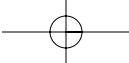


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CHAPTER 1

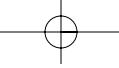
ORGANIZATIONAL EXPECTATIONS AND PROFESSIONALISM

*Whether you think you can
or whether you think you can't,
you are right.
Henry Ford*

OBJECTIVES

After studying this chapter, you should be able to

- Understand an organization's expectations
- Understand the components of an employee assessment
- Understand the elements of professionalism



INTRODUCTION

Among the characteristics of the business environment during the 1990s were rampant technical innovation, a global economic perspective, a free market, and a requirement for continuous employee learning. The 21st century began with the lowest unemployment rate in 30 years (4.1%). African-American and Hispanic workers had the lowest rates (8% and 6.4%, respectively) since the Labor Department began breaking out statistics.¹ Even during those good times, layoffs, downsizing, restructuring, and de-layering occurred due to numerous corporate mergers and reorganization. To ensure quarterly sales growth and regular profit increases, organizations focused on productivity. The economy then cooled down in 2001, when telecommunications, Internet, data-processing, dot-com and other companies slashed their workforces. A good example of this can be seen on the Washtech.com Technology Layoffs Watch Website at http://www.washtech.com/specialreports/layoffs_bydate.html. Unemployment has since risen. Knowledge-workers who maintained necessary skills kept their jobs. Others survived on a mixture of part-time and contract work. Those who didn't update their knowledge base had difficulty obtaining employment. The lesson is clear: People *must* take responsibility for *continuously* managing their careers.

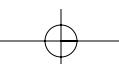
Business and industry provides a service or a product to both internal and external customers and exists not only to make money, but also to make a profit. Today's corporations require employees who are responsive to a customer's needs and who will *delight* the customer while maintaining sensitivity to the bottom line. Table 1-1 compares the forces and factors confronting modern corporations and employees with those of several years ago.

Corporations now move quickly through uncharted waters, proceeding toward a defined corporate mission, but frequently making seemingly chaotic excursions from their goals. Employees must empower themselves and embark on lifelong journeys to update skills and pursue opportunities that will help them meet professional objectives. Maintaining accountability to oneself increases one's value to a corporation. Demanding new work experiences, requesting challenges, and developing new skills makes for a more valuable employee. Paradoxically, the selfish attitude of looking out for "number one" makes the employee a valuable resource for the company.

EMPLOYER EXPECTATIONS: TECHNICAL COMPETENCE, ATTITUDE, COMMUNICATION, AND TEAMWORK (TACT)

Consider the position of a corporation's chief executive officer (CEO). Suppose a company has merged with another, resulting in the duplication of some jobs and services. Keeping every person employed in the newly formed company

¹ Stevenson, R. W., "Growth in jobs at end of year beats estimates," *The New York Times* (January 8, 2000): A1.



ORGANIZATIONAL EXPECTATIONS AND PROFESSIONALISM

TABLE 1-1

Forces and Factors Confronting Corporations and Employees

	Traditional	Modern
Corporations	Long-term profits Insulated Hierarchical Parent Rich Thorough Stable	Immediate profits! Quarter-to-quarter earnings growth Competitive Flat: fewer managers Employer Lean: fewer employees, but employees who do more, increased employee responsibility Fast and good Changing, hectic, chaotic, turbulent
Employees	Specialized talents Dependent Comfortable Loyal to company Entitled Learn and then earn	Broad capabilities Empowered Stressed Loyal to self Accountable Learn to earn: lifelong learning

Adapted from Goldman (<http://www.asee.org/assessments/html/goldman.htm>)

represents an unacceptable expenditure of funds. Stockholders demand profits and expect increased employee productivity because of the merger, so the company decides to reduce its workforce by five percent. What guidelines should be proposed to managers in order to help them decide whom to lay off?

Technical competence, attitude, communication, and teamwork (TACT) together define four categories of employer expectations. (See Figure 1-1 for a complete description.) Technical competence would probably be most people's first choice on the list of important employee capabilities. Every employee must have the unique training, knowledge, and skills required to perform assigned tasks. Does the person have up-to-date skills? If not, he or she is out the door. Attitude, communication, and teamwork skills complete the set. Employers want a reliable person who will come to work with a positive, can-do attitude. Following the conclusion of a task, supervisors and managers expect employees to move onto the next activity without having to be coaxed to do so.

Some time ago, a newspaper advertised for Web masters and Web designers:

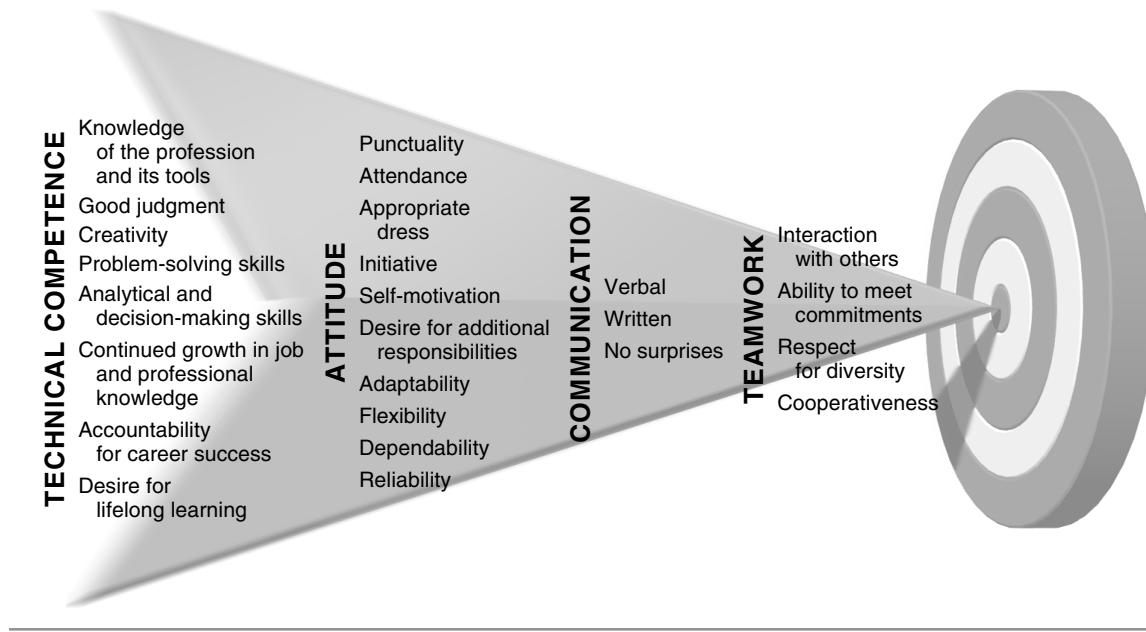
We need a variety of risk taking, fun loving, creative people who will thrive in a start-up environment. If you are looking for a traditional or comfortable place to work 9-to-5, FORGET IT! We need cutting edge, off-the-wall, 24/7 type people who don't worry about job descriptions to become a part of our team.²

The emphasis in the advertisement is attitude, enthusiasm, and a willingness to work. The employer expects technical capability, but clearly, that is not the only job qualification. Employers may take the zeal and raw talent that a person exhibits and, if the person shows promise, train him or her to do the job.

² Connecticut Post (September 3, 2000): I2.

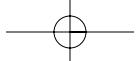
FIGURE 1-1

Employer expectations for a desirable employee: Remain on the TACT target



Businesses depend on accurate and complete verbal and written communication skills when working with customers, clients, colleagues, subordinates, and supervisors. They expect prompt information transfer so that managers and supervisors remain informed of all major issues. Customer reports, manufacturing and production difficulties, vendor delays, engineering problems, and purchasing issues must be quickly documented so that people take appropriate actions and make timely responses.

The days of the “lone wolf” are gone. Businesses and industries work in teams, operating with interdepartmental groups, cross-functional teams, “tiger teams,” “skunk works,” joint ventures, and corporate teams. Companies place a premium on people skills, because teams must meet regularly to share information and discuss the resolution of common issues. Members depend on one another to meet commitments that support design, development, and production schedules. Teams consist of a broad spectrum of ethnic, racial, regional, and international personnel, so employees must be able to work comfortably and compatibly with a diverse mix of individuals. People must respect gender and age differences. A diverse workforce provides the wide range of skills and insights demanded by the modern global marketplace. Unprecedented challenges confront American companies: They must be faster, smarter, and more flexible than the competition. Companies must take advantage of all of the knowledge inherent in a diverse workforce, and individuals must respond by welcoming the opportunity to maximize the benefits derived from working with people from a wide range of cultures, ages, and backgrounds.



Selecting the best employees requires a detailed review of their previous efforts. The human resource department maintains an archive of employee performance evaluation records. Examining this information will permit managers to assess each employee's potential for contributing to future activities.

EMPLOYEE EXPECTATIONS

Employees are an organization's greatest asset. Their performance has a direct effect on profitability. Performance reviews and evaluations not only give employers an opportunity to shape the development of employees, improve work standards, and define areas of responsibility, but also promote accountability and identify future goals and expectations.

Employees are judged on their contributions to their assigned projects. Employee performance reviews usually consist of two parts. The first part includes a review of the ongoing, informal oral or written communication that takes place throughout the year between the employee and his or her supervisor. The second part includes a formal discussion between the employee and the supervisor about the written results of a periodic employee evaluation report.

The periodic evaluation report should be seen as a communication tool for the employer and employee. The document informs the employee of the supervisor's expectations and provides an opportunity to establish or identify employee goals and the tools necessary for attaining them. In cases of subpar performance, the review identifies areas for improvement that will enable the employee to reach a satisfactory level of job performance. The supervisor should inform employees of the company's professional expectations at the same time he or she tells them about their performance relative to these indicators. On the basis of this evaluation, the employer frequently makes decisions about employee salary increases, promotions, and training. The review measures on-the-job performance and may indicate the employee's future job direction. It clarifies the employee's duties, summarizes major accomplishments since the last review, and discusses training and development needs for current and future assignments.

Frequently, employers evaluate new employees more often during the first year than those employed for a longer term. New employees may receive reviews three months, six months, and one year following the date they are hired. The reviews enable supervisors and managers to understand their employees' capabilities while clarifying expectations. Long-term employees may receive only an annual review.

The employee review forms in Appendix 1 show that technical capability is important, but is not the sole criterion of long-term success. Companies value and measure many different aspects of an individual's contributions:

- Quality of work produced (work should be accurate, complete, timely, and consistent)
- Quantity of work produced (work should keep pace with workload, and employee should provide extra effort when needed)

- Dependability (consistent attendance, punctuality, reliability)
- Independence (ability to work with a minimum of supervision)
- Organizational ability (ability to set priorities and meet commitments)
- Teamwork (employee should be cooperative and interact well with customers, suppliers, and colleagues)
- Communication (employee should have good verbal and written communication skills and should share information with coworkers)
- Motivation (commitment to work and to one's profession, as evidenced by being a self-starter and maintaining a positive attitude)
- Judgment (tact, sensitivity, sound decision-making skills)
- Ability to handle stress (ability to work under pressure to meet deadlines, remain calm, and control temper)
- Problem-solving ability (quick insight into problems, offering of appropriate solutions, and ability to analyze complex interdependencies)
- Creativity (willingness to try new solutions and develop new ideas)
- Decisiveness (ability to make decisions and take action)
- Dress (proper attire for work and clean appearance)

An employee's salary and salary increase will reflect his or her total performance as perceived by managers and supervisors. Selecting people for a promotion or a layoff is a complex decision that depends on a broad range of factors, only one of which is technical competence. Because all companies keep records of employee performance appraisals, managers may use them as the basis for employment decisions. Over time, the employee's "complete picture" becomes clear, and the company can take action based on the overall performance record.

The following excerpt from an article that appeared on the Web illustrates the importance of an employer's perception of each individual's capabilities and attitude:

FedEx May Cut 200 Information Technology Jobs

FedEx Corp could cut 200 jobs by next month from its information technology operations, a company spokesman said Tuesday.

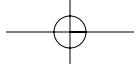
"Some of our projects are not adding value," said Jess Bunn, a FedEx spokesman in the [company's] Memphis headquarters. "We're looking for better ways to serve our customers and add values, so there's the possibility of about 200 layoffs."

Layoffs will probably begin by mid-September.

In the next two weeks employees will be evaluated based on their contributions to short-term tasks and objectives as well as long-term goals and strategies, their contribution to leadership, cooperation in teamwork and performance, other FedEx officials said.

The information technology workers develop and maintain computer software and hardware to help FedEx run its operations.³

³ <http://biz.yahoo.com/rF/000816/1688665.html> (August 16, 2000), from *Reuters* (August 16, 2001).



FedEx intended to lay off employees on the basis of a variety of characteristics. Technical performance is necessary, but is not a sufficient reason to keep an employee. Social skills and willingness to "do whatever it takes" will help an employee keep his or her job and advance in the organization.

PROFESSIONALISM

The ideas of technical competence; responsibility to clients, customers, and employers; lifelong learning; the proper attitude; and appropriate behavior stem from the broad concept of professionalism. The Institute of Electrical and Electronic Engineers (IEEE) define a profession as "a learned occupation requiring systematic knowledge and training, and commitment to a social good."⁴ Every profession has a specialized body of knowledge that is unique to it and that is, in some identifiable manner, intellectual in character. In its initial stages, this body of knowledge can be developed by a group of people, but educational institutions must transmit it to succeeding generations of practitioners.⁵

A profession may have any or all of the following characteristics:

- Work is predominantly intellectual and varied in character, as opposed to routine, menial, manual, mechanical, or physical.
- Members of the profession share common training, values, and skills.
- Competencies require knowledge of an advanced type in a particular field or discipline.
- Recognized educational institutions of higher learning provide necessary course work.
- The profession participates in the establishment and maintenance of educational institutions that meet minimum acceptable standards and teach necessary skills.
- Learning is continuous.
- Members carry out activities that require the consistent exercise of discretion and judgment.
- A well-defined and growing body of literature is available to all members of the profession.
- Research articles are peer reviewed before publication in journals.
- Members are motivated by a desire to perform public service.

The community of people who share common training, values, and skills create and participate in an organization that authenticates and promotes the profession.

⁴ Wujeck, J. H., and D. G. Johnson, *How to be a good engineer*. Notes prepared for the Ethics Committee of The Institute of Electrical and Electronics Engineers. (January, 1992).

⁵ Adams, J. R., and N. S. Kirchof, *Project Management, Professionalism, and Market Survival* (paper presented at a 1983 symposium of the Project Management Institute).



Dissemination of Information

Every professional organization defines itself by its mission, guiding philosophy, and unique occupational body of knowledge. Dissemination of information is sometimes the primary vehicle used to promote the organization and the profession. Journals publish peer-reviewed research-and-development results. In the peer-review process, professionals with similar backgrounds first read and review their colleagues' papers and then respond to the authors with comments intended to improve or clarify the work. In turn, the authors make corrections or clarifications and resubmit the manuscript. Publication of the article may take up to a year while it is being reviewed and modified. Monthly publications offered by professional organizations sometimes print articles of general interest that do not pass through such an extensive review process. Even so, it may take three to six months before they are published.

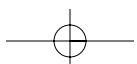
An organization frequently distributes newspapers or newsletters that contain articles of passing interest, announcements of conferences or awards, election information, and advertisements for employment. Editorial comments that reflect members' opinions about national political issues may appear in the newspapers that relate to an organization's mission. Local chapters of national organizations may also publish monthly or quarterly newsletters.

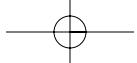
Service Activities

Professional organizations have a wide range of activities. While individuals receive compensation for work provided to customers, they seldom receive payment for service to their professions. Service activities include volunteering for local chapter or regional activities and supporting national seminars or symposiums. Authors of papers submitted to professional organizations do not usually receive financial compensation, but do receive the appreciation and accolades of their colleagues. Professionals serving on accreditation committees that review the quality of programs offered by educational institutions do so on a voluntary basis because they seek to support and further their chosen profession. Many companies endorse and provide financial support to educational programs, seminars, and symposiums offered by professional organizations in order to improve the knowledge of the practitioners in their employ.

Education

Professional organizations seek to promote the quality of education and training received by prospective members and students. As an example, IEEE, the American Society of Mechanical Engineers (ASME), and other engineering organizations collaborate under the umbrella of the Accreditation Board for Engineering and Technology (ABET) in order to improve the education of technical personnel in engineering and related disciplines. Upon request, ABET representatives visit colleges that offer engineering and technology programs. The team conducts a detailed review of the programs to ascertain that the institutions meet minimum standards established by ABET and its member bodies (the





engineering societies). Periodic follow-ups encourage institutions to maintain quality programs. ABET accreditation is a voluntary process that helps graduates of an accredited program prepare for careers in engineering and engineering technology. With support from organizations like ABET, institutions are encouraged to provide education that meets a career's changing needs, modernize institutional facilities, employ competent faculty who participate in lifelong learning, and introduce new technology into the courses.

Managing Oneself

"Success in the knowledge economy comes to those who know themselves—their strengths, their values, and how they best perform."⁶ We no longer enjoy the days of job security in exchange for moderate performance and corporate loyalty. We each must manage our careers to maintain our employability. Lifelong education is perhaps the most important factor in developing a workforce.

Some authors refer to the new professional as a person who is dedicated to the idea of continuous learning and who takes responsibility for his or her own career management. For each individual, this means staying knowledgeable about market trends and learning and maintaining the skills that the company may eventually need.⁷ With constant changes in technology, professionals must assess their skills regularly and take action to upgrade themselves and direct their careers so that they can function with a maximum of effectiveness. A well-known author advises, "The best way to stay employed, today and in the future, is to look upon yourself as being in business for yourself, even if you work for someone else."⁸

For the most part, professional employees are engaged in *at-will* employment. That is, the employer can terminate the employee at any time, and the employee can likewise leave the employer at any time. Business and industry constantly asks the question *What have you done for me lately?* or *Are you worth paying for?* Professionals must engage in lifelong learning to enable them to respond affirmatively.

Professional Ethics

Professions want the public to perceive their members as following a principled standard of behavior in dealing with clients, customers, and colleagues. Consequently, professional organizations define a standard of behavior in the form of a code of ethics to which members must adhere. Ethics deals with a person's behavior toward others. Ethics attempts to arrive at acceptable principles of obligation and general value judgments that prescribe behavior that is morally right, good, and responsible. Several professional organizations'

⁶ Drucker, P. F., "Managing oneself," *Harvard Business Review* (March/April, 1999): 65–74.

⁷ Waterman, R. H., Jr., J. A. Waterman, and B. A. Collard, "Toward a career-resilient workforce," *Harvard Business Review* (July/August, 1994): 87–95.

⁸ Koonce, R., "Becoming your own career coach," *Training & Development* 49, no. 1 (January, 1995): 18–25.

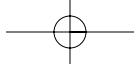
ethical codes are shown in Appendix 2. A common thread among these ethical codes requires a practitioner to accept responsibility for actions taken while conducting professional activities. The professional then must demonstrate responsibility to the public, the employer, customers, clients, colleagues, and him- or herself. Professional organizations require practitioners to exercise good judgment. Ethical discussions are particularly relevant to the development of a new technology such as the Internet or a network of computers in the office. Ethical questions arise continuously with regard to product safety, worker safety, privacy in the workplace, employee and consumer rights, a corporation's moral responsibility, obligations of employers to their employees, employment at will, a business's social responsibilities, and corporate regulations vs. government regulations.

During the course of their work, technologists will undoubtedly confront ethical dilemmas. The decisions they make could affect a user's health and safety, their own prospective promotion, or even their job. Technologists must make decisions even in situations that contain ambiguities or uncertainties. Consider, for example, the following situations:

- Space Shuttle *Challenger* engineers suspected a safety problem with the low-temperature performance of a gasket on the spacecraft. Failure to act on this suspicion resulted in the loss of several lives and was a major setback for NASA.
- Automotive engineers suspected that the location of a gas tank in at least two vehicles could lead to an explosion on impact. The automotive organization's failure to act quickly on this possibility also cost lives.
- From time to time, engineers discover deficiencies in a building's structural integrity. However, they might choose not to act on their knowledge because reporting the information to a third party would breach client confidentiality.
- Other ethical dilemmas have to do with identifying conflicts of interest between oneself and a client. Suppose, for instance, that someone witnesses employees or contracted laborers charging more hours than they actually work on a job. Does the person report the workers? Or, to put the shoe on the other foot, if someone knew that no one would report his or her indiscretion, would that person be tempted to charge more hours?

Ethical dilemmas frequently confront us, and we must recognize them and decide on a course of action.

Sometimes the questions are not easily resolved, and a professional may undergo substantial inner turmoil in making decisions. (See Figure 1–2.) Decisions could result in significant consequences relating to the employee's future. Employees have resigned from their job because of ethical conflicts, and some have lost their job because of them. The federal government has created the False Claims Act, or "Whistleblowers Act," to protect the job of a federal employee who charges his or her employer with a breach of ethical conduct. Many states have passed similar laws.

**FIGURE 1–2**

A cauldron of difficult decisions that confront employees



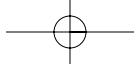
Practicing members of a profession have responsibilities to a wide range of people. Employers, customers, clients, and colleagues have concerns and expectations about the professional's performance and ethical standards, even in the sports arena (which is not a profession in the sense that we use it in this book). For example, upon assuming the position of president of basketball operations for the Washington Wizards, Michael Jordan commented, "It's my job to make sure they [the team's players] put the effort on the court to show respect for the people paying to watch them."⁹

Professional organizations spell out their members' ethical responsibilities. If a conflict arises between an employer's requests and demands, on the one hand, and the professional organization's code of behavior, on the other, the professional is expected to review the organization's code of ethics and talk with a colleague to clarify matters and resolve the conflict. New members of a profession are often advised to consider joining and supporting one or more of the profession's organizations.

Certification and Licensure

In an effort to promote quality professional service, some organizations require their members to be licensed or certified by a state agency or a private organization. Certification and licensure guarantee that a profession's members will

⁹ Sandomir, R., "His airness laces up some new shoes." *The New York Times* (January 23, 2000): Section 4, 1.



be competent in the general discipline or in specialty areas. Professional organizations frequently establish committees that accept complaints from the public regarding members' performance or behavior. This internal self-policing program has the power to discipline the member, and the results of a disciplinary review may extend from no action, to censure, or even to revocation of the license or certification.

TRADES AND CRAFTS

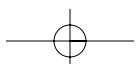
The foregoing discussion does not intend to demean the competency, importance, or quality of trades and craft workers. In fact, there are a number of similarities between those workers and professionals. For example, just as professionals seek to further their education, trades and craft workers participate in training and apprenticeship programs. Also, just as professions promote their endeavors, some trades and crafts have organizations that promote their vocations. But there are differences between the two. First, a trade emphasizes manual dexterity and physical skills rather than intellectual activity. Second, although some trades require a license or certification to practice, few trade organizations monitor their members or have a code of conduct. Third, few trades and crafts monitor the quality of their educational programs via accreditation committees. Finally, unlike professions, trades and crafts tend not to have peer-reviewed publications.

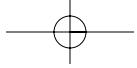
Some students confuse the word *expert* with the word *professional*. A professional should be an expert, but an expert need not be a professional. The two words are not synonyms. Plumbers, carpenters, electricians, machinists, auto mechanics, and cabdrivers perform vital services, and some people practicing those occupations earn more money than lawyers, engineers, teachers, or physicians. Still, although they can be experts in their discipline, in the strict sense used in this book, we don't call trades and crafts workers professionals.

REVIEW QUESTIONS

1. Explain the statement, *Paradoxically, the selfish attitude of looking out for "number one" makes you a great resource for the company.*
2. Do you consider people who practice the following occupations to be professionals? Explain your answer.

a) electrician	b) plumber
c) nuclear physicist	d) social worker
e) electrical or mechanical engineer	f) stockbroker
g) librarian	h) physician
i) lawyer	j) teacher
k) union member	l) locomotive engineer
m) welder	n) military officer
o) police officer	p) politician





ORGANIZATIONAL EXPECTATIONS AND PROFESSIONALISM

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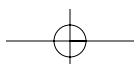
3. We sometimes hear the phrase, "That person did (or did not) behave professionally." Write a short essay describing your concept of *professionalism*.
4. Chapter 1 describes characteristics of a profession. With which characteristics do you agree or disagree? Explain your answer.
5. What are the common features of the ethical codes of conduct shown in Appendix 2? With which principles do you agree or disagree? Explain your answer.
6. Explain the statement: The end justifies the means. Do the ethical codes of conduct in Appendix 2 permit this philosophy? Describe circumstances under which this statement would be appropriate.
7. Do you agree or disagree with limiting personal phone calls at work to emergencies only? Explain your answer.
8. Morning social discussions with work associates
 - a) improve morale and should be engaged in every day.
 - b) reduce company productivity.
 - c) should not be conducted in front of a manager.
9. Examine the three employee evaluations in Appendix 1.
 - a) What are the common characteristics found in each?
 - b) What are the major differences among them?
 - c) What additional job performance criteria would you include in an evaluation?
 - d) Describe your view of a perfect employee performance evaluation.
10. An article about John Rocker of the Atlanta Braves describes him as a 25-year-old, hard-throwing, 6'4", 225-pound left-handed relief pitcher. In the article, Rocker bashed African-Americans, Asians, Koreans, Vietnamese, Indians, Russians, Hispanics, single mothers, Asian drivers, AIDS patients, gays, and those people of a race or sexual orientation different from his. He called an overweight black teammate a "fat monkey."¹⁰

Bud Selig, the commissioner of baseball, ordered Rocker to undergo psychological evaluation and then punished him for his comments with a \$20,000 fine and a two-month suspension and ordered him to undergo sensitivity training. According to one source,

Perhaps without the added burden of tabloid headlines, many businesses face similar situations: A star employee's privately tolerated "idiosyncrasies" spin out of control, and management must respond publicly. "In the business world, there's a very good chance that somebody like this would be fired immediately," said Joseph L. Badaracco Jr., professor of business ethics at the Harvard Business School. "The hideous content of his views would badly damage the company's reputation, so they'd want to disassociate themselves."¹¹

¹⁰ Pearlman, Jeff, "At Full Blast," *Sports Illustrated* (December 27, 1999).

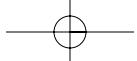
¹¹ Seglin, Jeffrey L., "The Right Thing: Throwing a Beanball in Business." *The New York Times* (January 16, 2000): Section 3, p. 4.



In a subsequent chance meeting with Rocker, reporter Jeff Pearlman said the pitcher threatened him and tried to get him banned from the Atlanta Braves' clubhouse. Neither the team nor Major League Baseball took further action against Rocker. Outfielder Brian Jordan said, of Rocker, "You've got one guy being a cancer time and time again. Eventually, it's going to have an effect on the team."

The Braves traded Rocker to the Cleveland Indians in June of 2001.

- a) Comment on the statements made by John Rocker.
 - b) Should Rocker be penalized for exercising freedom of speech as outlined in the first amendment to the U.S. Constitution?
 - c) Suppose you were Rocker's manager. What would you do to stabilize the situation? In your discussion, consider the impact of his statements on his teammates, other teams, the sport, and the public.
 - d) Suppose a "star employee" working at a company voices derogatory comments about some other employee? In your opinion, what position should the company take?
11. Suppose the Rekcor Company manufactured the finest Framistans (a fictitious component) at the lowest prices. If you were a purchasing agent from another company, and you discovered that several employees from the Rekcor Company were intolerant of some of your personal beliefs, would you purchase Framistans from Rekcor? Explain your position.
 12. The human resource department at Magna-Net has a policy requiring all nonunion technical employees to work one unpaid overtime hour daily. Tundra Industries permits flexible hours and does not have a formal policy to track the coming and going of its employees.
 - a) For which employer would you prefer to work? Why?
 - b) What are the advantages and disadvantages of each policy? Formulate your response first from the employer's viewpoint and then from the employee's perspective.
 - c) Which employer treats its staff in a more professional manner? Explain your answer.
 - d) Why would Magna-Net institute such a policy?
 13. Do you agree with the argument that personal ethical practices and business ethical practices have little in common? Explain your answer.
 14. **Class Exercise** As stated in Chapter 1, organizations emphasize cooperation among team members. This class exercise examines both an individual's and a group's responses to an unusual set of questions. At the end of the exercise, compare your individual score with that of the group. Divide the class into groups of three or four people and follow the directions. Do not peek at the answers shown in Appendix 3 until the group has completed the worksheet. Correct the worksheet once each group has responded.



ORGANIZATIONAL EXPECTATIONS AND PROFESSIONALISM

15**Wilderness survival worksheet¹²**

Following are 12 questions concerning personal survival in the wilderness. Your first task is individually to select the best of the three alternatives given under each item. Try to imagine yourself in the situation depicted. Assume that you are alone and have a minimum of equipment, except where specified. The season is autumn. The days are warm and dry, but the nights are cold.

After you have completed this task individually, consider each question again within your small group. Your group will have the task of deciding, by consensus, the best answer to each question. Do not change your individual answers, even if you change your mind in the group discussion. Both the individual and group solutions will later be compared with the "correct" answers provided (in Appendix 3) by a group of naturalists who conduct classes in woodland survival.

Question	Your answer	Your group's answer
1. You have strayed from your party in trackless timber; you have no special signaling equipment. The best way to attempt to contact your friends is to a. call for help loudly, but in a low register. b. yell or scream as loud as you can. c. whistle loudly and shrilly.		
2. You are in snake country. Your best action to avoid snakes is to a. make a lot of noise with your feet. b. walk softly and quietly. c. travel at night.		
3. You are hungry and lost in wild country. The best rule for determining which plants are safe to eat (among those you do not recognize) is to a. try anything you see the birds eat. b. eat anything except plants with bright red berries. c. put a bit of the plant on your lower lip for five minutes; if it seems all right, try a little.		
4. The day becomes dry and hot. You have a full canteen of water (about 1 liter) with you. You should a. ration it (drink about a cup per day). b. not drink until you stop for the night, and then drink what you think you need. c. drink as much as you think you need when you need it.		
5. Your water is gone. You become very thirsty. You finally come to a dried watercourse. Your best chance of finding water is to a. dig anywhere in the streambed. b. dig up plant and tree roots near the bank. c. dig in the streambed at the outside of a bend.		
6. You decide to walk out of the wild country by following a series of ravines where a water supply is available. Night is coming on. The best place to make camp is a. next to the water supply in the ravine. b. high on a ridge. c. midway up the slope.		

¹² Printed with permission from the New York State, Monroe County Parks Department, Nature Center at Mendon Ponds Park.

(continued)

Question	Your answer	Your group's answer
7. Your flashlight glows dimly as you are about to make your way back to your campsite after a brief foraging trip. Darkness comes quickly in the woods and the surroundings seem unfamiliar. You should <ul style="list-style-type: none"> a. head back at once, keeping the light on and hoping that the light will glow enough for you to make out landmarks. b. put the batteries under your armpits to warm them, and then replace them in the flashlight. c. shine your light for a few seconds, try to get the scene in mind, move out in the darkness, and repeat the process. 		
8. An early snow confines you to your small tent. You doze with your small stove going. There is danger if the flame is <ul style="list-style-type: none"> a. yellow. b. blue. c. red. 		
9. You must ford a river that has a strong current, large rocks, and some white water. After carefully selecting your crossing spot, you should <ul style="list-style-type: none"> a. leave your boots and pack on. b. take your boots and pack off. c. take off your pack, but leave your boots on. 		
10. When crossing through waist-deep water with a strong current, you should face <ul style="list-style-type: none"> a. upstream. b. across the stream. c. downstream. 		
11. You find yourself at a rimrock; your only route is up. The way is full of mossy, slippery rock. You should try it <ul style="list-style-type: none"> a. barefoot. b. with boots on. c. in stocking feet. 		
12. Unarmed and unsuspecting, you surprise a large bear prowling around your campsite. As the bear rears up about 10 meters from you, you should <ul style="list-style-type: none"> a. run. b. climb the nearest tree. c. freeze, but be ready to back away slowly. 		

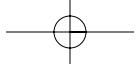
Score:

Number you have correct: _____

Average score for your group (sum of individual scores ÷ number of group members): _____

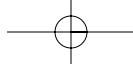
Group score: _____

Difference between group score and average: _____

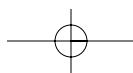
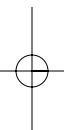


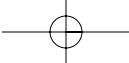
CHAPTER TEST

1. Which of the following are services?
 - a) mail delivery
 - b) valet parking
 - c) teaching
 - d) taxi ride
 - e) wedding pictures
 - f) newspaper
2. Which of the following are products?
 - a) physician's diagnosis
 - b) life insurance
 - c) fruits and vegetables
 - d) tire
 - e) tire changer
3. What are some characteristics of modern organizations?
 - a) stable
 - b) specialized
 - c) accountable
 - d) stressful to employees
 - e) dynamic
4. Identify expectations that employers have of good employees.
 - a) excellent attitude
 - b) excellent communication skills
 - c) limit personal activities (personal telephone calls, Web surfing, etc.)
to 30 minutes during the workday
 - d) ethical
 - e) ready and willing to contribute to a team effort
 - f) sexy dresser
 - g) come late and leave early
 - h) outstanding technical capability
5. How often do most long-term employees receive formal written employee evaluations?
 - a) daily
 - b) weekly
 - c) monthly
 - d) annually
6. Which are not examples of professional organizations?
 - a) a trade union
 - b) AFL-CIO
 - c) Automobile Workers Union
 - d) American Management Association
 - e) American Medical Association
 - f) American Bar Association
 - g) Institute of Electrical and Electronic Engineers



7. Characteristics of a profession include
 - a) predominantly intellectual activity
 - b) learning a skill that will last a lifetime
 - c) common body of knowledge that is taught in institutions of higher education
 - d) code of ethics
 - e) journals that publish peer-reviewed articles
 - f) uniform
 - g) use of specific tools
8. Select the best answer that describes a professional code of ethics.
 - a) a principled standard of behavior in dealing with the employer, customers, and colleagues
 - b) a standard of behavior that deals with customers
 - c) a set of rules to be used at the discretion of the professional
 - d) a certification that permits a person to practice a profession





CHAPTER 2

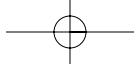
THE ORGANIZATION

You miss 100 percent of the shots you never take.
Wayne Gretzky, professional hockey player

OBJECTIVES

After studying this chapter, you should be able to

- Understand an organization's core identity
- Explain the difference between objectives and goals
- Explain the idea of "strength, weakness, opportunity, threat" (SWOT)
- Apply the SWOT concept to your own personal life
- Understand organizational standards, policies, and procedures



INTRODUCTION

The word *organization* is used throughout this book to mean a group of people working together for a common purpose. The group creates a structure in which individuals cooperate in the conduct of their activities. An organization may have a profit or nonprofit financial orientation and may consist of voluntary or paid workers (or a combination of both). An organization may operate in the public sector (e.g., it may be a federal, state, or local government agency) or the private sector. It may have a religious or a secular purpose. It may consist of professionals or of amateurs pursuing a hobby. It may employ people represented by a labor union, may instead be made up of nonunion workers, or may even be a group of consultants. The organization may exist in a local geographic area only or may be multinational. The project management ideas discussed in this book apply to all organizations, whatever their scope, purpose, demographics, or financial orientation—from organizations consisting of a single small independent contractor to the large international corporation with multimillion-dollar contracts.

CORE IDENTITY

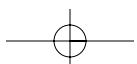
An organization's core identity consists of a mission, an ideology, and a vision. Not all organizations think about and intentionally create an identity. If management does not articulate a core identity, the corporate culture will. However, without leadership, the identity that evolves may or may not inspire and guide the employees in the direction that management prefers.

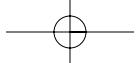
Mission

The mission statement explains the organization's purpose; it is a statement of why the organization is in business. The mission is the organization's *raison d'être*, not its goal or business strategy. The mission statement serves as the basis for establishing the organization's strategic objectives. According to one source,

I want to discuss why a company exists in the first place. In other words, why are we here? I think many people assume that a company exists simply to make money. While this is an important result of a company's existence, we have to go deeper and find the real reasons for our being. As we investigate this, we inevitably come to the conclusion that a group of people get together and exist as an institution that we call a company so they are able to accomplish something collectively that they could not accomplish separately—they make a contribution to society, a phrase which sounds trite but is fundamental.... You can look around [in the general business world] and see people who are interested in money and nothing else, but the underlying drives come largely from a desire to do something else: to make a product, to give a service—generally to do something which is of value.¹

¹ Attributed to David Packard, cofounder of Hewlett-Packard Corporation, in Collins, J. C., and J. I. Porras, *Built to Last* (New York: Harper Business, 1997), p. 56.





Thus, Hewlett-Packard exists, not to make electronic test and measurement equipment, but to make technical contributions that advance the welfare of humanity. This mission will last for as long as Hewlett-Packard's senior management regards it as important. Some other corporate missions are as follows:

Konosuke Matsushita (Panasonic): to foster the progress and development of society and the well-being of people through the company's business activities, thereby enhancing the quality of life throughout the world.

Mary Kay Cosmetics: to enrich women's lives.

Sony: To experience the joy of advancing and applying technology for the benefit of the public.

ExxonMobil: to provide quality petrochemical products and services in the most efficient and responsible manner in order to generate outstanding customer and shareholder value.

Staples: to slash the cost and hassle of running your office!

New Jersey Transit: to provide safe, reliable, convenient, and cost-effective transit service by means of a skilled team of employees dedicated to customers' needs and committed to excellence.

Samsung: to create superior products and services that contribute to a better global society.

Reader's Digest: to create products that inform, enrich, entertain, and inspire people of all ages and cultures around the world.

Southwest Airlines: to provide the highest quality of customer service, delivered with a sense of warmth, friendliness, individual pride, and company spirit.

Kellogg: to build long-term volume and profit and to enhance the company's worldwide leadership position by providing nutritious food products of superior value.

3Com: to connect more people and organizations to information in more innovative, simple, and reliable ways than any other networking company in the world.

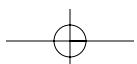
Adolor Corporation: to develop, on the basis of recent advances in proprietary medicinal chemistry and recombinant opiate receptor technology, the next generation of novel analgesics and related therapeutics for the treatment of pain.

Abbott Laboratories: to improve lives worldwide by providing cost-effective health care products and services.

Millennium Restaurant (San Francisco, California): to offer a gourmet dining experience created out of vegetarian, healthy, and environmentally friendly foods.

Core Ideology

An organization's core ideology is the glue that holds the organization together as it grows, decentralizes, diversifies, expands globally, and incorporates



diversity into the workplace.² The core ideology represents a company's underlying values and beliefs. For example,

- The Walt Disney Company is famous for its values of imaginativeness and wholesomeness.
- Hewlett-Packard emphasizes a respect for the individual and a commitment to the community.
- Merck's core ideology embraces corporate social responsibility, honesty, and integrity, and profit from work that benefits humanity.
- Sony's values include elevating the Japanese culture and national status and being a pioneer—not following others, "doing the impossible," and encouraging individual ability and creativity.

The values and beliefs that make up a company's core ideology should be so fundamental that the company should follow them, even if at some point one or more of them were to put the firm at a competitive disadvantage.

Vision

"A company's vision articulates what the company would like its future to be." An "organizational dream," the vision stretches the company's imagination and motivates its people to rethink what is possible.³ The vision represents something the organization aspires "to become, to achieve, to create—something that will require significant change and progress to attain."⁴ Microsoft's vision is "a computer on every desk and in every home, all running Microsoft software in every computer." This is certainly a lofty ideal. In the 1960s, everyone knew and understood the mission of the National Aeronautics and Space Administration (NASA): Get to the moon and back before the end of the decade. Martin Luther King's most famous speech is labeled "I have a dream," because he elucidated his vision of a nonracist America.⁵

Vision statements often incorporate four elements: a customer orientation, a focus on the employee, organizational competencies, and standards of excellence.⁶ A vision should be vivid and evoke emotion. It should motivate people and be powerful enough to persuade all those in the organization to take part in the effort to achieve the mission. In addition, the vision should be⁷

- Clear, concise, and easily understandable
- Memorable

² *Ibid.*, 1977. Chapter 3.

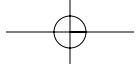
³ Belgard, W. P., K. K. Fisher, and S. R. Rayner, "Vision, Opportunity, and Tenacity: Three Informal Processes That Influence Transformation, in R. Kilman & T. Covin, eds., *Corporate Transformation* (San Francisco: Jossey-Bass, 1988), p. 135.

⁴ Collins & Porras, *Op. cit.*, p. 221.

⁵ Jick, T. D., "The Vision Thing," *Harvard Business Review* (September 26, 1989), reprint no. 9-490-019, p. 1.

⁶ *Ibid.*, p. 3.

⁷ *Ibid.*, p. 2.



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- Exciting and inspiring
- Challenging
- Centered on excellence
- Stable, but flexible
- Implementable and tangible

Know the Organization's Core Identity

Before joining an organization, investigate its core identity. Ask questions and make certain that you feel comfortable with the organization. Ascertain whether it shares your values and beliefs. Find out whether the organization accepts a diversity of people and opinions. If you join an organization, don't expect to create a new core ideology. If the organization's values are compatible with yours then press on. If not, look to another organization. Sometimes you cannot determine whether employees actually practice the values described in the company's literature. If, after joining an organization, you discover that a value gap exists with which you cannot live, then look for a new opportunity.

GOALS AND OBJECTIVES

Once an organization establishes its mission, core ideology, and vision, its employees can establish and pursue goals and objectives. The organization's *goals* reflect its general purpose and direction; they do not set specific targets (objectives). Goals may be strategic (long term) or tactical (short term). Upper management determines an organization's long-term strategic goals, which will guide the organization over perhaps three to five years. One type of aid used in determining an organization's direction is called a *SWOT* (Strengths, Weaknesses, Opportunities, Threats) analysis.

Strengths, Weaknesses, Opportunities, Threats (SWOT)

A SWOT analysis helps find the best match between an organization's external trends (opportunities and threats) and internal capabilities:

- A *strength* is a resource the organization can use to achieve a desired result.
- A *weakness* is a limitation that will keep the organization from achieving a desired result.
- An *opportunity* is a situation that will, or at least is likely to, increase demand for a product or service that the organization offers.
- A *threat* is a potentially damaging situation in the organization's environment. The threat may be a political or economic restriction, barrier, or constraint that could prevent the organization from delivering its products or services.

An effective set of strategic goals takes advantage of opportunities by using the organization's strengths and wards off threats by overcoming them or by correcting weaknesses.

A SWOT analysis involves an impartial examination of the organization and its environment. SWOT analysts review markets; competition; technological, political, social, and environmental issues; economic trends; and the organization's marketing and distribution system, research-and-development (R&D) capabilities, reputation, and resources, including financial resources, the labor pool, computing resources, facilities, employee competencies and credentials, inventories, and management skills. The SWOT team categorizes the information it finds into strengths, weaknesses, opportunities, and threats. Sometimes, information can be considered both a strength and a weakness. On the basis of the SWOT analysis, management creates strategic goals, such as those illustrated in Figure 2–1.

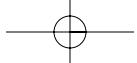
Middle managers develop tactical goals to meet near-term demands. Typical tactical goals include increasing the dollar volume of sales, reducing fixed costs, increasing the number of pounds of material produced, upping enrollment, and increasing worker productivity. Following the establishment of general goals, managers develop a *plan* to establish objectives in order to achieve a desired result.

Objectives are observable and measurable results that contribute toward meeting the general organizational goals shown in Figure 2–1. Measured in terms of what, when, where, and how much, objectives describe conditions that will exist after the work is performed. In many organizations, managers establish objectives. In others, the people doing the work participate in setting objectives, recognizing that approval of the objectives rests with their immediate supervisor or manager. One organization had as an objective challenging a salesperson to increase the sales of books in Bergen County, New Jersey, from \$5,000 per month to \$8,000 per month by the end of the year. Another demanded that an office reduce its mobile telephone costs in the Fairfield County, Connecticut, area from \$5,000 per month to \$3,000 per month by the end of the first

FIGURE 2–1

SWOT process





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quarter. Organizations use the acronym SMART to help establish objectives. Each objective identified should be

Specific,	encompassing a single task
Measurable,	establishing a clear indicator of progress
Assignable,	given to someone as a task to be completed
Realistic,	expressing what can actually be achieved with the time and resources budgeted
Time related,	stating the duration in which the task is expected to be completed

SIDE BAR: A PERSONAL SWOT ANALYSIS

Organizations frequently use SWOT analyses to evaluate their past efforts and determine their future. Because the process requires a great deal of soul-searching, the organizations send their executives away from the hustle and bustle of the office in which they work, to a neutral ground devoid of daily business interruptions. At this retreat, the executives begin a no-holds-barred brainstorming session, examining all ideas with no consequences or repercussions following the meeting.

Each of the participants brings different life experiences to the session. They interpret their experiences differently, of course, and not all will agree with each other. However, all participants must agree to respect each other and give one another the opportunity to articulate their thoughts and perspectives. Many of the comments will be of a sensitive nature, and the participants agree to respect the information revealed at the meeting and not seek retribution afterward. Sometimes, organizations cannot really recognize or accept honesty and genuine open thought.

As it happens, individuals can benefit from a similar analysis. Everyone can profit from a self-examination of his or her life. Think about your vision. Put it down in on paper. If you have not thought about it before, do it now. Does the vision relate to self-satisfaction, marriage, education, money, your career, or something else? Categorize your strengths and weaknesses. Consider the opportunities in your life. Identify situations that might prevent you from attaining your vision. Be brutally honest, and don't show what you have written to anyone else.

Now think about several broad actions that you need to take to pursue your vision. Perhaps it involves the development of a certain set of skills, a college education, or a move to a new location. If so, those are your goals.

If you have reached this point, you've done the hard part. Only the specific tasks remain. For each of the goals identified, you have to identify objectives that will assist you in achieving the goals. List the actions you think are required to achieve the goals. Those actions are the tasks. Associate with each task some way of recognizing that you have accomplished it. Each task should have a well-defined outcome that clearly indicates when it will be deemed to have been completed. Ideally, you should be able to accomplish each separate objective

TABLE 2-1**Personal Action Plan**

Personal Vision:

Goal or Broad-based Endeavor #1:

Objectives Involved in Achieving Goal #1:

Specific Objective	Measured Outcome	Time for Completion

Goal or Broad-based Endeavor #2:

Objectives Involved in Achieving Goal #2:

Specific Objective	Measured Outcome	Time for Completion

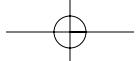
within a month or less: It's too easy to postpone the start of objectives that take longer than a month. An overall sequence of objectives may take many months.

Table 2-1 can aid in developing a personal action plan. Add more goals if required, every so often examine your progress toward achieving your objectives, and make needed corrections.

ACTIVITIES

Activities are work steps that must be accomplished before an objective or a standard can be achieved. Some examples of activities are preparing a specification, getting a specification approved, completing a design, purchasing a component, and installing a telephone.

Resources represent the raw material used by the organization to complete activities. Resources include the people, money, materials, machine, facilities, information, technology, time, and energy needed to accomplish the activities. People *control* an activity by comparing the current performance with the expected performance and making required changes. Many managers create a model for what is expected by collecting data on similar previous activities.



They record information about the resources used to complete the earlier activity at a given level of quality and use that information as the basis for their estimate of the resources required to complete the new activity.

STANDARDS

Setting an expected performance leads to the idea of standards. The International Organization for Standardization (ISO) (<http://www.iso.ch/iso/en/ISOOnline.frontpage>) defines standards as

Documented agreements containing technical specifications or other precise criteria to be used consistently as rules, guidelines, or definitions of characteristics, to ensure that materials, products, processes and services are fit for their purpose. For example, the format of the credit cards, phone cards, and "smart" cards that have become commonplace is derived from an ISO International Standard. Adhering to a size standard such as optimal thickness (0.76 mm) means that the cards can be used worldwide.

The ISO further states, "International standards contribute to making life simpler, and to increasing the reliability and effectiveness of the goods and services we use."

Managers and supervisors usually have an idea of the resources required to complete an activity. The estimates for these resources stem from either a performance *standard* based on the organization's experience or a generally accepted industry practice. If a standard doesn't exist, then the organization establishes it. As an example, suppose organized baseball wants to create a batting standard of performance. The baseball industry assembles a committee with outstanding knowledge about batting and impeccable baseball credentials. The committee meets, and it creates and adopts the standard of batting excellence shown in Table 2-2.

On the basis of the new standard, baseball players are categorized in terms of their hitting ability. Table 2-3 illustrates the categories as applied to the 1999 New York Yankees baseball team. Each team member is assigned a quality rating. If, after using this standard for some time, the sports community decides

TABLE 2-2

Standard of Batting Excellence^a

Last Season's Batting Average	Hitting Ability	Hitting Quality Rating
.326 or higher	Outstanding	A
.301 to .325	Excellent	B
.276 to .300	Good	C
.251 to .275	Fair	D
.250 or below	Poor	F

^a The player must have had at least 150 turns at bat to qualify for a rating.

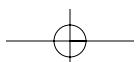


TABLE 2-3

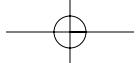
New York Yankees Batting Averages, 1999

Player	1999 Batting Average	No. of Times at Bat	1999 Hitting Quality Rating
D. Jimenez	.400	20	NR ^a
D. Jeter	.349	627	A
B. Williams	.342	591	A
D. Cone	.333	3	NR ^a
O. Hernandez	.333	3	NR ^a
D. Strawberry	.327	49	NR ^a
A. Watson	.300	10	NR ^a
C. Knoblauch	.292	603	C
P. O'Neill	.285	597	C
R. Ledee	.276	250	C
C. Davis	.269	476	D
T. Martinez	.263	589	D
C. Curtis	.262	195	D
L. Sojo	.252	127	D
S. Brosius	.247	473	F
J. Posada	.245	379	F
J. Girardi	.239	209	F
J. Leyritz	.235	200	F
S. Spencer	.234	205	F
C. Bellinger	.200	45	NR ^a
A. Pettitte	.200	5	NR ^a
J. Manto	.182	33	NR ^a
T. Tarasco	.161	31	NR ^a
A. Soriano	.125	8	NR ^a
R. Clemens	.000	4	NR ^a
H. Irabu	.000	4	NR ^a
M. Stanton	.000	1	NR ^a

^a Not rated due to an insufficient number of times at bat.

that the standard does not reflect its needs, then the committee members would meet again to modify the standard. All professional communities examine and update old standards continually and create new standards as technology and general expectations change.

Many types of standards exist. The baseball batting example may be considered a production standard. The size, shape, form, and weight of sporting equipment follow prescribed standards. Technical standards define electrical, mechanical, and software interfaces. There are standards that establish requirements for the composition and structure of materials. Workmanship standards detail methods for evaluating welds, soldering connections, wiring harnesses, and more. Documentation standards clarify the formats used for submitting manuscripts. Standards establish expectations. If the items that organizations use meet established standards and the standards meet the requirements set forth by the customer, then the product or service will likely be adequate. Independent organizations such as the U.S. military, U.S. Department of Agriculture,



IEEE, ANSI, Software Engineering Institute, Underwriters Laboratory, and International Organization for Standardization (ISO) publish standards for a variety of applications.

POLICY, PROCESS, PROCEDURE, RULE

Policies are broad guidelines created to help an organization achieve its plans. A *process* is a method of reaching a desired outcome within an organization—"a structured, measured set of activities designed to produce a specified output for a particular customer or market. It implies a strong emphasis on how work is done within [the] organization."⁸ A *business process* has been defined as "a set of logically related tasks performed to achieve a defined business outcome" and characterized as having internal or external customers and crossing departmental boundaries.⁹ Recall that a person or group delivers a product or service. If the product or service is delivered to someone or some group within the same organization, the person or group is referred to as an *internal customer*. A person or group that performs work and that is unaffiliated with the buyer of the product or service is an *external customer*. *Procedures* outline the steps required to achieve a goal. *Rules* are definite, specific instructions.

Policies, processes, procedures, and rules are necessary to implement plans. As shown in Figure 2–2, senior managers create policies that establish a process. Managers then create procedures to implement the process. Rules are the specific detailed instructions that support the procedures. The entire *planning process* enables managers to determine the goals and actions needed to achieve the desired results. Throughout any organization, all components associated with the planning process must be in harmony at each level of management. The planning process is dynamic and requires periodic review and adjustment to accommodate changing circumstances.

SIDE BAR: PUBLIC VERSUS PRIVATE COMPANIES

Pat and Sarah believed they had a wonderful idea for a fast-food Middle Eastern restaurant. Into the pockets of pita bread they wanted to insert a mix of chopped vegetables with balls of spiced falafel (ground chickpeas) and a special family-devised blend of hummus and tahini sauce. As an unusual dessert treat, they wanted to offer baklava, a pastry covered with honey and filled with ground pistachio nuts. The mint tea accompanying the pastry would include real peppermint leaves and could be served iced or hot, depending on the season.

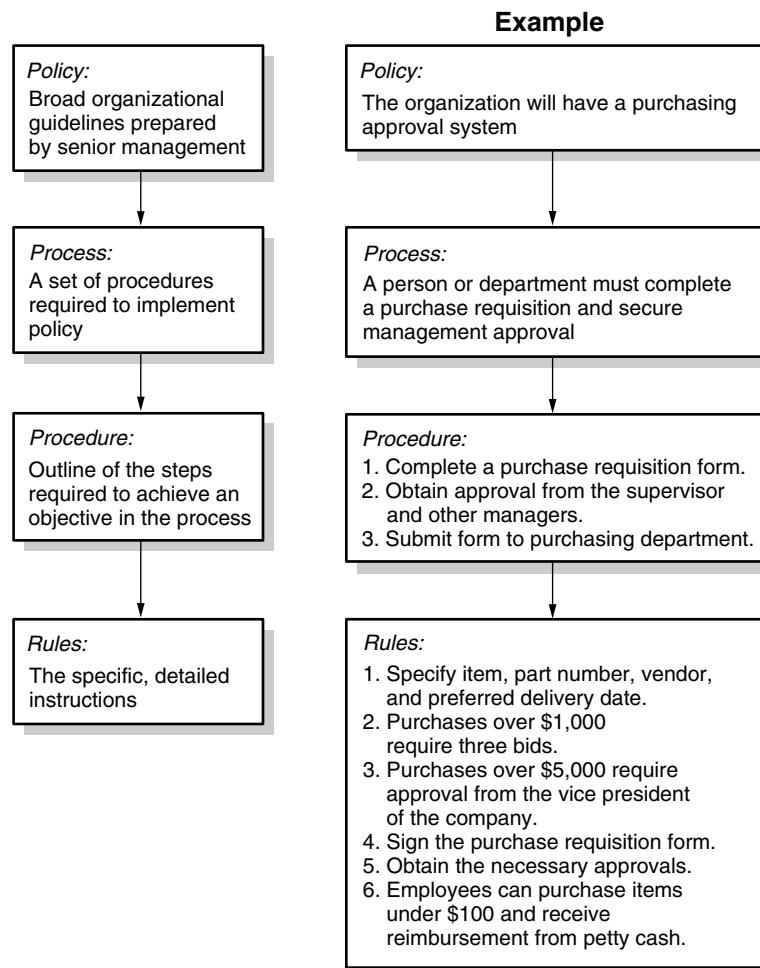
Pat and Sarah took their life savings together with some money they borrowed from their parents and opened Sa-pa's Middle Eastern Restaurant in the

⁸ Davenport, T. H., *Process Innovation* (Boston: Harvard Business School Press, 1993).

⁹ Davenport, T. H., and J. E. Short, "The New Industrial Engineering: Information Technology and Business Process Redesign," *Sloan Management Review* (Summer 1990): 11–27.

FIGURE 2-2

Organizational Continuum from Policy to Rule



city. The people in the business district enjoyed the fresh high-quality food, the excellent service, the unique background music, and the clean surroundings. In less than a year, the business earned a profit, and Pat and Sarah repaid the loan.

On the basis of their accomplishment, Pat and Sarah decided to open Sa-pa's Too, a second restaurant in another part of town. With established credit, a proven successful idea, pluck, and contagious enthusiasm, they convinced a local bank to lend them the funds to open Sa-pa's Too. After a great deal of hard work finding a good location and setting up the restaurant, they again earned a profit within a year. They repaid the new bank loan within two years. Pat and Sarah demonstrated that they had good business sense in addition to wonderful recipes.

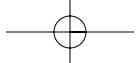
THE ORGANIZATION

Pat and Sarah owned and operated the restaurants privately. Their success convinced them to expand the business and open other Sa-pa's Too in nearby towns and cities. The expansion effort required a great deal of money. In order to convince prospective backers, Pat and Sarah had to develop a good business plan. They began thinking strategically: They needed a long-term vision, goals, objectives, and values. They needed plans for recruiting and training staff, obtaining standard cooking equipment, standardizing the restaurant décor, legally protecting their ideas and recipes, identifying other prospective locations, and developing a food distribution plan so that new Sa-pa's Too restaurant patrons would enjoy the same quality of food that those eating at the established restaurants enjoyed. But the plans would take them away from direct involvement in the first two restaurants they started. They would change their careers from restaurant proprietors to restaurant executives.

Pat and Sarah decided to sell a portion of their business and go public. They chose not to borrow the money from a bank, because they didn't want to have monthly principal and interest payments. Instead, the founders decided to give up part of their ownership. Financial organizations, investment bankers, and venture capitalists assist people in raising money for starting a new business or expanding an existing business. In return for the funding to expand Pat and Sarah's restaurants, the investment organization demanded two-thirds of the business. The investment counselors divided the business into 30,000 shares. Pat and Sarah would keep 10,000 shares and set aside 20,000 shares for investors. After examining the industry, similar businesses, and their restaurant's financial record, the investment counselors, Pat, and Sarah agreed to value each share at \$25. The investment organization prepared the documents associated with an initial public offering and attempted to sell the shares to people that had confidence in the future success of other Sa-pa's Too restaurants. If the organization successfully sold 20,000 shares, it would raise \$500,000, which the business would use to expand.

Pat and Sarah now led a publicly owned and publicly traded company. Accordingly, Sa-pa's Too shareholders could sell their stock to anyone at any time. A stockbroker would handle the transaction by arranging the sale of stock from seller to buyer. In a publicly traded company, the public determines the value of a share of stock through its perception of the company's future prospects. The company's profits or earnings provide a good guideline for estimating the price of a share of its stock. Suppose that Sa-pa's Too restaurant earns a profit of \$300,000, or \$10 per share, after the first year of operation. The price-to-earnings ratio is a commonly used method for valuing stocks. Many companies have a price-to-earnings ratio of 15 to 20. That ratio would value Sa-pa's Too restaurants at \$150 to \$200 per share, which would represent a very healthy profit to the company's shareholders. Of course, if the restaurant did not earn a profit—or worse, if it lost money—then the value of the shares could plummet to pennies.

Very often, newly formed companies (also known as start-ups) choose to compensate key employees with a lower salary, plus shares of stock as a "sweetener." The employee exchanges immediate income for potential future profits. If the company does well, then the employee will do well, because the stock



price will likely increase. This arrangement serves to motivate managers and other executives to focus on company profits so that the value of the stock will increase.

REVIEW QUESTIONS

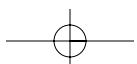
1. If you were to start a new organization tomorrow, describe the core values you would build into it.
2. Most large organizations have a corporate persona or identity that they share with the public. This identity becomes the public perception of the organization and is often used to shape government policy, as well as to convince the public to believe in the organization and use its services or products.
 - a) Use the Internet to find the names of the 30 companies upon which the Dow-Jones industrial average is based.
 - b) Visit the Web site of two of the companies you found listed in part (a). Try to discover their corporate identity by searching for their mission, values, and vision statements. The information may not be explicitly termed the company's mission, values, and vision, so you will have to make a judgment about the data.
 - c) Repeat part (b), using two of the following organizations:

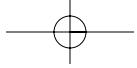
American Red Cross	Avon Products
Boy or Girl Scouts of America	Colgate-Palmolive
Eastern Mountain Sports	Lands' End
Liz Claiborne	Patagonia
Procter & Gamble	Reebok International, Ltd.
Salvation Army	W. W. Norton & Company
 - d) Compare the results of parts (a) and (b). Describe the similarities and differences in the information that you obtained.
3. Use the Internet to determine the winners of the most recent Malcolm Baldrige award.

CHAPTER TEST

For each of the following questions, circle the correct answer or fill in the blanks:

1. An organization's core identity consists of _____, _____, and _____.
2. Select the best answers.
 - a) The mission statement explains an organization's purpose.
 - b) A mission statement describes specific, time-limited activities.
 - c) A mission statement represents the values and belief systems underlying an organization.

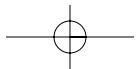
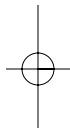
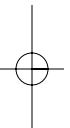
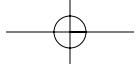


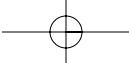


THE ORGANIZATION

33

- d) The vision statement represents something an organization aspires "to become, to achieve, to create—something that will require significant change and progress to attain."
3. Select the phrase that best defines an organization's goals.
- An organization's goals represent a general statement of purpose and direction.
 - An organization's goals represent specific targets.
 - An organization's goals represent its strengths, weaknesses, opportunities, and threats (SWOT).
4. Which statement characterizes an organization's objectives?
- Objectives are observable and measurable results that contribute toward meeting the general goals of an organization.
 - Objectives are measured in terms of what, when, where, and how much.
 - Objectives describe conditions that will exist after work is performed.
 - Objectives represent an organization's strengths, weaknesses, opportunities, and threats (SWOT).
5. The acronym SMART represents the following:
- S _____
 - M _____
 - A _____
 - R _____
 - T _____
6. True or False? A SWOT analysis relates external trends (opportunities and threats) to internal capabilities (strengths and weaknesses).
7. Examples of resources are
- | | |
|-------------|-----------------|
| a) people | b) land |
| c) machines | d) materials |
| e) money | f) a train ride |
8. True or False? The fundamental premise behind controlling an activity is a comparison of current performance with expected performance and then making required changes.
9. Which of the following can trace their assigned value to an accepted standard?
- a team's won-loss record
 - U.S. Grade A meat
 - distance in miles
 - temperature
 - shoe size
 - a container of milk purchased in a store
 - lumber





CHAPTER 3

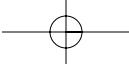
PROJECT MANAGEMENT: ORGANIZATIONAL OVERVIEW

*If I am not for myself, who will be?
If I am not for others, what am I?
And if not now, when?*
Hillel, "Ethics of the Fathers"

OBJECTIVES

After studying this chapter, you should be able to

- Define a project
- Explain the difference between a program and a project
- Understand and create an organization chart
- Understand the different types of organizational structures
- Explain a matrix operation



INTRODUCTION

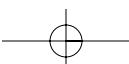
General management concerns itself with the leadership and management of the organization as a whole. At a minimum, general management encompasses planning, organizing, staffing, coordinating, executing, communicating, and controlling the operations of an ongoing enterprise. However, general managers go beyond the basics of management, to deal with the processes, systems, and technologies that integrate the organization and enable it to carry out its mission. Of necessity, general managers also frequently involve themselves with the broader community's external constituencies, jointly developing philosophies, values, and strategies that create a successful enterprise.

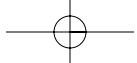
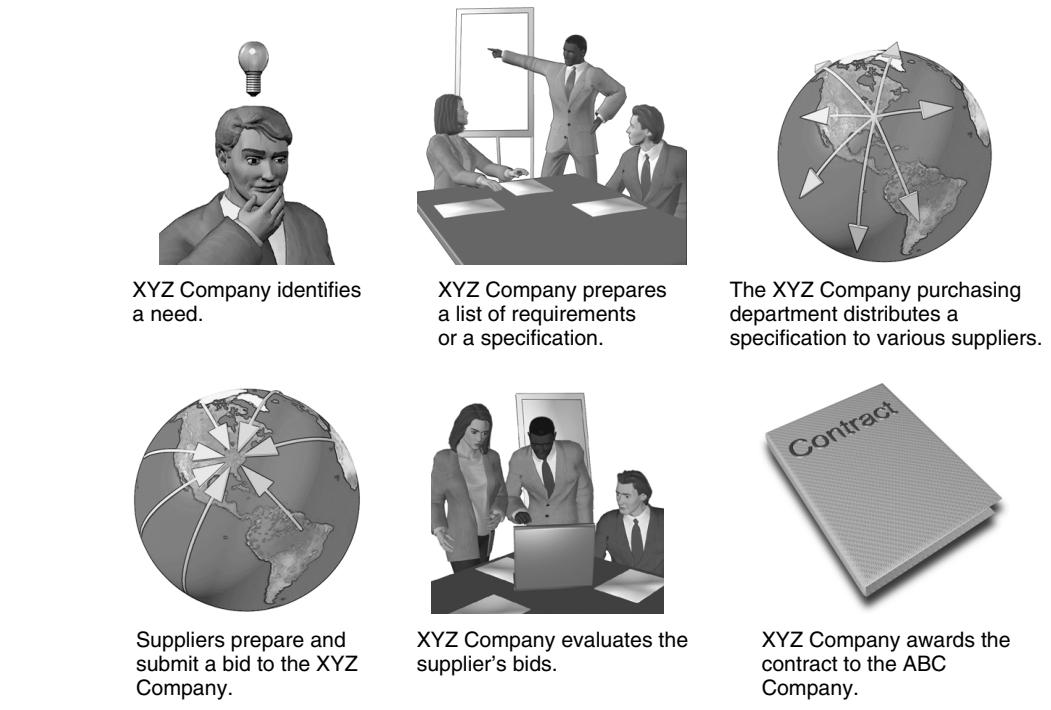
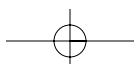
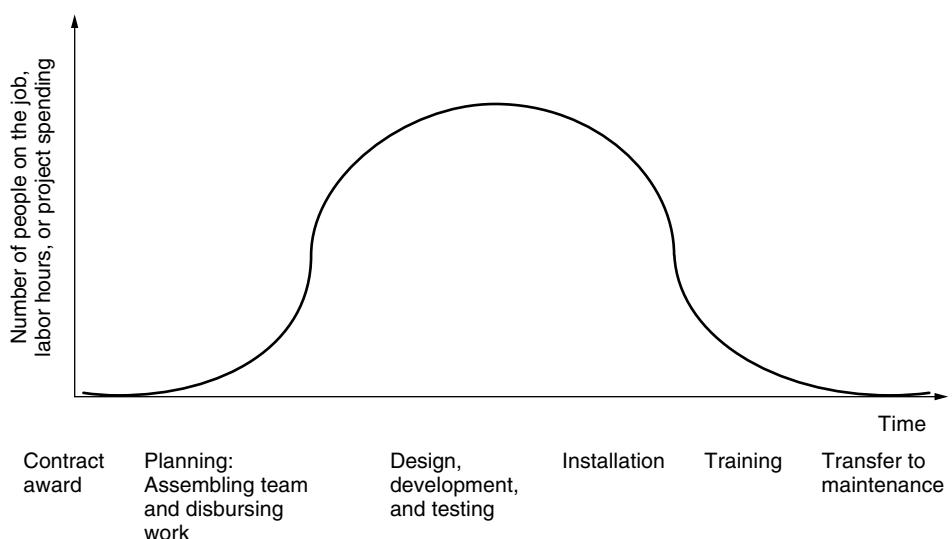
Project managers have a narrower view than general managers. To be sure, they employ general management skills, but they use the processes and procedures developed by others to accomplish a specific effort. Project managers work on *projects*—endeavors undertaken to create a unique product or service. Nowadays, almost all industries from defense, information technology, and construction to the pharmaceutical and chemical industries, commonly use the project management methodology. Typically, projects begin after the customer signs a contract. Alternatively, they are initiated internally, with the intent of introducing a new product to the marketplace.¹ The organization uses internally funded projects either to leapfrog the competition with a new product or service or to “play catch-up” and just stay abreast of competitors.

Projects do not go on forever: Every project has a definite beginning and a definite end. Projects start with an identifiable need. Staff members prepare a requirements list or perhaps a detailed specification document. The organization's purchasing department distributes the list of requirements to internal or external suppliers. Organizations usually demand a response from prospective suppliers within 30 to 90 days. Interested suppliers respond to the organization with a bid—a proposal describing the equipment they will deliver and the price they will charge. The organization reviews the bids, selects a winner, and awards a contract. Figure 3–1 summarizes the process.

After the contract is awarded, a project manager assembles a team that develops the product or service embodied in the customer's idea and distributes the work and the associated budget to the organization's departments. The product or service is developed and tested, and then technicians install it at the customer's site and confirm that the system operates. Often, the customer requires the organization to train the customer's staff in the correct way to use and maintain the product. This project *life cycle* summarizes the steps associated with a project. The bell-shaped pattern shown in Figure 3–2 depicts the money spent or the labor hours worked on a large project. Funding for the project starts slowly and increases progressively. The design-and-development effort expends the majority of the funds, because the largest number of people work on that aspect of the job. Fewer people perform installation, and the chart shows less spending in that direction. Projects usually end with an acceptance test at

¹Shenhar, A. J., “From Theory to Practice: Toward a Typology of Project-Management Styles,” *IEEE Transactions on Engineering Management* 45, no. 1 (February 1998): 33–48.



**FIGURE 3-1****The bidding process****FIGURE 3-2****Project life-cycle phases**

the customer's site, after which the customer's staff is trained in the use of the product or service. At this point, the remaining people on the project return to their respective departments for reassignment. Naturally, labor hour distributions and spending patterns vary among projects.

A software or hardware product may require ongoing maintenance, but that is not considered part of the original project's activities. Indeed, many organizations have a separate group concerned with product maintenance. Customers usually receive annual payment notices for periodic hardware or software maintenance and product updates.

A product or service provided by a project differs from previously delivered products or services. The Project Management Body of Knowledge (PMBOK)² defines *project management* as the application of (certain specialized) knowledge, skills, tools, and techniques in order to meet or exceed stakeholder needs and expectations from a project. *Project managers* use many of the same techniques and tools employed by general managers. After negotiating for the resources the organization requires for a project, the project manager assigns those resources with the intent of completing specific objectives and goals. The project manager has complete responsibility for the success or failure of the project. Frequently, however, he or she lacks the authority to insist that the organization's staff support the completion of the required activities. (We will discuss the ramifications of this apparent paradox in the next section.)

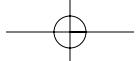
Table 3–1 illustrates a family of microprocessors developed by Intel. Each of these internally funded microprocessors started as the aim of a project with a set of requirements. Each project required a large number of software and hardware engineers and technicians to develop a design that supported a machine code that software designers could use to program the microprocessor.

TABLE 3–1Thirty Years of Intel Microprocessor Projects^a

Microprocessor Device Number	Year of Introduction	Number of Transistors
4004	1971	2,250
8008	1972	2,500
8080	1974	5,000
8086	1978	29,000
286	1982	120,000
386™ processor	1985	275,000
486™ DX processor	1989	1,180,000
Pentium® processor	1993	3,100,000
Pentium II processor	1997	7,500,000
Pentium III processor	1999	24,000,000
Pentium 4 processor	2000	42,000,000

^a Data from <http://www.intel.com/research/silicon/mooreslaw.htm>.

² Project Management Institute Standards Committee, *A Guide to the Project Management Body of Knowledge* (Upper Darby, PA: Project Management Institute, 1996).



Engineers and technicians built a prototype and tested it extensively. After the test results showed that the prototype was satisfactory, the design group completed the drawings and documentation and transferred the product to the integrated-circuit-manufacturing department for large-scale production. The design, fabrication, and testing of each of the microprocessors in the table constitute a project.

A *program* is a group of projects managed in a coordinated way in order to obtain benefits that would not be available from managing them individually. The projects making up a program share some common features, in any or all of the areas of application or purpose, components, development or fabrication tools, developer labor pool, training, and maintenance. The organization desires to take advantage of these common features and thus creates a program. The effort represented by Table 3-1 was in behalf of the Intel microprocessor program conducted over a 30-year period. The development of many of the projects overlapped. Possibly, a single person managed two or more projects simultaneously. A *program manager* has responsibility for several related projects. After a project team gains experience on one of the projects in a program, the program manager is inclined to assign the team to other projects in the program. The members of a team that successfully completes a project understand each other's strengths and weaknesses, as well as the major technical aspects of the old and new projects. From the old project, the team members have acquired a knowledge of the development tools required to perform the job, so they will not require extensive training on the new project. The program manager meets with the various project managers to determine which project(s) the team would benefit most. The customer benefits as well, because combining projects saves money.

Consider this example of the difference between a project and program. Over a 50-year span, the U.S. Navy's Blue Angel acrobatic flight team used eight aircraft: the Grumman F6F Hellcat, Grumman F8F Bearcat, Grumman F9F Panther, Grumman F9F-8 Cougar, Grumman F11F-1 Tiger, McDonnell Douglas F-4J Phantom II, McDonnell Douglas A-4F Skyhawk II, and McDonnell Douglas F/A-18 Hornet. Each aircraft represents a separate project that went through several phases, including the initial conceptualization, aircraft development, prototype manufacture, and testing and evaluation, before the aircraft went into production. Keep in mind that production manufacturing and aircraft maintenance are not part of a project. From the U.S. Navy's perspective, all of the aircraft represent the Blue Angel aircraft program.

WHY PROJECT MANAGEMENT?

Organizations divide into four broad management categories (Figure 3-3). Upper management establishes the policy and future direction of the organization, middle management focuses on planning, supervisory levels deal with distribution and scheduling the work, and the large nonsupervisory workforce completes and delivers the product or service. As shown in Figure 3-4, *functional managers* take responsibility for activities in specialized departments or

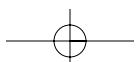


FIGURE 3–3

Stratified organizational levels

Upper management: Policy
Middle management: Planning
Supervisory: Scheduling
Nonsupervisory worker: Product or service

FIGURE 3–4

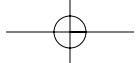
Functional department view of the organization

	Engineering	Manufacturing	Purchasing	Human Resources	Customer Service	Sales and Marketing	...
Upper management							
Middle management							
Supervisory							
Nonsupervisory worker							

functions (e.g., engineering, purchasing, manufacturing, management information systems, information technology (IT), sales, marketing, human resources, publications, and customer service). Most managers concentrate on their area of expertise. For example, an engineering manager has little interest in the issues that are relevant to the manufacturing or publications department. Most organizations impose constraints, if not outright restrictions, on employees from one department involving themselves in the activities of another department.

Combining the stratified organizational levels with the functional departments creates a patchwork of “fiefdoms” (Figure 3–5). Few managers in the organization take a broad view. In fact, upper management usually prefers functional managers to tend solely to their activities. Accordingly, a close examination of an organization reveals a vast “sea” of operational “islands” on which highly territorial supervisory and nonsupervisory personnel closely guard those regions in which they are especially interested. This arrangement of turf leads to the need for a manager who can integrate and meld the parts of the independent “fiefdoms” into a cohesive group that takes an interest in completing a particular job or project. That person is the project manager.

The project manager also provides a focal point of responsibility: The buck stops at his or her desk. All of the organization’s stakeholders bring their questions, comments, complaints, and issues to the project manager, who speaks for the organization. This does not, of course, mean that the project manager acts unilaterally without seeking guidance and assistance from other stakeholders.

**FIGURE 3–5****Operational islands**

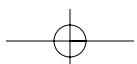
	Engineering	Manufacturing	Purchasing	Human Resources	Customer Service	Sales and Marketing	...
Upper management							
Middle management							
Supervisory							
Nonsupervisory worker							

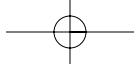
However, it is the project manager who makes decisions after consulting with the technical, financial, purchasing, manufacturing, and sales communities; suppliers; and, if necessary, senior management.

PROJECT MANAGER'S RESPONSIBILITIES

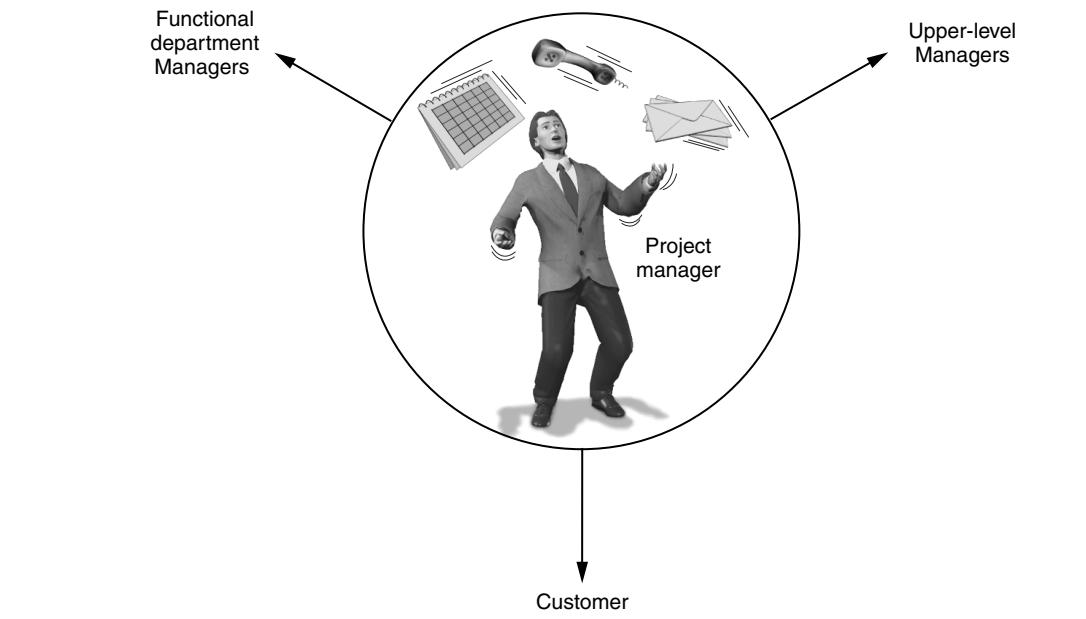
The essential goal of project management is to make the most effective use of resources such as labor, equipment, facilities, materials, money, information, and technology so that the goals of a project can be achieved within budget, on schedule, while meeting performance requirements, and with the approval of customers. The project manager takes into account the changing legal, social, economical, political, and technological environments. Upper management holds the project manager accountable for all project activities. The project manager must coordinate strategies and resources across the organization's functional interfaces, resolve conflicts, and apply integrated planning and control techniques. The project manager crosses organizational boundaries continually in an effort to acquire and deploy resources and to develop the project team into a harmonious group as quickly as possible. Undoubtedly, a major responsibility of the project manager involves securing a customer's commitment to a firm and realistic set of requirements. A good specification defines the scope, schedules, and quality controls associated with the job. The requirement definition has an immense impact on the resources selected and the profitability of the project. A successful project manager must have administrative expertise and an understanding of human behavior and must act as an integrator, a communicator, a leader, and an environment enhancer.

The project manager is the focal point of the organization's *stakeholders*, which include the customer, the upper-level-managers, the functional managers, and other individuals and organizations involved in or affected by a project (Figure 3–6). Project managers strive to meet or exceed stakeholders' needs and expectations. Some project managers believe, not entirely with tongue in



**FIGURE 3–6**

The project manager is pulled in all directions

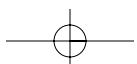


cheek, that without a project manager in charge, a project will operate within the following seven phases:

1. Wild enthusiasm
2. Disillusionment
3. Chaos
4. Search for the guilty
5. Punishment of the innocent
6. Promotion of the nonparticipants
7. Definition of the requirements

ORGANIZATION CHARTS

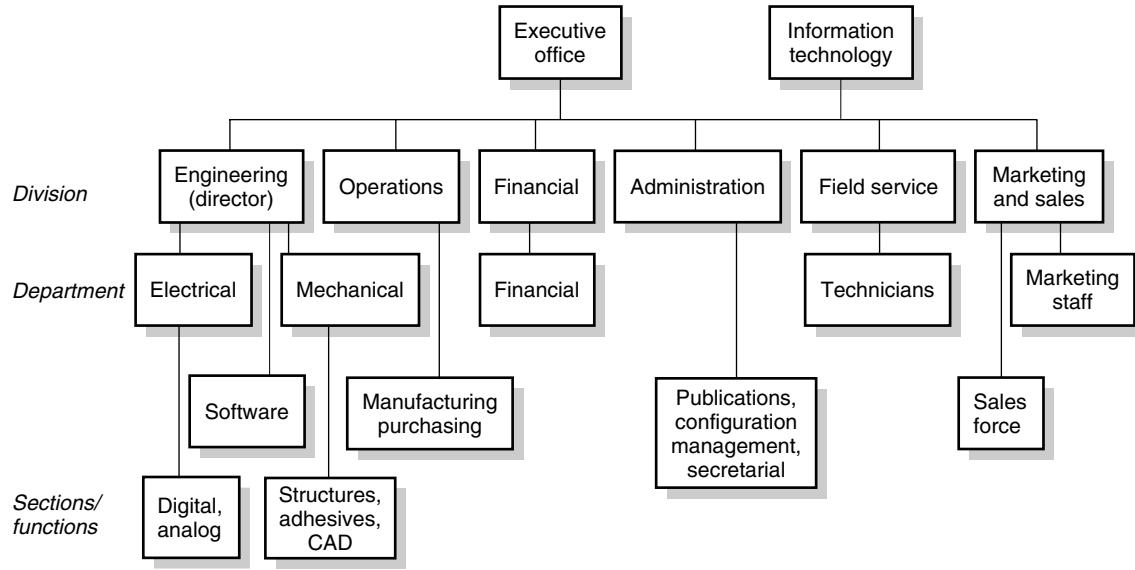
All organizations formally divide management responsibility into layers, represented by organization charts. Figure 3–7 illustrates a traditional top-down organization chart. Organization charts are not one size fits all; there simply is no “best” organization chart. An organization structure used successfully for a Fortune 500 industrial company may not be suitable for the operations of a smaller business or a different industry. Nor are organization charts cast in concrete: They change, depending on business, economic, and labor conditions. Organization charts frequently reflect the chief executive’s personality and preferred way of conducting operations.



PROJECT MANAGEMENT: ORGANIZATIONAL OVERVIEW

FIGURE 3-7

Traditional management structure: Functional organization



In Figure 3–7, the executive office may consist of the organization's president, vice presidents, legal staff, and administrative staff. The organization's staff provides advice and support and maintains control over their resources. The vice presidents report to the president and are responsible for one or more functional or support departments.

Depending on the organization's size, either a vice president or a director reporting to the vice president leads the functional and support departments. Frequently, there are vice presidents of engineering, manufacturing, sales and marketing, information technology, human resources, and other functional departments, to whom midlevel managers report. Nonsupervisory employees report to the midlevel managers.

Functional Organization

The functional organizational chart shown in Figure 3–7 identifies the disciplines required to develop and produce a product or service. Each department manager can trace a line back to the organization's president. Everyone understands where he or she stands in the "pecking" order. When a special project comes into the "house," no particular person receives responsibility for its completion. Instead, the managers meet and agree to divide the work according to a plan that they have devised. Each midlevel manager establishes priorities. A dispute among departments would likely work itself up the chain of command and require intervention by vice presidents—probably not a very efficient way

to attack a project. Each department manager tries to maximize the usage of personnel within his or her department, assigning tasks to individuals and establishing priorities among the tasks.

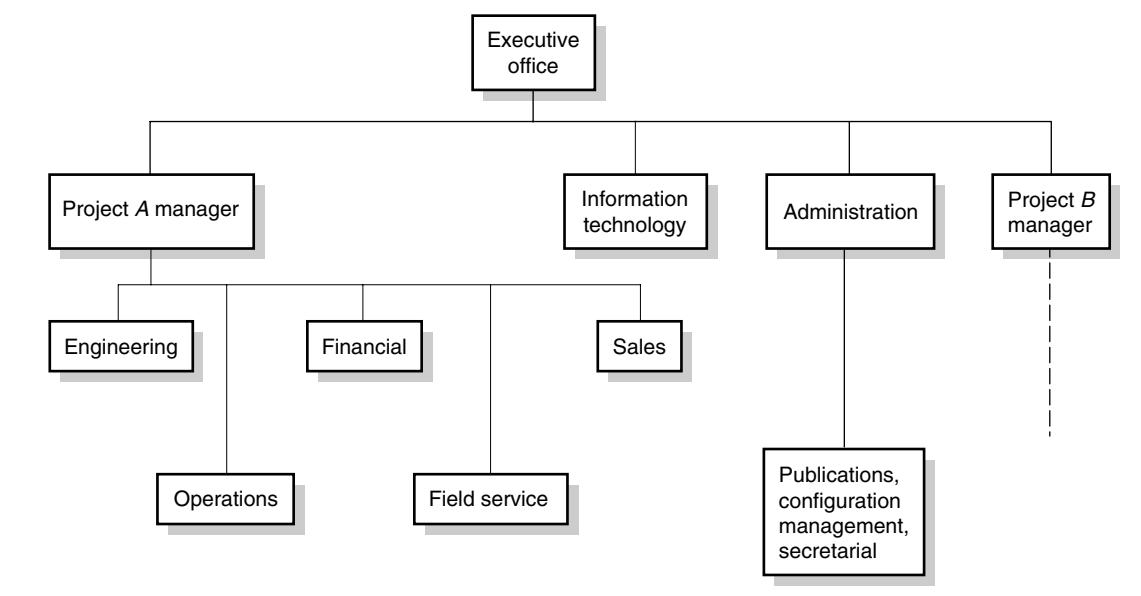
The functional organization structure is based on specialization. Individuals in each specialized department, such as engineering, production, marketing, accounting, and logistics, report to one superior. In a multiple-project environment, conflicts may develop over the relative priorities of different projects that are competing for limited resources. If the organization's policy does make use of a project manager, the project manager has little formal authority and is compelled to rely on negotiation, the informal power structure of the organization, and interpersonal skills in order to realize the project's goals. Project team members then place more emphasis on their functional specialties, which can work to the detriment of the project. According to some managers, it is easier to manage specialists if they are grouped together and supervised by an individual possessing similar skills or experiences. The functional organization centralizes similar resources and provides mutual support to group members by keeping them in close physical proximity. A functional organization structure can define career paths for employees.

Project-Structured Organization

Figure 3–8 illustrates a project-structured organization. In this kind of structure, established to manage a variety of large, long-term projects, employees are dedicated to specific projects and work in one of several large project groups.

FIGURE 3–8

Project-structured organization



PROJECT MANAGEMENT: ORGANIZATIONAL OVERVIEW

Each such group contains a complement of engineers, technicians, administrators, and other professional and nonprofessional personnel. Functional managers do not have to make project-level decisions; they work only on a single project. All managers report to the assigned project manager, who has both the authority and the responsibility for the project. The project manager requests functional managers to hire personnel to work on the project. Upon completion of the project, employees may find themselves looking for a new job, unless they can obtain a position in another project organization.

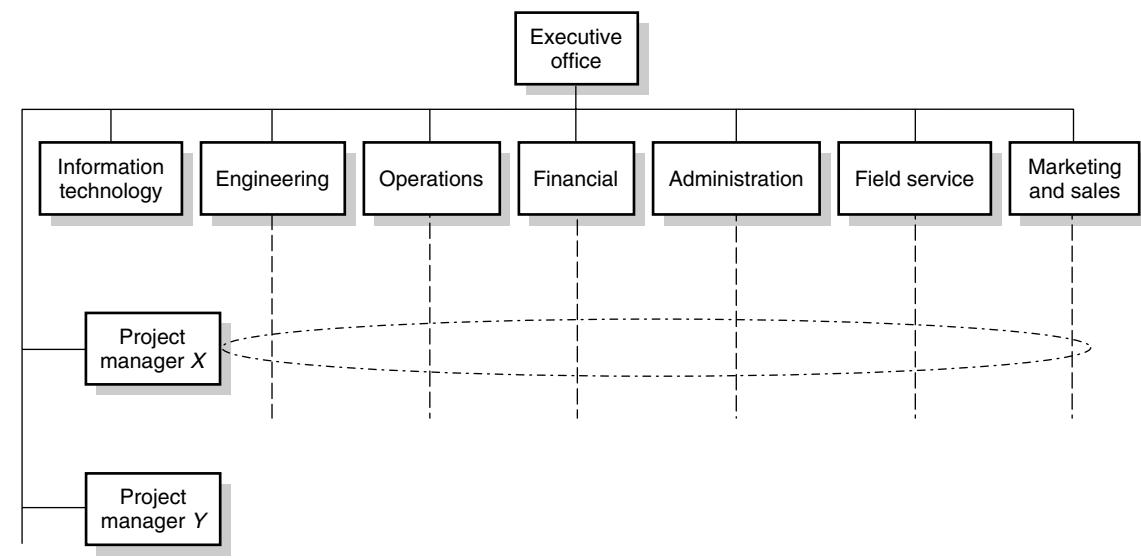
The project manager has unfettered authority over the project and retains the flexibility to acquire resources from within or outside the parent organization. A project structure promotes informal channels of communication between the project manager and the team, but it may not promote the efficient use of resources, and facilities may be duplicated. Because every project has a beginning and an end, project team members inevitably work themselves out of a job, whereupon they may be laid off. Some fortunate employees may find a new position on another project within the same organization.

Matrix Organization

Many organizations prefer not to duplicate personnel for each project. Instead, they attempt to create a single “world-class” functional organization and share their talented workers among the various projects. This approach leads to the matrix organization shown in Figure 3–9. On initiating a new project, the organization assigns a project manager, who then assembles a team comprising personnel from the various functional groups that make up the organization.

FIGURE 3–9

Matrix organization



Naturally, project managers negotiate with the functional managers to obtain the best people for the project. Project managers who are familiar with the functional departments' personnel have the best chance of recruiting a capable staff. Toward that end, project managers cultivate relationships with functional managers so that they can obtain people suitable for the projects entrusted to them.

The project manager plans and coordinates a project by working with and integrating all groups within the organization. Relying on his or her organizational and people skills more than technical ability, the project manager works with the team to identify and address the needs of all stakeholders. The project manager's focus is on work relationships and leadership; he or she motivates the team members, delegates tasks, builds team spirit, and manages and resolves conflicts. The project manager negotiates a suitable working relationship with the functional manager to reward and discipline employees. Using his or her communication skills and problem-solving ability, the project manager influences stakeholders.

The matrix organization is a combination of the functional and project management structures. It attempts to maximize the benefits and minimize the weaknesses of the two structures. The matrix maintains functional or vertical lines of authority, while establishing a relatively permanent horizontal structure to support new projects. It is designed to work with all functional departments that support a project and to reduce or eliminate duplication of effort on the project team. The matrix design enables the organization to manage several projects simultaneously, even when it lacks the resources to staff each project separately.

Because each worker has two "bosses"—the project manager and the functional manager—in the matrix system, it may create conflicts among the workers. To reduce the likelihood of conflicts, the roles and responsibilities of each worker must be clearly defined before work on the project begins. In a strong matrix, the project manager enjoys greater authority, whereas in a weak matrix, authority passes to the functional manager. The functional department's employee is at a disadvantage if he or she is placed on a long-term project, because the time the worker spends away from the department may affect his or her chances of receiving a promotion or a "choice" assignment. Table 3-2 summarizes the relationships among the functional, project, and matrix organizational structures.

LINE ORGANIZATION

Most workers contribute directly to an organization's product or service. For example, in a company that manufactures computers,

engineers design the computer's circuit boards,
technicians and engineers test prototypes,
technicians fabricate the printed circuit boards,
factory workers stuff the boards with electronic components,
factory technicians assemble the components into the finished computer,
testing technicians test the fabricated system,

TABLE 3-2

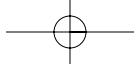
Comparison of Project Leadership in Different Organization Structures

	Traditional Functional Organization	Project- Structured Organization	Matrix Organization
Project leadership responsibility	May use a project coordinator	Uses a project manager	Uses a project manager
Project priorities	Established by executive management	Established by project manager	Established by project manager
Stakeholder disputes	Resolved by functional or designated manager	Resolved by project manager	Resolved by project manager
Personnel selection	Functional managers recruit personnel	Project Manager designates managers to recruit personnel	Functional managers recruit personnel
Project manager responsibility	None	High	High
Project manager authority	None	High	Weak
Personnel at end of project	Remain in functional organization	Possible forced organizational leave (layoffs)	Return to functional groups

salespeople sell the product, and field technicians install the equipment in the buyers' facility or home.

Without all of these people doing their jobs, customers will not receive the quality of products or services they demand. In contrast, some employees at the firm have little to do with the final product or service. For example, lawyers protect and advise the company about legal matters, nurses care for a person injured on the job, librarians assist people in obtaining information, marketing personnel develop advertisements and create ideas for future products, and senior managers guide the organization. Important as they might be, none of these people has anything directly to do with the actual product or service provided to the customer.

Organizations use the term *line manager* to describe managers who actually contribute to making a product or performing a service. In a line organization, direct, straight-line relationships exist between different levels within the company that are involved with a product line. The members of the line organization perform or manage functions essential to the existence of the firm and product or service. A line organization has a clear chain of command and promotes fast decision making. Most of the people assigned to a project manager are line workers. All the people mentioned in this section's first paragraph are line workers. Lawyers, nurses, librarians, marketing personnel, and senior managers support the organization, but do not perform work required to get the product or service to the customer and therefore are not line workers.



REVIEW QUESTIONS

1. Explain the difference between a project and a program.
2. What is an organizational chart? What is its purpose?
3. Think of a company, religious organization, charitable organization, or college with which you have some familiarity. Perform a SWOT analysis. That is, identify the strengths, weaknesses, opportunities, and threats confronting the organization. On the basis of your analysis, identify two strategic goals appropriate to the organization.
4. Describe the advantages and disadvantages of functional, project, and matrix organizations.
5. What may happen to the members of a project team when the organization completes the project?
6. Describe a functional manager and a line manager. Can they be the same? Explain.
7. Do you believe that a project manager must have technical expertise in the organization's specialty areas? Explain.
8. Sketch a project life cycle. Describe the meaning of the term.

CHAPTER TEST

For each of the following questions, circle the correct answer or fill in the blanks:

1. True or False? A project is an endeavor undertaken to create a unique product.
2. Every project has a definite _____ and a definite _____.
3. True or False? Project management is the application of knowledge, skills, tools, and techniques in order to meet or exceed stakeholder needs and expectations from a project.
4. True or False? The project manager has responsibility for the success or failure of a project.
5. True or False? A program is a group of projects managed in a coordinated way to obtain benefits not available from managing them individually.
6. True or False? A line organization describes the direct, straight-line relationships between different levels within a company involved with a product.
7. A project manager is concerned about which of the following goals?
 - a) effective use of resources
 - b) completing the project within budget
 - c) completing the project on schedule
 - d) meeting performance requirements stated in the contract
 - e) receiving customer acceptance
 - f) achieving state-of-the-art performance
 - g) giving the customer everything he or she asked for.

PROJECT MANAGEMENT: ORGANIZATIONAL OVERVIEW

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8. Which of the following are examples of stakeholders?

 - a) external customer
 - b) functional departments
 - c) IRS auditors
 - d) suppliers
 - e) senior management

9. Select the employees that contributes to making a product or performing a service:

 - a) line manager
 - b) legal staff
 - c) librarian
 - d) company nurse
 - e) purchasing staff

10. The functional organization is characterized by

 - a) specialty personnel
 - b) colleagues sharing a common work area
 - c) manager with the authority to make decisions regarding the priority of tasks
 - d) technical problem-solving skills

11. Morning social discussions with work associates

 - a) improve morale and should be engaged in every day.
 - b) reduce company productivity.
 - c) should not be conducted in front of a manager.

12. Characteristics of a functional organization include the following:

 - a) specialty skills
 - b) minimal skills
 - c) a broad cross section of the organization's disciplines
 - d) outstanding writing skills

13. True or false? The matrix organization is designed to manage several projects simultaneously, even though the organization may lack the resources to staff each project separately.

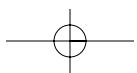
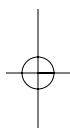
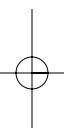
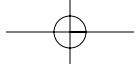
14. True or false? Because there are two "bosses" for each worker, the matrix organization may create conflicts among workers on a project.

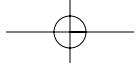
15. The project manager focuses on work relationships and leadership and uses the following techniques:

 - a) motivation
 - b) delegation
 - c) supervision
 - d) building of team spirit
 - e) conflict management and resolution
 - f) superior technical skills

16. A project manager's primary goals involve delivering a product or service and satisfying the following conditions (choose all that apply):

 - a) within budget
 - b) on schedule
 - c) meeting the performance requirements
 - d) exceeding the performance requirements described in the specification
 - e) receiving customer acceptance
 - f) with employee satisfaction





CHAPTER 4

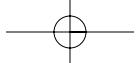
MANAGEMENT CONCEPTS

There is nothing more difficult to handle, more doubtful of success, and more dangerous to carry through than initiating changes. The innovator has for enemies all those who have done well under the old conditions, and lukewarm defenders in those who may prosper under the new.
Machiavelli, *The Prince*, Chapter 6

OBJECTIVES

After studying this chapter, you should be able to

- Understand the difference between a manager and a supervisor
- Understand fundamental management theories
- Define *efficiency* and *productivity*
- Discuss the functions of management
- Discuss management styles
- Explain the types of power used by managers
- Compare a group with a team
- Explain the difference between a manager and a leader



INTRODUCTION

Before reading this chapter, students in the class should perform a little exercise. The purpose of this exercise is to stimulate your thinking regarding the nature of a manager's job. Many students have held one or more jobs. Recall your supervisors or managers in these jobs. Take a few minutes to answer the following questions:

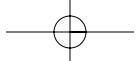
1. List the broad supervisory responsibilities that you believe this person had.
2. List the reasons that you took the job.
3. Identify the actions taken by the organization and the supervisor or manager that would motivate you to pursue your tasks with greater diligence.
4. What did you like least about the job?
5. What did you like best about the job?

Now join with other members of the class to form small groups consisting of three or four students. Discuss your individual responses to each question with your group. Then have the group evaluate the responses and select the best five answers to each question. Discuss the results of your deliberations in class.

MANAGEMENT

What does a manager do? What makes a good manager? Practitioners and theorists alike have wrestled with these topics at length. Most agree that management is the process of getting activities completed efficiently and effectively, with and through other people. The manager's goal is to get the job done in the shortest time with a minimum of cost and resources expended. Resources consist of people, places, and things. From the organization's perspective, they include time, labor, material, facilities, land, tools, money, equipment, and other resources. An organization has (1) people that do the work, (2) people that plan and distribute the work, and (3) people that plan for the organization's future. The second category includes the day-to-day managers and supervisors. The last group consists of upper management.

Management is not a new idea. Consider the management skills required by the ancient Egyptians to build the pyramids (Figure 4-1a). Depending on which historian you believe, the pyramids required from 20,000 to 100,000 laborers, an impressive workforce. The Chinese built the Great Wall (Figure 4-1b), which stretches to a length of 4,000 miles across the border between China and territories in the north. The 4,000-year-old Stonehenge (Figure 4-1c) structure in the United Kingdom is a set of concentric rings and horseshoe shapes. The construction of this monument likely involved moving stones weighing as much as 25 tons from a quarry more than 20 miles away. Once in place, the inner stone circle was one of the earliest structures to align with sunrise during the summer

**FIGURE 4-1**

(a) A pyramid. (b) The Great Wall. (c) Stonehenge. (d) A Roman aqueduct. (e) The Temple of the Inscriptions



(a)



(b)



(c)



(d)



(e)

Photographs courtesy of the following:

- (a) Sphinx and Great Pyramid. Printed with permission from the New York State Archives Glass Lantern Slide Collection, Albany, New York.
- (b) The Great Wall. Printed with permission from the New York State Archives Glass Lantern Slide Collection, Albany, New York.
- (c) Stonehenge, Salisbury Plain, England. Printed with permission from Cristina Hernandez-Olsson, © 1997.
- (d) Roman Aqueduct, Segovia, Spain. Printed with permission from Cristina Hernandez, © 1989.
- (e) Temple of the Inscriptions, Palenque, Mexico. Printed with permission from Cristina Hernandez-Olsson, © 2001.

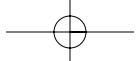
solstice. Roman engineers built aqueducts (Figure 4–1d) that crossed mountains, valleys, and plains. Eleven major aqueducts that were built over a period of more than 500 years and stretch over hundreds of miles supplied water for the city of Rome. The Romans even built aqueducts in numerous other parts of their empire, notably, France, Spain, and northern Africa. In Chiapas, Mexico, the Mayan civilization constructed the Temple of the Inscriptions (Figure 4–1e), a pyramid covering a subterranean tomb that still houses the sarcophagus of the Mayan ruler Pakal. The temple stands 30 meters high and is approximately 60 meters wide at the base. These technically sophisticated projects must have required enormous amounts of human labor, as well as planning, controlling, and coordination. In each project, the leaders likely established a vision and motivated the workforce to accomplish the desired goals. Managers just below the leadership level presumably worked with the “technical experts” to integrate their thoughts and ideas into feasible plans of action. We can just picture these managers preparing and monitoring schedules, planning how they would obtain and distribute raw materials and other resources, and resolving conflicts among workers. Finally, they must have concluded the job by defining success with an acceptance test: water flowing, troops marching, or high priests conducting a religious ceremony. In short, the jobs required management skills.

Employees receive supervision at work, and some workers will become managers sometime during their careers. A prospective employee’s decision to work or not to work for a certain company is based in part on his or her perception of the quality of the organization’s management. An understanding of basic management principles aids the prospective employee in making informed decisions about the organization. Such an understanding brings forth the right questions at the interview and helps years later, when the employee is deciding whether to pursue a management opportunity. Finally, effective project management requires the manager to understand and use many of the fundamental management concepts discussed in this section.

MANAGERS AND SUPERVISORS

The difference between *managers* and *supervisors* varies among organizations. Both a manager and a supervisor represent the employees in their charge to a management level above them. In most organizations the hierarchy ends with a supervisor, preceded in turn by a manager, a middle manager, and a senior manager. The supervisor must have a good command of the technical skills required by the workers because the supervisor is so close to the “hands-on” work performed by the employees. As the person moves up the management hierarchy, technical skills become less important and interpersonal skills assume greater importance. A project manager is at the level of a middle manager.

Managers make broad decisions with potentially wide organizational impact, whereas supervisors make decisions about a particular work unit. Frequently, a manager has an external role and may visit stakeholders such as customers and suppliers; a supervisor has a more limited role that is confined to the



unit or department. Supervisory management is a combination of the two functions that is more focused and has a short-term outlook.

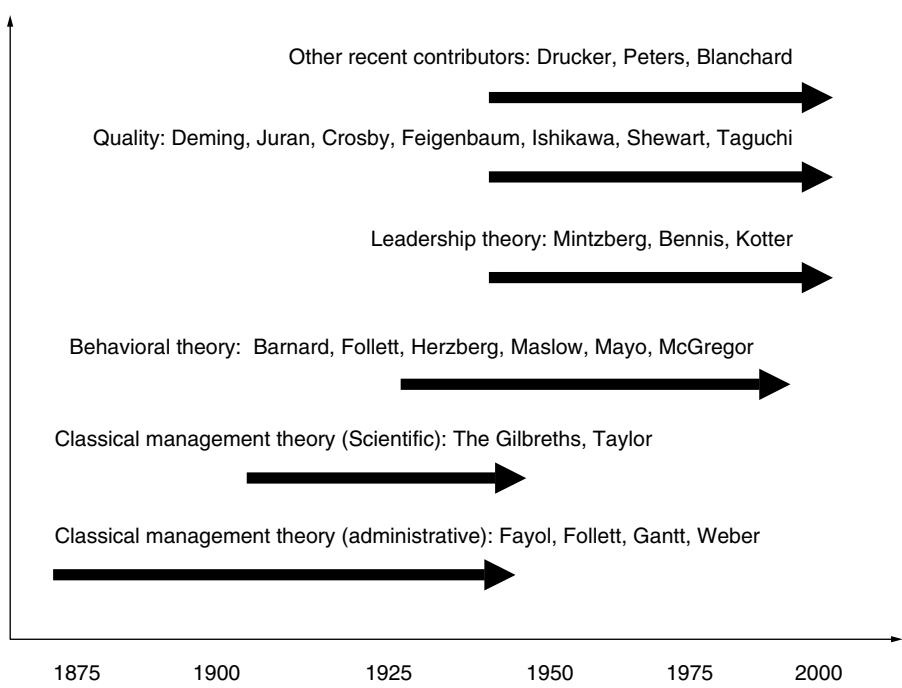
The supervisor maintains the routine flow of work. Both the manager and the supervisor receive, collect, and transmit information, but the manager receives and transmits more information from people outside the organization than does the supervisor. In effect, the manager is one of the organization's spokespersons to the outside world. Acting at the center of organizational decision making, the manager disseminates the organization's information into its environment. The manager initiates change, deals with threats to the organization, decides on organizational priorities, and negotiates on behalf of the organization.

HISTORICAL OVERVIEW

Management thought has evolved over the years. An evolutionary continuum is shown in Figure 4–2. As researchers conducted social experiments and performed studies, organizations began to modify their management processes and procedures and adopt new methods. Abrupt changes were rare; rather, organizations “eased” into new ideas.

FIGURE 4–2

Selected contributors to management thought



Not everybody agrees on the titles of the schools of management thought discussed next. Certainly, practitioners (managers working in business, in industry, for profit and nonprofit organizations, and in the public and private sectors) do not care about management categories. A senior executive cares about meeting the planned quarterly financial targets and strategic goals. The midlevel executive or project manager is concerned about meeting the customer's demands through well-defined objectives. These managers' interests lie in using techniques to motivate their staffs to provide a product or service that satisfies the stakeholders. Managers mix and match ideas and theories to help them get the job done. Recognizing that distinct categories blend into one another and do not have sharply defined edges, the next section nonetheless separates and classifies the various schools of management thought in an effort to gain insight into the subject.

CLASSICAL MANAGEMENT

During the Industrial Revolution (1750–1850), the United States moved from an agrarian society to a nation of urban factory-based centers. Dramatic changes in the social and economic structure took place as new technology created the factory system of large-scale production. Managers emphasized the division of labor and the importance of machinery to assist labor.

Classical management theory developed during the Industrial Revolution and continued into the first half of the 20th century. Theorists believed that money motivated employees and called a worker thus motivated "economic man." The classical period focused on efficiency and relied on bureaucratic, scientific, and administrative concepts. A common assumption held that improvements in efficiency led to increases in productivity. With respect to technology, efficiency is defined as the ratio of output to input, expressed as a percentage. As regards the organization, *efficiency* is defined as the resources spent to complete a specific task, compared with a reference standard. Based on previous projects, the resources normally used to complete a task may be an acceptable reference point. Reducing the time to complete the task improves efficiency, which also can result from a worker's gaining experience on the job. Efficiency may improve, too, from the use of a new tool or piece of equipment that will produce more product within a given period. Often, a new tool *reduces* efficiency during the short term, until workers learn how to use it effectively. Efficiency ensues when tasks are ordered in a way that uses a minimum of resources. When production processes are made more efficient, organizational productivity improves. *Productivity* is defined as a worker's output over a specified period of time. Increased productivity results when an increased amount of product is produced during a given period, compared with the amount of product produced during a previous period.

Managers expect workers to use specific processes, procedures, and methods in carrying out their activities. Managers rely on (1) a set of guidelines and procedures or rules, (2) a hierarchy of tasks and workers, and (3) a clear division of labor. Scientific management focuses on the way to do a job that results in

the highest productivity. Administrative management emphasizes the flow of information in the organization's operation. According to administrative management, the worker acquires information and then performs the operations required to achieve organizational goals. Among the leading classical management theorists are Frederick Taylor (the "father of scientific management"), Henri Fayol, Henry Gantt, Max Weber, and Frank and Lillian Gilbreth (the originators of time and motion studies).

Henri Fayol identified five functions of management: planning, organizing, commanding, coordinating, and controlling. These functions revolutionized management thinking and continue to serve as a basis for administrative actions. *Planning* requires an understanding of the work so that the supervisor or manager can identify the tasks to be performed and then develop a schedule to perform the work. *Organizing* requires the manager to identify and assemble the resources needed to perform the work. *Commanding* entails assigning people to the work and making sure that the job gets done. *Coordinating* involves unifying the activities and resources in a logical manner so that the work can get done. *Controlling* implies directing the operation so that the work is performed and completed in accordance with the organization's established policies and procedures. Controlling the work operation yields consistency in output from worker to worker. A list of management functions presented as an alternative to Fayol's (although the two overlap in three functions) is the following:¹

- planning
- organizing
- staffing
- directing
- coordinating
- reporting
- budgeting

The addition of staffing, reporting, and budgeting to Fayol's original list adds tasks for which managers frequently have responsibility. Replacing commanding is directing, a softer, less militarylike word. In the modified list, formal authority and the role of direct supervision are emphasized. Later studies found that successful managers spend a great deal of time communicating, cultivating networks and personal contacts, and delegating work to subordinates.²

Fayol embellished his baseline five management responsibilities with the following 14 management principles, which characterize all organizations:

1. *Division of work through labor specialization.* Specializing encourages the development of expertise associated with the performance of specific tasks.

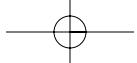
¹ Gulick, L., and L. Urwick, *Papers on the Science of Administration* (New York: Columbia University Press, 1937).

² Mintzberg, H., *The Nature of Managerial Work* (New York: Harper & Row, 1973). —; Kotter, J. P., *A Force for Change: How Leadership Differs from Management* (New York: The Free Press, 1990).

2. *Authority and responsibility.* Authority should reside with the people having the responsibility for the task. Recognized personnel should have the right to give orders and the power to demand that the employee comply. One individual is charged with the responsibility for making certain that activities associated with a given job get done. Project managers frequently have the responsibility, but not the authority, for completing a job.
3. *Discipline.* The manager expects and insists that employees obey the rules. The manager has the means of enforcing this demand.
4. *Unity of command.* Each employee should report to one supervisor.
5. *Unity of direction.* A single project is controlled by a single individual.
6. *Subordination of individual interests to the organization's needs.* Only work-related activities are to be pursued at work.
7. *Employee compensation.* Employees receive fair payment for the services they perform.
8. *Centralization.* Management functions are consolidated so that decisions are made from the top.
9. *Scalar chain (line of authority).* A formal chain of command is used from the top to the bottom of the organization, creating a pyramidlike top-down structure that is standard operating practice in today's organizations.
10. *Order.* All materials and personnel have a designated location. The six-sigma quality concept implemented by Motorola and other major organizations used this principle as a starting point. (Refer to Chapter 9 for information about six-sigma.)
11. *Equity.* All personnel receive equal (but not necessarily identical) treatment.
12. *Personnel stability.* Turnover in personnel is minimized, because changing personnel requires retraining and lowers productivity. In good economic times, people tend to change jobs more often than in business slumps.
13. *Initiative.* Managers make things happen. Many use the credo "Do it now and ask for forgiveness later."
14. *Esprit de corps.* The manager encourages harmony and cohesion among personnel.

Principles 1, 2, 4, 5, and 9 are the most widely known. Classical theorists believed that understanding and applying all 14 principles in a rational manner would lead to the successful resolution of management problems.

Henry Gantt is best known for developing a chart used for scheduling tasks over time. Modern managers use the *Gantt chart* more extensively than most other project management tools. Microsoft Project and Primavera are two software products commonly used to develop schedules. Gantt also recommended motivational schemes that emphasized rewards for good work rather than penalties for poor work. He advocated a compensation incentive system with a guaranteed minimum wage and bonus systems for people on fixed wages. Gantt



believed in the importance of leadership and management skills in building effective industrial organizations.

At about the same time that Fayol described the manager's job, Frederick Taylor introduced scientific management.³ Both Fayol and Taylor were task and thing oriented, rather than people oriented. Scientific management focuses on the worker-machine relationship. Taylor's scientific model evolved from his experience with mass production and relied on standardization of work, control of quality, the division of labor, and a structural hierarchy. He analyzed work that had to be completed and broke down organized work activities into a group of basic operations. The concept worked reasonably well with repetitive industrial tasks. Taylor strongly believed that managers and supervisors should cooperate with their staffs and motivate them to perform. With an eye toward improving production efficiency, he advocated improving the tools employees used to perform the work and then selecting and training personnel in the proper use of those tools. He argued that good working conditions and the use of economic incentives to motivate employees would help earn their cooperation.

Frank and Lillian Gilbreth further advanced the scientific model by performing detailed time and motion studies. They identified the fundamental motions in a work activity, studied the way the motions combined to perform a task, and assigned a duration for each separate motion. Frank Gilbreth collected data by filming individual physical-labor movements during the performance of a worker's job. The Gilbreths then analyzed the worker's movements. They showed managers how to break down a job into its component motions and reassemble the motions so as to minimize the time required to perform certain tasks. Using the resultant information, the manager prepared a more efficient procedure that, if followed by the employee, not only reduced the time to complete a job, but helped to make the time consistent from worker to worker. The Gilbreths' work enabled managers to accurately estimate the time required to complete a job, a result that, when implemented in the workplace, customers appreciated. Workers, however, found this mechanized method for performing work highly restrictive and boring.

Max Weber promoted *bureaucracy* as the most logical form for large organizations. During the early part of the 20th century, the word did not have the negative connotation with which we now associate it. Documented processes and procedures and a hierarchical structure governed by an impersonal authority typify a bureaucracy. Authority stems from an individual's position in the organization's hierarchy and is not based on the individual's personality or charisma. The worker's title defines his or her authority. The following are some characteristics of a bureaucracy:

- well-defined and specialized jobs
- testing of job qualifications
- formal rules of behavior
- a hierarchical system of supervision
- unity of command

³ Taylor, F. W., *Principles for Scientific Management* (New York: Harper & Row, 1911).

- written processes and procedures [e.g., an employee handbook, industrial safety directions, and directions on handling hazardous materials (HAZMAT)]
- skill-based training
- work assignments and personnel recruitment based on technical expertise
- continuity of operations despite changes of personnel
- promotions based on competence
- continued employment based on merit

Weber believed that organizations would become successful by applying these bureaucratic rules. Historically, bureaucracies established concepts of fairness and equality of opportunity. Bureaucracies excel at businesses involving routine tasks that can be specified in writing and do not change quickly.

The Industrial Revolution and the progress made by science and technology in the 1900s gave credence to the idea of a single best way to manage. Scientific management seemed to reinforce this idea. The training that engineers and scientists receive leads them to expect a single answer to a problem. In mathematics, science, and technology courses, students tend to present a single number as the solution to a question. They are comfortable with the existence of a single, best way to accomplish an objective. During the 20th century, it was common for engineers and scientists to move up the ranks and become managers, and the idea of a single best way to accomplish a task moved with them. In the real world, however, there frequently exists an array of solutions to business and management problems, some better than others, but many perfectly acceptable because they lead to the completion of the job. One of Mary Parker Follett's important contributions to management theory was the "law of the situation," which emphasizes that there is no one best way to do anything—it all depends on the situation. Contingency theory, or situational theory, uses Follett's concepts and is now considered mainstream management thinking.⁴ Precise management formulas do not exist; if they did, far more managers would be successful. The techniques recommended by the classical theorists should be used as guidelines in managing organizations.

HUMAN BEHAVIORAL MANAGEMENT

Human behavioral management studies began in the 1920s. Based on psychological concepts, the studies dealt with the human aspects of organizations. The philosophy of "social man" began to compete with the concept of "economic man." The movement began when researchers T. N. Whitehead, Elton Mayo, George Homans, and Fritz Roethlisberger conducted a series of industrial psychological experiments at the Hawthorne Plant of the Western Electric Company in Cicero, Illinois, from 1924 to 1933. One study examined the effect of changing the electric lighting illuminating the employees' work area. The

⁴ Fielder, F. E., *A Theory of Leadership Effectiveness* (New York: McGraw-Hill, 1967).

MANAGEMENT CONCEPTS

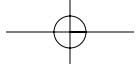
researchers established two groups: a control group for which the workplace lighting was held at a constant level and an experimental group that had varying illumination. The researchers expected that the group of workers receiving improved illumination would be more productive. The surprising results showed that the productivity of *both* groups improved. The researchers concluded that the increased attention given to the two groups made each feel special and led to the improved productivity. Mayo identified the "Hawthorne effect," which is the improvement in productivity that results when people know they are being studied.

The researchers at the Hawthorne plant conducted many experiments relating worker and group output to working conditions. Their efforts highlighted the importance of *informal groups* (i.e., groups arising out of the formal organization, but not specifically created by management) and the benefits of listening to employees' feelings and opinions. Work breaks, the freedom to talk, and approved requests for supervisory changes influenced individuals' work behavior in a positive manner. Over a period of years, the researchers found that workplace changes other than increased wages also affected productivity. Among these changes were varying the length of the workday and workweek, varying workers' starting and stopping times, and providing lunches paid for by the company. Nowadays, concerns about families' complicated lives have forced organizations to seek methods of improving worker satisfaction while improving productivity. One company had a problem with mandatory overtime on weekends. "Taking the suggestion of its manufacturing employees, the company switched to a schedule where workers put in a full workweek over four days. That allowed the company to schedule overtime, when needed, on Fridays, and let employees save weekends for family activities and, occasionally, have a three-day weekend."⁵ Similarly, Hewlett-Packard (H-P) decided to reconsider its traditional eight-to-five workday thinking:

Self-directed work teams in one H-P financial-services center opted to switch to a four-day-week, 10-hour-day schedule to process the high number of transactions. The results: Overtime dropped 50%, workers had more "quiet" time to develop process improvements, and the number of transactions processed daily per person increased by 70%.

The Hawthorne studies did not find a direct cause-and-effect relationship between working conditions and productivity; the worker's attitude was important. The researchers found that employees' complaints might be a symptom of some underlying problem on the job, at home, or in the workers' past. These findings led to the consideration of the psychological and group dynamics aspects of group productivity. People are not the rational economic beings assumed by classical theorists. Social interaction also is important in the workplace, and people work well if they feel valued. The studies at the Hawthorne plant gave birth to the human-relations movement and behavioral science approaches to management. In the 1940s, group dynamics studies encouraged

⁵ Verespej, M. A., "Human Resources: Flexible Schedules Benefit All," *Industry Week.com* (August 21, 2000): 25.



increased individual participation in decision making, and as a result, group performance improved.

Scientific management promotes a way of thinking about managing that is appropriate for an assembly line operation. This approach, however, may not work for other kinds of jobs. In particular, industries characterized by rapidly changing technology or not-well-understood processes require a different management approach. Managing technology and technologists, for example, demands solutions that use unconventional or “out-of-the-box” thinking.

HUMAN RESOURCES SCHOOL

During the 1950s, researchers began to examine employees' motivations in an effort to increase their productivity and efficiency. Because the behavioral approach did not always increase productivity, motivation and leadership techniques became a topic of great interest. Viewing workers and managers as human beings with social and emotional needs, modern theorists such as Abraham Maslow, Douglas McGregor, Frederick Herzberg, Chester Barnard, W. Edwards Deming and Warren Bennis emphasize the importance of social relations in organizations. The human resources school believes that employees are creative and competent and that much of their talent is largely unused by employers. Employees want meaningful work, desire to contribute to the organization's success, and wish to participate in decision-making and leadership processes.

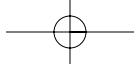
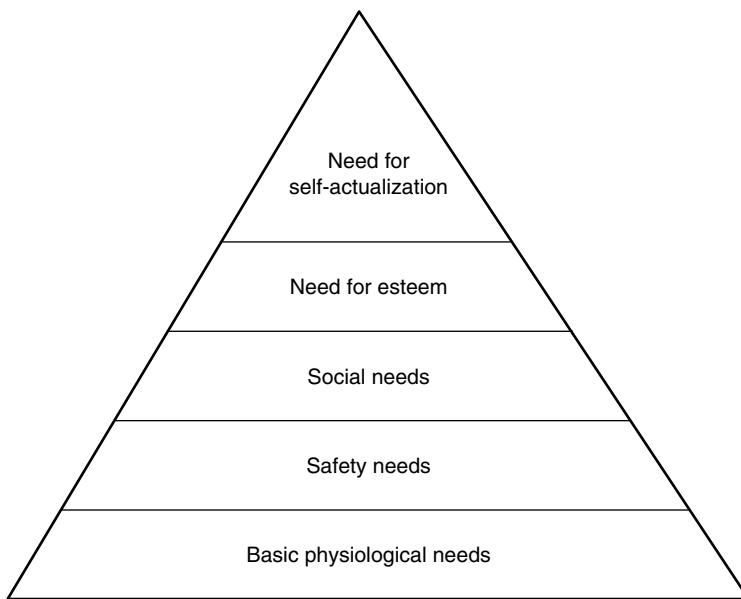
Herzberg's “Hygiene Factors”

Herzberg proposed a theory for motivating workers that introduced the following organizational motivating agents, which he called “hygiene factors”:

- administrative policies
- working conditions
- salary
- personal life
- peer, superior, and subordinate relationships
- status within the organization
- security

Herzberg concluded that positive hygiene factors are necessary, but not sufficient, to produce a contented worker. Also, although poor hygiene factors may destroy an employee's motivation, an improvement in those factors likely will not increase the worker's motivation. Positive results stem from the opportunity to achieve and experience self-actualization or personal fulfillment. For a worker to achieve maximum productivity and efficiency, the worker should experience a sense of self-worth or personal growth and responsibility from his or her work. The following are some positive motivating agents:

- recognition for a job well done
- work that is meaningful to the employee and to the employer

**FIGURE 4-3****Maslow's hierarchy of motivational needs**

- delegation of responsibility
- ongoing professional growth

Maslow's Hierarchy

Abraham Maslow formulated the theory of human motivational needs depicted in Figure 4-3.⁶ He argued that people seek to satisfy an orderly progression of needs, from physiological and safety needs to social needs and the need for esteem, before they can achieve self-actualization. Each layer in the pyramid builds upon the one that precedes it. Table 4-1 extends this concept to the workplace, wherein we note that workers, too, have a hierarchy of fundamental needs.

Maslow suggests that people follow a track extending from the lowest element in the hierarchy (satisfying physiological needs) to the highest (realizing self-actualization). The pursuit of self-actualization is an ongoing activity in which people attempt to attain perfection through self-development. Integrity, responsibility, high-mindedness, simplicity, and naturalness characterize the highest state of self-actualization. Self-actualizers focus on problems external to themselves. According to the table, people reach the highest level of motivation only after achieving some measure of accomplishment.

⁶ Maslow, A., *Motivation and Personality* (New York: Harper, 1954).

TABLE 4-1**Workplace Equivalents of Maslow's Hierarchy of Basic Needs**

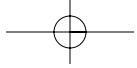
Basic Human Needs	Life Examples	Workplace Environment Examples
Physiological	Air, water, food, housing, and clothing	Adequate wages; satisfactory work; environment: light, temperature, and ventilation
Safety	Protection from danger (security), stability, and freedom from threat of physical harm	Freedom to change positions; complaint system; protection from hazards (e.g., government work regulations, Occupational Safety and Health Administration (OSHA) rules, and environmental protection (EPA) regulations; collective bargaining agreement; health and disability insurance; retirement packages
Social	Love, affection, approval, friends, and affiliations	Social interaction; company-sponsored functions; team or work groups; professional, trade, or craft organization functions
Esteem	Respect, dignity, attention, and appreciation	Signs of accomplishment (college degree, titles, awards, honors, peer recognition, and publications)
Self-actualization	Self-fulfillment, growth, learning, and realizing one's potential through competence, creativity, and achievement	Participation in decision making; creating something; participation in lifelong learning

McGregor's Theory X and Theory Y Worker

Examining the attitudes and perceptions of managers and workers, Douglas McGregor posed the idea that, in a company, two diametrically opposed belief systems coexisted among both the managers and the workers.⁷ He called the different sets of beliefs theory X and theory Y. McGregor compared two workers and the resulting management implications. The theory X worker, he said, held the following views:

- People are inherently lazy and require supervision.
- People dislike work and prefer to avoid it whenever possible.

⁷ McGregor, D., *The Human Side of Enterprise* (New York: McGraw-Hill, 1960).



- To induce the worker to exert adequate effort, the supervisor must threaten punishment and exercise careful supervision.
- The average worker avoids increased responsibility and seeks to be directed.

This view of people pertains to managers, too. Theory X managers rely on an authoritarian style or a top-down approach. They use external motivation techniques that include strict rules, performance incentives, rewards, and threats to the worker's job security.

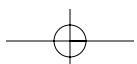
In contrast, McGregor's theory Y worker holds the following beliefs:

- People are creative.
- People want to do the job they are assigned and do not need continuous supervision.
- People want to be active and wish to find the job physically and mentally rewarding.
- People participate willingly in a task.
- People not only accept, but actively seek, responsibility and authority.
- People are not necessarily resistant to the needs of the organization. Indeed, they are concerned with self-growth and fulfillment within the organization's rules.
- People seek opportunities for personal improvement and circumstances in which they can gain self-respect.

Like his or her worker, the theory Y manager believes that people are self-starters and advocates worker participation in decision making. He or she expects that employees will tend to work toward objectives without having to be coerced or controlled. Theory Y managers try to establish cordial worker-manager relationships. They develop an environment in which the workers can achieve their objectives by directing their efforts toward the organization's goals. Theory Y managers permit workers to design their own jobs, a type of freedom required and appreciated by highly trained and creative workers such as scientists and engineers. These managers understand that using a coercive or dictatorial management style causes employees to leave the organization for other job opportunities. Nonetheless, caution is advised: Some professionals will want to "tweak" a design or improve the operation of a system beyond what the organization requires; others insist on finding a better way to achieve a desired result or simply exercise scientific curiosity, regardless of cost. Happily, these people take great pride in their work and desire to express their individualism and talent, but project managers must balance the completion of the task within schedule and budgetary constraints with the employee's ego and personality.

In recent years, many of the ideas advanced by Maslow, Herzberg, and McGregor have been corroborated.⁸ A challenging project has been found to be the single most important factor influencing the behavior of project team

⁸ Sotiriou, D., and Wittmer, D., "Influence Methods of Project Managers: Perceptions of Team Members and Project Managers," *Project Management Journal* 32(3): 12-20.



members. Other factors, ranked in order of importance, are having authority for the project, possessing project management expertise, the prospect of similar future work, an increase in salary, friendship, and coercion. The project manager's leadership role includes negotiation, the use of his or her personality, persuasion, and management competence. Finally, team members value professional integrity—fairness, honesty, consistency, and trustworthiness in leaders whom they can count on for the duration of the project.

Acceptance Theory of Authority

Chester Barnard, a former CEO of New Jersey Bell Telephone, developed the concepts of strategic planning and the acceptance theory of authority.⁹ Strategic planning guides the organization in its pursuit of major goals. Barnard believed that the most important functions of the executive were to (1) establish and maintain an effective communication system, (2) hire and retain productive personnel, and (3) motivate those personnel. He advanced the idea that managers have only as much authority as employees allow them to have. The employees' acceptance of authority depends on the following four conditions:

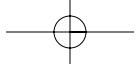
- an understanding of what the manager wants them to do.
- the ability to comply with the directive.
- the belief that the request is in line with the organization's goals.
- the belief that the manager's request does not conflict with their personal objectives.

Barnard believed that each individual accepts orders without consciously questioning them, but only up to a point. Accordingly, the organization must provide inducements to raise each employee's threshold of acceptance so that the manager's orders will be followed.

Management by Objective

Peter Drucker has interpreted management theory for more than 50 years. During the 1940s and 1950s, he advanced the ideas that management would have to treat workers as individuals, that an organization's culture would influence its production, and that foreign competition would become a significant factor in U.S. business. Since the 1960s, Drucker has stressed management fundamentals, including strategic management ideas, and has introduced the phrase *management by objective* (MBO), also known as managing by results. MBO is the annual process of selecting a set of objectives [targets that meet the SMART criteria (see Chapter 2)] that an employee would attempt to achieve during the year. Organizations used MBO to establish objectives for their staffs in an effort to assess what they have accomplished. Technical and business managers frequently believe that only what is measurable can be improved. Among the indicators of performance that can be measured are financial margins, revenue

⁹ Barnard, C., *The Functions of the Executive* (Cambridge, MA: Harvard University Press, 1938).



per employee, price-to-earnings ratio, asset turnover, debt-to-equity ratio, current ratio, working capital, unit costs, inventory turns, manufacturing cycle time, forecast accuracy, units produced, win-loss rates, service margins, service call response rates, customer retention, number of new customers, head counts, retention rate, hiring cycle time, learning rate, recruitment, labor costs, skills learned, absenteeism, and overtime. The annual objectives that employees develop usually include some combination of these performance measurement indicators.

MBO gained popularity because (1) it was designed to produce tangible outcomes, (2) it could be used at any or all levels in the organization, and (3) it was relatively simple and inexpensive to implement following training. As a measure of performance, MBO attempted to keep people focused on producing results, which are evaluated against outcomes. The supervisor meets periodically with each of his or her workers to review their progress in achieving the stated objectives. Some organizations link the manager's salary increments to MBO success.

Drucker further emphasized that management must be tough both outside (focused on its mission and on the aims of the organization) and inside (focused on the structure, values, and relationships that enable each worker to excel).¹⁰ Drucker asserts that management is a discipline—a practice—and not a science.

Deming's Ideas

During the 1950s, Japanese industry exported a variety of products to the United States, many of poor quality. Then the Japanese embraced W. Edwards Deming's ideas of statistical quality control. Deming stressed both the human factors and the technological aspects of production. His concept of total quality management (TQM) was intended to, and did, actively involve workers in discovering ways of improving the quality of the products and services they delivered in an ongoing manner. Deming encouraged industry to continually examine its products at the various stages of production and gather data to determine whether and when the production process was showing signs of veering away from pre-determined limits. If it was, the worker and management together were to identify and implement appropriate changes to fix the problem. In the 1970s, the quality of Japanese cars became almost legendary and forced the U.S. auto industry to wake up and improve. In part, improvements came when Deming's and operations research analyst Joseph M. Juran's ideas of statistical process control were implemented. Forty years after Japanese industry began to use Deming's recommendations, the ideas of involving workers in the production process and of statistical process control were accepted and introduced into U.S. industry.

In the 1980s, Deming consulted with executives from Ford Motor Co. and General Motors about their decision to adopt the philosophy of continual improvement. In Deming's system of management, continual improvement becomes a way of life in which everyone—the organization and its people,

¹⁰ Drucker, P. F., *The Frontiers of Management: Where Tomorrow's Decisions Are Being Shaped Today* (New York: Truman Talley Books, 1986).

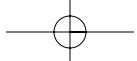
suppliers, and customers—wins. Managers and workers cooperate on process-improvement teams and try to change adversarial attitudes. Using statistical methods that involve collecting and analyzing data, they help the organization determine whether a problem is occurring randomly or is embedded in the production process. Then they analyze and act on the data to resolve the problem.

Interestingly, Deming strongly opposed MBO. Although he cared about results, he was equally concerned about the method used to try to achieve those results. He believed that working to meet quotas, fulfill numerical objectives, and otherwise manage by numbers was destructive to the overall organization, an approach that is decidedly different from the views of many management theorists and practitioners.

Deming formulated 14 managerial points that describe controversial fundamental philosophy and represent his program for improvement. The Deming-Shewhart cycle (“plan, do, check, act”), discussed further in Chapter 9, describes their joint approach toward continuous improvement. According to its tenets, management selects areas for improvement and develops measurement strategies and planning goals. Using a TQM format, cross-functional teams coordinate improvement in each area of interest. The teams develop tests and gather data to confirm the presence or absence of problems. Where needed, they generate and then implement action plans to make improvements. Afterward, the teams evaluate the results of their efforts, fine-tune corrections, and continue fine-tuning and evaluating until they achieve satisfactory results. In this manner, the team attacks newly recognized issues and problems as they are discovered. Deming’s 14 points are summarized below:

W. Edwards Deming's 14 points for management^a

1. Create constancy of purpose toward the improvement of product and service, with the aim of becoming competitive, staying in business, and providing jobs.
2. Adopt the new philosophy. 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 inspection to achieve quality. Eliminate the need for inspection on a mass basis by building quality into the product in the first place.
4. End the practice of awarding business on the basis of the price tag. Instead, minimize total cost. Move toward a single supplier for any one item, on a long-term relationship of loyalty and trust.
5. Improve constantly and forever the system of production and service, to improve quality and productivity and thus constantly decrease costs.
6. Institute training on the job.
7. Institute leadership. The aim of supervision should be to help people, machines, and gadgets do a better job. Supervision of management is in need of overhaul, as is supervision of production workers.
8. Drive out fear, so that everyone may work effectively for the company.
9. Break down barriers between departments. People in research, design, sales, and production must work as a team to foresee problems of production and use that may be encountered with the product or service.
10. Eliminate slogans, exhortations, and targets for the workforce that ask for zero defects and new levels of productivity. Such exhortations only create adversarial relationships, as the bulk of the causes of low quality and low productivity belong to the system and thus lie beyond the power of the workforce.



11. a. Eliminate work standards (quotas) on the factory floor. Substitute leadership.
b. Eliminate management by objective. Eliminate management by numbers and numerical goals. Substitute leadership.
12. a. Remove barriers that rob the hourly worker of his right to pride of workmanship. The responsibility of supervisors must be changed from sheer numbers to quality.
b. Remove barriers that rob people in management and in engineering of their right to pride of workmanship. This means, *inter alia*, abolition of the annual merit rating and of management by objective.
13. Institute a vigorous program of education and self-improvement.
14. Put everybody in the company to work to accomplish the transformation. The transformation is everybody's job.

^a Excerpted from Chapter 2 of Deming, W. E., *Out of the Crisis* (Cambridge, MA: MIT Center for Advanced Engineering, 1986).

Recent Management Views

In the mid-1960s, the contingency view of management, or situational approach, emerged. This view integrated management thought by advocating that managers use any approach that they deem appropriate to the situation at hand. In effect, the manager is an actor and should assume a behavior that deals with the circumstances before him or her.

New management viewpoints have emerged during the last 20 years. *Total quality management* emphasizes achieving customer satisfaction by providing high-quality goods and services. *Reengineering the organization* redesigns the processes that are crucial to customer satisfaction.

Another relatively recent idea is *managing in chaos*.¹¹ According to this idea, the starts, stops, spurts, and other movements of the technological revolution demand both personal and corporate flexibility. The outpouring of information and data and the constant flow of governmental, personnel, and technological changes require a "flat" (i.e., nonhierarchical) organization wherein people have the authority to respond quickly to competitive pressures.

In the future, managing will face some unusual challenges. AT&T, IBM, and other organizations are experimenting with alternative workplaces.¹² Non-traditional work practices include a variety of techniques. In one such technique, "*hoteling*," workspaces include shared space, equipment, and services. People working in companies with many offices located in different geographic areas use "hotel" workspaces in satellite offices. Another nontraditional practice, made possible by the telecommunications revolution, is *telecommuting*, wherein employees work at home. Managers and organizations accustomed to face-to-face interaction have to adjust to these new ways of operating. Nowadays, "managers and employees are moving up the curve toward information-age literacy, which is characterized by flexibility, informality, the ability to change when necessary, respect for personal time and priorities, and a commitment to

¹¹ See Peters, T., *Thriving on Chaos: Handbook for a Management Revolution* (New York: Perennial Library, 1988).

¹² See Apgar, M., IV, "The Alternative Workplace: Changing Where and How People Work," *Harvard Business Review* (May-June 1998): 121-136 (reprint no. 98301).

using technology for improving performance."¹³ To meet the challenge, managers will have to adjust their way of monitoring employees and the progress of projects. Employee evaluations and salary reviews may be affected, and customers, suppliers, and other stakeholders will require education in this new approach.

Managers are still learning to manage diversity. Cultural, ethnic, and gender differences require special management considerations. Not long ago, I attended an annual corporate status review for a privately held technology company. The chief executive officer (CEO) addressed the assembly of employees. The company consisted of about 400 employees, with a minority population of perhaps five percent. The executive, known for his sense of humor, decided to break the ice by telling a joke that made fun of a certain ethnic group. The only reaction to the joke's punch line was some nervous laughter. The CEO was clearly surprised that his joke did not get the expected response, and he remarked, "Well, if you didn't get it, see me in private." After the meeting, several upper managers commented in private on the insensitivity of the CEO's joke. It was clear that they had lost respect for him. Ultimately, the joke contributed to a decision by one of the handful of employees who was a member of the ethnic group that was the butt of the joke to leave the company. Because that individual was a key manager, the loss was deeply felt by the company.

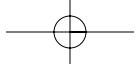
The global organization with transnational operations requires new management approaches. Managing in tomorrow's environment will require a new set of rules, which have yet to be formulated.

MANAGEMENT STYLES

Four generic management styles have evolved: *autocratic*, *laissez-faire*, *democratic*, and *participative*. The autocratic manager is the traditional figure of a boss who exercises tight control over employees. This manager expects the employee to follow through on a directive, regardless of the employee's thoughts or wishes. His or her philosophy is "I call the plays and don't bother me with facts." In today's environment, this stereotypical theory X manager could demoralize the organization. Perhaps such a manager could successfully manage a low-risk project with an inexperienced staff that will execute a project plan as presented to them. Still, the autocratic style could lead to resentment if the staff's contribution is not recognized. Highly skilled people desire and expect managers to listen to their voices. Not considering or continually rejecting employee's opinions may lead to dissatisfied employees and poor decisions.

Applied to organizational management practice, the French term *laissez-faire* means that the manager provides little guidance to employees, who are free to pursue almost anything they wish. Projects that require considerable creativity such as people involved in research and development, laboratory research, or a university environment require a freethinking, tolerant, hands-off

¹³ *Ibid.*, p. 125.



atmosphere and will benefit from a minimum of management oversight. By contrast, a laissez-faire management style will prove disastrous for high-visibility, schedule-driven projects that require quick decisions and fast actions.

A democratic management style invites employee involvement. Managers and their staffs collectively discuss and evaluate issues and reach decisions. This management style aligns itself with American tradition and culture. Democratic managers empower employees by giving them more decision-making power and by seeking ideas from every worker. A democratic manager lets the forces within the group work toward a decision. Since the employees participate in the decision-making process, they will assume ownership of, and responsibility for, the final plan of action. Democratic leadership implies majority rule or rule by consensus. Sometimes, majority rule may not lead to the best solution, especially if a vocal, but uninformed, person takes a leadership role. A further disadvantage of the democratic style involves time: If full discussions of issues take place, decisions may take longer to be reached.

Like the democratic manager, the participative manager encourages employee involvement in making decisions. The participative manager asks for and receives input from the group in an atmosphere of trust, honesty, and open communication. Such a manager demonstrates to his workers that their inputs are valued. However, unlike the democratic manager, the participative manager makes the final decision. Because most managers are unwilling to give up that right, there are more participative managers than democratic managers.

A person's management style depends on his or her personality and on the situation. Rarely does a manager use one style all the time. A manager must be flexible and use a style appropriate to the stakeholder and the situation.

POWER

Managers use power both to influence the success of a project and to elicit employees' cooperation. Power is based on the worker's perception of the leader and can be categorized as follows:¹⁴

- *Reward power.* The worker believes in the manager's ability to obtain rewards (e.g., financial compensation, a promotion, recognition, or various privileges) for those who comply with specific requests.
- *Coercive power.* The worker believes in the manager's ability to punish him or her (e.g., by withholding raises in salary or promotions or by reprimanding the employee).
- *Formal power.* The manager has the right to exercise power because of his or her designated position in the organization.
- *Referent power.* The worker identifies with the manager because of his or her attractiveness, reputation, or charisma.

¹⁴ The first five categories are after French, J. R. P., and Raven, B. H. "The bases of social power." In D. Cartwright (Ed.), *Studies in social power* (Ann Arbor: University of Michigan, 1959), pp. 150–167.

- *Expert power.* The manager has competence, special knowledge, or expertise in a well-defined discipline.
- *Power through control of information.* The manager can either communicate information or withhold it at will.

The three “legitimate” forms of power (formal, reward, and coercive power) stem from the person’s position within the organization. Referent, expert, and information forms of power may come from factors outside the organization. Although the project manager exerts legitimate power, it sometimes may not influence workers’ behavior as much as expected. In particular, creative people and workers with technical knowledge frequently respond better to expert power rather than to “bureaucrats.”

Expert power results from the internal or external recognition that a person has achieved. Employees recently transferred to a project management role as a consequence of demonstrating outstanding technical ability will discover a very uncomfortable lesson: A project manager cannot both stay technically current and manage a project. In any project of some complexity, the project manager will regularly interact with customers, suppliers, functional managers, upper-level managers, and other stakeholders. There is much to do, and there will never be enough time to stay technically current. Accordingly, technical analyses and designs must be left to the functional personnel. People coming to project management from a technical background find it frightening to leave that background behind them. Up to that point, they have spent their careers accumulating, developing, and honing their technical skills. Exchanging technical expertise for management competencies may be a sufficient reason to discourage some people from making such a career change.

Table 4–2 illustrates how others might view the project manager’s power from their organizational perspective. The evaluations listed represent subjective conclusions. A technical functional manager may have little regard for a project manager’s technical ability, but high regard for that person’s ability to

TABLE 4–2**Impact of a Project Manager’s Power**

Type of Power	GROUP POWER EXERTED ON					
	Upper Management	Project Manager’s Direct Reports	Functional Managers	Functional Department Personnel	External Customers	Suppliers (Vendors)
Formal	None	Maximum	Moderate	Minimal	Maximum	Maximum
Reward	None	Maximum	Minimal	Minimal	Minimal	Maximum
Coercive	None	Maximum	Minimal	Minimal	Minimal	Maximum
Expert	Minimal	Maximum	Minimal	Minimal	Moderate	Moderate
Referent	None	Maximum	Maximum	Maximum	Moderate	Moderate

Adapted from Adams, J. R., and B. B. Campbell, “Roles and Responsibilities of the Project Manager in Principles of Project Management,” in J. S. Pennypacker (editor in chief), *The Global Status of the Project Management Profession* (Upper Darby, PA: Project Management Institute, 1996), pp.69–122.

MANAGEMENT CONCEPTS

control a customer. Upper management may value a project manager's ability to plan and coordinate efforts and to motivate people. Suppliers believe that the project manager, as the primary contact between the organization and external stakeholders, wields great influence in the selection of organizations for future contract awards. Suppliers who are hungry for new work will make great efforts to deliver goods and services in a timely fashion to impress the project manager.

TEAMS

During the 1980s and 1990s, managers discovered the benefits of using teams to get a job done. A team is a small number of people with complementary skills who are committed to a common purpose, set of performance objectives, and approach for which they hold themselves mutually accountable.¹⁵

Teams are empowered by the organization to establish objectives within the framework of the project's objectives. Competitive demands require quick decisions by knowledgeable employees who work close to the source of problems. Empowered teams can make decisions fast. The team has the approval, trust, and encouragement of the organization to make the decisions necessary to accomplish the job. Successful teams depend on good communication methods to share information, and they demand that their members have outstanding problem-solving skills. Effective supervisors empower employees by giving them more decision-making power and by seeking ideas from every worker.

Not all groups are teams. A team may be differentiated from a group in the following ways:

Characteristics of a Working Group

- Has a strong, clearly focused leader.
- Accountability rests with the individual.
- The group's purpose is the same as that of the broader organizational mission.
- Work output is individual.
- Runs efficient meetings.
- Measures its effectiveness indirectly by its influence on others (e.g., financial performance of the business).
- Discusses, decides, and delegates.

Characteristics of a Team

- Leadership roles are shared.
- Accountability is both individual and mutual.
- The team has its own specific purpose, apart from that of the organization.
- Work output is collective.
- Encourages open-ended discussion and active problem-solving meetings.
- Measures performance directly by assessing collective work output.
- Discusses, decides, and does real work together.

In a sense, the leader of the team acts as a facilitator. A group achieves *synergy* (an effect greater than the sum of the effects into which it is broken) if its members become a team. A team begins as a collection of individuals brought

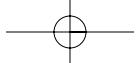
¹⁵ Katzenbach, J. R., and D. R. Smith, "The Discipline of Teams," *Harvard Business Review* (March–April 1993): 111–120 (reprint no. 93207).

together in a work situation. For a group to unite and form an effective team, the group members must successfully move through the following four stages of development:¹⁶

1. *Forming.* The members of the group come together and begin to get acquainted. Depending on their personalities, some are eager to meet and work, some act formally and tentatively, some are hostile, some focus on the task, and others focus on people. The group decides and agrees on its objectives and the basic operational ground rules, such as dates and times of meetings, requirements for attendance, how decisions will be made, and so on.
2. *Storming.* Members still view themselves as part of their parent department rather than part of the team. Individual personalities surface and generate interpersonal conflict. Individuals begin to compete for attention and influence. Emotions are stirred, and depending on the personalities of the team members, conflicts may arise. Individuals reveal their personal agendas as they assert their feelings, ideas, and viewpoints. Interpersonal skills are critical. Members learn to appreciate each other's capabilities. The group must agree on the distribution of power, responsibility, and authority among its members. A sense of humor helps at this stage of low morale and productivity. Success cannot begin until the next stage.
3. *"Norming."* The individuals blend together into a project team and realize that they can perform if they accept other viewpoints. The project manager can help this process along by establishing an esprit d' corps and a cohesive group. Individuals begin to think of one another. They become more sensitive to each other's needs and begin to share ideas, information, and opinions. Fewer conflicts arise, and members expend less energy engaging in them. Task considerations start to override personal objectives and concerns. Plans develop. Both formal and informal procedures for solving problems, making decisions, and resolving conflicts develop. Productivity increases.
4. *Performing.* The group emerges as a team. Flexibility is the key and hierarchy is of little importance. Team roles are strongly connected to the task that is performed. Members work and solve problems together. Structural and interpersonal issues have been resolved. Members trust, support, and feel comfortable with each other. Everyone cares about doing a good job. If any of the previous phases did not terminate satisfactorily, the team will return to them, resulting in wasted time and energy.

In 1983, General Motors began to plan the Saturn Corporation, which, using an entirely new set of employment practices, would build and sell small cars. Saturn decided to compete with Japanese auto manufacturers by using self-directed work teams of 10 to 15 members who were cross trained and who

¹⁶ Tuckman, B. W., "Developmental Sequence in Small Groups," *Psychological Bulletin* 63 (1965): 384-399.



rotated responsibility for the tasks in their units. Each team would hire new members and elect its leaders. Teams had responsibility for quality assurance, job assignments, record keeping, safety and health, material and inventory control, training, supplies, and housekeeping.

Saturn's self-governing work teams would follow the construction of an automobile through the entire assembly line. The objective of the changes was to increase the quality of the product, decrease boredom, and increase worker job satisfaction. Saturn incorporated robots and other forms of automation into the production line to help reduce boredom and fatigue and to ensure high standards of quality.

Ultimately, Saturn's successful approach helped to alter the rigid departmental boundaries within the auto industry. The team-based structure consisting of knowledgeable employees who worked close to the source of problems promoted quick decisions. Labor and management leaders had to learn to overcome their resistance to sharing power. The team concept forced management to redefine the organization's mission, objectives, and hierarchical structures.

Project Managers Lead Teams

Teams succeed if they are taken seriously, are given a clear purpose, are given authority to make decisions, and have the appropriate technical mix of skills and if their members can work together. Effective teams have clear and well-understood objectives that are accepted by their members. Frequently, organizational outcomes benefit from teamwork, and individual member satisfaction improves. Nonetheless, implementing a team-building program is far from easy.

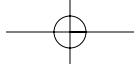
The project manager assembles and leads a team, sharing project-related knowledge and information so that the team can solve problems. The team members possess technical knowledge and skills. Using his or her ability to communicate to, and on behalf of, the team, the project manager acts as the liaison with stakeholders such as upper management, other internal teams, customers, and suppliers. The project manager represents the team's interests, obtains needed resources, clarifies expectations, gathers information, and keeps the team informed.

Implicit to the success of any team is the mutual trust and respect between it and the project manager. Each must have credibility, integrity, character, and reliability. Lacking any of these elements will cause unneeded tension in the group and may cause it to return to the storming stage.

The elements of an effective team may be summarized as follows:¹⁷

- Contributions made within the group build upon each other.
- The group moves forward as a unit; there is a sense of team spirit and high involvement.
- Decisions are made by consensus.
- Most members have a strong commitment to the team's decisions.

¹⁷ Argyris, C., *Organization and Innovation* (Homewood, IL: R. D. Irwin, 1965).



- The group evaluates itself continually.
- The group is clear about its goals.
- Conflict is brought out into the open and dealt with.
- Alternative ways of thinking about solutions are presented.
- Leadership of the group tends to go to the individual who is best qualified for the post.
- Feelings are dealt with openly.

Dealing with and implementing these elements turns the group into a team.

LEADERSHIP

Management and *leadership* are intertwined. Indeed, nowadays managers must know how to lead as well as manage.¹⁸ Questions arise: What is leadership? How does it relate to management? Leadership means different things to different people. The following quotes present various thoughts and opinions on leadership:

Getting the job done using whatever means required!—1999 Fairfield University leadership class.

Damn the torpedoes—full speed ahead!—Vice Admiral David Glasgow Farragut at the Battle of Mobile Bay in August 1864

Leadership is the ability to inspire other people to work together as a team, following your lead, in order to attain a common objective, whether in business, in politics, in war, or on the football field.... Leadership cannot really be taught. It can only be learned.—Harold Geneen.¹⁹

Leadership is the capacity and will to rally men and women to a common purpose and the character which inspires confidence.—Bernard Montgomery, British field marshal
Leadership is a dynamic relationship based on mutual influence and common purpose between leaders and collaborators in which both are moved to higher levels of motivation and moral development as they affect real, intended change.—Kevin Freiberg and Jackie Freiberg²⁰

Take the course opposite to custom and you will almost always do well.—Jean Jacques Rousseau

There are many elements to a campaign. Leadership is number one. Everything else is number two.—Bertolt Brecht

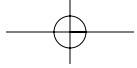
A leader is a man who has the ability to get other people to do what they don't want to do and like it.—Harry Truman

Coaches who can outline plays on the blackboard are a dime a dozen. The ones who succeed are those who can get inside their players and motivate them.—Vince Lombardi

¹⁸ See Kotter, J. P., *A Force for Change: How Leadership Differs from Management* (New York: The Free Press, 1990).

¹⁹ Geneen, H., and A. Moscow, *Managing* (New York: Avon Books, 1985), p. 133.

²⁰ *Nuts! Southwest Airlines' Crazy Recipe for Business and Personal Success* (Austin, TX: Bard Books, 1996), p. 298.



Leaders have a significant role in creating the state of mind that is the society. They can serve as symbols of the moral unity of the society. They can express the values that hold the society together. Most importantly, they can conceive and articulate goals that lift people out of their preoccupations, carry them above the conflicts that tear a society apart, and unite them in the pursuit of objectives worthy of their best efforts.—John Gardner

We herd sheep, we drive cattle, we lead people. Lead me, follow me, or get out of my way.—George S. Patton

Pull the string, and it will follow wherever you wish. Push it, and it will go nowhere at all.—Dwight D. Eisenhower

Leadership is an influence relationship among leaders and followers who intend real changes that reflect their mutual purposes.—Joseph C. Rost

A leader is responsible for lean and simple statements of policy consistent with beliefs and values, vision and strategy. Policy gives practical meaning to values. Policies must actively enable people whose job it is to carry them out.—Max De Pree

Leadership is the art of accomplishing more than the science of management says is possible.—General Colin Powell

Plainly, many great minds have different views of leadership, and defining the term is not easy:

Never have so many labored so long to say so little. Multiple interpretations of leadership exist, each providing a sliver of insight but each remaining an incomplete and wholly inadequate explanation. Most of these definitions don't agree with each other, and many of them would seem quite remote to the leaders whose skills are being dissected. Definitions reflect fads, fashions, political tides and academic trends. They don't always reflect reality and sometimes they just represent nonsense.²¹

There are almost as many definitions of leadership as there are persons who have attempted to define the concept.—Ralph M. Stogdill²²

The following definition, which emphasizes the idea that a leader promotes change, is used in the pages that follow:²³

Leadership refers to a process that helps direct and mobilize people and/or their ideas.... Leadership does not produce consistency and order; it produces movement.... Leadership

1. Establishes direction—develops a vision of the future along with strategies for producing the changes need to achieve that vision
2. Aligns people—communicates the direction to those whose cooperation may be needed so as to create coalitions that understand the vision and that are committed to its achievement
3. Motivates and inspires—keep people moving in the right direction despite major political, bureaucratic, and resource barriers to change by appealing to very basic, but often untapped, human needs, values, and emotions.

The suggestion is that a leader must develop a future-directed orientation: Anticipate industry trends and challenge the status quo. Think about some of

²¹ Bennis, W. and B. Nanus, *Leaders* (New York: Harper & Row, 1985), pp. 4–5.

²² Bass, B. M., *Bass & Stogdill's Handbook of Leadership: Theory, Research, and Managerial Applications*, 3rd ed. (New York: The Free Press, 1990), p. 11.

²³ Kotter, *op. cit.*, p. 5.

the great leaders that have made their mark on the world. In biblical times, figures such as Moses, Jesus, and, later, Mohammed presented a vision, communicated ideas to people, and motivated their followers to effect change. Winston Churchill had a vision to save his country from the onslaught of tyranny and oppression. He rallied the British people during World War II against a horrific leader, Adolph Hitler. After September 11, 2001, U.S. President George W. Bush related his vision of ridding the world of terrorism. Toward that end, he communicated the vision to other world leaders, as well as the American people, in an effort to build a coalition to attack terrorist forces. Modern business leaders such as Jack Welch (retired from General Electric), Steve Jobs (Apple), Michael Dell (Dell Computers), and Bill Gates (Microsoft) had visions of where to take their organizations. They communicated their visions to their employees and then motivated them to implement the vision.

After defining a vision, leaders set out to inform and persuade others to follow their beliefs and philosophy. During the 1960s, Martin Luther King had a vision of a nonracist America that he communicated to the American populace through speeches, marches, sit-ins, and his writings. He mobilized his "troops" to action by inspiring them. King motivated the American people and their political representatives to take action and pass legislation in support of his vision.

Leadership applies to everyone—not only political, military, and business figures. At the very least, people lead their lives by creating a vision of where they want to go and then communicating that vision to others who need to know it. People then need to motivate and inspire themselves to pursue and attain their goals.

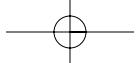
LEADERSHIP VERSUS MANAGEMENT

Are managers leaders? The following is one distinction between management and leadership:²⁴

- Management is more formal and scientific than leadership. It relies on universal skills such as planning, budgeting, and controlling. Management involves an explicit set of tools and techniques, based on reasoning and testing, that can be used in a variety of situations.
- Leadership, in contrast to management, involves having a vision of what the organization can become.
- Leadership requires eliciting cooperation and teamwork from a large network of people and keeping the key people in that network motivated, using every manner of persuasion.

Management theorists draw an important distinction between leadership and management. The leader creates a vision for the organization and gains support among its personnel. The leader specifies the organization's objectives, as

²⁴ *Op. cit.*, p. 39.

**TABLE 4-3****Organizational Approaches of Leaders and Managers^a**

Category	Leader	Manager
Creating an agenda	Establishes direction: Develops a vision and the strategies needed for its achievement.	Plans and budgets: Establishes detailed steps and timetables for achieving needed results; allocates necessary resources.
Developing a network for achieving the agenda	Involves aligning people: Communicates direction by words and deeds to all those whose cooperation may be needed to help create teams and coalitions that understand the leaders' vision and strategies and that accept their validity.	Organizes and staffs: Establishes a structure for achieving the plans; staffs the organization; delegates responsibility and authority for implementing the plans; develops policies and procedures to guide people; creates monitoring systems.
Execution	Motivates and inspires: Energizes people to overcome major political, bureaucratic and resource barriers to change by satisfying basic human needs.	Controls and solves problems: Monitors results, compares them with plans, and then plans and organizes to close any gaps.
Outcomes	Produces change, often to a dramatic degree. Has the potential for producing extremely useful change, such as new products desired by managers.	Produces a degree of predictability and order: Has the potential to consistently produce key results expected by various stakeholders (such as meeting deadlines for customers and paying dividends to stockholders).

^aFrom Kotter, J. P., *A Force for Change: How Leadership Differs from Management* (New York: The Free Press, 1990).

well as the strategy for attaining them. In contrast to the leader, the manager's key function involves implementing the leader's vision by establishing supporting objectives and using skills such as planning, organizing, directing, and controlling. The manager chooses the means to achieve the end that the leader formulates. Leadership deals with change, inspiration, motivation, and influence; management deals more with carrying out objectives. Table 4-3, compares the leader's and manager's organizational approaches.

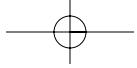
Some researchers believe that a leader's orientation differs fundamentally from a manager's. Table 4-4 compares the beliefs and attitudes of an administrator, a manager, and a leader. In each case, does the leader's response follow the maxim "Managers are people who do things right, and leaders are people who do the right thing"?²⁵

²⁵ Bennis, W., and B. Nanus, *Leaders* (New York: Harper & Row, 1985), p. 21.

TABLE 4-4**Primary Beliefs and Attitudes**

	Administrator	Manager	Leader
Rewarding subordinates	Get just what the policy provides	Fair pay for fair work	Major rewards for major results or accomplishments
Decision-making basis	Decision is made by the policy or procedure	Stick with policy, except where exceptions are fully justified	Special circumstances require different decisions
Strategic orientation	Internal	Internal, except when major external events intervene	External
Innovation and creativity	Change is threatening	Tries to plan out major changes	Improvements come through change
Handling variables	One variable at a time	Handle multiple variables if not too complex	Balances and blends multiple, complex variables
Efficiency and effectiveness	Covers every detail in depth	Doing things right	Doing the right things
Time frame for thinking	Short range, month to month or year to year	Medium range, 2–4 years	Strategic, 5–10 years
Big vs. small picture	Concentrates on details	Concentrates on details as they fit into a system	Sees the “big picture”
Organization structure	Bureaucratic, many levels	Traditional	Flat, few levels
Security level	Low, protect my rear	Average, except when things go wrong	Very secure and confident
Management atmosphere	You can't fight city hall	Your progress depends upon you	Win-win atmosphere
Policies	Cast in concrete, takes an act of God to change	Exceptions can be made, but must be strongly justified	Uses only as a guide to most actions
People	Emphasis on controls and time spent	Emphasizes team effort	Leads by example
Change	Seeks to maintain status quo; don't rock the boat or make waves	Changes made if major problems dictate or when pressure builds up	Change is encouraged continually
Conflict	Avoids conflicts at any cost	Addresses if they become major	Recognizes that they will occur; concentrates on resolving them for improvements
Subordinate loyalty	Is to the policy	Mixed between the policy and the manager	Is to the leader
Risk taking	Avoids at all costs	Accepts minimal risk	Encourages planned risk taking
Information sharing	Little	Need-to-know basis	Open and frank
Approach to problems	Avoids like the plague	Solves as they develop; reactive	Problems are normal part of the job; proactive
Handling mistakes	Protect my rear and offer excuses; pin the guilty	Emphasize why it happened, not who caused it	Learn from them, don't dwell on them once solved
Authority	Emphasizes formal authority and power	Authority goes with the position	Maximum use of informal authority

From McConkey, D. D., “Are you an administrator, a manager or a leader?” *Business Horizons* (September–October, 1989): 15–21. Reprinted with permission from *Business Horizons*. Copyright 1989 by the Trustees at Indiana University, Kelley School of Business.



COMPETITIVE ADVANTAGE

Every year, *Industry Week* selects the 100 best-managed companies. "Each company is a leader in its industry and demonstrates superior management skills in areas such as financial performance, innovation, leadership, globalization, alliances and partnerships, employee benefits and education, and community involvement."²⁶ "All companies understand that the key to competitive advantage in this century will be the capacity of top leadership to create social architecture capable of penetrating intellectual capital.... The best managed companies are able to integrate and implement the new-economy virtues of speed and e-commerce with the old-economy virtues of generating profit, market share, and excellent customer service."²⁷ Major management challenges confront organizations in this century.

REVIEW QUESTIONS

1. What type of manager would a stereotypical ex-military officer make? Would this person be a good candidate to manage a drug research organization? Explain your answer.
2. Presidents Carter and Reagan had different management and leadership styles. Use the Internet to obtain examples of their styles. Which president would you rather work for? Why?
3. In their article, "Power is the Great Motivator," McClelland and Burnham state, "A high need for power is an important characteristic of successful managers."²⁸ Comment on the following statement: Managers with a high need for power frequently use it for the benefit of the organization rather than for self-aggrandizement.
4. How well does the following quote describe the managers that you know? Explain.

Leaders articulate and define what has previously remained implicit or unsaid; then they invent images, metaphors, and models that provide a focus for new attention. By so doing, they consolidate or challenge prevailing wisdom. In short, an essential factor in leadership is the capacity to influence and organize meaning for the members of the organization.²⁹

5. This chapter talks about accountability. Describe the difference between "the boss holds me accountable" and "we (I) hold ourselves (myself) accountable."

²⁶ Hasek, G., "The World's 100 Best," *Industry Week.com* (August 21, 2000): 46–68; quote from p. 49.

²⁷ Bennis, W., and R. Aggarwal, cited in *ibid.*, p. 49. Or see <http://industryweek.com/currentarticles/asp/articles.asp?ArticleId=861>

²⁸ McClelland, D. C., and D. H. Burnham, "Power is the Great Motivator," *Harvard Business Review* (January–February 1995): 2–11 (reprint no. 4223).

²⁹ Bennis and Nanus, *op. cit.*, p. 39.

6. In its evolution, management theory has been influenced by classical management, behavioral approaches, and quantitative methods. Many have contributed to the development of management as a discipline. Research and discuss someone who has contributed to the development of management theory. Limit the paper to 500 words. Examples include the following people:

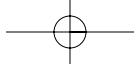
Chester Barnard	Elton Mayo
W. Edwards Deming	Max Weber
Peter Drucker	Frederick W. Taylor
Henri Fayol	Max Weber
Mary Parker Follett	Henry Mintzberg
Henry Gantt	Peter Drucker
Frank Gilbreth	Warren Bennis
Lillian Gilbreth	John Kotter
Douglas MacGregor	David C. McClelland
Peter Block	Chris Argyris
James Kouzes	Barry Posner

7. What is meant by the statement "Managers are people who do things right, and leaders are people who do the right thing"?
8. What does leadership mean to you? Do you think there is a difference between management and leadership? Explain.
9. Use the Internet or go to the library to respond to this question.
- Compare and contrast the leadership and management (e.g., vision, planning, organizing, and controlling) styles exhibited by Al Dunlap (formerly of the Sunbeam Corporation) and Howard Schultz (Starbucks Corporation's CEO).
 - Characterize Dunlap and Schultz according to McGregor's theory X and theory Y leadership styles. Explain your answer.

CHAPTER TEST

Answer each of the following questions. Multiple choice questions may have more than one correct selection.

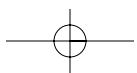
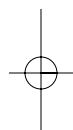
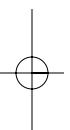
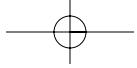
- When did classical management theory begin?
 - 1200s
 - 1650s
 - 1750s
 - 1850s
 - 1950s
- Define efficiency.
- Define productivity.
- What are characteristics of bureaucratic management?
 - quick reaction to competitive issues
 - wasting time
 - written processes and procedures
 - hierarchical structure
 - impersonal authority
 - large number of employees

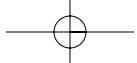


MANAGEMENT CONCEPTS

83

5. Which type of work or worker is appropriate for a bureaucratic organization?
 - a) installing tires on an automobile
 - b) bank teller
 - c) designing jewelry
 - d) train conductor
 - e) writer
6. Select the basic management functions established by Fayol?
 - a) planning
 - b) organizing
 - c) staffing
 - d) commanding
 - e) directing
 - f) coordinating
 - g) reporting
 - h) delegating
 - i) budgeting
7. What are 3 of the 14 management principles discussed by Fayol?
 - a) division of work through specialization
 - b) time and motion
 - c) authority should be equal to responsibility
 - d) unity of command
 - e) unity of direction
 - f) the scalar chain of command
8. What is Fredrick Taylor known for?
 - a) time and motion
 - b) father of scientific management
 - c) Hawthorne experiments
9. What is a time-and-motion study?
10. What is the Hawthorne Effect?
11. What are the five basic human needs described by Maslow? Give examples of each.
12. What are the characteristics of a theory X worker?
13. What are the characteristics of a theory Y worker?
14. What are four generic management styles?
15. What are the five types of power used by people in organizations?
16. What is the difference between a team and a group?
17. What are the four stages of development that a team passes through?
18. Is conducting a meeting an example of leadership or management? Explain.





APPENDIX 3

Wilderness Survival Answer and Rationale Sheet

*Keep away from people who try to belittle your ambitions.
Small people always do that, but the really great make you feel that you, too, can
become great.*
—Mark Twain

Managing a project starts with a team. The project manager must assemble technical and non-technical personnel who have unique skills, knowledge and experience to ensure the success of the project's objectives. Managers attempt to create a collaborative environment that promotes a consensus.

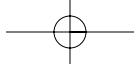
This exercise attempts to build the student's confidence in the judgment of the team by asking questions about a topic with which most people are unfamiliar. The expectation is that the number of questions that the team answers correctly will be higher than the number of questions that the individual answers correctly. By discussing the question and examining it from different viewpoints, the team will likely reach a better decision than the individual.

This appendix identifies the recommended courses of action for each of the situations listed on the Wilderness Survival Work Sheet found in the questions associated with Chapter 1. These answers come from the comprehensive course on woodland survival taught by the Interpretive Service, Monroe County (New York) Parks Department. The responses are considered to be the best rules of thumb for most situations; specific situations, however, might require other courses of action.

1. (a) *call "help" loudly, but in a low register.* Low tones carry farther, especially in dense woodland. There is a much better chance of being heard if you call loudly, but in a low key. "Help" is a good word to use, because it alerts your companions to your plight. Yelling or screaming not only would be less effective, but might be passed off as bird calls by your friends far away.
2. (a) *make a lot of noise with your feet.* Snakes do not like people and will usually do everything they can to get out of your way. Unless you

surprise or corner a snake, there is a good chance that you will not even see one, let alone come into contact with it. Some snakes do feed at night, and walking softly may bring you right on top of a snake.

3. (c) *put a bit of the plant on your lower lip for five minutes; if it seems all right, try a little.* The best approach, of course, is to eat only those plants that you recognize as safe. However, when you are in doubt and very hungry, you may use the lip test. If the plant is poisonous, you will get a very unpleasant sensation on your lip. Red berries alone do not tell you much about the plant's edibility (unless, of course, you recognize the plant by the berries), and birds just do not have the same digestive systems we do.
4. (c) *drink as much as you think you need when you need it.* The danger here is dehydration, and once the process starts, your liter of water will not do much to reverse it. Saving or rationing will not help, especially if you are lying unconscious somewhere from sunstroke or dehydration. So, use the water as you need it, and be aware of your need to find a source of water as soon as possible.
5. (c) *dig in the streambed at the outside of a bend.* This is the part of the river or stream that flows the fastest, is less silted, is deepest, and is the last part to go dry.
6. (c) *midway up the slope.* A sudden rainstorm might turn the ravine into a raging torrent. This has happened to many campers and hikers before they had a chance to escape. The ridgeline, on the other hand, increases your exposure to rain, wind, and lightning should a storm break. The best location is on the slope.
7. (b) *put the batteries under your armpits to warm them, and then replace them in the flashlight.* Flashlight batteries lose much of their power, and weak batteries run down faster in the cold. Warming the batteries, especially if they are already weak, will restore them for a while. You would normally avoid night travel, of course, unless you were in open country where you could use the stars for navigation. There are just too many obstacles (logs, branches, uneven ground, and so on) that might injure you—and a broken leg, injured eye, or twisted ankle would not help your plight right now. Once the sun sets, darkness falls quickly in wooded areas; it would usually be best to stay at your campsite.
8. (a) *yellow.* A yellow flame indicates incomplete combustion and a strong possibility of carbon monoxide buildup. Each year, carbon monoxide poisoning kills many campers as they sleep or doze in tents, cabins, or other enclosed spaces.
9. (a) *leave your boots and pack on.* Errors in fording rivers are a major cause of fatal accidents. Sharp rocks or uneven footing demands that you keep your boots on. If your pack is well balanced, wearing it will provide you the most stability in the swift current. A waterproof, zippered backpack will usually float, even when loaded with normal camping gear; if you step off into a hole or deep spot, the pack could become a lifesaver.

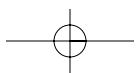
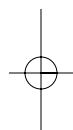
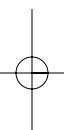
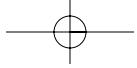


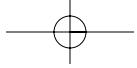
WILDERNESS SURVIVAL ANSWER AND RATIONALE SHEET

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10. (b) *across the stream.* Errors in facing the wrong way in fording a stream are the cause of many drownings. Facing upstream is the worst alternative; the current could push you back and your pack would provide the unbalance to pull you over. You have the best stability facing across the stream, keeping your eye on the exit point on the opposite bank.
11. (c) *in stockinginged feet.* Here you can pick your route to some degree, and you can feel where you are stepping. Normal hiking boots become slippery, and going barefooted offers your feet no protection at all.
12. (c) *freeze, but be ready to back away slowly.* Sudden movement will probably startle the bear a lot more than your presence. If the bear is seeking some of your food, do not argue with it; let it forage and be on its way. Otherwise, back very slowly toward some refuge (trees, an outcropping of rock, etc.)

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Monroe County Parks Department.





APPENDIX 4

ISO 9000 Quality Management Principles

No one can make you feel inferior without your consent.
—Eleanor Roosevelt

This appendix introduces the eight quality management principles defined in ISO 9000:2000, *Quality Management Systems Fundamentals and Vocabulary*, and in ISO 9004:2000, *Quality Management Systems Guidelines for Performance Improvements*. The documents may be found on the ISO Web site (<http://www.iso.ch/iso/en/iso9000-14000/iso9000/qmp.html>). The principles contained therein may be used by management as a framework to guide organizations toward improved performance.

Principle 1 Customer focus. Organizations depend on their customers and therefore should understand current and future customer needs, should meet customer requirements, and should strive to exceed customer expectations.

Key benefits:

- increased revenue and market share obtained through flexible and fast responses to market opportunities
- increased effectiveness in the use of the organization's resources to enhance customer satisfaction
- improved customer loyalty, leading to repeat business

Applying the principle of customer focus typically leads to

- researching and understanding customer needs and expectations
- ensuring that the objectives of the organization are linked to customer needs and expectations
- communicating customer needs and expectations throughout the organization
- measuring customer satisfaction and acting on the results
- systematically managing customer relationships

- ensuring a balanced approach between satisfying customers and other interested parties (such as owners, employees, suppliers, financiers, local communities, and society as a whole)

Principle 2 Leadership. Leaders establish a unity of purpose and direction of the organization. They should create and maintain an internal environment in which people can become fully involved in achieving the organization's objectives.

Key benefits:

- People will understand and be motivated toward the organization's goals and objectives.
- Activities are evaluated, aligned, and implemented in a unified way.
- Miscommunication between levels of an organization will be minimized.

Applying the principle of leadership typically leads to

- considering the needs of all interested parties, including customers, owners, employees, suppliers, financiers, local communities, and society as a whole
- establishing a clear vision of the organization's future
- setting challenging goals and targets
- creating and sustaining shared values, fairness, and ethical role models at all levels of the organization
- establishing trust and eliminating fear
- providing people with the required resources, training, and freedom to act with responsibility and accountability
- inspiring, encouraging, and recognizing people's contributions

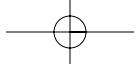
Principle 3 Involvement of people. People at all levels are the essence of an organization, and their full involvement enables their abilities to be used for the organization's benefit.

Key benefits:

- motivated, committed, and involved people within the organization
- innovation and creativity in furthering the organization's objectives
- people being accountable for their own performance
- people eager to participate in, and contribute to, continual improvement

Applying the principle of involvement of people typically leads to

- people understanding the importance of their contribution and role in the organization
- people identifying constraints on their performance



- people accepting ownership of problems and their responsibility for solving them
- people evaluating their performance against their personal goals and objectives
- people actively seeking opportunities to enhance their competence, knowledge, and experience
- people freely sharing knowledge and experience
- people openly discussing problems and issues

Principle 4 Process approach. A desired result is achieved more efficiently when activities and related resources are managed as a process.

Key benefits:

- lower costs and shorter cycle times through the effective use of resources
- improved, consistent, and predictable results
- focused and prioritized opportunities for improvement

Applying the principle of process approach typically leads to

- systematically defining the activities necessary to obtain a desired result
- establishing clear responsibility and accountability for managing key activities
- analyzing and measuring the capability of key activities
- identifying the interfaces of key activities within and between the functions of the organization
- focusing on the factors, such as resources, methods, and materials, that will improve key activities of the organization
- evaluating risks, consequences, and impacts of activities on customers, suppliers, and other interested parties

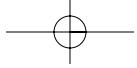
Principle 5 System approach to management. Identifying, understanding, and managing interrelated processes as a system contributes to the organization's effectiveness and efficiency in achieving its objectives.

Key benefits:

- integration and alignment of the processes that will best achieve the desired results
- ability to focus effort on the key processes
- enabling interested parties to have confidence in the consistency, effectiveness, and efficiency of the organization

Applying the principle of system approach to management typically leads to

- structuring a system to achieve the organization's objectives in the most effective and efficient way



- understanding the interdependencies among the processes of the system
- structured approaches that harmonize and integrate processes
- providing a better understanding of the roles and responsibilities necessary for achieving common objectives and thereby reducing cross-functional barriers
- understanding organizational capabilities and establishing resource constraints before acting
- targeting and defining how specific activities within a system should operate
- improving the system continually through measurement and evaluation

Principle 6 Continual improvement. Continual improvement of the organization's overall performance should be a permanent objective of the organization.

Key benefits:

- advantage in performance through improved organizational capabilities
- alignment of improvement activities at all levels with an organization's strategic intent
- flexibility to react quickly to opportunities

Applying the principle of continual improvement typically leads to

- employing a consistent organizationwide approach to continual improvement of the organization's performance
- providing people with training in the methods and tools of continual improvement
- making the continual improvement of products, processes, and systems an objective for every individual in the organization
- establishing goals to guide, and measures to track, continual improvement
- recognizing and acknowledging improvements

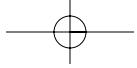
Principle 7 Factual approach to decision making. Effective decisions are based on the analysis of data and information.

Key benefits:

- informed decisions
- an increased ability to demonstrate the effectiveness of past decisions through reference to factual records
- increased ability to review, challenge, and change opinions and decisions

Applying the principle of factual approach to decision making typically leads to

- ensuring that data and information are sufficiently accurate and reliable
- making data accessible to those who need it



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- analyzing data and information through the use of valid methods
- making decisions and taking actions based on factual analysis, balanced with experience and intuition

Principle 8 Mutually beneficial supplier relationships. An organization and its suppliers are interdependent, and a mutually beneficial relationship enhances the ability of both to create value

Key benefits:

- increased ability to create value for both parties
- flexibility and speed of joint responses to changing market or customer needs and expectations
- optimization of costs and resources

Applying the principles of mutually beneficial supplier relationships typically leads to

- establishing relationships that balance short-term gains with long-term considerations
- pooling of expertise and resources with partners
- identifying and selecting key suppliers
- clear and open communication
- sharing information and future plans
- establishing joint development and improvement activities
- inspiring, encouraging, and recognizing improvements and achievements by suppliers

