who has studied mission statements, reports that her favorite mission statement hangs, yellow with age, on the wall of a Boston shoe repair shop. It reads: "We are dedicated to the saving of soles, heeling, and administering to the dyeing".

If mission statements are so important, then why don't more organizations have them written down? One reason is that explicitly developing such statements causes managers to confront directly such fundamental issues as "What is our business?" Thus it is very possible that considerable controversy may arise in attempting to develop a mission statement. Another reason is that managers may be so busy with day-to-day matters that they neglect developing the long-term vision that a mission statement entails. Finally, a lack of knowledge about what should go into a mission statement may be part of the reason why more organizations do not have mission statements. In the study of Fortune 500 firms mentioned earlier, about 10 percent of the CEOs responding requested help from the researchers on how to develop a mission statement.

Table 3. Eight Major Areas for Strategic Goals

Major area	Description
Market standing	Desired share of present and new markets, including areas in which new products are needed, and service goals aimed at building customer loyalty
Innovation	Innovations in products or services, as well as innovations in skills and activities required to supply them
Human resources	Supply, development, and performance of managers and other organization members; employee attitudes and development of skills; relations with labor unions, if any
Financial resources	Sources of capital supply and how

	it will be utilized
Physical resources	Physical facilities and how they will be used in the production of goods and services
Productivity	Efficient use of resources relative to outcomes
Social responsibility	Responsibilities in such areas as concern for the community and maintenance of ethical behavior
Profit requirements	Level of profitability and other indicators of financial well-being

11.3. Levels of Goals

Organizations typically have three levels of goals: strategic, tactical, and operational. (Also shown are three parallel levels of plans, which will be discussed later in this chapter.)

Strategic Goals. Strategic goals are broadly defined targets or future end results set by top management. Such goals typically address issues relating to the organization as a whole and may sometimes be stated in fairly general terms. Strategic goals are sometimes called *official goals* because they are formally stated by top management. At Cypress Semiconductor, for example, one official goal related to productivity is to provide the very highest quality product coupled with on-time delivery. One outcome has been that the company recently was recognized by Hughes (a subsidiary of General Motors) as one of only three suppliers to achieve a zero-defect, 100 percent on-time delivery record.

The management consultant Peter Drucker suggests that business organizations need to set goals in at least eight major areas. The eight areas encompass a number of aspects that are important to the health and survival of most profit-making organizations.

Tactical Goals. Tactical goals are targets or future end results usually set by middle management for specific departments or units. Goals at this level spell out what must be done by various departments to achieve the results outlined in the strategic goals. Tactical goals tend to be stated in more measurable terms than is sometimes true of strategic goals. For example, at Cypress Semiconductor, a tactical goal for the Static Random-Access Memories (SRAM) Group, the largest of Cypress's product divisions, might be to achieve a preferred supplier status with specified customers. For instance, Cypress recently received a preferred SRAM supplier status from AT&T, a designation earned by only four other semiconductor suppliers (Motorola, Hitachi, Fujitsu, and Toshiba). The preferred status makes it easier to do business with a firm and usually leads to increased future orders.

Operational Goals. Operational goals are targets or future end results set by lower management that address specific, measurable outcomes required from the

lower levels. For example, in order to achieve the tactical and strategic goals related to product quality and on-time delivery, manufacturing units within divisions such as the SRAM Group must set stringent operational goals aimed at zero defects and 100 percent on-time delivery. Reflecting such operational goals, the computerized MBO system at Cypress keeps close track of unscheduled orders (orders on backlog for which more than 3 days are required to schedule production) and performance on the quality dimension.

11.4. How to set goals

There are six main steps in setting goals to obtain optimal results:

1. *Specify the goal to be reached or tasks to be done.* What do you want to accomplish? Do you want to increase sales? Reduce costs? Improve quality? Boost customer service? Maybe, at the moment, you are thinking that you would like to obtain an A in a particular course this semester (perhaps the one involving this textbook).

2. *Specify how the performance will be measured.* Some outcomes can be measured more easily than others. For example, some outcomes, such as number of units sold and dollar volume of sales can be measured fairly easily. Work outcomes (the results achieved) typically are measured according to one of three parameters:

Physical units: For example, quantity of production, market share, number of errors, number of rejects (quality control);

Time: For example, meeting deadlines, servicing customers, completing a project, coming to work each day, being punctual;

Money: For example, profits, sales, costs, budgets, debts, income.

Similarly, many course-of-study outcomes can be measured in terms of physical units (such as the number of questions answered correctly on examinations and grades received on papers and assignments) and in terms of time (such as meeting deadlines for assignments and attending classes).

Sometimes, outcomes are difficult to measure, perhaps because the measurement process would be too costly or because the outcomes are affected by factors beyond an individual's control. In such cases, it may be necessary to measure behaviors or actions rather than outcomes. For example, if a manager's goal of overcoming worker resistance to certain impending changes is likely to be significantly affected by the actions of others, it may be possible to measure crucial activities instead of outcomes. Such activities might include whether the manager clearly explains why the change is needed, outlines how the change will affect others, and listens to employee's concerns. When possible, though, the goal-setting process should focus on outcomes.

3. *Specify the standard or target to be reached.* This step builds on the type of measure chosen in step 2 by spelling out the *degree* of performance to be included in the goal. For example, the target might be producing 40 units per

hour, reducing errors by 2 percent, completing a project by Dec. 15, answering the telephone within three rings, or increasing sales by 10 percent.

In pursuit of the general objective of attaining an A in a particular course, one might set targets of answering correctly at least 90 percent of the questions on the midterm and final exams, offering one knowledgeable point during the discussion part of each class, and fulfilling written assignments at a level of quality likely to earn high grades. Setting subgoals, such as the number of textbook pages to be read and outlined each day, also can help goal achievement.

4. *Specify the time span involved.* To have a positive impact on performance, goals need to have a time span within which they are to be completed. In a production situation, the goal may be stated in terms of production per hour or day. In a service situation, the time frame may be oriented toward delivering the service. For example, a photocopier repair service may have the goal of responding to customer calls within 2 hours. Other goals, such as major projects, may have time spans involving several months or even years.

For instance, your goals for the semester may involve a few months, while goals associated with obtaining your degree and further building your career may span several years.

5. *Prioritize the goals.* When multiple goals are present, as is likely with most jobs, goals need to be prioritized so that effort and action can be directed in proportion to the importance of each goal. Otherwise, individual effort can be focused improperly.

For example, suppose that in the course in which you wish to obtain an A, examinations count 70 percent, paper counts 20 percent, and discussion in class counts 10 percent. In this case, a goal related to the examinations should be given first priority, while goals related to the paper and the class discussion should receive second and third priority, respectively.

6. *Determine coordination requirements.* Before a set of goals is finalized, it is important to investigate whether achieving the goals depends on the cooperation and contributions of other individuals. If so, coordination with the other individuals may be necessary. In organizations, such coordination vertically is usually relatively easy. It may be more difficult, but nevertheless important, to achieve coordination horizontally, particularly if some of the individuals report to other managers outside your work unit.

In the case of the course in which you are attempting to excel, your efforts may require coordination with your boss (if you are employed) so that your work schedule allows you sufficient study time before exams. If you plan ahead, you also may be able to get parents, a spouse, or friends to help you out with other duties at crucial times during the semester, such as right before exams, so that you have plenty of time to review.

12. The concept of strategic management

Most well-run organizations attempt to develop and follow **strategies**, large-scale action plans for interacting with the environment in order to achieve long-term goals. A comprehensive statement of an organization's strategies, along with its mission and goals, constitutes an organization's strategic plan. To learn where such strategies originate and how they are put into action, we need to examine carefully an aspect of the planning function called strategic management. **Strategic management** is a process through which managers formulate and implement strategies geared to optimizing strategic goal achievement, given available environmental and internal conditions. This definition recognizes that strategic management is oriented toward reaching long-term goals, weighs important environmental elements, considers major internal characteristics of the organization, and involves developing specific strategies. Thus, the strategic management process encompasses a major part of the planning process.

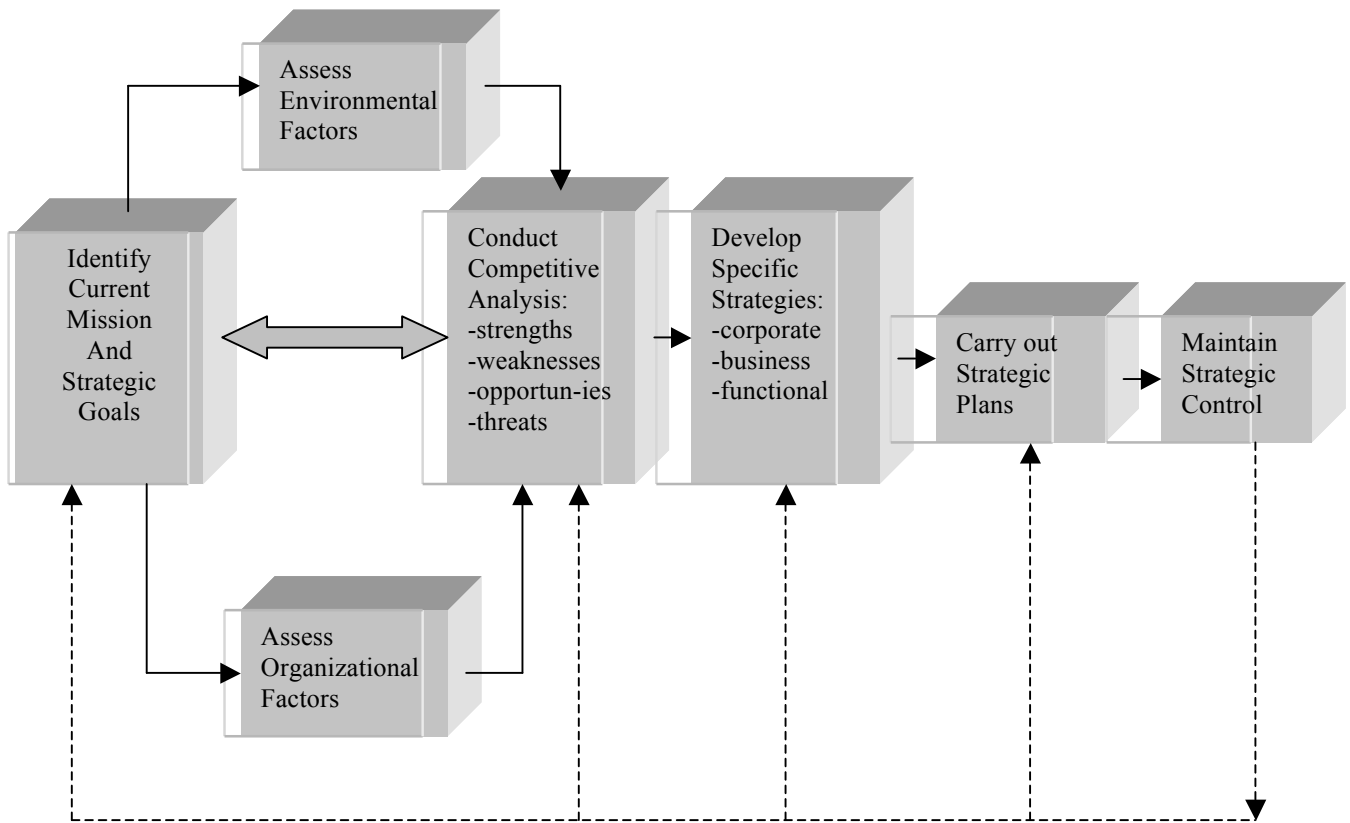
12.1. The Strategic Management Process

The strategic management process is made up of several major components. The process begins with identifying the organization's mission and strategic goals, concepts that are discussed in depth in the chapter. The process also includes analyzing the competitive situation, taking into consideration both the external environment and relevant organizational factors. Once the situation has been carefully analyzed, managers can begin to develop, or formulate, various strategies that can be used to achieve strategic goals. The part of the strategic management process that includes identifying the mission and strategic goals, conducting competitive analysis, and developing specific strategies is often referred to as **strategy formulation**. In contrast, the part of the strategic management process that focuses on carrying out strategic plans and maintaining control over how those plans are carried out is known as **strategy implementation**. Strategy implementation is increasingly highlighted as a distinct part of the strategic management process because even the most brilliantly formulated strategies must be implemented effectively in order to reach strategic goals.

12.2. Levels of Strategy

Many organizations develop strategies at three different levels: corporate, business and functional.

Corporate-Level Strategy. Corporate-level strategy addresses what businesses the organization will operate, how the strategies of those businesses will be coordinated to strengthen the organization's competitive position and how resources will be allocated among the businesses. Strategy at this level is typically developed by top management, often with the assistance of strategic planning personnel, at least in large organizations.



The board of directors also is involved in developing corporate-level strategy, although the degree of board participation varies. The three areas in which boards of directors can typically be most helpful within the strategic management process are advising on new directions for growth, suggesting when major changes are needed in strategy, and providing input on the timing of major investments.

Business-Level Strategy. Business-level strategy concentrates on the best means of competing within a particular business while also supporting the corporate-level strategy. Strategies at this level are aimed at deciding the type of competitive advantage to be built, determining responses to changing environmental and competitive conditions, allocating resources within the business unit/and coordinating functional-level strategies. Business-level strategies are usually established for each strategic business unit. A **strategic business unit (SBU)** is a distinct business, with its own set of competitors, that can be managed reasonably independently of other businesses within the organization. Most often, the heads of the respective business units develop business strategies, although such strategies are typically subject to the approval of top management. When an organization comprises only a single business, corporate-level and business-level strategies are essentially the same. Thus the corporate-level and business-level distinction applies only to organizations with separate divisions that compete in different industries.

Functional-Level Strategy. Functional-level strategy focuses on action plans for managing a particular functional area within a business in a way that supports the business-level strategy. Strategies at this level address main

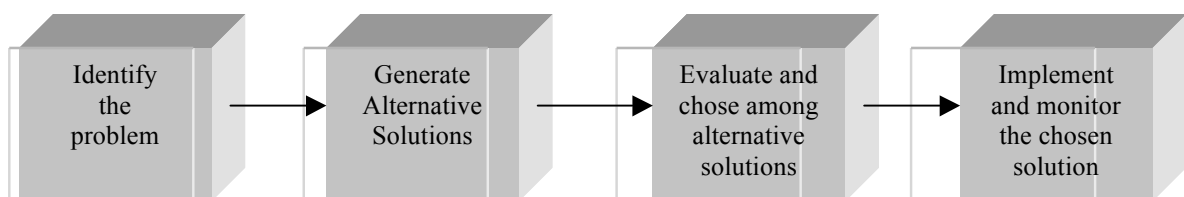
directions for each of the major functional areas within a business, such as manufacturing or operations, marketing, finance, human resources management, accounting, research and development, and engineering. Functional-level strategies are important because they often reflect strong functional competencies that can be used to competitive advantage. Functional strategies usually are developed by functional managers and are typically reviewed by business unit heads.

Coordinating Levels of Strategy. Coordinating strategies across the three levels is critical in maximizing strategic impact. The strength of the business-level strategy is enhanced when functional-level strategies support its basic thrust. Similarly, the corporate level is likely to have greater impact when business-level strategies complement one another in bolstering the corporate-level strategy. Thus, the three levels must be closely coordinated as part of the strategic management process.

13. The nature of managerial decision making

Like Goizueta, managers make many different decisions in the course of their work. While managers at lower levels in organizations might not make such monumental decisions as changing the formula for a revered product, many smaller decisions at lower levels have a cumulative effect on organizational effectiveness. For example, Motorola has built its reputation for high quality and innovation (particularly in semiconductors, electronic pagers, and cellular telephones) partially by encouraging individuals from design, manufacturing and marketing departments to involve themselves early in decision-making for new projects. Good decision-making processes are important at all levels.

An effective decision-making process generally includes the four steps shown in Figure below. Some authors refer to these four steps as problem solving and reserve the term "decision making" for the first three steps—the process up to, but not including, implementation and follow-up. Here we use "decision making" and "problem solving" interchangeably to refer to the broad process. We do this because "decision making" is the term more commonly used in business, and we believe that it will be clear when we are using this term in its more narrow sense. We will analyze the four steps in the decision-making process in greater detail in a later section of this chapter. First, though, it is useful to examine the major types of problems that managers usually encounter and to consider important differences in managerial decision-making situation.



13.1. Steps in effective decision-making process

The models of managerial decision making just outlined are sometimes referred to as **descriptive decision-making models** because they attempt to document how managers actually *do* make decisions. In contrast, models such as the decision-making approach sometimes referred to as **normative decision-making models** because they attempt to prescribe how managers *should* make decisions. According to decision-making experts, managers are more likely to be effective decision makers if they follow the general approach outlined in Table 4. Although following such steps does not guarantee that all decisions will have the desired outcomes, it does increase the likelihood of success. While managers frequently do not have control over many factors affecting the success of their decisions, they do have a substantial control over the process that they use to make decisions. In this section, we discuss the four-step decision-making process in greater detail.

13.2. Identifying the Problem

The first step in the decision-making process is identifying the problem. **Organizational problems** are discrepancies between a current state or condition and what is desired. This step has three general stages: scanning, categorization, and diagnosis.

Table 4. Steps in an Effective Decision-Making Process

Step	Activities
Identify the problem	Scan the environment for changing circumstances. Categorize the situation as a problem (or nonproblem). Diagnose the problem's nature and causes.
Generate alternative solutions	Restrict criticism of alternatives. Freewheel to stimulate thinking. Offer as many ideas as possible. Combine and improve on ideas.
Evaluate and choose an alternative	Evaluate feasibility. Evaluate quality. Evaluate acceptability. Evaluate costs. Evaluate reversibility.
Implement and monitor the chosen solution	Plan the implementation of the solution. Be sensitive to the decision's effects on others. Develop follow-up mechanisms.

Scanning Stage. The *scanning stage* involves monitoring the work situation for changing circumstances that may signal the emergence of a problem. At this point, a manager may be only vaguely aware that an environmental change could lead to a problem or that an existing situation is constituting a problem. For example, since the 1960s, the managers at the American Can Company had watched the can business slowly decline as customers began to turn to new containers, particularly plastic ones. As a result, management had been steadily diverting money from the can business and slowly acquiring new businesses. However, in the late 1970s, high interest rates, inflation, and overcapacity in both the company's can and paper operations began to suggest more serious difficulties.

Categorization Stage. The *categorization stage* entails attempting to understand and verify signs that there is some type of discrepancy between a current state and what is desired. At this point, the manager attempts to categorize the situation as a problem or a nonproblem, even though it may be difficult to specify the exact nature of the problem, if one exists. For example, the managers at the American Can Company found that their core businesses suddenly were not generating much cash.

Diagnosis Stage. The *diagnosis stage* involves gathering additional information and specifying both the nature and the causes of the problem. Without appropriate diagnosis it is difficult to experience success in the rest of the decision process. At the diagnosis stage, the problem should be stated in terms of the discrepancy between current conditions and what is desired, and causes of the discrepancy should be specified. For example, American Can's chief, William Woodside, and the other top executives began to recognize that they were "going downhill." The problem was that they could no longer slowly shift to new businesses as desired because their current businesses were no longer generating sufficient cash to allow new acquisitions.

13.3. Forecasting

Forecasting is a process aimed at predicting changing conditions and future events that may significantly affect the business of an organization. The forecasting process is important to both planning and decision making because each depends heavily on assessments of future conditions. Forecasting is used in variety of areas, such as production planning, budgeting, strategic planning, sales analysis, inventory control, marketing planning, logistic planning, purchasing, material requirements planning, and product planning.

13.3.1. Quantitative Forecasting

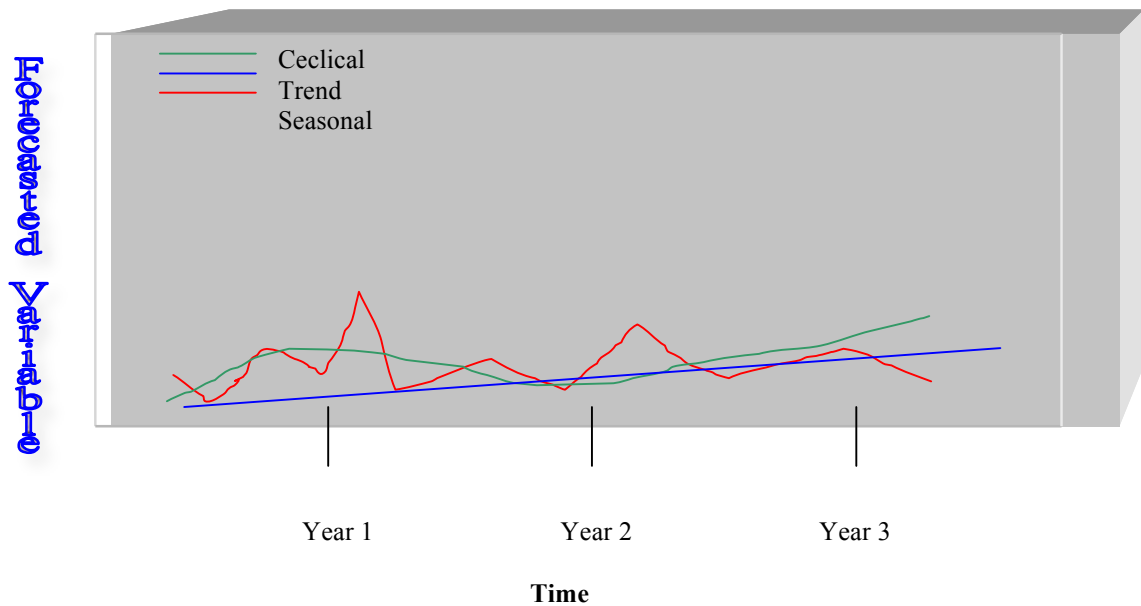
Quantitative forecasting relies on numerical data and mathematical models to predict future conditions. The three main methods of quantitative forecasting are time-series, explanatory, and monitoring methods.

Time-Series Methods. Time-series methods use historical data to develop forecasts of the future. The assumption underlying time-series models is that there are patterns or combinations of patterns that repeat over time. Time-series models use extensive amounts of historical data, such as weekly sales figures, to identify such patterns and then base future projections on those patterns.

Examples of the types of patterns that may be identified by time-series methods are shown in Figure below. A trend reflects a long-range general movement in either an upward or a downward direction. For example, after identifying a general decline in coffee consumption, of Carmel, California, Hillside Coffee, Inc., began to try out coffees with chocolate and nut flavorings. The experiments with the new flavored coffees began after the company learned that many of its restaurant customers were adding sweet liquors into coffee to make appealing hot drinks. The company wanted to create similar types of flavors without alcohol for use at home. Free samples and recommendations from customers have helped the company gain a strong group of consumers, particularly teenagers and individuals in their early twenties. "Near the college campuses we're selling flavors like Chocolate Macadamia, Swiss Chocolate Almond, and Vanilla Nut," says Hillside's president, Steve Schulman. A *seasonal* pattern indicates upward or downward changes that coincide with particular points within a given year, such as particular seasons of the year. For example, because the major season for soft-drink sales is summer, Coca-Cola chief executive Roberto C. Goizueta strongly discourages company top executives from taking summer vacations. The executives are needed to help with major decisions that may be required because of the fiercely competitive situation. Price wars and other competitive challenges in the soft-drink industry are also common during major holiday seasons.

The Toro Company sells both lawn mowers and snow throwers as a means of handling seasonal differences in customer demand patterns. A *cyclical* pattern involves changes at particular points in time that span longer than a year. For example, sunspot intensity varies over an 11-year cycle and has an effect on agriculture industry.

Because time-series methods rely strictly on historical data, they are not very useful in predicting the impact of present or future actions that manager might take to bring about a change. Time-series approaches are more suited to predicting broad environmental factors, such as general economic prospects of employment levels, general sales levels, or cost trends, that may be heavily influenced by past events. There are a wide variety of methods for analyzing time series, many of them quite sophisticated and requiring the use of computers. Although time-series methods attempt to predict the future by identifying patterns, they do not concern themselves with the causes of such patterns.



While time-series approaches can be useful, there are dangers in relying too heavily on past trends. Miller Brewing learned about such dangers a hard way. On the basis of a decade in which the company grew at a hefty 640 percent while the beer industry as a whole grew at only about 40 percent, Miller decided to build a huge new brewery in Trenton, Ohio. Just as the brewery was completed in 1982, American sales of beer leveled off for the first time in 25 years. At the same time, Miller's archrival, Anheuser-Busch, began an expensive, but highly successful, expansion and marketing campaign. Within 5 years, sales of Miller High Life, once the number-two beer in America declined by 50 percent. The new Trenton brewery, which never opened, led to a \$280 million write-off for Miller.

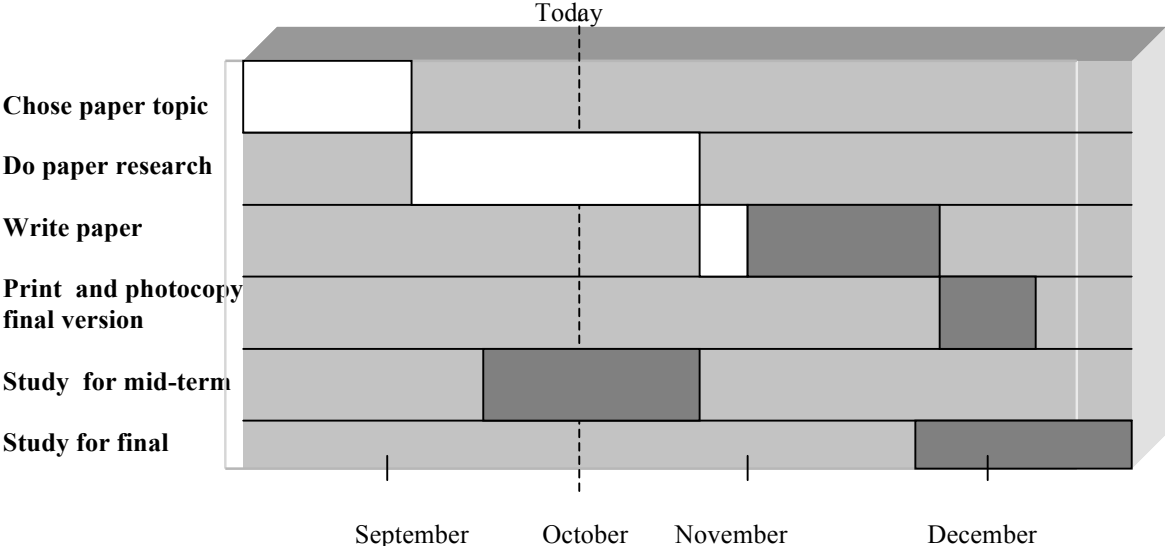
14. Project planning and control models

Managers are responsible for *projects*, one-time sets of activities that have a clear beginning and a clear ending. For example, a manager may be responsible for a project to design and implement a new computer system, a project to build a new manufacturing plant, or a project to develop a new product. Such projects are unique, one-time sets of activities, although a manager may have been responsible for similar types of projects in the past. When projects are large and complex, it may be necessary for a manager to utilize some type of planning and control model to help manage the project effectively. Two well-known types of planning and control models are Gantt charts and PERT.

14.1. Gantt Charts

One of the earliest and most flexible project planning tools is the **Gantt chart**, a specialized bar chart developed by Henry L. Gantt (a prominent member of the scientific management school), that shows the current progress on each major project activity relative to necessary completion dates. A simple

example of a Gantt chart is shown in Figure below. A project, in this case completing a management course, is broken down into separate major activities that are then listed on the left side of the chart. The time frame for the entire project is indicated at the top or on the bottom of the chart. The duration and scheduling



of each activity is then shown by a bar; each bar is shaded to indicate the degree of completion of the activity. As a result, it is possible to determine at a glance the current status of each activity in terms of project deadlines. You could construct a Gantt chart to help you plan and control the major activities necessary for successfully completing a course or even a whole semester or quarter. A status check of the chart for "Today" shows that the individual has chosen a topic for a paper, completed the research, and is ahead of schedule on writing the paper. However, the individual is a bit behind schedule on studying for the midterm and needs to expend special effort to catch up.

Because of the popularity of Gantt charts, they are increasingly available with computer packages designed to help managers plan and control projects. While Gantt charts are extremely useful in a variety of situations, they do have one major weakness. They do not show how various activities are interrelated. For relatively small project situations, interrelationships are fairly obvious. For large, complex projects, more sophisticated means of planning and control frequently are needed.

14.2. PERT

During the 1950s, the U.S. Navy faced the immense task of coordinating the efforts of 11,000 contractors involved in developing the Polaris, the first submarine that could remain submerged while launching a long-range ballistic missile. As a result, the Defense Department, with the help of Lockheed, invented the Program Evaluation and Review Technique (PERT), a network

planning method for managing large projects. Around the same time, Du Pont, with the help of Remington-Rand, created a similar network planning approach called the Critical Path Method (CPM). Network planning methods involve breaking projects down into activities and determining the required length of time for each, but they go beyond Gantt charts by explicitly considering the interrelationships among activities.

Originally, PERT differed from CPM in that PERT incorporated a method for handling uncertainties about how long various activities would take to complete. On the other hand, CPM had a means for considering how project completion dates would be altered if more or less resources were allocated to various activities. With the increased availability of computer packages, these differences between PERT and CPM have largely disappeared. Most computer packages allow for both handling uncertainties about activity durations and determining trade-offs between resources and project completion times. In addition, the term "PERT" appears to be emerging as the more common designation. Therefore, we use it throughout this discussion.

Setting up PERT to help manage a major project involves the following main steps:

1. All activities in the project must be clearly specified.
2. The sequencing requirements among activities must be identified (i.e. which activities need to proceed others must be determined).
3. A diagram reflecting the sequence relationships must be developed.
4. Time estimates for each activity must be determined.
5. The network must be evaluated by calculating the critical path. The various activities can then be scheduled.
6. As the project progresses, actual activity times must be recorded so that any necessary schedule revisions and adjustments can be made.

Table 5. Major Activities, Predecessor Activities, Time Estimates for Good Care, Inc.

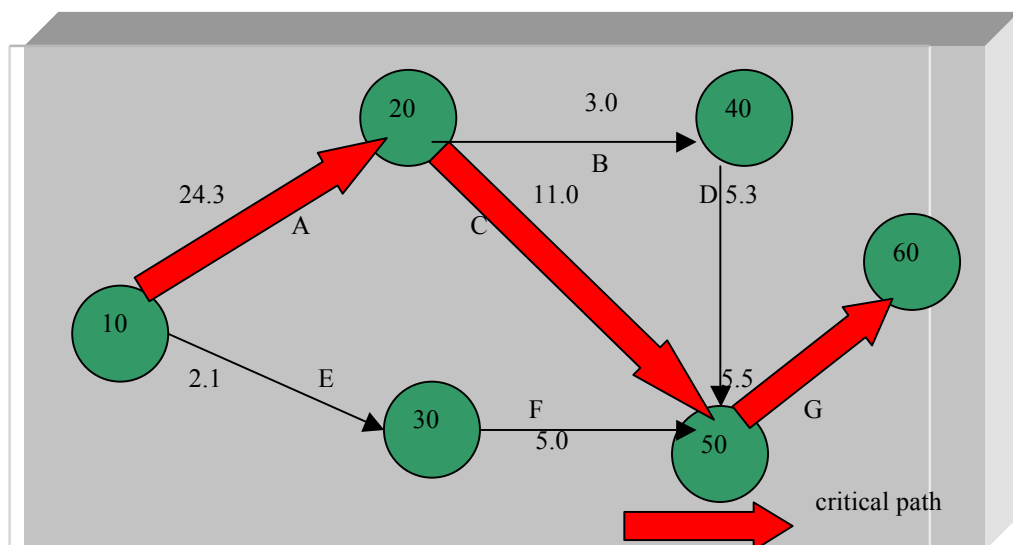
Activity	Predecessor Activity		TIME ESTIMATES		
	executor	t0	tm	tp	tav
A. Build facility	None	20	24	30	24.3
B. Conduct safety inspection	A	2	3	4	3.0
C. Install equipment	A	8	10	20	11.0

D. Decorate interior	B	3	5	9	5.3
E. Recruit staff	None	2	2	3	2.1
F. Train staff	E	4	5	6	5.0
G. Perform pilot	C, D, F	4	5	9	5.5

Source: Adapted from Everett E. Adam, Jr., and Ronald J. Ebert, Production and Operations Management: Concepts, Models, and Behavior, 3d ed., Prentice-Hall, Englewood Cliffs, N.J., p. 535.

In order to understand basically how PERT works, we will walk through a relatively simple example. Suppose an organization that furnishes nursing-home care, Good Care, Inc., decides to expand and upgrade its services to include skilled-level care. Because of federal regulations for skilled care, it is necessary to build a new facility for the skilled-care operation. The administrator of Good Care, Inc., must first develop a list of the major activities that are involved in the project and then determine which activities must precede others (see Table).

The next step is constructing a network diagram, a graphic depiction of the interrelationships among activities. An example of a network diagram for the Good Care project is shown in the Figure below. On the diagram, an activity, or work component to be accomplished, is represented by an arrow. Activities take a period of time to accomplish. A node, or event, is an indication of the beginning and/or ending of activities in the network. It represents a single point in time. The nodes are numbered for easy identification, usually using tens (e.g., 10, 20,



30) so that additions can be made to the network without requiring renumbering. The diagram depicts the interrelationships among the various activities (Figure), for example, building the facility must precede the safety inspection and recruiting staff must precede training staff. However, as the diagram indicates, the building and safety inspection processes can be accomplished by the same time as the staff recruiting and training processes.

Developing the diagram may also include providing initial time estimates for the duration of each activity. Unless the times are well established, an estimate is usually made of the optimistic (t_o), pessimistic (t_p), and most likely (t_m) times necessary to complete each activity (see Table 5). The *expected*, or *average time* for each activity is then calculated using the following formula, which gives heavy weight to the most likely time for activity completion:

$$t_e = \frac{t_o + 4t_m + t_p}{6}$$

The expected time for each activity is shown next to its respective arrow on the network diagram.

The next step is identifying the **critical path**, the path in the network that will take the longest to complete. This network has three different paths, 10-20-40-50-60, 10-20-50-60, and 10-30-50-60. By adding up the expected times on each path, we can determine that the path 10-20-50-60 will take the longest (40.8) and therefore, is the critical path. This means that if there is a delay in any of the activities on this path, project completion will also be delayed. Therefore, the manager needs to pay particular attention to this path. In addition, by allocating further resources to this path, it may be possible to shorten project completion time. For example, if the amount of time required to install equipment could be shortened by 2 weeks, project completion time could be reduced to 38.8. When activity times on the critical path are significantly shortened, another path sometimes becomes critical. This could happen if activity 20-50 was shortened to weeks. Then the path 10-20-40-50-60 would become the critical path. On the noncritical paths, there is some latitude about which various activities can be started without endangering the completion date of the entire project. This latitude is commonly referred to as **slack**.

Once the critical path is developed, it is important periodically to record actual times it takes to complete the various activities and then to review implications. For example, when the activities on the critical path take longer than estimated, an action must be taken to rectify the situation; otherwise, the entire project will be delayed. Similarly, if an activity on a noncritical path takes substantially longer than expected, the critical path could change. Thus PERT helps managers not only plan but also control projects. The ability of individual managers to use PERT to plan and control both small and large projects has

vastly increased with the widespread availability of software packages that are relatively easy to use.

15. Designing organizational structures: an overview

As it was mentioned before, the process of developing an organization structure is sometimes referred to as organization design. In designing organization structures, what factors do managers need to consider? According to a famous study, one important issue is an organization's strategy.

Which Comes First—Strategy or Structure?

In a landmark book called *Strategy and Structure*, the noted business historian Alfred D. Chandler studied the origins of the largest U.S. firms. He was particularly interested in whether strategy development preceded or followed the design of organization structures. On the basis of his studies, Chandler concluded that major companies (such as Du Pont; General Motors; Sears, Roebuck; and Standard Oil) generally follow a similar pattern of strategy development and then structural change, rather than the reverse.

In Chandler's view, organizations often change their strategies in order to better utilize their resources to fuel growth. The changes in strategy then lead to management difficulties because the current structures do not fit the new strategies. Unless organizations subsequently make adjustments in structure, the new strategies cannot realize their potential and serious inefficiencies will result. Recently, other researchers *have* questioned the structure-follows-strategy thesis on the basis that it is too simplistic. Instead, the researchers argue that particular structures are also likely to influence the strategies that organizations are apt to adopt. For example, the former Eastman Kodak CEO Colby Chandler (no relation to Alfred Chandler) estimates that his company lost about \$3.5 billion in sales between 1981 and 1985 to competitors such as Fuji Photo film. Kodak's functional structure did not allow for the kinds of specific strategies needed in Kodak's multiple businesses. Accordingly, Colby Chandler reorganized the \$17-billion-per-year company into 34 divisions, ranging from color film to copiers, so that they could operate as strategic business units. Within 2 years, almost every unit had gained market share, and Kodak's exports increased by 23 percent. In the Kodak case, changes in strategy followed changes in structure. Thus it is possible that there are causal linkages each way. Structure may follow strategy at one point; then new structures may influence the development of new strategies. In any event, Alfred Chandler's work suggests that a mismatch between strategy and structure could lead to organizational difficulties.

15.1. Factors Influencing Organization Design

Chandler's research has helped establish the fact that there is an important connection between strategy and the type of organization structure that is needed to achieve organizational goals effectively and efficiently. At the same time, the effectiveness of a particular type of organization structure is also influenced by

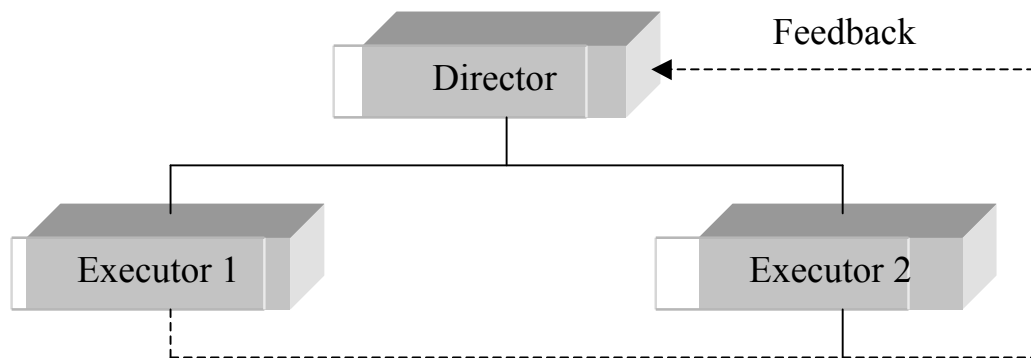
certain major contingency factors, such as the dominant type of technology used or the organization's size. In addition, structural methods for promoting innovation have a bearing on the effectiveness of particular structures in facilitating strategic implementation and the attainment of organizational goals. We begin by examining in greater detail the major types of organization structure, or departmentalization, since they represent principal structural alternatives available to managers.

15.2. Assessing structural alternatives

As discussed briefly in the previous chapter, the four most common types of departmentalization are functional, divisional, hybrid, and matrix. They are often referred to as organization structures or organization designs. Each type has major advantages and disadvantages.

15.2.1. Linear Structure

Linear structure is the structure where administrative influences include managerial functions (decision-making). These influences form linear relations.



Advantages of this kind of structure: simplicity of construction, reconcilable jobs, total personal responsibility for the outcome.

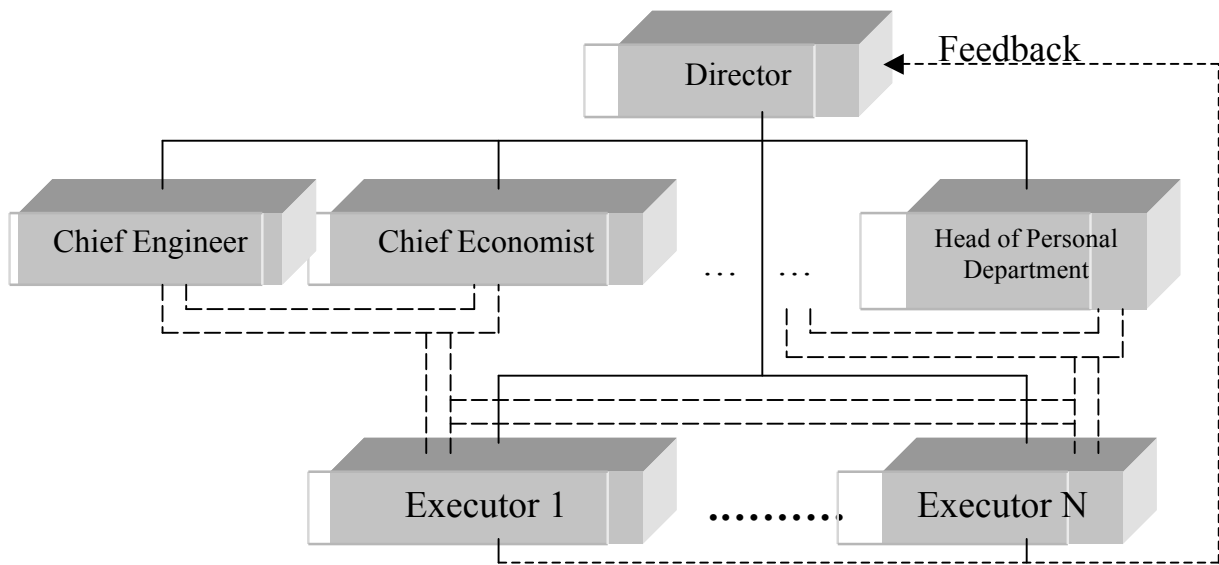
Disadvantages: effective only for small organizations, process of production and management coordination complexity, wide knowledge and skills necessity.

15.2.2. Linear-functional Structure

Linear-functional structure is the structure where managerial influences are divided into: linear - obligatory for implementation and functional – recommended for implementation.

Advantages: attracting more qualified specialists to the direction, efficiency in decision-making in non-typical situations, managerial professionalism improvement getting reconcilable tasks and instructions, total personal responsibility for the outcome.

Disadvantages: all sub-units work coordination difficulty, heavy duty on director and his personnel.

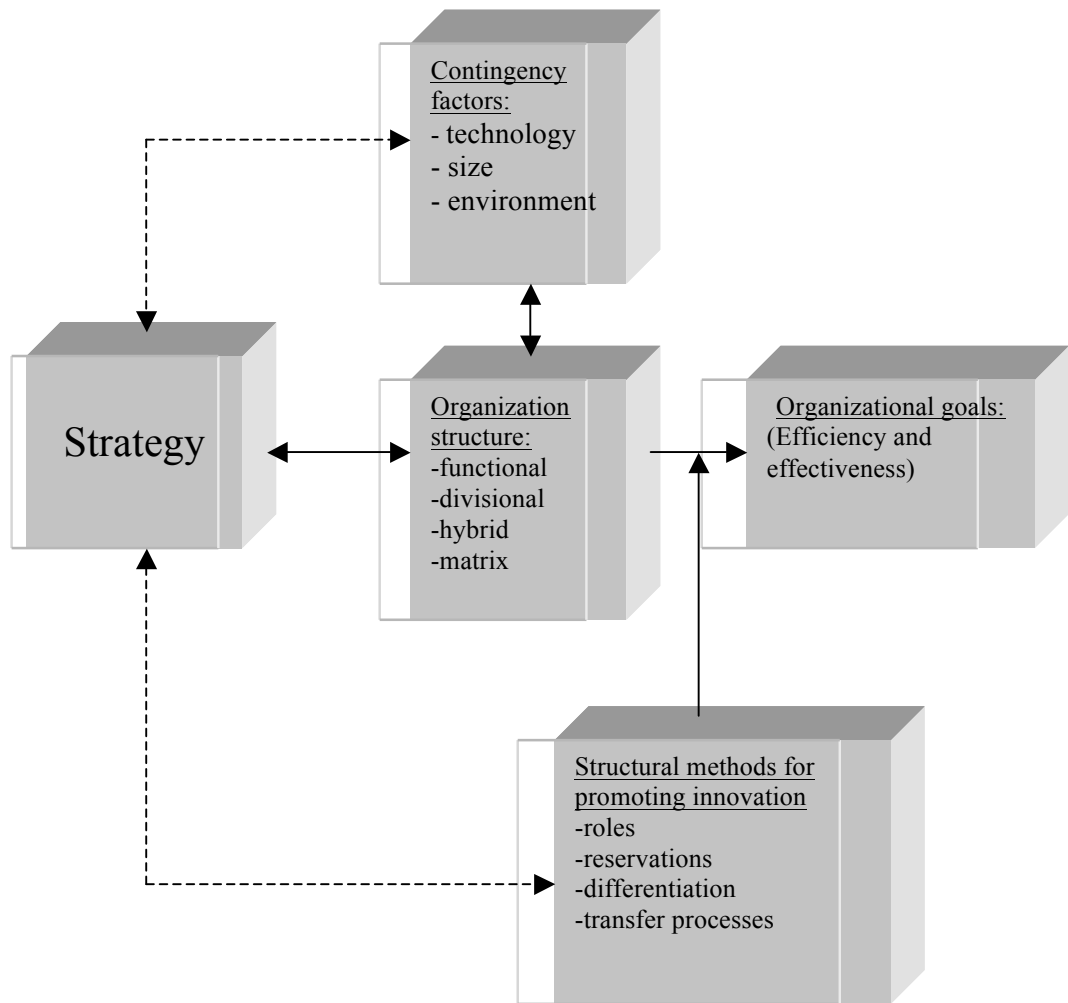


15.2.3. Functional Structure

Functional structure is a type of departmentalization in which positions are grouped according to their main functional (or specialized) area. In other words, positions are combined into units on the basis of similarity of expertise, skills and work activities.

Common Functions. Several specialties are commonly associated with functional structures in business organizations. For example, the *production, or operation* function combines activities directly related to manufacturing a product or delivering a service. *Marketing* focuses on the promotion and sale of products and services. *Human resources* are responsible for attracting, retaining, and enhancing the effectiveness of organization members. *Finance* is concerned with obtaining and managing financial resources. *Research and development* is responsible for producing unique ideas and methods that will lead to new and/or improved products and services.

Accounting deals with financial reporting to meet the needs of both internal and external sources. Finally, the *legal* function handles legal matters affecting the organization. Notice that when we are speaking of organization structure, the term "function" (or specialized area of expertise) has a different meaning than it



does when we are discussing the major functions of management, that is, planning, organizing, leading, and controlling. The functional organization structure for Celestial Seasonings, the Denver-based herbal tea company, is shown in Figure below. The structure includes many of the common functional areas discussed above.

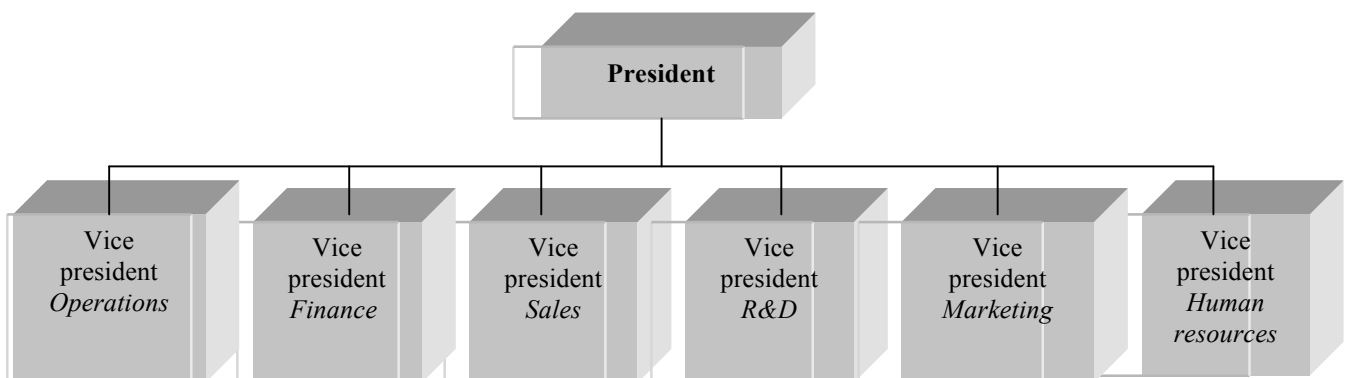


Table 6. Advantages and disadvantages of functional structure.

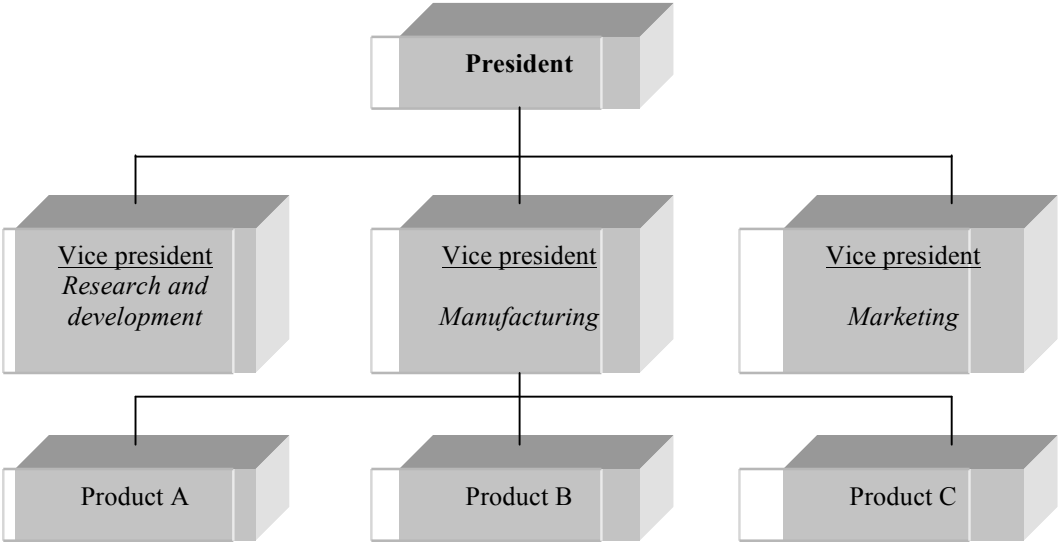
Advantages	Disadvantages
In-depth development of expertise	Slow response time on multifunctional problems
Clear career path within function	Backlog of decisions at top of hierarchy
Efficient use of resources	Bottlenecks due to sequential tasks
Possible economies of scale	Restricted view of organization among employees
Ease of coordination within function	Inexact measurement of performance
Potential technical advantage over competitors	Narrow training for potential managers

An organization developing a functional structure must consider the specialized areas that are relevant to its own needs. For example, a functional design for a large utility company might have an energy department that is equivalent to the production, or operations department often found in other organizations, since it is geared to producing energy. It might also have a distribution department as a major function, because of the importance of energy distribution to a utility. However, a major bank with a functional organization structure might have a functional department for investments and another for loans.

Advantages of Functional Structure. The functional form of organization has several major advantages. First, it encourages the development of expertise because employees can concentrate on fostering specialties within a single function. For example, if you were the vice president for human resources in a functional structure, you might be able to develop specialists in such areas as recruiting, compensation, and training. Another helpful aspect is that employees have clear career paths within their particular function, giving them further encouragement to develop their expertise. In addition, a functional structure usually facilitates more efficient use of resources because it is fairly easy to shift individuals from one project to another as needed when they work in the same department. Economies of scale also may be possible, either because large amounts of work often can be handled efficiently when individuals specialize or because major equipment can be justified by work volume. An additional advantage is that a functional structure may facilitate ease of coordination within departments, since the activities are all related in one way or another to the same specialized area. Finally, grouping by functions increases the potential for developing specialized technical competencies that can construe an advantage over competitors.

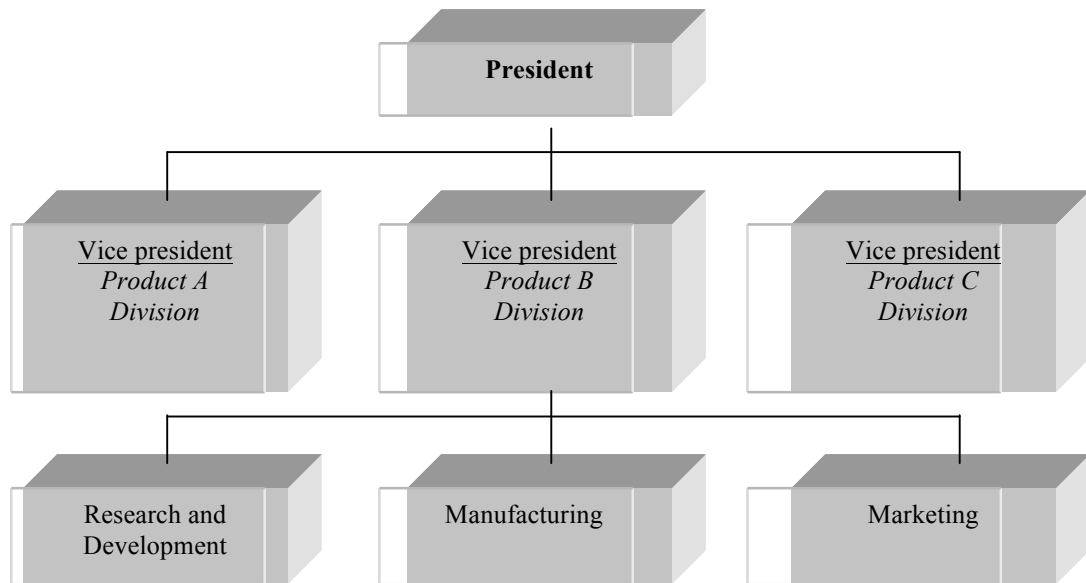
Disadvantages of Functional Structure. Functional designs also have several disadvantages. For one thing, the coordination across functions that is necessary in handling complex problems may seriously delay responses, because major issues and conflicts must be passed up the chain for resolution. In addition, specialists sometimes become so narrow in orientation that they cannot relate to the needs of the other functions or to the over goals of the organization. At the same time, performance of the unit may be difficult to measure, because various functions all have a hand in the organizational results. Finally, a functional structure provides a fairly narrow training ground for managers, because they tend to move up within one function and, hence, have only limited knowledge of the other functions.

Uses of Functional Structure. The functional form of departmentalization is most often used in small and medium-size organizations that are too large to coordinate their activities without some type of formal structure but are not too large as to make coordination across functions difficult. Such organizations frequently have a limited number of related products or services or deal with a relatively homogeneous set of customers or clients. For example, Domino's Pizza, Inc., which deals mainly in pizza and related items, has a functional structure, with operations, distribution, and finance and administration as the major functional departments. A functional design may also be useful in large or more diverse organizations, such as insurance companies that operate in relatively stable environments in which change occurs at a slow enough rate for various functions to coordinate their efforts. Another reason why a functional organization structure may be chosen by a large organization is that considerable coordination may be required among products.



15.2.4. Divisional Structure

Divisional structure is a type of departmentalization in which positions are grouped according to similarity of products, services, or markets.



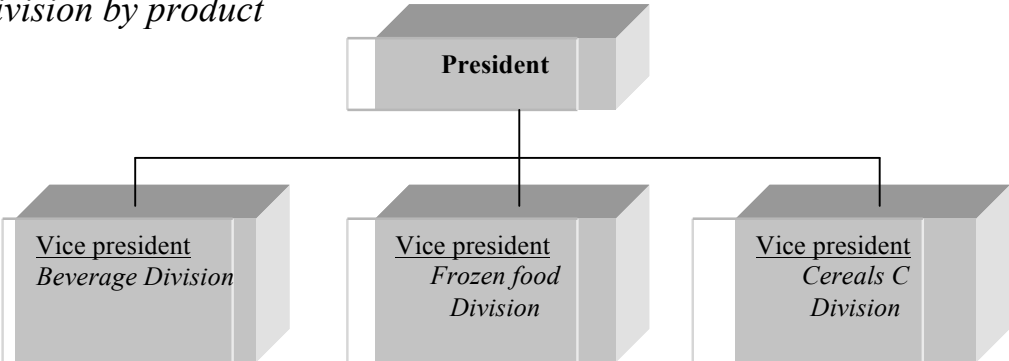
With a divisional structure, each division contains the major functional resources it needs to pursue its own goals with little or no reliance on other divisions. For example, the Divisional Structure Figure shows a divisional structure for the seven divisions of the Bell Atlantic Corporation that provides local telephone service to customers in different geographic areas. If the seven divisions were organized in a functional structure, then all the telephone operators would be grouped in a central operations department and all the field repair personnel would be grouped in a central repair services department. Instead, with the divisional structure shown, telephone operators and repair personnel are allocated to various divisions so that each division can operate fairly independently. In this case, the divisions are operated as separate companies. Divisional structures are sometimes referred to as *self-contained structures* because the major functions are generally contained within each division.

Forms of Divisional Structure. There are three major forms of a divisional structure, depending on the rationale for forming the divisions. Simplified examples are shown in Figure below.

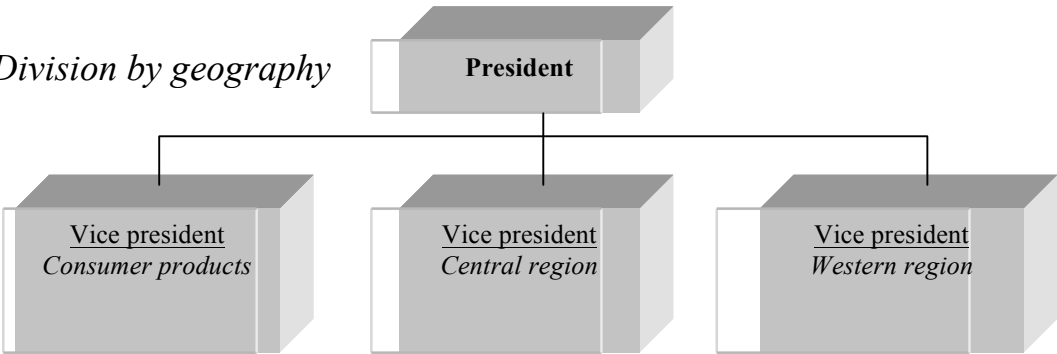
Product divisions are divisions created to concentrate on a single product or service or at least a relatively homogeneous set of products or services. When this type of organization structure is chosen, there are usually large differences in the product or service lines that would make coordination within a functional design extremely slow and inefficient. Instead, with a divisional structure, each product department has its own functional specialists, in areas such as marketing, manufacturing, and personnel, which perform work associated with the product of their specific division only.

Geographic divisions are divisions designed to serve different geographic areas. For example, the U.S. Agency for International Development is structured by geography because of the differing needs it serves in various parts of the world. Similarly, The Gap clothing stores in the United States are run by an organization divided into eastern, central, and western zones. Geographic departmentalization is often adopted when it is important to provide products and services that are tailored to the needs of different geographic areas.

Division by product



Division by geography



Customer divisions are divisions set up to service particular types of clients or customers. This type of an organization design is used mainly when there are major differences among types of customers that preclude adequate coordination of the customers' various needs within a standard functional structure. As a result, each department contains individuals who perform the necessary functions for a specific type of customer. For example, Citicorp Investment Management, Inc., reorganized its institutional-asset management unit from a product structure, the industry's traditional method of organizing, to a customer structure. The new structure included the four major divisions: national corporate and public funds group, regional companies group, specialized domestic institutions group, and international institutions group.

Table 7. Advantages and disadvantages of divisional structure

Advantages	Disadvantages
Fast response to environmental change	Duplication of resources in each division
Simplified coordination across functions	Reduction of in-depth expertise
Strong orientation to customer requirements	Heightened competition among divisions
Simultaneous emphasis on division goals	Limited sharing of expertise across divisions
Accurate measurement of division performance	Restriction of innovation to divisions
Broad training in general management skills	Neglect of overall goals

Advantages of Divisional Structure. Divisional structure has several major advantages (see Table 7). One advantage is that divisions can react quickly when necessary because they normally do not need to coordinate with other divisions before taking actions. Furthermore, necessary coordination across functions is greatly simplified because the various functions are contained within the division itself. The divisional structure also tends to encourage a strong orientation toward serving the customer. This is because the focus is either on a limited number of products or services (product divisions) or on a more limited audience (geographic or customer divisions). In addition, accountability for performance is possible with a divisional structure, since results can be tied to a particular product, service, geographic area, or customer, depending on the form of a divisional structure. Finally, a divisional structure provides opportunities for managers to develop more general management skills because, unlike their counterparts in a functional structure, they are likely to deal with multiple functions within their divisions.

Disadvantages of a Divisional Structure. A Divisional structure also has several disadvantages (see Table 7). Organizing by divisions often leads to a duplication of resources. For example, it may be necessary for each division to have its own major computer system (whereas such a system can be shared by departments in a functional structure), even though in each case it may be somewhat underutilized. Moreover, individuals in a divisional structure will not be able to develop the in-depth areas of specialization to the degree that they could in a functional structure. For example, when an organization changes from a functional to a product design, management may allocate various specialists in human resources department to different product groups. Consequently, an individual who specializes in recruiting may also need to handle compensation and other issues in a product department, since each product department cannot

afford to duplicate the entire human resources department that existed under a functional arrangement. Another disadvantage is that divisions may become preoccupied with their own concerns and engage in destructive rivalries for resources. Finally, with a divisional structure, employees sometimes focus on immediate divisional goals to the detriment of longer-term organizational goals.

Uses of a divisional structure. A divisional structure is likely to be used in fairly large organizations in which there are substantial differences among the products or services, geographic areas, or customers served. It sometimes is not feasible to organize into self-contained units if the nature of the organization makes it necessary to share common resources, such as expensive manufacturing equipment.

15.2.5. Hybrid Structure

A *Hybrid structure* is a form of departmentalization that adopts parts of both functional and divisional structures at the same level of management. It attempts to incorporate many of major advantages of functional as well as divisional departmentalization. Many organizations, especially large ones, have some combination of functional and divisional departments. Functional departments are usually created to take advantage of resource utilization efficiencies, economies of scale, or in-depth expertise. At the same time, divisional departments are used when there are potential benefits from a stronger focus on products, services, or markets. (IBM's hybrid structure is shown in Figure, p. 65). In this case, functional departments handle such areas as law and external relations, science and technology, and personnel—areas in which in-depth expertise is important and resources can be utilized more effectively through a functional arrangement. The rest of the company is divided into four major geographic divisions to better serve differing customer needs throughout the world. The functional departments within a hybrid design are sometimes referred to as corporate departments because they typically have staff authority relative to the divisional departments and their staff authority emanates from the top, or corporate, level of the organization.

Advantages of a Hybrid Structure. In general, a hybrid structure has several advantages (see Table 8). With a hybrid design, an organization can often achieve specialized expertise and economies of scale in major functional areas. At the same time, adaptability and flexibility in handling diverse product or service lines, geographic areas, or customers are possible through a partial divisional structure. Finally, the mix of functional and divisional departmentalization helps align divisional and corporate goals.

Disadvantages of a Hybrid Structure. On the other hand, managers need to be alert to the disadvantages of a hybrid structure in order to minimize potential weaknesses (see Table 8). For example, hybrid organizations gradually tend to develop excessively large staffs in the corporate-level functional departments. As the corporate departments grow larger, they may also attempt to exercise

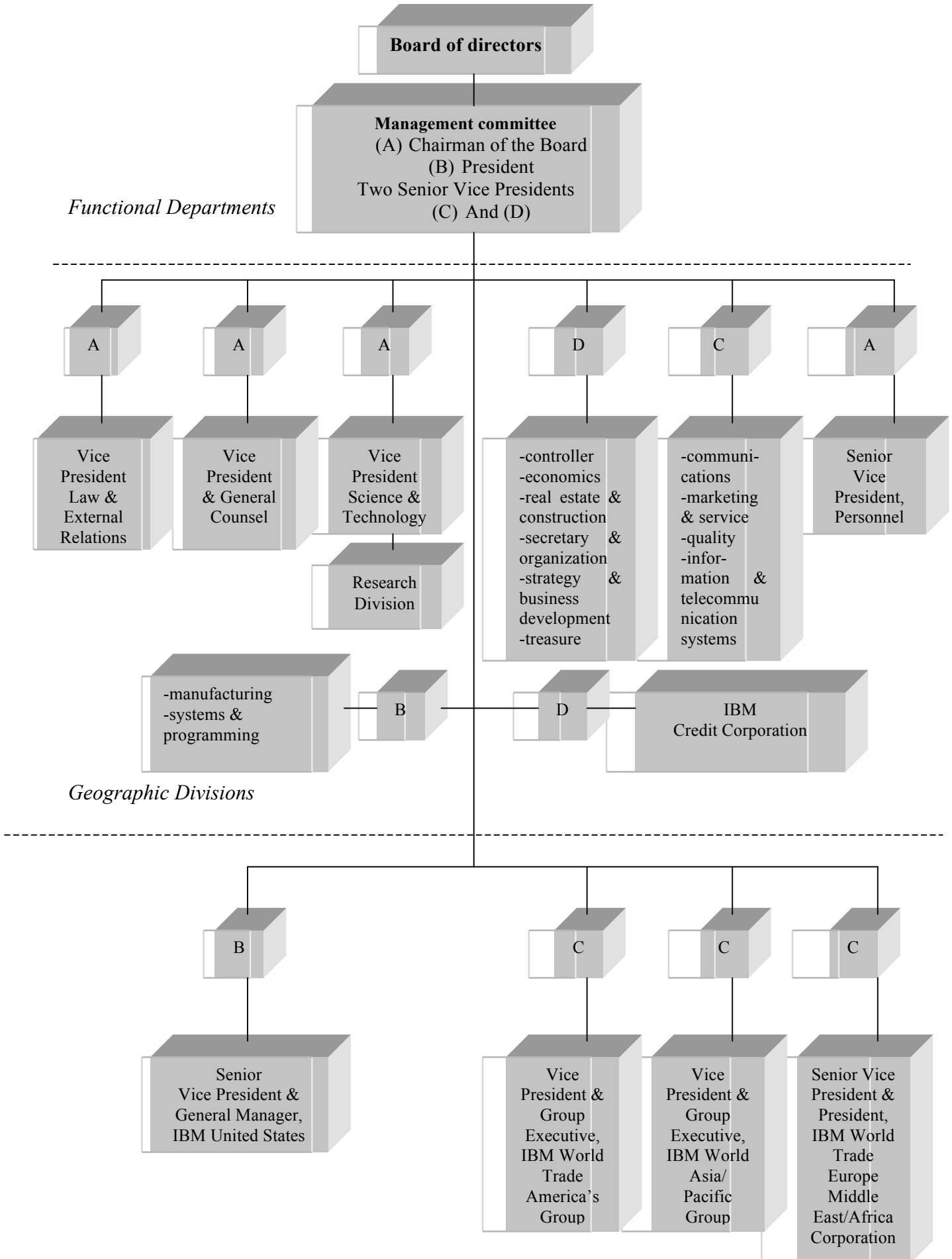
increasing amounts of control over the various divisions, causing considerable conflict. Finally, hybrid structures can be slow to respond to exceptional situations that require coordination between a division and a corporate functional department. For example, a personnel matter that requires an exception to policy may take longer to resolve with a hybrid structure than with either functional or divisional departmentalization.

Uses of a Hybrid Structure. A hybrid structure tends to be used in an organization; that not only face considerable environmental uncertainty that can best be met through a divisional structure but also require functional expertise and/or efficiency. Typically, the hybrid approach is reserved for medium-size or large organizations that have sufficient resources to justify divisions as well as some functional departmentalization.

Table 8. Major advantages and disadvantages of a hybrid structure

Advantages	Disadvantages
Alignment of corporate and divisional goals	Conflicts between corporate departments and divisions
Functional expertise and/or efficiency	Excessive administrative overhead
Adaptability and flexibility in divisions	Slow response to exceptional situations

IBM's hybrid structure



15.2.6. Matrix Structure

A matrix structure is a type of departmentalization that superimposes a horizontal set of divisional reporting relationships onto a hierarchical functional structure. The result is a structure that is both a functional and divisional organization at the same time. There are two chains of command, one vertical and one horizontal. A basic matrix structure is shown in the Figure below. In this case, the vice presidents of operations, marketing, finance, and engineering represent the functional departments that make up the vertical hierarchy. Simultaneously, the managers of businesses A, B, and C represent the divisional units that operate horizontally across the structure. The heads of the major functional and divisional departments that make up the matrix (e.g., the vice presidents and business managers in the Figure below) are sometimes referred to as *matrix bosses*.

One major characteristic of a matrix structure is that employees who work within the matrix report to two matrix bosses. For example, as the Figure shows, a marketing researcher might report up the vertical chain to the vice president of marketing and across the horizontal chain to the manager of business A. Thus, there is a system of dual authority that violates the classical principle of unity of command (an individual should have only one boss at any given point in time), making a matrix structure somewhat complex to operate.

Matrix Stages. The Matrix experts Stanley M. Davis and Paul R. Lawrence suggest that organizations ultimately adopting a matrix structure usually go through several identifiable structural stages:

Stage 1 is a traditional structure, usually a functional structure, which follows the unity-of-command principle.

Stage 2 is a temporary overlay, in which managerial integrator positions are created to take charge of particular projects (e.g., project managers), oversee product launches (e.g., product managers), or handle some other issue of finite duration that involves coordinating across functional departments.

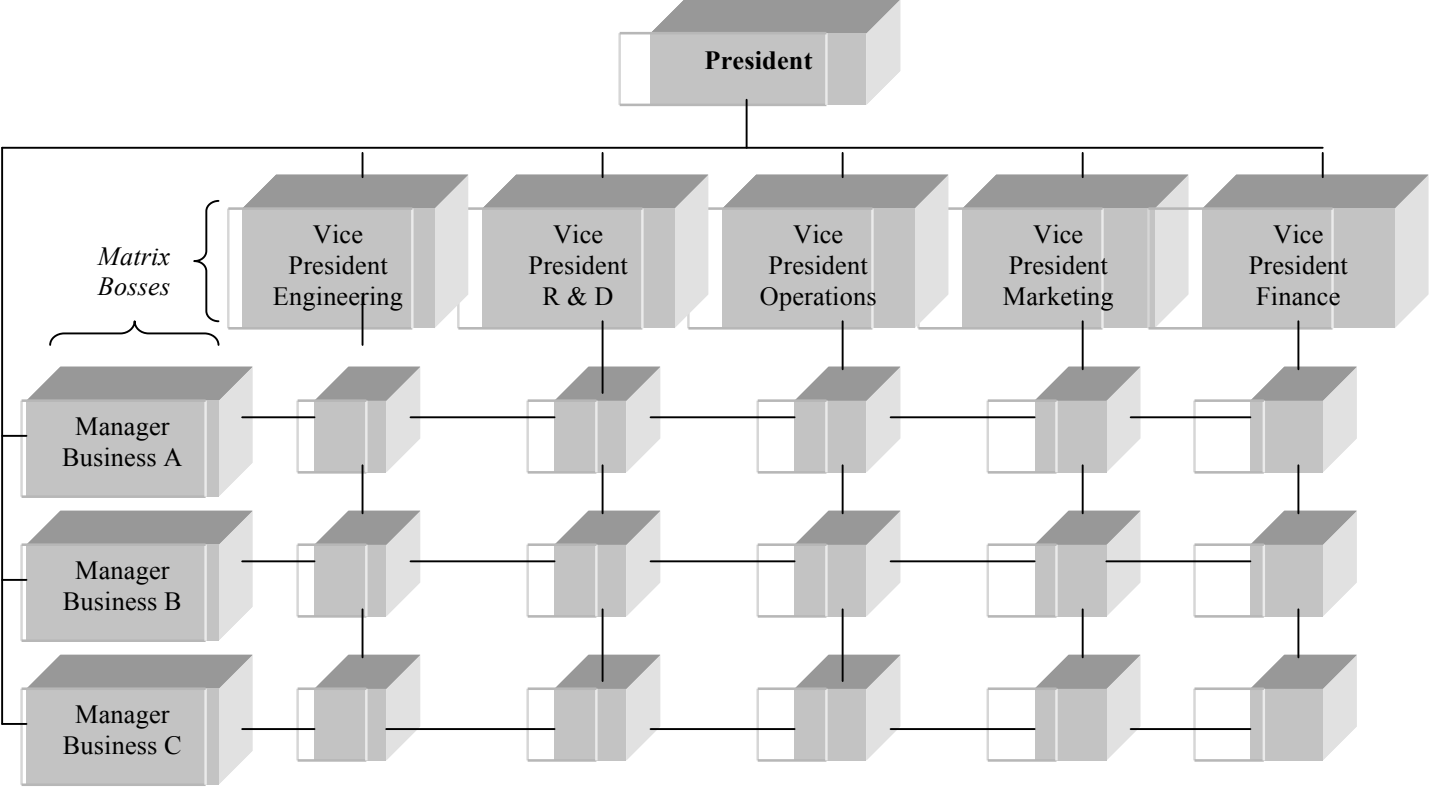
Stage 3 is a permanent overlay, in which the managerial integrator positions operate on a permanent basis (e.g., a brand manager coordinates issues related to a brand on an ongoing basis).

Stage 4 is a mature matrix, in which matrix bosses have equal power.

Even though a true matrix incorporates equal power for functional and divisional managers, stages 2 and 3, which involve managerial integrators, are often referred to as matrix structures.

Each of the matrix stages offers increasing amounts of horizontal integration, but at the cost of greater administrative complexity. Even with managerial integrators, there is dual authority to some extent because the integrators frequently work directly with various members of functional departments (e.g. engineers or marketing specialists) assigned to help with their project. In their capacity as coordinators, managerial integrators usually informally supervise the

work of individuals assigned to their projects, even though they typically do not have direct line authority over these individuals.



With the mature matrix, there is true dual authority. All major decisions must have the approval of both the functional manager and the divisional manager. The mature matrix is used when the functional and divisional dimensions of an organization are both of prime and equal importance. Dow-Corning has experimented with such a design, even adding a third dimension for a simultaneous international focus.

Matrix structures, particularly in the forms of temporary and permanent overlays, operate successfully in a variety of organizations. However, the advantages and disadvantages must be carefully weighed before a matrix design is adopted.

Table 9. Major advantages and disadvantages of Matrix structure

Advantages	Disadvantages
Decentralized decision making	High administrative costs
Strong project or product coordination	Potential confusion over authority and responsibility
Improved environmental monitoring	Heightened prospects for interpersonal conflicts
Fast response to change	Excessive focus on internal relations
	Overemphasis on group decision

Flexible use of human resources	making
Efficient use of support systems	Possible slow response to change

Advantages of a Matrix Structure. The matrix form of an organization structure has several major advantages. For one thing, decisions can be decentralized so that they are made at the level of a divisional project manager and a functional manager, thereby allowing upper-level management to concentrate on longer-term strategic issues. For another, use of the matrix adds strong horizontal coordination to projects (or products or brands) beyond what is normally possible in the functional design alone, increasing the probability of success. Yet another advantage is that the matrix arrangement facilitates monitoring environmental conditions with respect to both the projects and the various functional areas. The matrix structure can also often react quickly to a change because many decisions are made at lower levels. Still another advantage is that functional specialists can be added to or reassigned from projects as needed, allowing effective use of human resources. Finally, support systems, such as computers, special equipment, and software, can be allocated among many projects on an as-needed basis, thereby reducing the costs of such systems.

Disadvantages of a Matrix Structure. Matrix designs have several potential disadvantages that must be considered when an organization is thinking about adopting such a structure. For example, adding a layer of project managers and their immediate support staff to a functional hierarchy increases administrative costs. In addition, since there are two bosses, individuals working within the matrix may have difficulty determining who has authority and responsibility for various decisions. The increased communication required and the dual-authority arrangements also heighten possibilities of conflicts, particularly between project managers and functional managers. Another potential disadvantage of the matrix structure is that individuals in the structure can become preoccupied with internal relations at the expense of clients and project goals. Another potential pitfall is that matrix designs can encourage group decision making to the point where even relatively minor decisions are made in groups, causing a serious erosion of productivity. Finally, while the matrix can be particularly adaptable to a change, it also can become extremely slow if the interpersonal skills of matrix participants are poor or upper management attempts to retain centralized control. For a time, this latter problem began to cripple the brand management structure at Procter & Gamble (see the following Case in Point discussion).

Brand Management at Procter & Gamble

Since Procter & Gamble (P&G) first used the concept way back in 1927 to manage Camay soap, brand management has been almost synonymous with the Cincinnati-based company. Because of its great success, Procter & Gamble has been viewed almost as a textbook case on how to run a consumer-oriented company— so much so that major competitors, such as General Mills, began to adopt the brand management approach, often hiring talent from P&G. By the early 1980s however, P&G's market share in a number of important markets had begun to slip as a result of competition and mature markets, causing P&G to be called a "wounded lion." The company announced its first drop in annual operating earnings in 33 years.

Despite its emphasis on brand management, P&G still had maintained a fairly centralized approach to decision making. In the beginning, the approach worked well; but over the years, excessive centralization began to bog down the company. Gradually, almost every decision was pushed to the top. A former P&G brand manager laughingly relates that the decision about whether the company's new decaffeinated instant Folgers coffee should have a green or gold cap was elevated all the way to the CEO (he chose gold).

The chief medium in the decision-making process, and the symbol of growing centralization, became the one-page memo. Managers had to carefully summarize any proposal into a single page, which was rewritten almost endless times as it made its way up the hierarchy.

Brand managers were particularly frustrated by their lack of authority and the fact that they had to answer to layers of management and staff areas such as the legal department. One of many jokes circulating in the company went as follows: "How many brand managers does it take to screw in a light bulb?" The answer: "None. They have to call legal." This lack of authority, together with a tendency of the vertical hierarchy to make most of significant decisions, effectively canceled the horizontal coordination that the brand managers could provide.

Spurred by the company's difficulties, P&G executives have been taking steps to dismantle the overly bureaucratic practices that have become an anchor on the product management structure. For one thing, the introduction of the "talk sheet" has been welcomed by managers as a significant improvement over strict adherence to the one-page memo. The talk sheet is an informal outline that allows managers on several levels to develop and refine a proposal through discussions, rather than through paper only.

Management is also beginning to decentralize decision making. One method of achieving this objective is the increased use of business teams and task forces that can make decisions in such areas as product development and cost cutting, as well as encourage greater cooperation among functional divisions. In the past, a brand manager might have put together a proposal that would have been passed up the hierarchy for approval by the heads of the

various functional units that were affected, as well as by top management. Now, teams are often put together that include representatives from functional areas who help to develop the proposal itself. As a result, brand management is becoming more team-oriented, with greater coordination across functions. The process has speeded product introductions, to help Ivory shampoo get to market in 4 months instead of the usual 18.

When to Consider a Matrix Structure. Matrix designs are not necessary for many organizations. For example, Texas Instruments abandoned its much-touted matrix structure after directly blaming it for the company's failure to keep up with the competition. The need for horizontal coordination must be sufficient to justify additional administrative complexity at lower levels. Matrix designs usually are appropriate when the following three conditions exist:

1. There is considerable pressure from the environment that necessitates a simultaneous and strong focus on *both* functional and divisional dimensions. For example, the existence of diverse products may call for a product orientation, but increasing sophistication in engineering technology may argue for a functional orientation.

2. The demands placed on an organization are changing and unpredictable, making it important to have a large capacity for processing information and coordinating activities quickly. For example, in the microchip industry, foreign competitors frequently make technological improvements and lower prices simultaneously.

3. There is pressure for shared resources. For example, if a company is dominant in its market, it may not feel much pressure to share resources, such as expensive technical specialists, across departments. Instead, the organization could adopt a divisional structure and give each department its own technical specialists. However, in more competitive markets, matrix organizations are one way to attain flexibility in the use of functional resources across projects or products.

There is growing evidence that matrix designs require a corresponding change in an organization's culture to support the increased need for collaborative decision making. In addition, managers may require special training, particularly in interpersonal skills, in order to function effectively within the matrix structure.

While managers need to weigh the advantages and disadvantages of the various structural alternatives in developing an appropriate organization design, they must also consider major contingency factors that can affect structural requirements. We review these factors next.

15.3. Weighing contingency factors

Early in the study of management, classical theorists attempted to develop an ideal organization structure. For example, Henri Fayol offered his ideas about unity of command and a scalar chain. Max Weber, with his notions of the ideal

bureaucracy, also provided some concepts (such as formalized rules and regulations that are useful, particularly in fostering vertical coordination). Still, the one best way to organize proved elusive. A structural configuration that seemed to work for one organization was a deterrent to effectiveness in another. Gradually, contingency theory began to emerge, a management viewpoint arguing that appropriate managerial action depends on the particular parameters of the situation. Researchers came to recognize that the best structure for a given organization depends on such major contingency factors as technology, size, and environment.

15.3.1. Technology

One reason why different organizations require different structures can be traced to **technology**, the knowledge, tools, equipment, and work techniques used by an organization in delivering its product or service. Two critical aspects of technology are technological complexity and technological interdependence.

So far, there are four recognizable trends that have been identified by studies of size effects on structure. First, as organizations grow, they are likely to add more departments and levels, making their structures increasingly complex. With functional structures, such growth creates pressure for movement to some type of divisional structure. Second, growing organizations tend to take on an increasing number of staff positions in order to help top management cope with the expanding size. This tendency levels off when a critical mass of staff has been achieved, but it helps lead to the third trend, namely, that additional rules and regulations seem to accompany organizational growth. While rules and regulations can be useful in achieving vertical coordination, the unchecked proliferation of additional rules and regulations may lead to excessive formalization. Fourth, as organizations grow larger, they tend to become more decentralized, probably due in part to the additional rules and regulations that set guidelines for decision making at lower levels.

Because of potential size effects, many successful divisionalized companies try to ensure that various subunits do not become too large by creating new divisions when existing ones become unwieldy. For example, in an effort to reap the advantages of smaller size, Johnson & Johnson operates with more than 150 autonomous divisions. At Worthington Industries, Inc., a steel company with a strong profit record and annual gross sales in the \$1 billion range, management operates on the premise that none of its factories (now numbering 27) should have more than 250 workers. Similarly, the president of the W. L. Gore Company, maker of Gore-Tex, a water-repellent fabric that "breathes," likes to limit work units to 150 persons. The actions of these companies are congruent with recent research indicating that larger organizational subunits are often less efficient than their smaller counterparts. While size has a bearing on structural requirements, the impact of environment is also a major factor.

15.3.2. Environment

One of the most famous studies of the environment effects on an organization design was conducted by the British scholars Tom Burns and G. M. Stalker. In studying 20 British industrial firms, they discovered that the firms had different characteristics, depending on whether they operated in a stable environment with a relatively little change over time or an unstable environment with a rapid change and uncertainty.

15.3.3. Mechanistic and Organic Characteristics.

The firms that operated in a stable environment tended to have relatively mechanistic characteristics, such as high centralization of decision making, many rules and regulations, and mainly hierarchical communication channels. Much of the emphasis was on vertical coordination, but with very limited delegation from one level of management to the next. Still, the researchers found that such firms were able to operate mechanistically and be reasonably successful because changes in the firms' environments usually occurred gradually, making it possible for upper levels of management to stay on top of the changes.

In contrast, the firms that operated in a highly unstable and uncertain environment were far more likely to have relatively organic characteristics, such as decentralization of decision making, few rules and regulations, and both hierarchical and lateral communication channels. Much of the emphasis was on horizontal coordination, coupled with considerable delegation from one level to the next. These firms required organic characteristics because their rapidly changing environments made it necessary for individuals at many levels to monitor the environments and help make decisions on how to respond to the changing conditions. The characteristics of mechanistic and organic organizations are summarized in the Table 10.

Table 10. Characteristics of Mechanistic and Organic Organizations

Mechanistic	Organic
Work is divided into narrow, specialized tasks.	Work is defined in terms of general tasks.
Tasks are performed as specified unless changed by managers in the hierarchy.	Tasks are continually adjusted as needed through interaction with others involved in the task.
Structure of control, authority, and communication is hierarchical.	Structure of control, authority, and communication is network.
Decisions are made by the specified hierarchical level.	Decisions are made by individuals with relevant knowledge and technical expertise.
Communication is mainly vertical, between superior and subordinate.	Communication is vertical and horizontal, among superiors,

	subordinates, and peers.
Communication content is largely instructions and decisions issued by superiors.	Communication content is largely information and advice.
Emphasis is on loyalty to the organization and obedience to superiors.	Emphasis is on commitment to organizational goals and possession of needed expertise.

15.3.4. Differentiation and Integration.

Two management professors working in the United States, Paul R. Lawrence and Jay W. Lorsch, carried the notion that environment influences an organization structure a step further. They reasoned that organizational environments might have different effects on various units within the same organization. To test this possibility, they investigated three departments: manufacturing, sales, research and development, in three industries with very different environments—plastics, food processing, and containers. Their focus was on **differentiation**, the extent to which organizational units differ from one another in terms of the behaviors and orientations of their members and their formal structures. As expected, Lawrence and Lorsch found significant differentiation among the three types of units studied. The R&D departments tended to concentrate on new developments, operate fairly informally, and be concerned with long-term success. In contrast, the sales departments were mainly oriented toward immediate customer satisfaction, operated more formally, and were interested largely in short-term sales results. Somewhat in between were the manufacturing departments, which primarily concerned themselves with efficiency, operated less formally than the sales departments but more formally than the R&D departments, and were oriented toward an intermediate-term time frame. Interestingly, this differentiation among departments was the greatest in the plastics industry, which had the most unstable environment, and was the least in the container industry, which operated in the most stable environment.

But differentiation was only half the story. When they considered firm effectiveness, the researchers found that the most effective firms attempted to balance differentiation with efforts toward **integration**, the extent to which there is collaboration among departments that need to coordinate their efforts. The greater the differentiation among departments because of environmental instability, the greater the efforts toward integration in the most successful companies. For example, in the successful container companies, a functional hierarchy and rules and regulations achieved the necessary degree of integration. In the successful plastics companies, however, there was greater use of a variety of vertical and horizontal coordinating mechanisms to achieve effective integration in the face of high differentiation. When the companies were attempting to

achieve such integration, methods of horizontal coordination, (e.g., teams and managerial integrators) were particularly important.

15.4. Mintzberg's Five Structural Configurations

Building on the research about how contingency factors affect structure, the management researcher Henry Mintzberg has developed five common structural configurations. He also has outlined the contingency conditions under which various configurations are likely to be most effective. The five structural configurations are simple structure, machine bureaucracy; professional bureaucracy, divisionalized form, and adhocracy (see Table 11).

Table 11. Characteristics of Mintzberg's Five Structural Configurations

Characteristics	Simple structure	Machine Bureaucracy	Professional Bureaucracy	Divisionalized form	Adhocracy
Basic parameters					
Power concentration	Top executives	CEO and designers of work flow	Professionals	Division executives	Scientist, technocrats, and middle managers
Key coordinating mechanism	Direct supervision	Standardization of work	Standardization of skills	Standardization of outputs	Mutual adjustment
Contingency factors					
Age and size	Young, small	Old, large	Varies	Old, very large	Young, small to moderate
Technology	Simple, custom	Mass production, large batch	Complex, uses standardized training	Divisible variables	Sophisticated, automated, or custom
Environmental complexity and dynamism	Simple and dynamic	Simple and stable	Complex and stable	Simple and stable at divisions	Complex and dynamic
Structural elements					
Departmentalization	Functional	Functional	Functional or hybrid	Divisional or hybrid	Matrix; users integrators
Formalization	Low	High	Low	High within divisions	Low
Use of horizontal coordination methods	Low	Low	High among professionals	Low between divisions, moderate within divisions	High

Simple Structure. The simple structure is a structure characterized by functional departmentalization, a strong concentration of power at the top, low formalization, and emphasis on direct supervision. Because of the structure's simplicity, differentiation among various parts tends to be low, allowing it to function with low usage of horizontal coordination mechanisms. The classic case of the simple structure is a small entrepreneurial firm run by the founder. Simple structures tend to fit best in situations in which the organization is young and small, the technology is relatively simple, and the organization faces a sim-

ple, but dynamic, environment. Such structures typically allow rapid innovation, but mainly when the improvements are relatively simple.

Machine Bureaucracy. The machine bureaucracy is a structure characterized by functional departmentalization, a strong group of technical specialists (such as engineers, planners, and accountants), high formalization, and emphasis on standardization of work. In contrast to the simple structure, the machine bureaucracy is quite elaborate, largely because of systems of formal planning and work control developed by the technical specialists. A large middle-level management group watches over the operating level and helps resolve the conflicts that grow out of the rigid standardization and the alienation that often accompany routine, narrow jobs. Differentiation among parts is moderate but is handled largely through the work standardization and centralized control. As a result, few forms of horizontal coordination are used.

Machine bureaucracies tend to fit best in situations in which the organization is large, the technology involves large-batch and mass production, and the organization operates in a simple and stable environment. As a result, a machine bureaucracy is likely to be found in large, mature mass-production companies, such as automobile manufacturers, and in large mass-service organizations, such as insurance companies and railroads. Successful machine bureaucracies (e.g., McDonald's) produce goods and services cheaply and efficiently but tend to be relatively slow innovators.

Professional Bureaucracy. The professional bureaucracy is a structure characterized by functional or hybrid departmentalization, a strong group of professionals operating at the lower levels, low formalization, and emphasis on standardization of skills. Classic examples of professional bureaucracies are hospitals, universities, and accounting firms, all of which hire large numbers of trained professionals. For the most part, these professionals engage in complex, but fairly standard, activities and are able to operate effectively with a minimum of coordination with others because of their extensive training. Because the success of its operations relies on these trained professionals, the professional bureaucracy decentralizes a considerable amount of decision-making power to them. Differentiation is moderate in a professional bureaucracy, but the extensive use of committees and task forces, particularly at the various managerial levels, helps bring about the necessary horizontal coordination.

Professional bureaucracies operate best in situations in which the technology is complex but standardized and the environment is complex and stable. Because skills are standardized, the professional bureaucracy encourages innovations within narrow skill areas but tends to discourage innovative work that disturbs defined areas and requires interdisciplinary cooperation.

Divisionalized Form. The divisionalized form is a structure characterized by divisional departmentalization, a strong management group at the division level, high formalization within divisions, and an emphasis on standardized outputs. The heads of the divisions wield considerable power in the

divisionalized form. Since the divisions are created to operate somewhat separately, there is little use of horizontal coordination between divisions, although such mechanisms may be used within divisions. Top management maintains control by visiting the divisions periodically, requiring that they receive top-level approval for some of their most important decisions, and measuring standardized outputs (usually specific, measurable goals). The imposition of this performance control system encourages the divisions themselves to operate as machine bureaucracies in fulfilling the performance requirements.

Divisionalized forms are well suited to situations in which the organization is large and has been in existence for some time, the technology is divisible, and the divisional structure helps make the environments faced by the divisions more simple and stable. Because of the tendency of divisions to become machine bureaucracies, they may have difficulty innovating without specific encouragement and help from top management.

Adhocracy. The adhocracy is a structure characterized by various forms of matrix departmentalization, expertise dispersed throughout, low formalization, and emphasis on mutual adjustment. An adhocracy is aimed at innovating in complex ways; as a result, the structure is kept purposely fluid, with power constantly shifting, depending on the particular expertise needed.

The adhocracy has numerous managers, such as functional managers and integrating managers, who help with the extensive horizontal coordination necessary to tap required expertise for particular projects and product areas. In many cases, the ongoing activities of the operating units are kept somewhat independent from much of the rest of the organization so that the need for standardization in producing a product or service does not interfere with the imperative to innovate facing other components. Adhocracies are typically found in situations in which the organization is relatively young and small to medium in size, the focus is on sophisticated products involving automation and/or custom work, and the environment is complex and dynamic. Organizations operating in the aerospace, petrochemical, and film-making industries are often adhocracies.

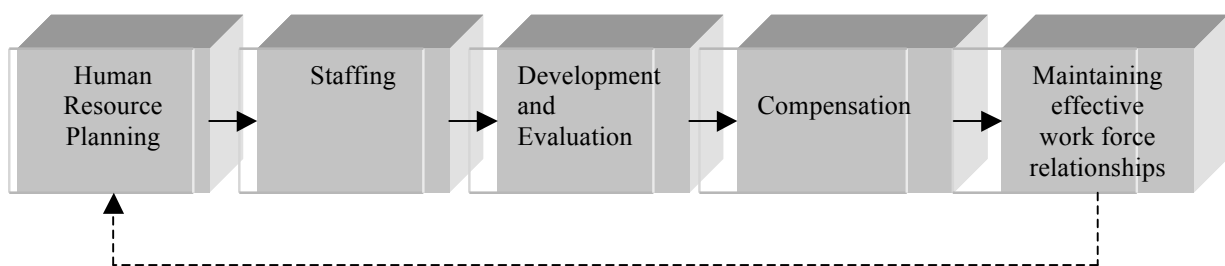
Assessing the Configurations. As Mintzberg's configurations illustrate, the success of various organization structures depends on matching them to the appropriate contingency conditions. For example, while a simple structure is well attuned to a simple and dynamic environment, it is not designed to handle more complex situations. At the same time, an adhocracy is too expensive and elaborate for a simple dynamic environment and is too fluid to handle well the mass-production situations that require greater standardization. Mintzberg's five configurations also differ in their appropriateness for implementing given strategies.

16. The HRM Process: An Overview

As shown in the Figure below, human resource management encompasses a number of important activities. One critical aspect of the process, human resource planning, assesses the human resource needs associated with strategic management and helps identify staffing needs. The staffing component of the process includes attracting and selecting individuals for appropriate positions. Once individuals become part of the organization, their ability to contribute effectively is usually enhanced by various development and evaluation efforts, such as training and periodic performance evaluations. Compensating employees for their efforts is another important factor in the HRM process, because adequate rewards are critical not only to attracting but also to motivating and retaining valuable employees. Finally, managers must respond to various issues that influence work-force perceptions of the organization and its treatment of employees.

In order to explore human resource management in an orderly fashion, the various activities that make up the HRM process are discussed sequentially in this chapter. The components, though, are actually highly interrelated. For example, when a group of British financiers took over the British arm of F. W. Woolworth from its American parent in 1982, the chain of 1000 stores had a tarnished image and 30,000 employees with a reputation for poor service. Investigation revealed many interrelated problems, such as poor employment interviewing practices (interviews typically lasted 10 minutes), little training for either sales staff or managers, and a compensation system that did not reward good performance. Thus, various components of the HRM process collectively reinforced the service problems.

The human resource management process



Human resource professionals operating within human resource departments typically play a major role in designing various elements in the HRM process and in supporting their use by line managers. Nevertheless, line managers are ultimately responsible for the effective utilization of human resources within their units and, thus, carry out many aspects of the HRM process, particularly as they relate to implementing strategic plans.

16.1. Strategic Importance of HRM

Understanding the strategic potential of human resource management in organizations is a relatively recent phenomenon. In fact, the role of such management in organizations, as it is known today, has evolved through three main stages. From early in this century until the mid-1960s, HRM activities comprised a *file maintenance* stage, in which much of the emphasis was on screening applicants, orienting new employees, recording employee-related data for personnel purposes, and planning company social functions (such as the company picnic).

The second stage, *government accountability*, began with the passage of the Civil Rights Act of 1964 (which forbids employment discrimination based on race, color, religion, sex, or national origin) and continued as additional laws, court rulings, and federal regulatory guidelines increasingly impacted various aspects of employment, such as hiring and promotion decisions, pension plans, and health and safety issues. Of course, some laws, particularly those governing relations with unions, existed before 1964; but the mid-1960s ushered in an era of an accelerated governmental regulation of employment issues. As organizations attempted to gain a greater control over activities that could result in legal difficulties and large financial settlements, the HRM function gained in importance. Indicative of the expense that can be involved, under the 1973 consent decree (a court-sanctioned agreement in which the accused party does not admit wrongdoing but agrees to discontinue a practice), AT&T agreed to raise the starting pay of women promoted to managerial positions so that their pay levels would be equal to those of similarly promoted men, at a cost of more than \$30 million.

The third stage, which began in the late 1970s and early 1980s, can be termed the *competitive advantage* stage. In this stage, human resource management is increasingly viewed as important for both strategy formulation and implementation. Thus, under some circumstances, human resources can comprise a source of distinct competence that forms a basis for strategy formulation. For example, 3M's noted scientists enable the company to pursue a differentiation strategy based on innovative products. Under other circumstances, HRM activities may be used to support strategy implementation. For instance, at Honda of America's Marysville, Ohio, plant, an emphasis on differentiation through quality is supported by such HRM activities as training programs, developmental performance appraisal processes, and promises of job security. Human resource management often is an important ingredient in the success of such strategy-related activities as downsizing, mergers, and acquisitions. At the competitive advantage stage, then, human resources are considered explicitly in conjunction with strategic management, particularly through the mechanism of human resource planning.

16.2. Staffing

Staffing is the set of activities aimed at attracting and selecting individuals for positions in a way that will facilitate the achievement of organizational goals.

Given the slower growth of the work force, such activities are taking on new meaning as organizations begin to experience greater difficulty in attracting and retaining needed human resources. With relatively fewer workers entering the labor force, recruitment can be more challenging, particularly in regard to entry-level workers.

16.3. Recruitment

Recruitment is the process of finding and attempting to attract job candidates who are capable of effectively filling job vacancies. Job descriptions and job specifications, both mentioned earlier, are important in the recruiting process because they specify the nature of the job and the qualifications required of serious job candidates. Recruiting can be conducted both internally and externally.

16.3.1. Internal Recruitment.

Most vacant positions in organizations are filled through internal recruitment, the process of finding potential *internal* candidates and encouraging them to apply for and/or be willing to accept organizational jobs that are open. CARE, Inc., for example, has a policy of filling job vacancies from within and conducts recruiting through external sources only when a job cannot be filled internally.

One major method of recruiting internally is **job posting**, a practice whereby information about job vacancies is placed in conspicuous places in an organization, such as on bulletin boards or in organizational newsletters. The advantages and disadvantages of internal recruitment are summarized in Table 12. At CARE, Inc., for instance, all nonunion jobs are posted for at least 15 working days, while union jobs are posted for at least 3 working days, in conformance with union contracts. Skills inventories and replacement charts, mentioned earlier, are also means used to locate potential candidates for internal recruiting.

16.3.2. External Recruitment.

For the most part, organizations recruit from the outside only when there are no suitable internal candidates for particular positions. External recruitment is the process of finding potential *external* candidates and encouraging them to apply for and/or be willing to accept organizational jobs that are open. The advantages and disadvantages of external recruitment are listed in Table 12.

A wide variety of sources exist for obtaining external job candidates. Advertising is generally the most heavily used recruiting source. Early research

indicated that individuals who were recruited informally (such as through referrals by friends, relatives, or employees) were likely to remain with the organization longer, be absent less, and achieve greater productivity than individuals recruited in more formal ways (such as through newspaper advertisements, college recruiting programs, and employment agencies). More recent data suggest that such generalizations may be unwarranted. Rather than focusing on a particular recruitment source per se, organizations may find that it is better to concentrate first on the types of qualifications that are required and then to think of the best way to locate individuals who have those qualifications.

One major issue related to external recruiting is the tendency of recruiters and managers to provide candidates with an overly positive view of the organization in order to attract new employees. Unfortunately, this strategy can backfire, since an individual who accepts a position on such terms may become dissatisfied and leave when the position fails to meet his or her inflated expectations. An alternative approach is the **realistic job preview**, a technique used during the recruiting process in which the job candidate is presented with a balanced view of both the positive and the negative aspects of the job and the organization. Studies suggest that even though realistic job previews may somewhat reduce the number of candidates interested in a position, such previews are likely to have a positive effect on the job satisfaction, performance, and length of employment of those ultimately hired. For example, Citizens Bank of Maryland has experienced lower turnover among tellers and customer service representatives partially because of instituting a video preview that frankly describes the job (explaining, e.g., that tellers spend considerable periods of time on their feet). Recruiting, though, is only one part of the staffing process. Decisions must also be made about the candidates to whom job offers are extended.

Table 12. Advantages and disadvantages of recruitment.

Advantages	Disadvantages
Internal recruitment	
1. Candidates are already oriented to the organization.	1. There may be fewer new ideas.
2. Reliable information is available about candidates.	2. Unsuccessful contenders may become upset.
3. Recruitment costs are lower.	3. Selection is more susceptible to office politics.
4. Internal morale is increased due to upward mobility opportunities.	4. Expensive training may be

	necessary.
5. Good performance is rewarded.	5. Candidates' current work may be disrupted.
External recruitment	
1. Candidates are a potential source of new ideas.	1. The probability of a mistake is higher because of less reliable information.
2. Candidates may have broader experience.	2. Potential internal candidates may be resentful.
3. Candidates may be familiar with competitors.	3. A new employee may have a slower start because of the need for orientation to the organization.
4. Candidates may have new specialties.	4. The recruitment process may be expensive.

How to conduct an effective interview

You have a job vacancy in your unit and you need to interview several job candidates. What should you do? There are a number of steps that you can take before, during, and after the interview to increase the likelihood of obtaining information that will be useful in making your selection decision.

Before the interview. Much of the secret of conducting an effective interview is in the preparation. The following guidelines will enhance your preparatory skills.

Determine the job requirements. Using the job description and job specifications for the job, prepare a list of characteristics that the person will need to possess in order to perform the job. For example, suppose that you are a bank manager and have a job opening for a teller. Important characteristics would include oral communication skills, willingness to check for errors, ability to get along with others, and a service orientation in handling customers. Once the major characteristics are identified, you can develop an interview guide.

Prepare a written interview guide. A written guide of what you wish to cover during the interview will ensure that major points are addressed with each interviewee. You need to plan questions that assess the degree to which job candidates possess the characteristics that you have identified as necessary to do the job.

Since past performance is often a good predictor of future performance, one useful approach is to frame questions in terms of examples of what a person has done, rather than focusing on generalities or speculations about what the person

will do in the future. For example, a relatively poor question aimed at assessing how well the individual interacts with customers might be: "How well do you handle problem customers?" For the most part, a candidate is unlikely to answer that he or she has difficulty handling problem customers, even if that is the case.

An *improved* approach is to frame questions in terms of how the individual has dealt with customers in the past. For example, you might ask, "Please describe a time when a customer paid you an especially nice compliment because of something you did; what were the circumstances?" You might follow up by asking, "Tell me about a time when you had to handle a particularly irritating customer; how did you handle the situation?" Answers to these types of specific questions can provide insight into how an individual is likely to treat customers and handle trying situations in the future. (If the individual has no job experience, questions can be adjusted accordingly—for example, "... a time when you had to handle a particularly irritating person.")

Next, prepare a step-by-step plan of how to present the position to the job candidate. Develop a similar plan for the points you wish to make about the work unit and the organization. Such plans will help you present the information in an organized fashion and will ensure that you cover all the important points you wish to make.

Review the candidate's application and/or resume. By reviewing the application and/or resume of the candidate, you will be familiar with the particular experiences and accomplishments that are most relevant to the requirements of the job. Read these background materials before the interview; otherwise, you may appear (correctly so) unprepared for the interview. In addition, it is easy to miss gaps, discrepancies, and relevant experience when the background materials are reviewed quickly in front of the candidate.

During the interview

Your carefully prepared questions will help you maintain control of the dialogue during the interview. Here are some additional guidelines for factually conducting the interview.

Establish rapport. Small talk at the beginning of the interview often will help put the candidate at ease. You may be able to comment about some item on the resume, such as a hobby that you and the candidate have in common or a place where you both have lived. Be careful, though, not to let the interview get too far off track with an extended discussion of, say, your respective golf games.

Avoid conveying the response you seek. Suppose that you are attempting to determine the candidate's ability to work with other tellers, all of whom must work within a relatively small area. You ask, "Do you think that you will be able to work well with the other tellers, especially given our space constraints?" The candidate easily replies, "Of course, no problem." A bright interviewee can quickly realize, from your question, the answer that you are seeking. A better approach would be to say something like this: "We all sometimes have

unpleasant experiences with co-workers. Tell me about the most difficult time that you have ever had working with a coworker."

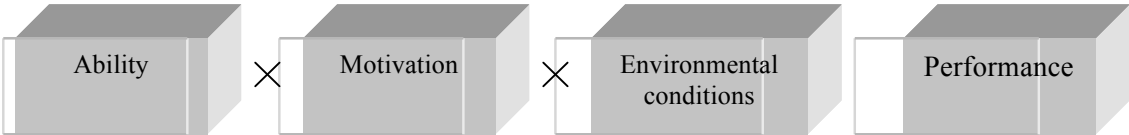
Listen and take notes. Be sure to do a great deal of listening. Some experts recommend that the interviewer talk 20 to 30 percent of the time and allow the interviewee to talk (the interviewer listens) 70 to 80 percent of the time. You want to learn as much as possible about the job candidate in the relatively limited time that you have available. Take a few notes to help you remember important points.

Ask only job-relevant questions. Interviewers sometimes stray into asking questions that have the potential of being discriminatory. One example is asking a female applicant what kind of work her spouse does. Such a question is discriminatory since it is seldom directed at a male candidate and is irrelevant to job requirements or the person's qualifications. The best policy is to ask only questions that are clearly and directly related to job requirements.

After the interview. Write a short report right after the interview, scoring the candidate on the various characteristics that you determined earlier are important to functioning effectively in the job. Briefly indicate your rationale, perhaps using examples or summaries of responses. By documenting your ratings immediately after the interview, you will have good data to help you with your selection decision.

17. The nature of motivation

Because motivation is an internal force, we cannot measure the motivation of others directly. Instead, we typically infer whether or not other individuals are motivated by watching their behavior. For example, we might conclude that our engineering friend, who works late every evening, goes to the office at weekends, and incessantly reads the latest engineering journals, is highly motivated to do well. Conversely, we might suspect that our engineering friend who is usually the first one out the door at quitting time, rarely puts in extra hours, and generally spends little time reading up on new developments in the field, is not very motivated to excel.



In the end, how successful our two engineering friends actually are with their respective projects is likely to depend not only on their motivation, as reflected in the effort expended, but also on their ability to handle the engineering subject matter. Environmental conditions, such as numerous interruptions when they are working, extra work assignments, or cramped office space, also may negatively influence respective performance. On the other hand, a quiet place to work, the help of assistants, and ample support resources, such

as equipment, may have a positive effect on project performance. Thus, actual project performance is likely to be a function of ability, motivation, and environmental conditions, as shown in the Figure above. As a result, it is important that managers hire individuals who have the ability to do what is required. Then the management challenge is providing environmental conditions that nurture and support individual motivation to work toward organizational goals.

17.1. Early Approaches to Motivation

Perspectives differ on what managers need to do to encourage motivation. One of the first individuals to address worker motivation explicitly was Frederick Taylor, who did so through his writings on scientific management between 1900 and 1915. Because Taylor believed that people are motivated mainly by economic factors, he advocated a wage incentive system to encourage workers to excel at doing the job exactly as specified by management. However, the routine and specialized nature of the work, the tendency of managers to reduce wage incentives as production rose, and worker concerns that higher production would lead to job cutbacks led to worker resistance. Money, especially when it was curbed as production rose, did not seem to have the desired effects.

The apparent limitations of money as the sole motivational tool piqued the curiosity of researchers in the human relations school. On the basis of investigations such as the Hawthorne studies, conducted at the Western Electric Company between 1927 and 1932, these researchers argued for devoting greater attention to the social aspects of the job. According to their prescription, managers should make workers feel important, increase vertical communication, allow some decision making on very routine matters related to the job, and pay greater attention to work group dynamics and group incentives. Still, like the scientific management advocates, the human relations school emphasized gaining strict compliance with managerial directives in carrying out extremely routine, specialized jobs. As a result, these efforts met with only limited success in motivating workers' behavior.

By demonstrating the inadequacy of viewing workers as robotlike appendages that can be manipulated into compliance, these early efforts laid the groundwork for more sophisticated approaches and a better understanding of the motivation process.

17.2. Theory X and Theory Y

Theory X and Theory Y are not scientific theories of leadership and supervision but rather working theories or assumptions about subordinates and their managers. Douglas McGregor, the originator of this approach, considers theory X to be by far the more common. However, theory Y is favored on grounds on both practical efficiency and McGregor's own humanitarian values.


Theory X	Theory Y
1. Management is responsible for organizing the elements of a productive enterprise – money, materials, equipment and people – in the interest of economic ends.	1. The Same assumption as in theory X
2. With respect to people this is a process of directing their efforts, motivating them, controlling their actions, modifying their behavior to fit the needs of the organization.	2. The essential task of management is to arrange organizational conditions and methods of operating so that people can best achieve their own goals by directing their own efforts toward organizational objectives.
3. Without this active intervention by management, people would be passive – even resistant – to organizational needs. They must therefore be persuaded, rewarded, punished, controlled – their activities must be directed.	3. People are not by nature passive or resistant to organizational needs. They have become so as a result of experience in organizations.
4. The average person is by nature: <ul style="list-style-type: none"> a) Indolent and works as little as possible b) Lacking in ambition and prefers to be led c) Inherently self-centered and indifferent to organizational needs d) Resistant to a change, and e) Gullible and not very bright. 	4. The motivation, the potential for development, the capacity for assuming responsibility, the readiness to direct behavior toward organizational goals are all present in people. Management does not put them there. It is a responsibility of management to make it possible for people to recognize and develop these human characteristics.

The human relations theory is closer to theory X than to theory Y; McGregor would view this as pseudo participation and, thus, not a genuine theory Y approach.

The data available on these approaches do not indicate that theory Y and human resources assumptions are strongly related to performance as a manager. Nor is the underlying need hierarchy theory very valid. However, working theories like theory X or human relations theory are widely held in management. Y-based administrative practices— sharing information needed for decision making with subordinates, having subordinates participate in decisions, and fostering subordinates self-control of their own work. In Sweden, for instance, a very favorable orientation to theory Y practice, which one would anticipate from previous discussions, is coupled with a strong theory X view of the subordinates to whom these practices are applied. Throughout fourteen countries the trend of the data is consistently toward more theory X assumptions coupled with more theory Y practices, although in countries like Japan and the United States the disparities are smaller.

Traditional theory	Human Relations Theory	Human Resources Theory
1. Work is inherently distasteful.	1. People want to feel useful and important.	1. Work is not inherently distasteful. People want to contribute to goals they have helped establish.

2. What workers do is less important than what they earn.	2. People desire to belong and be recognized.	2. Most jobs demand less creativity, self-direction, and self-control than people are capable of.
3. Few want or can do work that requires creativity, self-direction, or self-control.	3. Money is not as important in motivating people as the needs noted above.	3. The basic managerial task is to make use of untapped human resources.
4. The basic managerial task is to closely supervise and control subordinates.	4. The basic managerial task is to make each worker feel useful and important.	4. Managers should create an environment in which members contribute all they can.
5. Tasks must be broken into simple, repetitive, easily learned operations.	5. A manager should keep subordinates informed and listen to their objections.	5. Managers should encourage full participation on important matters.
6. Managers must establish detailed work routines and enforce them firmly but fairly.	6. At least on routine matters, managers should allow subordinates to exercise self-direction and self-control.	

Ranking of Countries on Attitude Toward Subordinates	Sharing Information with Subordinates	Subordinate Participation	Fostering Subordinates Self-Controll	
Theory X assumption				
	Sweden	Y	Neutral	Y
	Netherlands	Y	Neutral	Y
	Germany	X	Neutral	Y
	France	Y	Y	Neutral
	Italy	Neutral	X	Neutral
	Denmark	X	Y	Y
	Norway	Y	Neutral	Y
	Spain	Neutral	X	Neutral
	Argentina	X	X	Neutral
	England	Y	Neutral	Neutral
	Chile	X	X	Neutral
	India	X	Neutral	X
	Japan	Neutral	Y	Neutral
United States	Y	Neutral	Neutral	
Theory Y assumption				

Problems with Stereotyping As the field has moved on, however, theory X and theory Y have become very much part of our vocabulary; it is important to understand what they mean.

Another reason for studying such concepts is to recognize that working theories of this kind are stereotypes. Managers do appear to think in these ways frequently, but there is a serious question about whether they should. Throughout this book, the discussions emphasize that people come in all varieties of individual differences. An effective manager will recognize these variations and deal with each person as he or she really is, rather than grouping subordinates together in some grossly oversimplified category. To do otherwise is to perceive almost every subordinate incorrectly in some aspects, and to distort some by a very large degree. In this view theory Y is just as wrong as theory X, and human resources theory just as wrong as the human relations and traditional views—simply because all are stereotypes, and stereotypes by their nature are wrong. Studying theories X and Y is a good way to understand and learn this point.

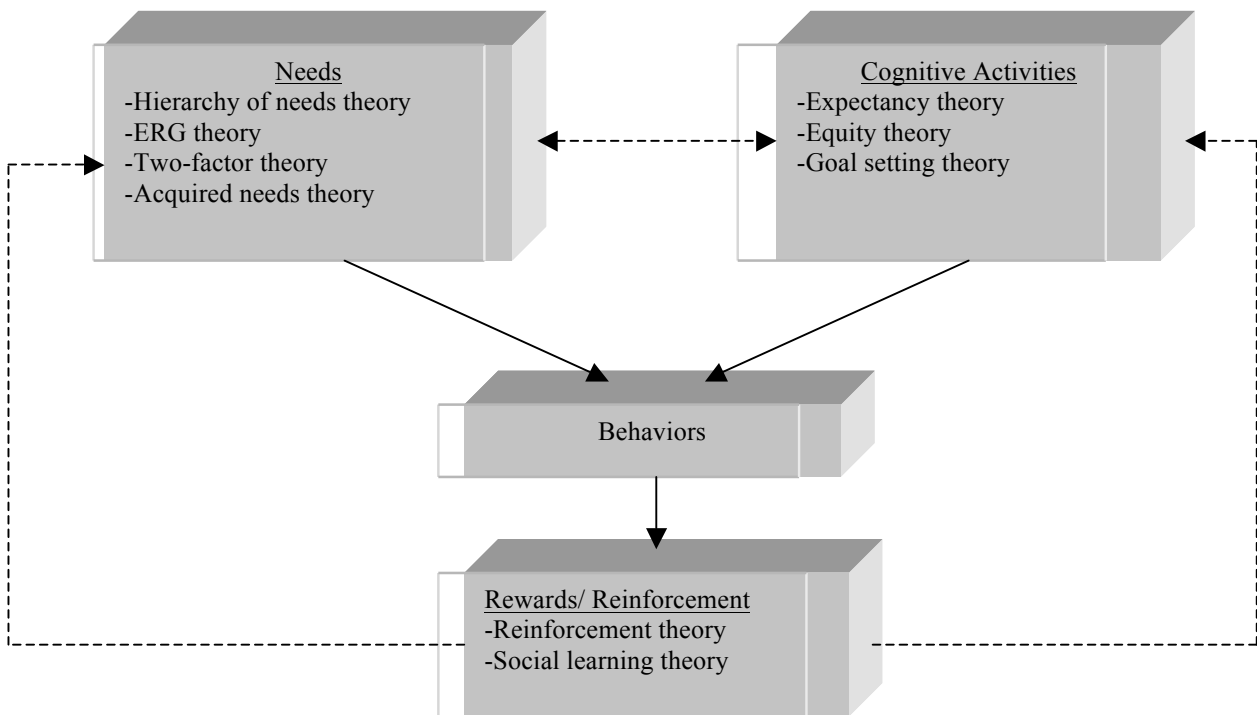
17.3. Simplified Model of Motivation

Since the early work of the scientific management and human relations theorists, management scholars have developed a number of different theories that help us understand what motivates people at work. The Figure below shows a simplified model of the main elements in the motivation process. As the model indicates, our inner needs (such as needs for food, companionship, and growth) and cognitions (such as knowledge and thoughts about various efforts we might expend and potential rewards we might receive) lead to various behaviors. Assuming that the behaviors are appropriate to the situation, they may result in rewards. The rewards then help reinforce our behaviors, fulfill our needs, and provide input into our cognitions about the linkages between our behaviors and possible future rewards. Conversely, lack of rewards may lead to unfulfilled needs; leave behaviors unreinforced, and influence our thinking about where to expend our efforts in the future. Since motivation is a complex phenomenon, major motivational theories address various elements in the process. In order to understand better the implications of these elements for managers, we explore the respective theories in subsequent of this chapter, beginning with need theories.

17.4. Need theories

What makes a person such as Linda Wachner, president of Warnaco, Inc., overcome adolescent spinal surgery that left her in a body cast for over a year, tackle the challenge of successfully turning around the ailing U.S. division of Max Factor & Company, and work 14-hour days to eventually reach her lofty position as head of a Fortune 500 apparel conglomerate? What possessed

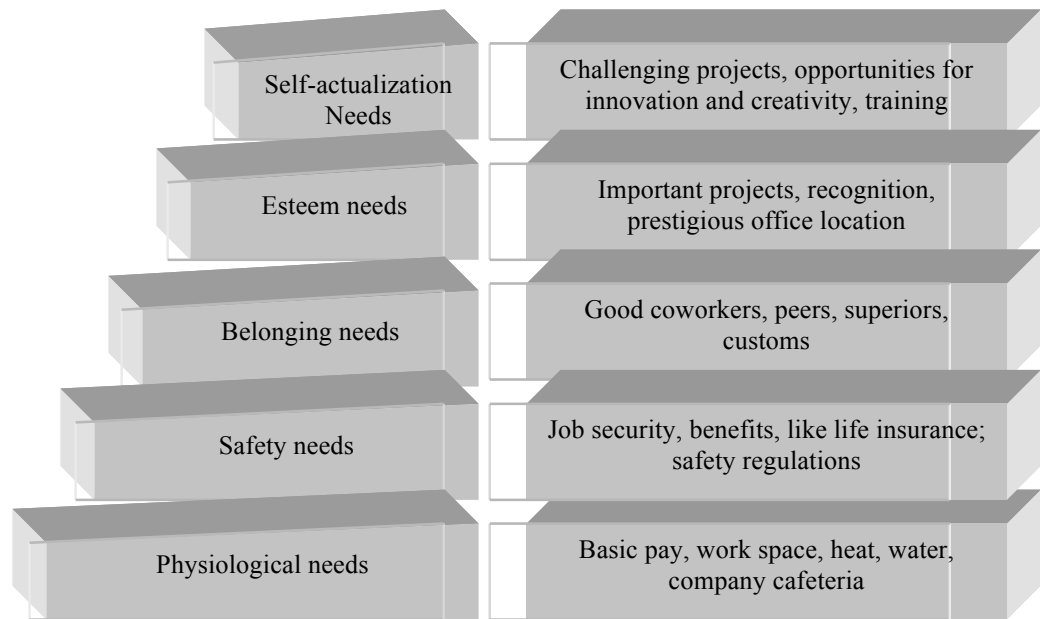
Kemmons Wilson, founder of the Holiday Inns, to start building another hotel chain at age 75?



Need theories argue that we behave the way we do because we have internal needs that we are attempting to fulfill. These theories are sometimes called *content theories* of motivation because they specify *what* motivates individuals (i.e., the content of needs). In this section, we explore four prominent theories that examine what needs individuals are likely to have and how these needs operate as motivators: hierarchy of needs theory, ERG theory, two-factor theory, and acquired-needs theory.

17.4.1. Hierarchy of Needs Theory

One of the most widely known theories of motivation is the hierarchy of needs theory, developed by the psychologist **Abraham Maslow** and popularized during the early 1960s, which argues that individual needs form a five-level hierarchy (shown in the Figure below). According to this hierarchy, our first need is for survival, so we concentrate on basic physiological needs, such as food, water, and shelter, until we feel fairly sure that these needs are covered. Next, we concern ourselves with safety needs, which pertain to the desire to feel safe, secure, and free from threats to our existence.



Once we feel reasonably safe and secure, we turn our attention to relationships with others in order to fulfill our belonging-ness needs, which involve the desire to affiliate with and be accepted by others. With support from loved ones, we focus on esteem needs, which are related to the two-pronged desire to have a positive self-image and to have our contributions valued and appreciated by others. Finally, we reach the highest level, self-actualization needs, which pertain to the requirement of developing our capabilities and reaching our full potential. Here we concern ourselves with such matters as testing our creativity, seeing our innovative ideas translated into reality, pursuing new knowledge, and developing our talents in uncharted directions. Needs at this highest level are never completely fulfilled, because as we work to develop our capabilities, both our potential and our needs for self-actualization grow stronger.

Maslow recognized that a need might not have to be completely fulfilled before we start directing our attention to the next level in the hierarchy. At the same time, he argued that once we have essentially fulfilled a need, that need ceases to be a motivator and we begin to feel tension to fulfill needs at the next level.

While Maslow's hierarchy has stimulated thinking about the various needs that individuals have, it has some serious shortcomings. Research suggests that needs may cluster into two or three categories, rather than five. Also, the hierarchy of needs may not be the same for everyone. Entrepreneurs frequently pursue their dreams for years despite the relative deprivation of lower-level needs. Finally, individuals often seem to work on satisfying several needs at once, even though some needs may be more important than others at a given point in time.

17.4.2. ERG Theory

Because of the criticisms of Maslow's hierarchy of needs theory, the motivation researcher Clayton Alderfer proposed an alternative known as ERG theory. The name stems from combining Maslow's five needs into three need levels: existence, relatedness, and growth. *Existence* needs include the various forms of material and physiological desires, such as food and water, as well as work-related forms such as pay, fringe benefits, and physical working conditions. *Relatedness* needs address our relationships with significant others, such as families, friendship groups, work groups, and professional groups. They deal with our need to be accepted by others, achieve mutual understanding on matters that are important to us, and exercise some influence over those with whom we interact on an ongoing basis. *Growth* needs impel creativity and innovation, along with the desire to have a productive impact on our surroundings.

ERG need levels differ in terms of concreteness, that is, the degree to which their presence or absence can be verified. The existence need level is the most concrete, relating to issues such as our rate of pay and the pleasantness of our work surroundings. The growth need level is the least concrete, involving more nebulous issues such as our level of creativity, the degree to which our capabilities are growing relative to our capacity, and the long-term impact of our efforts on our organization. According to ERG theory, we generally tend to concentrate first on our most concrete requirements. As existence needs are resolved, we have more energy available for concentrating on relatedness needs, which offer a potential source of support that can help us in satisfying growth needs. Then, as relatedness needs are somewhat fulfilled, we have the energy and support needed to pursue growth needs. Thus, ERG theory incorporates a satisfaction-progression principle similar to that of Maslow in that satisfaction of one level of need encourages concern with the next level.

Aside from focusing on three need levels instead of five, ERG theory differs from the hierarchy of needs theory in three significant ways. First, although the general notion of a hierarchy is retained, Alderfer's theory argues that we can be concerned with more than one need category at the same time. Needs at lower levels are not necessarily fairly well satisfied before we concern ourselves with other needs, although satisfaction of lower-level needs can be helpful in allowing us to devote our attention to higher-level needs. For example, even if we have skipped lunch and are extremely hungry, we still may be concerned primarily with solving a challenging customer problem. On the other hand, at some point our hunger may interfere with our problem-solving efforts. Second, ERG theory is more flexible in acknowledging that some individuals' needs may occur in a somewhat different order than that posited by the ERG framework. Third, ERG theory incorporates a frustration-regression principle. This principle states that if we are continually frustrated in our attempts to satisfy a higher-level need, we may cease to be concerned about that

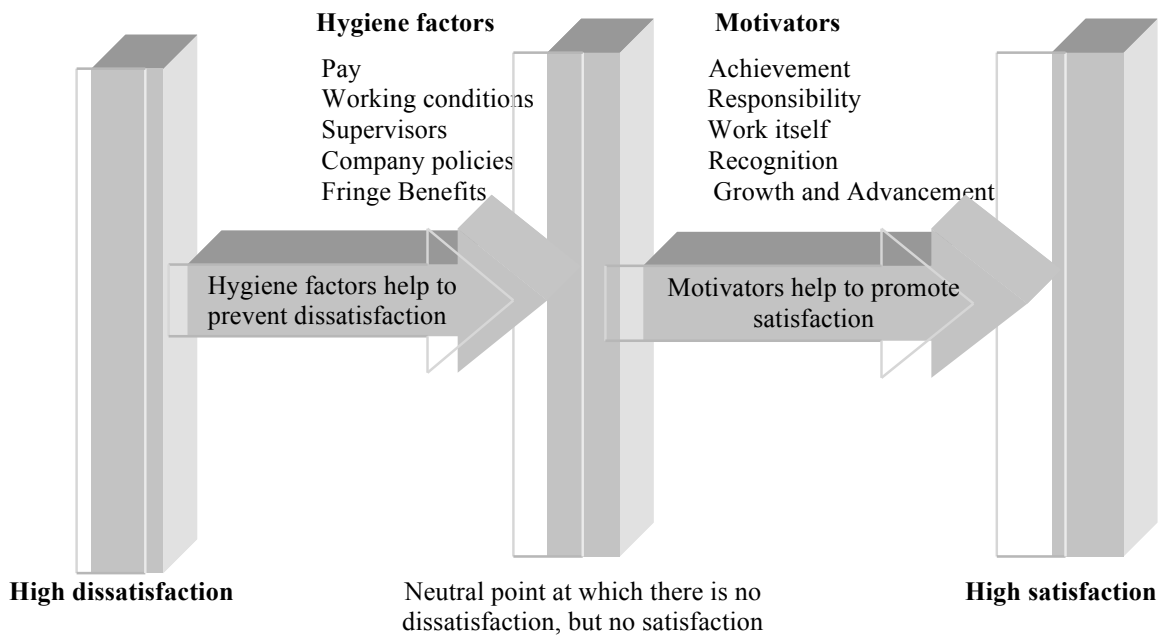
need. Instead, we may regress to exhibiting greater concern for a lower-level need that is more concrete and seemingly more within our grasp. For example, we may become more concerned with establishing strong relationships with coworkers if our continuing efforts to obtain more interesting work are ignored by our boss.

Both Maslow's hierarchy theory and ERG theory are extremely difficult to test because they involve measuring and tracking individuals' changing needs and fulfillment levels over time. So far, the limited research on ERG theory has generally been supportive. If ERG theory is correct in predicting that individuals attempt to fulfill multiple needs at the same time, then motivating individuals is likely to require offering a variety of means for need fulfillment. Because of the frustration-regression aspect of ERG theory, managers need to be particularly concerned with providing opportunities to satisfy growth needs, lest employees cease to be interested in them. At Genentech, the head of research walks a fine line between encouraging the growth needs of scientists and channeling their efforts mainly into endeavors with some hope of company payoff. A different, but also challenging, situation exists at Original Copy Centers, Inc.

17.4.3. Two-Factor Theory

In another important quest to learn more about what motivates employees, the researcher Frederick Herzberg asked 200 accountants and engineers to describe situations in which they felt particularly satisfied and highly motivated and those in which they felt dissatisfied and unmotivated. When they described motivating situations, the accountants and engineers, from nine companies in the Pittsburgh area, mentioned factors such as the work itself and feelings of achievement (see the right side of the Figure below). Herzberg called these factors satisfiers, or motivators, noting that they relate mainly to the content of the job. On the other hand, when the professionals talked about situations in which they felt unmotivated, they discussed a completely different set of factors, such as working conditions and supervision (see the left side of the Figure below). Herzberg called these factors dissatisfiers, or hygiene factors, pointing out that they are largely associated with the work environment.

On the basis of these interview results, Herzberg developed a two-factor theory of motivation, which argues that potential rewards fit into two categories, hygiene factors and motivators, each having distinctly different implications for employee motivation. Hygiene factors are important as a means of keeping workers from being *dissatisfied*, but no amount of hygiene factors will ever lead to work satisfaction and motivation. Instead, to have *satisfied* and *motivated* employees, managers need to ensure that ample motivators are available. They can do this by changing the nature of jobs so that they include opportunities for achievement, challenge, responsibility, growth, and the other motivators. Herzberg called the actual process for change *job enrichment*.



Subsequent research has cast doubt on the two-factor idea, since researchers using other methods to study the issue have found that lack of motivators often is associated with dissatisfaction and that hygiene factors frequently are tied to satisfaction. Herzberg may have obtained the results he did because individuals tend to associate positive things (such as accomplishments) with themselves and negative things (such as perceived obstacles) with factors in the environment. Nevertheless, the theory is significant because it focused managers' attention on the importance of motivators, factors that they sometimes underemphasize in attempting to motivate workers. Moreover, the notion of changing the nature of jobs to increase their motivational potential led to a closer look at job design and alternative work schedules, issues that were considered before.

17.4.4. Acquired-Needs Theory

While the hierarchy of needs theory, ERG theory, and the two-factor theory view certain needs as an inherent part of our makeup, the psychologist David C. McClelland offers a different perspective, acquired-needs theory, which argues that our needs are acquired or learned on the basis of our life experiences. Although such needs tend to be a product of a variety of conditions to which we are exposed, sometimes even a specific event can profoundly influence our desires. For example, Estee Lauder, the billionaire baroness of the beauty supply industry, recounts that while selling her uncle's skin cream in a Manhattan beauty salon during the depression, she (then Josephine Esther Mentzer) admired the blouse of the owner and asked where the owner had purchased it. The owner curtly replied that it was an irrelevant question because a salesgirl would

never be able to afford such a blouse. Those words fanned the young saleswoman's desire for achievement. "I wouldn't have become Ester Lauder if it hadn't been for her," she says.

For more than three decades, McClelland has studied mainly three needs: achievement, affiliation, and power. He measures these needs using the Thematic Apperception Test (TAT), which involves having test takers write stories about pictures that are purposely ambiguous. The stories are then scored according to the achievement, affiliation, and power themes that they contain, the assumption being that individuals write about themes that are important to them. For most of us, test results would indicate a blending of the needs for achievement, affiliation, and power, rather than a high level of just one of these needs and none of the others.

McClelland's initial work centered on the need for achievement (nAch), the desire to accomplish challenging tasks and achieve a standard of excellence in one's work. Individuals with a high nAch typically seek competitive situations in which they can achieve results through their own efforts and can receive relatively immediate feedback on how they are doing. They like to pursue moderately difficult goals and take calculated risks; but, contrary to what is sometimes believed, high nAchs typically avoid extremely difficult goals because of the substantial risk of failure. Since they like problems that require innovative and novel solutions, high-nAch individuals can be a valuable source of creativity and innovative ideas in organizations.

Estimates are that only about 10 percent of the U.S. population has a high nAch. Managers who want to motivate high achievers need to make sure that such individuals have challenging, but reachable, goals that allow relatively immediate feedback about achievement progress. Although McClelland argues that high-nAch individuals may not be motivated by money per se (because they derive satisfaction mainly from their achievements), they still may place considerable importance on money as a source of feedback on how they are doing.

To a lesser extent, McClelland's work also has addressed the **need for affiliation** (nAff), the desire to maintain warm, friendly relationships with others. High-nAff individuals are particularly likely to gravitate toward professions that involve a large amount of interaction with others, such as health care, teaching, sales, and counseling. To motivate high-nAff individuals, managers need to provide a cooperative, supportive work environment in which individuals can meet both performance expectations and their high affiliation needs by working with others. Individuals with a high nAff can be particular assets in situations that require a high level of cooperation with and support of others, including clients and customers.

As he studied various needs, McClelland gradually came to view the **need for power (nPow)**, the desire to influence others and control one's environment, as a particularly important motivator in organizations. Need for power has two forms, personal and institutional. Individuals with a high need for **personal**

power want to dominate others for the sake of demonstrating their ability to wield power. They expect followers to be loyal to them personally rather than to the organization, sometimes causing organizational goals to be thwarted. In contrast, individuals with a high need for **institutional power** focus on working with others to solve problems and further organizational goals. Individuals with a high need for institutional power like getting things done in an organized fashion. They also are willing to sacrifice some of their own self-interests for the good of the organization. Motivating individuals with a high need for institutional power involves giving them opportunities to hold positions that entail organizing the efforts of others.

McClelland has analyzed various needs in terms of their relationship to managerial effectiveness. He originally thought that individuals with a high need for achievement would make the best managers. His subsequent work suggests that, to the contrary, high-nAch individuals tend to concentrate on their own individual achievements rather than on the development and achievements of others. As a result, high-nAch individuals often make good entrepreneurs because initial success frequently depends largely on individual achievement. They may not, however, make good managers in situations that require working with a number of others and waiting to learn the results of their efforts. Similarly, individuals with a personal-power orientation run into difficulties as managers because they often attempt to use the efforts of others for their own personal benefit. Critics argue that the demise of E. F. Hutton, the old-line Wall Street brokerage firm that was taken over by the Shearson Lehman brokerage house in the late 1980s, was due largely to the absolute power wielded by CEO Robert Fomon, who headed the firm for 16 years. In addition to hiring and promoting close friends, Fomon apparently personally reviewed the salaries and bonuses of more than 1000 employees, spurned budgets in favor of having employees come to him for resources, spent lavishly on entertainment and perquisites, and made most of the large and small decisions himself. Individuals with a high need for affiliation also may have a managerial weakness, because they tend to concentrate on maintaining good interpersonal relationships rather than achieving goals.

McClelland's work suggests that individuals with a high institutional-power need make the best managers because they are oriented toward coordinating the efforts of others to achieve long-term organizational goals. One study of more than 200 managers at AT&T over a 16-year period before the breakup of the company showed that individuals who were promoted to higher levels tended to have a moderate-to-high need for power and a relatively low need for affiliation. Need for achievement was important only early in the managers' careers, when their success depended more on individual contributions. Other evidence indicates that need for achievement in managers may be more important at higher levels when organizations face highly competitive environments, such as AT&T now confronts. Thus, the need profile of successful managers, at least in

competitive environments, appears to include (1) a moderate-to-high need for institutional power, (2) a moderate need for achievement to facilitate individual contributions early in one's career and a desire for the organization to maintain a competitive edge as one moves to higher levels, and (3) at least a minimum need for affiliation to provide sufficient sensitivity for influencing others.

What happens if an individual wants to be a manager but doesn't have the appropriate need profile? McClelland argues that it is possible to develop certain needs in ourselves and others. Through training, McClelland has successfully increased the need for achievement of individuals who subsequently received faster promotions and made more money than those not trained. This type of training exposes individuals to tasks involving the achievement of goals and gradually makes the situations more challenging as the individuals increase their ability to handle the tasks. Trainees also are exposed to the behavior of appealing entrepreneurial models. Similar approaches apparently can be used to foster the need for institutional powers. Other needs, such as the need for affiliation, may be more difficult to develop through such methods.

17.5. Assessing Need Theories

A comparison of the needs identified by the four theories is shown in the Figure below. The theories are generally compatible in pointing to the importance of higher-level needs as a source of motivation. The ERG and acquired-needs theories place greater emphasis than the other two theories on the notion that individuals differ in the makeup of their need structures, the stance that has a stronger research support than the view that the need structures of individuals are basically the same. In fact, McClelland's work demonstrates the possibility of acquiring needs related to managerial success through such mechanisms as training and carefully chosen work assignments.

Maslow: Hierarchy of Needs Theory	Alderfer: ERG Theory	Herzberg: Two Factor Theory	McClelland: Acquired Needs Theory
Physiological	Existence	Hygiene	
Safety and security			
Belongingness and love	Relatedness	Motivators	Need for affiliation
Self-esteem			Need for achievement
Self-actualization	Growth		Need for power

The frustration-regression aspect of ERG theory, in which workers who are frustrated with attempts at meeting growth needs may revert to being concerned with a more concrete need, could have serious implications for organizations. Given the widespread current requirements for new and innovative ideas, im-

proved quality, and greater capacity to implement needed changes, fostering growth needs is particularly important. Consider, for example, Wal-Mart, the retail chain that is expanding so fast that it has become the largest company job creator in the nation, adding over 150,000 employees to the company since 1982. Although the company typically hires new workers at only 10 percent above the minimum wage, it retains employees (called "associates") by delegating responsibility and offering scholarships of up to \$2500 toward college tuition for employees who go to school and work part-time. As a result, approximately 40 percent of Wal-Mart's managers are individuals who began as trainees; this is an unusually high proportion in the turnover-ridden retail business.

17.6. Cognitive theories

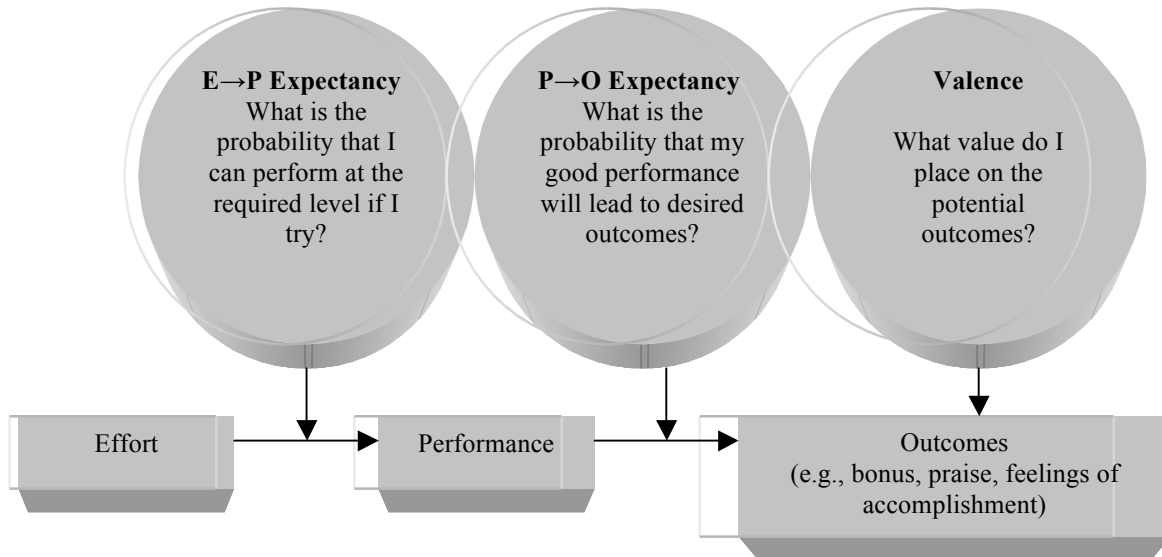
Need theories try to identify the internal desires that influence our behavior, but they do not go very far in explaining the thought processes that are involved. In contrast, cognitive theories attempt to isolate the thinking patterns that we use in deciding whether or not to behave in a certain way. Cognitive theories are not necessarily at odds with need theories; rather, they look at motivation from a different perspective. Because they focus on the thought processes associated with motivation, cognitive theories are sometimes called *process theories*. Three major cognitive theories that address work motivation are the expectancy, equity, and goal-setting theories.

17.6.1. Expectancy Theory

The expectancy theory of motivation, originally proposed by Victor H. Vroom, argues that we consider three main issues before we expend the effort necessary to perform at a given level. These three issues are shown in the circles of the Figure below, which depicts the basic components of expectancy theory.

Effort - Performance. Expectancy. With effort-performance (E—»P) expectancy, we assess the probability that our efforts will lead to the required performance level. Our assessment may include evaluating our own abilities, as well as considering the adequacy of contextual factors such as the availability of resources. To see how effort-performance expectancy works, imagine that your boss has asked you to consider taking on a major special project. The project involves designing and implementing a new computerized tracking system for customer complaints so that you can vastly improve individual customer service and also learn more quickly about complaint trends. One of the first things that you might think about is the probability of your being able to achieve the high level of performance required, given your abilities and the related environmental factors. If you feel that you don't know very much about developing such systems and/or that the availability of resources is inadequate, you might assess the probability of success as low. As a result, your E—»P expectancy about this particular assignment might be quite low. On the other hand, if you feel that you

are well qualified for the assignment and that the available resources for this particular assignment are adequate, you might assess the probability of your efforts leading to high performance—the E→P expectancy—as quite high. However, your assessment of the effort-performance expectancy is only part of your evaluation of the situation.



Performance-Outcome Expectancy. With performance-outcome (P→O) expectancy, we assess the probability that our successful performance will lead to certain outcomes. The major outcomes that we consider are potential rewards (such as a bonus, a promotion, or a good feeling of accomplishment), although we are also likely to take into account the probability of possible negative outcomes (such as loss of leisure time or family disruption due to putting in extra hours on the job). Among the possible rewards in your special-project situation, perhaps your boss has a history of giving recognition and bonuses to individuals who take on special projects. If so, you might assess the P→O expectancy for taking on the project as very high. On the other hand, if your past experience with special projects and the boss suggests that the boss sometimes arranges for rewards but other times forgets, you might view the P→O expectancy as medium in strength (perhaps a 50-50 probability of being rewarded). In the worst case, if your boss never rewards extra effort, you might assess the P→O expectancy as virtually zero - at least for rewards available from the boss.

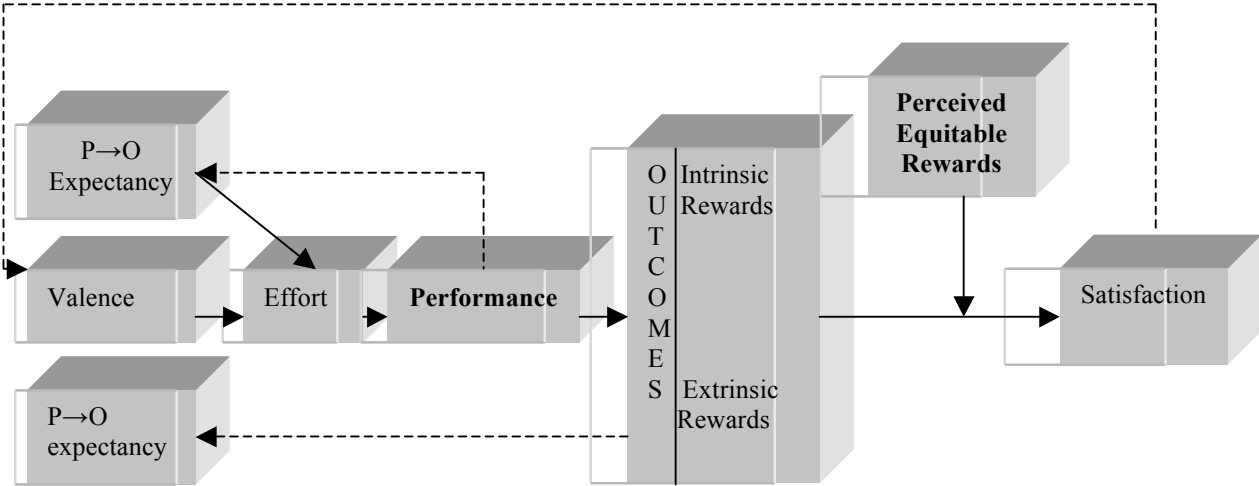
In any given situation, there may be many potential outcomes or rewards associated with performance. Rewards, such as bonuses, awards, or promotions that are provided by others are known as extrinsic rewards. Rewards that are related to our own internal experiences with successful performance, such as feelings of achievement, challenge, and growth, are known as intrinsic rewards. Considering various possible outcomes or rewards (both positive and negative), we form an assessment of the probability of our performance leading to desired outcomes. If our assessment of the P→O expectancy is high, the expectancy will contribute to our motivation; otherwise, our assessment could have a detrimental

effect on our willingness to perform at a high level. Still, we have another motivational component to consider – how important the various outcomes are to us.

Expanding Expectancy Theory. If you ask several people whether they would agree that satisfied workers work harder, they are likely to reply in the affirmative. Although the notion seems to have intuitive appeal, research has not always found a strong link between worker satisfaction and performance. To understand why, Lyman W. Porter and Edward E. Lawler III developed the expanded expectancy theory model. According to this model, satisfaction does not lead to performance. Rather, the reverse is true: performance can (but does not always) lead to satisfaction through the reward process.

To follow this model, let us consider three possible scenarios involving Alissa, Bob, and Christen. In the first scenario, Alissa performs well, receives a bonus from the boss (extrinsic reward), feels good about her achievement (intrinsic reward), and ultimately feels satisfied. In this case, we have high performance and high satisfaction. In the second scenario, Bob performs well and feels good about his achievement (intrinsic reward), but the boss does not even say "good job," much less give him a bonus. As a result, even though Bob feels good about his achievement, he is so annoyed with the boss that his satisfaction level is low. So with Bob we have a case of high performance but low satisfaction because he does not feel that he was adequately rewarded. In our third scenario, Christen does very little work but receives a sizable bonus at the end of the year, which pleases her greatly. With Christen, we have a case of low performance but high satisfaction.

How do we get to the ideal of high performance and high satisfaction? As suggested by the extended model, a crucial element is rewarding high performance (as occurred with Alissa but, unfortunately, not with Bob). Rewarding high performance leads to a high P→O expectancy (see the feedback loop in Figure), an important component of motivation. Equally critical, poor performance should not be rewarded. Rewarding poor performance leads to a low P→O expectancy and ultimately to low subordinate motivation to perform.



Aside from the issues relating to the P→O expectancy, expectancy theory has some other major implications for managers. For one thing, it is useful for managers to foster a high E→P expectancy in subordinates. This can be done by being very clear about performance expectations, setting performance goals so that they are challenging, but doable, making sure that employees have the training and resources necessary to reach the required performance levels, and providing encouragement. Another major factor in encouraging motivation is offering opportunities for rewards (both extrinsic and intrinsic) with a high valence to employees. As suggested by need theories, valences are likely to differ among employees and are subject to change as some needs are fulfilled and others become paramount.

The logic underlying expectancy theory is the force behind recent trends toward basing pay on performance. Companies are doing more to promote a high P→O expectancy by making sure that various rewards are strongly keyed to performance issues. For example, until recently at the Ford Motor Company, the number of people that a manager supervised was a factor in pay, sometimes causing managers to concentrate on getting more people to report to them rather than on achieving high performance with the smallest possible staff. That has all changed with a new merit pay system that ties raises to increases in productivity. Other examples of the trend toward emphasizing rewards for performance can be found in the John Hancock Mutual Life Insurance Company, whose lower-level managers are eligible for awards of up to 10 percent of their salaries for "extraordinary" work; Hewlett-Packard, whose 200 to 300 special stock options per year are earmarked for employees who deliver extra accomplishments; and Sbarro, Inc., a chain of cafeteria-style restaurants, whose productive managers are given up to 15 percent of a restaurant's net profits. The extended model of expectancy theory also indicates that managers might not get the expected results from their motivational efforts unless employees perceive their outcomes and rewards as equitable, an issue specifically addressed by equity theory.

17.6.2. Equity Theory

On August 20, 1986, Patrick Henry Sherill shot and killed 14 coworkers at the Edmond, Oklahoma, post office before turning the gun on himself. As the story unraveled, it became clear that he felt that he had not been dealt equitably by a variety of people, including those with whom he worked. Fortunately, such drastic reactions from employees occur infrequently. However, the incident illustrates the fact, as suggested by the extended model of expectancy theory, that feelings of inequitable treatment can have a major impact on employees. To help explain how we identify and react to situations of inequity, J. Stacy Adams developed equity theory while working for the Behavioral Research Service of General Electric.

According to **equity theory**, we prefer situations of balance, or equity, which exists when we perceive the ratio of our inputs and outcomes to be equal to the ratio of inputs and outcomes for a comparison with other (or others). The selection of the person or persons with whom we compare ourselves depends on our own view of appropriate comparisons. For example, in considering the equity of a pay raise, we might compare our pay with that of certain coworkers, peers in other units, and/or a friend with similar credentials who works for another company. The inputs we consider in assessing the ratio of our inputs and outcomes relative to the ratios of others may cover a broad range of variables, including educational background, skills, experience, hours worked, and performance results. Outcomes might include such factors as pay, bonuses, praise, parking places, office space, furniture, and work assignments. The inputs and outcomes that we use to assess the equity of a situation are based strictly on our own perceptions of what is relevant.

According to the theory, situations of inequity exist whenever our inputs-outcomes ratio is either less than or greater than the inputs-outcomes ratio of a comparison other. In making equity judgments, we consider equity in relative (compared to another) rather than absolute (compared to a set standard) terms. The implication is that we may feel equitably treated in a situation in which we provide high inputs and receive low outcomes as long as the person with whom we compare ourselves also contributes high inputs and receives low outcomes. Likewise, we are likely to feel equitably treated if other people have higher outcomes than we do as long as we perceive their inputs as sufficiently greater than ours to justify the difference. Although the theory argues that we will feel inequitably treated when we perceive our inputs-outcomes ratio to be greater than that of our comparison with other (e.g., we receive a significantly higher pay raise than someone else even though we perceive that our inputs have been the same), research suggests that individuals adjust to such conditions of overreward rather quickly. Therefore, conditions of underreward (our inputs-outputs ratio is less than that of the comparison with other) have much greater impact on motivation than do conditions of overreward.

The motivational aspect of equity theory is based on its two major premises. First, the theory argues that the perception of inequity creates a tension in us. Second, the tension motivates us to eliminate or reduce the inequity. The greater the perceived inequity, the stronger the tension and the greater our motivation to reduce it.

Reducing or Eliminating Inequity. Although the specific actions an individual takes will depend on what appears to be feasible in a given situation, Adams suggests that maintaining one's self-esteem is an important priority. As a result, an individual will probably first attempt to maximize outcomes and to resist personally costly changes in inputs. Changing perceptions about the inputs and outcomes of others or attempting to alter their side of the equation will usually be more palatable than cognitively changing or actually altering one's

own side of the equation. Actions to leave the situation will probably be taken only in cases of high inequity when the other alternatives are not feasible. Finally, an individual will be highly resistant to changing the comparison with others, especially if the objects of comparison have stabilized over time.

One particularly interesting study demonstrating the potential impact of inequities traced the performance of 23 major-league baseball players who began the 1976 season without contracts. Because of major changes in the league contract rules, the researchers speculated that the players would be likely to perceive themselves as underpaid in reference both to others who had signed lucrative contracts and to their own lower compensation as compared to that of the previous year. The prediction that the 23 players would reduce their inputs, one of their few short-term options for reducing the inequity, was confirmed when they logged lower season performance levels for batting average, home runs, and runs batted in.

Although Adams's equity formulation considered one situation at a given point in time, recent work on the theory also considers inequities that extend over a period of time. Coleman describes her own management style as "very participative—and very directive." Ralph R. Russo, who succeeded Coleman as vice president of worldwide operations, concurs: "She is directive in the sense that she paints a big picture of the direction in which the organization is heading. Then she looks for credibility in people—credibility meaning doing what you say you're going to do. And then she gives quite a bit of autonomy." Russo says that some of the things that he has been able to accomplish were a direct result of "her management style: her constant challenge to do better, to bring the best out. We don't settle for the norm or even a little bit above average. It's what we call Class 4, or the best in the world—not one of the best in the world."

The efforts of Sculley, Coleman, and others at Apple have generally paid off handsomely with strong growth, relatively high profits, and a pipeline full of new Macintosh-related products. The future holds even greater innovative challenges for the company and its leaders, as competitors begin to match the easy-to-use commands and powerful graphics that have made the Macintosh so popular with customers.

Faced with watching Apple start to decline after some initial successes, what would you have done in Sculley's place? Sculley decided to take firm hold of the reins and provide the leadership that Apple needed. Other talented managers such as Debi Coleman also were crucial to the successful turnaround through their leadership in important segments of Apple. Such leaders also will play a critical role in Apple's future. But what is leadership?

17.7. Participative Management Conception

Participative theory issues from the point that men get satisfaction from different internal activity and as a result of activity not only with heightened intensity, but also open self talents and opportunities.

As a result of participative management workers get right:

1. to independently make decisions
2. to solve problems put by
3. to be like a head and consult on special questions
4. to control themselves.

18. Leadership

Leadership is the process of influencing others toward the achievement of organizational goals. This definition recognizes that leadership is typically an ongoing activity, is oriented toward having an impact on the behaviors of others, and is ultimately focused on realizing the specific aims of the organization. Since it involves influencing others, leadership is considered the foundation of the management function known as leading.

Leadership is a term that has been associated with studies of small groups – sometimes a group of strangers brought together in a laboratory setting, less often groups of coworkers in ongoing work context. The term is clearly applicable to the kinds of structuring that emerge in informal groups and in group-based systems. *Supervision*, on the one hand, is a term from the world of formal management and hierarchical systems. It assumes some type of authority based on the ability to influence rewards and punishments; it also assumes a bureaucratic context. *Influencing* covers both leadership and supervision.

In actual practice these terms – leadership, supervision, and influencing – tend to get thoroughly confused. Some people view supervision as a type of leadership. Influencing can mean almost anything. Although disentangling this confusion is hardly possible here, it is important to recognize that the concept of leadership relates primarily to small groups and their dynamics, while supervision is more closely allied with the management of bureaucracies.

In this chapter, we explore the means that leaders have for influencing others. We consider the possibility that leaders have common traits, and we review the quest to identify universal leader behaviors that leaders can use in any situations. We then probe recent efforts to develop situational approaches that help leaders decide when certain types of behaviors are applicable. Next, we examine transformational leadership and its linkage to innovation. Finally, we consider the question of whether and under what circumstances leaders are necessary.

18.1. How Leaders Influence Others

Why do people accept the influence of a leader? One major reason is that leaders have power, although Katharine Graham, chairman of the influential Washington Post Company, notes, "Nobody ever has as much power as you think they do. In this section, we examine the major sources of power and the ways that leaders can effectively use the power they potentially have available".

Sources of Leader Power

Power is the capacity to affect the behavior of others. Leaders in organizations typically rely on some or all of six major types of power: legitimate, reward, coercive, expert, information, and referent.

Legitimate Power. Legitimate power stems from a position's placement in the managerial hierarchy and the authority vested in the position. When we accept a job with an organization, we usually are aware that we will be receiving directions related to our work from our immediate boss and others in the hierarchy. Normally, we accept such directions as legitimate because these persons hold positions of authority. Hence legitimate power relates to the position, rather than to the person per se.

Reward Power. Reward power is based on the capacity to control and provide valued rewards to others. Most organizations offer an array of rewards, including pay raises, bonuses, interesting projects, promotion recommendations, a better office, support for training programs, assignments with high visibility in the organization, recognition, positive feedback, and time off. The greater a manager's control over valued rewards, the greater that manager's reward power.

Coercive Power. Coercive power depends on the ability to punish others when they do not engage in desired behaviors. Forms of coercion or punishment include criticisms, terminations, reprimands, suspensions, warning letters that go into an individual's personnel file, negative performance appraisals, demotions, and withheld pay raises. The greater the freedom to punish others, the greater a manager's coercive power.

Expert Power. Expert power is based on the possession of expertise that is valued by others. Managers often have considerable knowledge, technical skills, and experience that can be critical to subordinates' success. To the extent that a leader possesses expertise and information that are needed or desired by others, the leader has expert power.

Information Power. Information power results from access to and control over the distribution of important information about organizational operations and future plans. Managers usually have better access to such information than do subordinates and have some discretion over how much is disseminated to work-unit members. The greater the control over important information, the greater the information power.

Referent Power. Referent power results from being admired, personally identified with, or liked by others. When we admire people, want to be like them, or feel friendship toward them, we more willingly follow their directions and exhibit loyalty toward them. Some observers argue that Lee Iacocca's initial success in turning around the Chrysler Corporation was based partially on the fact that he possessed referent power in relation to the work force. The more a leader is able to cultivate the liking, identification, and admiration of others, the greater the referent power.

18.2. Effective Use of Leader Power

Although all six types of power are potential means of influencing others, in actual usage they may engender somewhat different levels of subordinate motivation. Subordinates can react to a leader's direction with commitment, compliance, or resistance. With commitment, employees respond enthusiastically and exert a high level of effort toward organizational goals. With compliance, employees exert at least minimal efforts to complete directives but are likely to deliver average, rather than stellar, performance. With resistance, employees may appear to comply but actually do the absolute minimum, possibly even attempting to sabotage the attainment of organizational goals. For example, when Chicago scrap-metal czar Cyrus Tang bought the ailing McLouth Steel Products Corporation, he relied on legitimate and coercive power to gain worker cooperation. Workers reacted with production slowdowns and a wildcat strike that eventually led to the further deterioration of the company and its sale to employees.

The relationship between a leader's use of the different sources of power and likely subordinate reactions is summarized in Table 13.

Table 13.

Source of Leader Influence	Basis for Power	Commitment	Compliance	Resistance
Referent power	Admiration and liking by others	LIKELY* If request is believed to be important to a leader	POSSIBLE If request is perceived to be unimportant to a leader	POSSIBLE If request is for something that will bring harm to a leader
Expert power	Possession of valued expertise	LIKELY* If request is persuasive and subordinates share leader's task goals	POSSIBLE If request is persuasive but subordinates are apathetic about task goals	POSSIBLE If a leader is arrogant and insulting or subordinates oppose task goals
Legitimate power	Hierarchical position and authority	POSSIBLE If request is polite and very appropriate	LIKELY* If request or order is seen as legitimate	POSSIBLE If arrogant demands are made or request does not appear proper
Information power	Access to important information	POSSIBLE If request is substantiated by data	LIKELY* If request is reasonable	POSSIBLE If a leader is arrogant, secretive, or manipulative
Reward power	Capacity to provide valued	POSSIBLE If used in a subtle, very	LIKELY* If used in a mechanical,	POSSIBLE If used in a manipulative,

	rewards	personal way	impersonal way	arrogant way
Coercive power	Ability to punish	VERY UNLUKELY	POSSIBLE If used in a helpful, nonpunitive way	LIKELY* If used in a hostile or manipulative way

*- indicates most common outcome.

18.3. Developing Situational Theories

Although they attempted to identify effective leader's behaviors that would work in every situation, the various researchers pursuing the behavioral view of leadership eventually found that leader behaviors that worked well in one situation were often not as effective in another situation. As a result, the researchers began developing theories of leadership that take into consideration important situational factors. Such approaches are called situational theories because of their situational emphasis. They are also often called *contingency theories* of leadership because they hold that appropriate leader's traits or behaviors are *contingent*, or dependent, on relevant situational characteristics. Since there are potentially many situational factors that could influence the effectiveness of leaders, several different situational approaches have evolved. Among the most prominent are Fiedler's contingency theory and his recent revision called cognitive resource theory, Hersey and Blanchard's situational theory, the revised normative leadership model, and path-goal theory.

18.4. Fiedler's Leadership Theories

Arguably the most well known of the situational approaches is Fiedler's contingency model, originally developed by the leadership researcher Fred Fiedler and his associates. We first explore various aspects of his contingency model and then consider a recent revision and extension called cognitive resource theory.

18.4.1. Contingency Theory

The LPC Scale. A cornerstone of the contingency model is a leader's LPC orientation, a personality trait measured by the least preferred coworker (LPC) scale. The LPC scale consists of 18 (originally 16) sets of bipolar adjectives. A leader is asked to describe the "person with whom [he or she] can work least well" by rating the person on a range of 1 to 8 points for each set. An example of one of the sets is

Pleasant ____: ____: ____: ____: ____: ____: ____: ____ Unpleasant

Although the scale and its precise meaning have been controversial and have undergone changes, the most recent interpretation by Fiedler and his colleagues is that the LPC score measures a motivational hierarchy indicating the

extent to which an individual places a higher priority, or value, on task accomplishment rather than on personal relationships. According to this interpretation, if a leader describes the least preferred coworker in relatively negative terms on the LPC scale, the leader is likely to be task-motivated and inclined to complete the task, because workers willingly follow. When the situation is only moderately favorable, either because of poor leader-member relations or an unstructured task, a supportive, relationship-oriented leader can help smooth over relations with group members or provide support as the group seeks to cope with an unstructured task.

		Decreasing Situational Favorability Control							
Elements of situation	Leader-member relations	Good				Poor			
	Task structure	High		Low		High		Low	
	Position Power	Strong	Weak	Strong	Weak	Strong	Weak	Strong	Weak
Octant		1	2	3	4	5	6	7	8
		Mismatch	Mismatch	Mismatch	Match	Match	Match	Match	Mismatch
		Match	Match	Match	Mismatch	Mismatch	Mismatch		Match

The contingency model helps us understand why a leader who is doing well can run into trouble. For example, when Thomas F. Faught, Jr., became president and CEO of the Dravo Corporation, an international engineering and construction company, he helped reverse 3 years of losses, sell off unprofitable businesses, and get the company moving in a better direction. Chosen for his ability to shrink the company, he made tough decisions and gave orders, but subordinates sometimes complained that the orders were contradictory. In the process, he alienated a number of employees—and was finally fired by the board of directors. Although Faught may have been a bit heavy-handed with his task approach, he was successful in getting results in an unfavorable situation. As the situation started to improve somewhat, the board felt that a more relationship-oriented approach was needed.

Fiedler believes that managers cannot easily change their LPC orientation or management style. As a result, he argues that when a leader's LPC orientation and a situation do not constitute a good match in terms of likely effectiveness, the situation should be changed or possibly the individual should move to a situation in which there is a good match. He calls this approach "engineering the job to fit the manager." Following this line of argument, perhaps Faught should specialize in turnarounds and plan to move on as each situation improves.

The contingency model has been severely criticized because of the changing interpretation of the LPC scale and the lack of clarity about exactly how LPC orientation translates into behaviors that are successful in the various octants. Critics have also pointed to confusion about how managers should actually assess the degree of favorability, or situational control, and cited studies

that have questioned findings for various octants of the model. Despite these criticisms, recent sophisticated analyses of various studies have found considerable support for the model. However, these analyses suggest that there are other factors also at work that are not accounted for in the contingency model.

19. Control as a Management Process

Like their McDonald's counterparts, managers in other organizations also face important issues related to the function of controlling. **Controlling** is the process of regulating organizational activities so that actual performance conforms to expected organizational standards and goals. As the definition suggests, controlling means that managers develop appropriate standards, compare ongoing performance against those standards, and take steps to ensure that corrective actions are taken when necessary. Since most aspects of organizations ultimately depend on human behavior, controlling is largely geared toward ensuring that organization members behave in ways that facilitate the reaching of organizational goals. Thus, controls both highlight needed behaviors and discourage unwanted behaviors. For instance, during their 2-year training program, management trainees preparing to become McDonald's franchisees work their way through a thick guide that spells out various aspects of what to do and not do in properly running a McDonald's outlet.

19.1. Significance of the Control Process

As you might expect, the controlling function is closely allied to the other three major functions of management: planning, organizing, and leading. It builds most directly on the planning function by providing the means for monitoring and making adjustments in performance so that plans can be realized. Still, controlling also supports the organizing and leading functions by helping ensure that resources are channeled toward organizational objectives. For example, feedback from the control process might signal the need to reorganize, provide more training to workers, clarify communications, increase leadership influence, or take other actions associated with the respective organizing and leading functions. For instance, after detecting a shortage of workers who could assume some supervisory responsibilities, six McDonald's restaurants in Fairfax, Virginia, have been experimenting with a training program to teach English to workers who have management potential but speak little English.

As part of the control process, managers set up control systems. A control system is a set of mechanisms that are designed to increase the probability of meeting organizational standards and goals. Control systems can be developed to regulate any area that a manager considers important, such as quantity produced, resources expended, profit margins, quality of products or services, client satisfaction, timeliness of deliveries, or specific activities that are performed in producing a product or service.

For example, McDonald's has a 19-step procedure that workers must rigidly follow when they are cooking and bagging French fries. Local managers are expected to ensure that employees prepare and bag French fries in accordance with these steps so that the French fries will conform to McDonald's standards. This procedure also is one of the operations that corporate evaluation teams check during their unannounced inspections of outlets. Thus, the local managers, the corporate evaluation teams, and the standards embodied in the procedure form part of a control system aimed at achieving consistently good French fries at all McDonald's outlets.

19.2. Role of Controls

In evaluating the role of controls, it is useful to consider what can happen when controls are inadequate. Worlds of Wonder, Inc., a producer of exotic toys for children, went from being a Wall Street sensation to bankruptcy protection within 2 years, mainly because of poor controls. You may have heard of some of its more famous toys, such as the popular \$80 talking Teddy Ruxpin or the \$100 intelligent Julie doll that reads. For all the wizardry incorporated in its toys, the company (often known as "WOW") lacked the control systems needed to ensure that its products would reach retailers when required. Either the company could not produce enough of a popular product or deliveries were too late to generate substantial sales. In one case, the company spent heavily on promoting Lazer Tag (a game in which players tag each other using infrared light beams), generated enormous demand for the toy, but then could not produce it in sufficient quantities. In another situation, a line of school products reached retailers too late to produce significant back-to-school sales. The toys also sometimes had serious quality shortcomings. For example, the talking Teddy Ruxpin bears exhibited mechanical problems that resulted in the return of almost 20 percent of them by dissatisfied customers.

19.3. Control Process

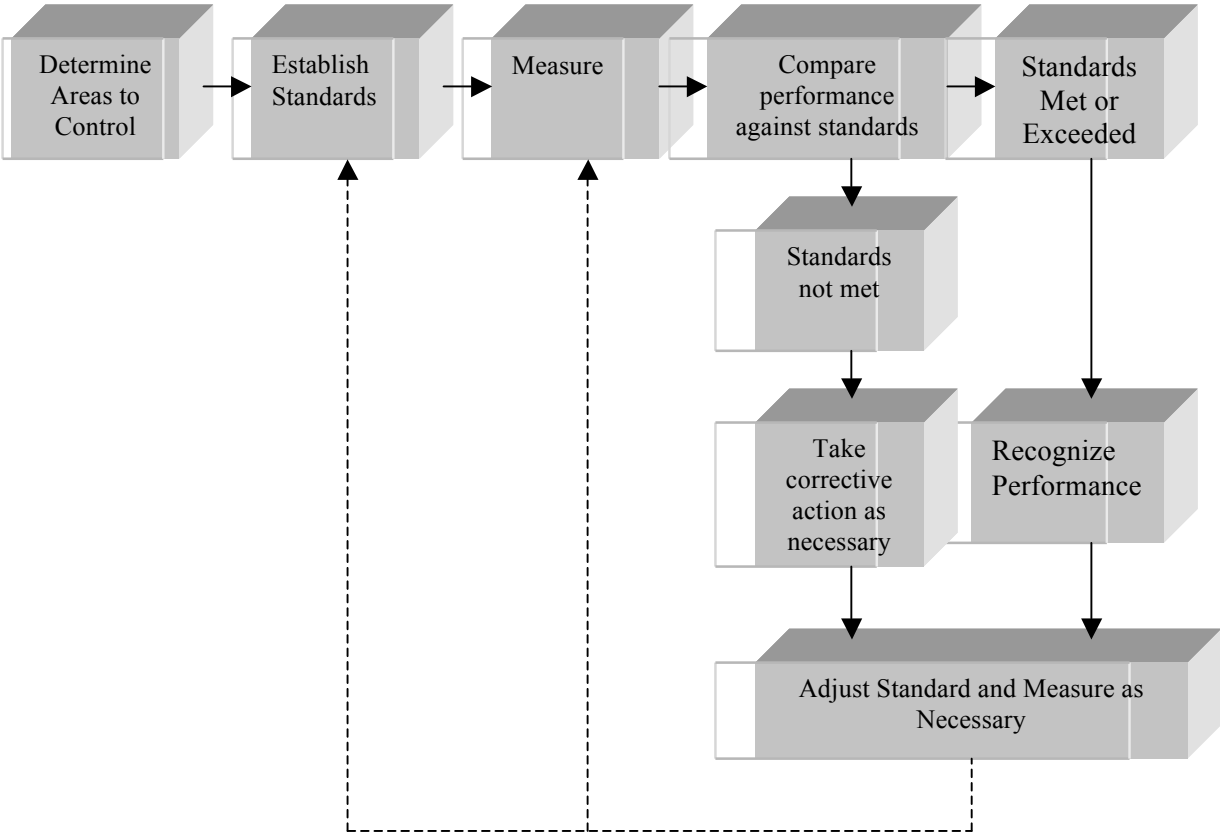
Although control systems must be tailored to specific situations, such systems generally follow the same basic process. In this section, we first consider the steps in the control process and then examine more closely the issues related to deciding what to control.

19.3.1. Steps in the Control Process

The basic process used in controlling is shown in the Figure below. The process has several major steps.

Determine areas to Control. The first major step in the control process is determining the major areas to control. Managers must make choices because it is expensive and virtually impossible to control every aspect of an organization's activities. In addition, employees often resent having their every move controlled. Managers usually base their major controls on the organizational goals

and objectives developed during the planning process. For example, Briggs & Stratton, the maker of small, four-cycle, air-cooled engines used on lawn mowers, has been focusing heavily on market share since the company began to face serious Japanese competitors. The company has been raising advertising budgets, increasing research and engineering funding, and lowering production costs in an effort to regain and maintain its former market share of more than 50 percent. The company, of course, is monitoring other indicators as well.



19.4. Characteristics of an Effective Control System

Effective control systems have certain characteristics. They form a checklist for assessing control systems that are being designed or are in operation.

Future-Oriented. To be effective, control systems need to help regulate future events, rather than fix blame for past events. A well-designed control system focuses on letting managers know how work is progressing toward unit objectives, pinpointing areas in which future corrective action is needed, and uncovering unforeseen opportunities that might be developed—all aids to future action.

Multidimensional. In most cases, control systems need to be multidimensional in order to capture the major relevant performance factors. For example, the GM assembly plant in Fisherville, Missouri, mentioned earlier,

would quickly run into difficulty if it focused only on quantity without concern for other issues, such as quality, scrap rate, and overhead.

Cost-Effective. The cost of controls is an important consideration. One major control factor at McDonald's is clean rest rooms. The company manual specifies how often the rest rooms must be cleaned, and there are provisions for both the outlet manager and the company inspection teams to check this factor. Still, McDonald's could control rest-room cleanliness even further by dedicating one person at each outlet to do nothing but ensure cleanliness. The costs of doing so, however, may well be greater than the benefits to be derived from the additional controls, since McDonald's already has one of the best reputations in the industry for cleanliness. Essentially, the benefits should outweigh the costs.

Accurate. Since controls provide the basis for future actions, accuracy is vital. Control data that are seriously inaccurate may be worse than no controls at all, since managers may make poor decisions on the basis of faulty data that they believe to be accurate.

Realistic. Control systems should incorporate realistic expectations about what can be accomplished. Otherwise, employees are likely to view the control system as unreasonable and may ignore or even sabotage it.

Timely. Control systems are designed to provide data on the state of a given production cycle or process as of a specific time, for example, a monthly sales report, a weekly update on a project, a daily production report, or quality inspections on a production line. In order for managers and employees to respond promptly to irregularities, control systems must provide relevant information soon enough to allow corrective action before there are serious repercussions.

Monitorable. Another desirable characteristic of control systems is that they can be monitored to ensure that they are performing as expected. One way of checking a control system is to deliberately insert an imperfection, such as a defective part, and then observe how long it takes the system to detect and report it to the correct individual. Obviously, it is important to keep close tabs on the test to be sure that the imperfection does not cause significant difficulties if the control system fails (as in, e.g., a test of maintenance quality for airplanes). Other methods of monitoring control systems are by conducting audits of various kinds.

Acceptable to Organization Members. Control systems operate best when they are accepted by the organization members who are affected by them. Otherwise, members may take actions to override and undermine the controls. Control systems are apt to be accepted when they focus on important issues that are compatible with organizational goals, when they provide useful data to various levels, when the data collected give a fair and accurate picture of employee performance, and when the emphasis is on using the data for making improvements (as opposed to setting blame).

Flexible. Just as organizations must be flexible to respond rapidly to changing environments, control systems need to be flexible enough to meet new

or revised requirements. Accordingly, they should be designed so that they can be changed quickly to measure and report new information and track new endeavors.

19.5. Quality control

While budgetary control and financial control typically receive considerable emphasis in most organizations, the issue of quality control is currently receiving greater attention than in the past. A major reason is that a number of companies based in Japan and elsewhere are making serious inroads into U.S. and global markets by offering products and services of superior quality. As a result, in one recent Gallup poll, top executives of major U.S. companies rated improvements in service quality and product quality as the most critical challenge currently facing their companies.

Although quality has been defined in many ways, the American Society for Quality Control offers this standard definition: **Quality** is “the totality of features and characteristics of a product or service that bear on its ability to satisfy stated or implied needs”. This definition recognizes that quality can involve every aspect of a product or service, that quality affects the ability of a product or service to satisfy needs, and that customer needs for quality may not always be explicitly stated. In examining the issue of quality and the need for quality control, we explore the strategic implications of quality, the concept of total quality control, quality circles and related recent developments, and statistical aids to quality control.

19.5.1. Strategic Implications of Quality

Quality expert David A. Garvin argues that quality can be used in a strategic way to compete effectively. Choosing an appropriate quality strategy, though, depends on a thorough understanding of the important dimensions of quality. As a result, we first explore these dimensions before considering the issue of how to compete through quality.

Eight Dimensions. There are eight dimensions of quality that are important from a strategic point of view.

Performance involves a product's primary operating characteristics. For an automobile, performance would include acceleration, braking, handling, and fuel usage. In service industries, such as fast-food restaurants, airlines, or hotels, performance is apt to mean prompt service.

Features are supplements to the basic functioning characteristics of the product or service. Examples include complimentary newspapers for hotel guests, extra options on auto focus cameras, or stereo tape decks in automobiles.

Reliability addresses the probability of a product's not working properly or breaking down altogether within a specific period. Since a significant period of usage is typically involved in assessing reliability, this quality dimension does not apply as readily to products and services that are used immediately. Reliabil-

ity is becoming increasingly important, particularly for major items such as home appliances. For example, when General Electric introduced its new Space Center 27 refrigerator with crushed-ice and cold-water dispensers on the door, it had a revolutionary new rotary compressor that provided the cooling. Unfortunately, some of the new compressors failed, particularly in warm-weather states such as Florida. While working to resolve the bugs in the new compressor, GE took the expensive steps of switching back to the usual reciprocating compressor used by the competition and replacing compressors in refrigerators already sold. The company did not want to ruin its carefully cultivated reputation for quality.

Conformance refers to the degree to which a product's design or operating characteristics conform to preestablished standards. Typically, products and services are developed with some standards or specifications in mind. For instance, when the Michigan-based Van Dresser Corporation showed Toyota engineers a new prototype part designed for use in Toyota's Kentucky automobile plant, one Toyota engineer got "down on his hands and knees measuring the gap" between the automobile's steel door frame and the interior panel by Dresser. The engineer said, "Look, the gap is a millimeter too wide." Van Dresser retooled the mold that produced the panel.

Durability is a measure of how much use a person gets from a product before it deteriorates or breaks down to such a point that replacement makes more sense than continual repair. For instance, one study conducted in the early 1980s indicated that durability for major home appliances varied widely, ranging from 5.8 to 18 years for washing machines and from 6 to 17 years for vacuum cleaners.

Serviceability refers to the promptness, courtesy, proficiency, and ease of repair. In a Florida Power & Light Company push for quality, the utility has developed a number of unique computer programs, one of which geographically groups customer complaints about blackouts. After comparing the location of the customers against service routes, the computer system automatically figures out whether the problem is a downed line, disabled transformer, or blown household fuse. The system has helped FP&L cut the average duration of blackouts from 70 minutes to 48.

Aesthetics refers to how a product looks, feels, sounds, tastes, or smells—all subjective issues highly dependent on personal judgment and preference. For example, Herman Miller, Inc., an office furniture maker, places a great deal of emphasis on ensuring that its products are artistically attractive and functional.

Perceived quality refers to individuals' subjective assessments of product or service quality. Such assessments may be based on incomplete information, but often it is perceptions that count with customers. Ironically, Honda, which produces cars in Marysville, Ohio, and Sony, which makes television sets in San Diego, have been reticent about noting that their products are "made in Amer-

ica" because of fears that the products will be perceived as lower in quality than counterparts made in Japan.

19.5.2. Competing on Quality.

While some dimensions of quality reinforce one another, others do not. For example, adding more features often will reduce reliability, while aesthetics sometimes interferes with durability. As a result, organizations do not usually attempt to compete through exceptionally high quality on all dimensions simultaneously. In fact, competing on all eight dimensions is usually not possible without charging very high prices. For example, a few products that probably do rank high on all eight dimensions, such as Cross pens, Rolex watches, and Rolls Royce automobiles, cost premium prices.

Instead, companies often must make trade-offs. For example, Cray Research, a manufacturer of high-speed supercomputers, found that it was not possible to build its computers for maximum speed without accepting the fact that the machines would likely fail every month or so (a sacrifice of reliability). Similarly, Japanese automobile manufacturers marketing in the United States often highlight the reliability (low repair rates) and conformance (good fits of parts and smooth finishes) of their cars, while de-emphasizing the limited options in the features category.

In pursuing quality as a competitive advantage, then, most companies choose a quality niche rather than attempt to emphasize all eight dimensions simultaneously. Not surprisingly, choosing a quality niche that customers consider important is critical. After deregulation, AT&T assumed that customers equated expensive features with quality in telephones, but actually durability and reliability proved to be more important. Of course, another crucial issue is actually delivering the intended level of quality, once it has been decided upon.

19.6. Total Quality Control

To improve quality, a number of organizations, such as Xerox and Corning, are adopting a quality stance known as total quality control. Total quality control (TQC) is a quality control approach that emphasizes organizationwide commitment, integration of quality improvement efforts with organizational goals, and inclusion of quality as a factor in performance appraisals. In essence, it highlights collective responsibility for the quality of products and services. It also encourages individuals in different, but related, departments (such as product design and manufacturing) to work together to improve quality.

Total quality control represents a change in the way quality is perceived. The traditional approach thinks of quality in terms of the degree of deviation from standards that is deemed allowable for products and services. Speaking of U.S. suppliers, Osamu Nobuto, president of Mazda Motor Manufacturing, the U.S. unit of the Mazda Motor Corporation, complains, "It often seems that if something is 90 percent right, there is a tendency to believe that further im-

provement is either unnecessary or not worth the extra effort". In contrast, the total quality control approach is aimed at achieving **zero defects**, a quality mentality in which the work force strives to make a product or service conform exactly to desired standards.

Although Japanese companies are generally credited with pioneering total quality control, the roots of the concept actually originated in the United States. American quality control expert W. Edwards Deming took his ideas on statistical methods for improving quality to Japan in the late 1940s after they were ignored in the United States. He also promoted the concept of involving employees and various units throughout the organization in the quality effort, and he developed 14 management points that portray his overall philosophy. His ideas were embraced by Japanese companies, eager to rebuild after World War II. In fact, his contributions were so well appreciated that the Japanese established the Deming prize, a coveted annual award for excellence in quality control. In the 1950s, another American quality expert, J. M. Juran, also helped Japanese companies develop their total quality control efforts. For some ideas about how to improve quality in organizations, see the Practically Speaking discussion, "Deming's 14 Points on How to Improve Quality."

An important aspect of TQC is its emphasis on the cost of quality, the cost of not doing things right the first time. According to one estimate, the typical U.S. factory spends between 20 and 25 percent of its operating budget on finding and fixing mistakes. Quality experts argue that if just some of these funds were spent on prevention, the number of mistakes requiring fixing (and the associated costs) could be substantially lowered. Dow Chemical USA credits its 5-year quality improvement effort with saving \$100 million in operating costs. Other examples of benefits from total quality efforts include a 60 percent reduction in scrap and rework at Harley-Davidson, a 69 percent cutback in customer returns at Westinghouse's semiconductor division, and savings of more than \$52 million in 60 days at AT&T by eliminating errors in service documents. A total quality effort also has paid off handsomely for Spectrum Control, Inc.

Deming's 14 points on how to improve quality

In the course of his work, Deming developed 14 management points that summarize what he believes managers, especially at the upper levels, must do to produce high-quality products:

1. Make a long-term commitment to improve products and services, with the aim of becoming competitive, staying in business, and providing jobs.

2. Adopt the new philosophy of concern for quality. We are in a new economic age. Western management must awaken to the challenge, learn its responsibilities, and take on leadership for change.

3. Cease dependence on mass inspection to achieve quality; build quality into the product in the first place.

4. End the practice of awarding business on the basis of price tag. Instead, minimize total cost. Move toward a single supplier for any one item, and build a long-term relationship of loyalty and trust.

5. Constantly improve the system of production and service so that quality and productivity also constantly improve and costs decrease.

6. Institute training on the job.

7. Institute leadership. The aim of supervision should be to help people and machines and gadgets do a better job.

8. Drive out fear so that everyone may work effectively for the company.

9. Break down barriers between departments so that people work as a team.

10. Eliminate slogans, exhortations, and targets that ask the work force for zero defects and new levels of productivity. Such exhortations only create adversarial relationships because most of the causes of low quality and low productivity can be traced to the system of production and thus lie beyond the power of the work force.

11. Eliminate work standards (quotas) and the use of numerical goals on the factory floor. Substitute leadership instead.

12. Remove barriers that rob workers of the right to take pride in their work. Change the emphasis from sheer numbers to quality.

13. Institute a vigorous program of education and self-improvement.

14. Put everybody in the organization to work on accomplishing the transformation. The transformation is everybody's job.

20. The Nature of Managerial Communication

Communication is an exchange of messages between people for the purpose of achieving common meanings. Unless common meanings are shared, managers find it extremely difficult to influence others. For example, in looking back at his efforts to revitalize General Motors, former CEO Roger Smith says that he would make the same decisions again regarding the implementation of major changes to rebuild the company for global leadership in the twenty-first century. But, says Smith: "I sure wish I'd done a better job of communicating with GM people. I'd do that differently a second time around and make sure they understood and shared my vision for the company. Then they would have known why I was tearing the place up, taking out whole divisions, changing our whole production structure. If people understand the *why*, they'll work at it. Like I say, I never got all this across. There we were, charging up the hill right on schedule, and I looked behind me and saw that many people were still at the bottom, trying to decide whether to come along. I'm talking about hourly workers, middle management, and even some top management. It seemed like a lot of them had gotten off the train".

As Smith's predicament illustrates, communication is a critical part of every manager's job. Without effective communication, even the most brilliant strategies and best-laid plans may not be successful. As a result, it is not surprising

that high-level executives, as well as managers at other levels, often mention effective communication skills, both oral and written, as crucial elements for managerial success.

20.1. Types of Communication

In their work, managers use two major types of communication: verbal and nonverbal. Each type plays an important part in the effective transmission of messages within organizations.

20.1.1. Verbal Communication.

Verbal communication is the written or oral use of words to communicate. Both written and oral communications are pervasive in organizations.

Written communication occurs through a variety of means, such as business letters, office memorandums, reports, résumés, written telephone messages, newsletters, and policy manuals. In many cases, considerable time and effort are expended in preparing written communications. According to several estimates, the cost of producing a single letter or memo has risen to more than \$7, with one recent estimate placing the figure as high as \$25 for the average memo. Yet one study of 800 randomly selected letters from a variety of industries indicates that written business correspondence suffers from significant deficiencies in such areas as proper word usage, clear sentence construction, and precision. A related study shows that more than 80 percent of managers judge the quality of the written communications they receive as either fair or poor. They also did not give themselves very high grades, with 55 percent describing their own writing skills as fair or poor.

Despite some possible shortcomings in writing skills, written communication generally has several advantages over oral communication. Written communication provides a record of the message, can be disseminated widely with a minimum of effort, and allows the sender to think through the intended message carefully. Written communication also has several disadvantages, including the expense of preparation, the relatively impersonal nature of written communications, possible misunderstanding by the receiver, and the delay of feedback regarding the effectiveness of the message.

In contrast to written communication, oral communication, or the spoken word, takes place largely through face-to-face conversations with another individual, meetings with several individuals, and telephone conversations. Oral communication has the advantage of being fast, is generally more personal than written communication, and provides immediate feedback from others involved in the conversation. Disadvantages include the fact that oral communication can be time-consuming, can be more difficult to terminate, and requires that additional effort be expended to document what is said if a record is necessary.

Given the advantages and disadvantages of written and oral communication, it is not surprising that both types of verbal communication are used by

managers. Later in this chapter we'll give further consideration to managerial preferences for written and oral communication. First, though, we consider another type of communication that is important to managers.

20.1.2. Nonverbal Communication.

Nonverbal communication is communication by means of elements and behaviors that are not coded into words. Studies estimate that nonverbal aspects account for between 65 and 93 percent of what gets communicated. It is interesting that, it is quite difficult to engage in verbal communication without some accompanying form of nonverbal communication. Important categories of nonverbal communication include kinesic behavior, proxemics, paralanguage, and object language.

Kinesic behavior refers to body movements, such as gestures, facial expressions, eye movements, and posture. We often draw conclusions regarding people's feelings about an issue, not only from their words but also from their nonverbal behavior, such as their facial expressions.

Proxemics refers to the influence of proximity and space on communication. For example, some managers arrange their offices so that they have an informal area where people can sit without experiencing the spatial distance and formality created by a big desk. Another example of proxemics, which you have probably experienced, is that you are more likely to get to know students whom you happen to sit near in class than students who are sitting in other parts of the room.

Paralanguage refers to vocal aspects of communication that relate to how something is said rather than to what is said. Voice quality, tone of voice, laughing, and yawning fit in this category.

Object language refers to the communicative use of material things, including clothing, cosmetics, furniture, and architecture. If you have prepared a job resume lately, you probably gave some thought to the layout and to the type of paper on which you wanted your resume printed—nonverbal aspects of your communication about yourself and your credentials. Nonverbal elements form an important part of the messages that managers communicate.

20.2. Basic Components of the Communication Process

A look at the basic components of the communication process helps one appreciate the challenge of effective communication in organizations.

Sender. The sender is the initiator of the message. Messages are usually initiated in response to an outside stimulus, such as a question, a meeting, an interview, a problem, or a report. The stimulus triggers a need or desire for the sender to communicate, or an attempt to achieve a common meaning, with an individual or group.

Encoding. Before the message exchange can take place, however, the sender must engage in encoding, the process of translating the intended meaning

into symbols. Translation must occur because we cannot transmit our intended meanings directly to another individual without the use of symbols, such as words and gestures. The sender's choice of symbols will depend upon such factors as sender encoding skills, assessments of the ability of the intended receiver to understand various symbols, judgments regarding the appropriateness of the use of certain symbols, past experience in similar situations, job status, education, and emotional state at the time of the communication attempt.

For example, since Americans often do not speak foreign languages, they frequently fail to recognize the problems that the idioms and regional sayings in English conversation cause individuals for whom English is a second language. Hence they do not consider such factors in the encoding process. Jarold Kieffer, chairman of Senior Employment Resources, a not-for-profit organization in Annandale, Virginia, that helps individuals find employment, noticed the puzzled looks that sometimes appear on the faces of foreign-born clients. Still, he did not recognize the magnitude of the communication problem until he asked one of his counselors who is Vietnamese to help him move a table. "Give me a hand, will ya?" said Kieffer. The bewildered counselor looked at his hands and exclaimed, "But I need them both." Since then, Kieffer has prepared a pocket-size book of common phrases, such as "foot the bill," "dyed-in-the-wool," and "go fly a kite," to help foreign-born job seekers. Of course, similar problems often occur in international business communications, in which one or more participants may be conversing in other than his or her native language. Interpreters may even be involved, raising the prospects for encoding problems because additional individuals must engage in encoding as part of the communication process.

Message. The outcome of the encoding process is a message consisting of the verbal (oral or written) and nonverbal symbols that have been developed to convey meaning to the receiver. The medium is the method used to convey the message to the intended receiver. Examples include written words in a memo, spoken words over the telephone, graphics on a slide, and gestures in face-to-face situations. The sender of a message must consider the appropriateness of the medium. For example, a telephone call may be an effective means of resolving a conflict over a minor item, but a face-to-face meeting may be more appropriate for negotiating a major change in a project. Advantages and disadvantages of common communication methods in organizations are shown in Table 14.

Receiver. The receiver is the person with whom the message is exchanged. If no exchange takes place (i.e., the receiver does not receive the message), then there has been no communication. There may be one receiver of the message, as in a conversation between two individuals, or many receivers, as in the case of a report sent to various members of the organization. Unintended receivers also can emerge if they overhear our private conversation or read our mail.

Decoding. When the message is received, the receiver engages in decoding, the process of translating the symbols into the interpreted message. When the

communication is effective, the sender and the receiver achieve a common meaning. However, the decoding process may result in misunderstandings of the message if the receiver does not decode the message as the sender intended. For example, because the Vietnamese counselor at Senior Employment Resources attempted to translate Kieffer's request ("Give me a hand") literally, there was no shared meaning. In the decoding process the receiver may also consider both the medium and various aspects of the context in which the communication takes place. For example, we are likely to attribute a different meaning to a message relayed from the boss by telephone to our home at 2 a.m. than to the same message uttered casually in the cafeteria line.

Table 14. Advantages and Disadvantages of Common Communication Methods

Method	Advantages	Disadvantages
Telephone	Verbally fast Permits questions and answers Convenient Two-way flow Immediate feedback	Less personal No record of conversation Message might be inconvenient May be impossible to terminate
Face-to-face	Visual Personal contact Can "show" and "explain" Two-way flow Immediate feedback	Timing may be inconvenient Requires spontaneous thinking May not be easy to terminate Power or status of one person May cause pressure
Meeting	Can use visuals Involves several minds at once Two-way flow	Time-consuming Timing may be inconvenient One person may dominate the group
Memorandum	Brief Provides a record Can prethink the message Can disseminate widely	No control over receiver Less personal One-way flow Delayed feedback
Formal report	Complete, comprehensive Can organize material at writer's leisure Can disseminate widely	Less personal May require considerable time in reading Language may not be understandable Expensive One-way flow Delayed feedback

Noise. Noise is any factor in the communication process that interferes with exchanging messages and achieving common meaning. Noise can range from interruptions while the sender is encoding to static on telephone lines as a mes-

sage is being transmitted and to fatigue on the part of the receiver while decoding takes place. Thus, noise can occur during any stage of the communication process, and it has the effect of reducing the probability of achieving common meaning between senders and receivers.

Feedback. Feedback is the basic response of the receiver to the interpreted message. This feedback response involves a reversal of the communication process so that the receiver now becomes the sender and the sender becomes the receiver. Feedback provides preliminary information to the sender about the success of the communication process. It often takes further loops through the communication process to establish that the sender and receiver have been successful in communicating effectively—achieving common meaning. Without feedback, managers have difficulty assessing the effectiveness of their communication attempts.

When the communication process does not allow for feedback, it is called one-way communication. Memos, newsletters, and announcements often are examples of one-way communication—at least when they do not explicitly provide for feedback from those to whom the message is directed. When managers do not build means for immediate feedback into the communication process, they run the risk that the intended message will not be understood by the receiver. With one-way communication, they might not find out about miscommunications until it is too late to correct them.

Conversely, when the communication process explicitly includes feedback, it is called two-way communication. Two-way communication has a better chance of resulting in a reasonably accurate exchange of common meaning. Still, effective two-way communication requires that careful attention be paid to the communication process, particularly if several layers of the organization are involved in the message transmission. One reason for this is that each additional link adds to the possibility that the encoding and decoding processes and/or noise will distort the information. Another is that subordinates are often reluctant to provide negative information to upper layers of the hierarchy because they fear that they will be criticized. As a result, managers need to expend considerable effort to obtain accurate information even with two-way communication, as top management at Ashland Oil learned when a serious difficulty turned into a crisis.

Listening Skills. As the earlier discussion of the communication process suggests, receivers need to expend considerable effort to be sure that they have decoded and interpreted the message that the sender intended. Since managers rely heavily on the information inputs that they receive from oral communication, their listening skills are particularly crucial. Experts on listening often differentiate between listening that is relatively passive, in the sense of following the general gist of the words being spoken, and listening that is active. Active listening is the process in which a listener actively participates in attempting to grasp the facts and the feelings being expressed by the speaker.

Active listening for both the content and the feelings is important in understanding the total meaning of the message. Managers leave themselves at a disadvantage when they are not good listeners. For example, they may have difficulty in negotiations because they cannot assess what the other person truly wants or might accept. If managers tend not to listen, they also may discourage subordinates from bringing problems to their attention. Finally, without good listening skills, managers may have difficulty in a crisis, when it is important to size up situations quickly. For some guidelines on enhancing your listening skills, see the Practically Speaking discussion, "How to Listen Actively."

How to listen actively

The following guidelines will help you be an active listener.

1. Listen patiently to what the other person has to say, even though you may believe it is wrong or irrelevant. Indicate simple acceptance (not necessarily agreement) by nodding or injecting an occasional "um-hm" or "I see."

2. Try to understand the feeling the person is expressing, as well as the intellectual content. Most of us have difficulty talking clearly about our feelings, so careful attention is required.

3. Restate the person's feeling, briefly but accurately. At this stage, simply serve as a mirror and encourage the other person to continue talking. Occasionally make summary responses, such as "You think you're in a dead-end job" or "You feel the manager is playing favorites"; but in doing so, keep your tone neutral and try not to lead the person to your pet conclusions.

4. Allow time for the discussion to continue without interruption, and try to separate the conversation from more official communication of company plans. That is, do not make the conversation any more "authoritative" than it already is by virtue of your position in the organization.

5. Avoid direct questions and arguments about facts; refrain from saying "That's just not so," "Hold on a minute, let's look at the facts," or "Prove it." You may want to review evidence later, but a review is irrelevant to how a person feels now.

6. When the other person does touch on a point you do want to know more about, simply repeat his or her statement as a question. For instance, if the person remarks, "Nobody can break even on his expense account," you can probe by replying, "You say no one breaks even on expenses?" With this encouragement, he or she will probably expand on the previous statement.

7. Listen for what isn't said— evasions of pertinent points or perhaps too-ready agreement with common clichés. Such omissions may be clues to a bothersome fact the person wishes were not true.

8. If the other person appears genuinely to want your viewpoint, be honest in your reply. But in the listening stage, try to limit the expression of your views, since these may condition or suppress what the other person says.

9. Focus on the content of the message; try not to think about your next statement until the person is finished talking.
10. Don't make judgments until all information has been conveyed.

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Anatoly N. Dreval
Marina V. Mitrofanova

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