Management History *Module*

Henry Ford once said, "History is more or less bunk." Well, he was wrong! History is important because it can put current activities in perspective. In this module, we're going to take a trip back in time to see how the field of study called management has evolved. What you're going to see is that today's managers still use many elements of the historical approaches to management. Focus on the following learning objectives as you read and study this module.

Learning Objectives

1. ***Describe*** *some early management examples.*
2. ***Explain*** *the various theories in the classical approach.*
3. ***Discuss*** *the development and uses of the behavioral approach.*
4. ***Describe*** *the quantitative approach.*
5. ***Explain*** *the various theories in the contemporary approach.*

3000 BC – 1776	1911 – 1947	Late 1700s – 1950s	1940s – 1950s	1960s – present
Early Management	Classical Approach	Behavioral Approach	Quantitative Approach	Contemporary Approaches

EARLY Management

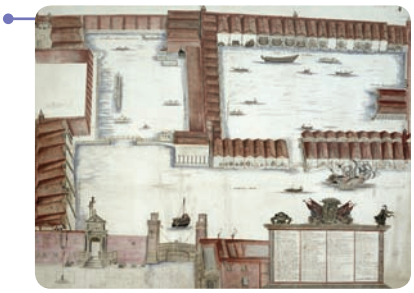
MH1

Management has been practiced a long time. Organized endeavors directed by people responsible for planning, organizing, leading, and controlling activities have existed for thousands of years. Let's look at some of the most interesting examples.

Source: Stephen Studd/Getty Images

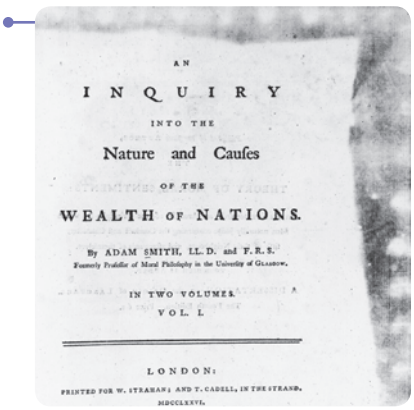
The Egyptian pyramids and the Great Wall of China are proof that projects of tremendous scope, employing tens of thousands of people, were completed in ancient times.[1] It took more than 100,000 workers some 20 years to construct a single pyramid. Who told each worker what to do? Who ensured there would be enough stones at the site to keep workers busy? The answer is *managers.* Someone had to plan what was to be done, organize people and materials to do it, make sure those workers got the work done, and impose some controls to ensure that everything was done as planned.

Another example of early management can be found in the city of Venice, which was a major economic and trade center in the 1400s. The Venetians developed an early form of business enterprise and engaged in many activities common to today's organizations. For instance, at the arsenal of Venice, warships were floated along the canals, and at each stop, materials and riggings were added to the ship.[2] Sounds a lot like a car "floating" along an assembly line, doesn't it? In addition, the Venetians used warehouse and inventory systems to keep track of materials, human resource management functions to manage the labor force (including wine breaks), and an accounting system to keep track of revenues and costs.



Source: Antonio Natale/Bridgeman Art Library

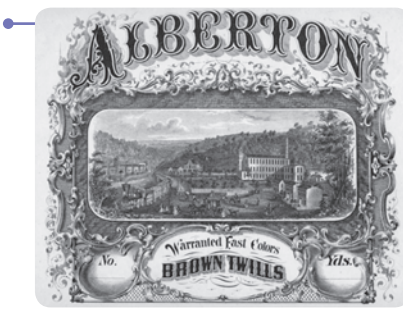
In 1776, Adam Smith published *The Wealth of Nations*, in which he argued the economic advantages that organizations and society would gain from the **division of labor** (or **job specialization**)—that is, breaking down jobs into narrow and repetitive tasks. Using the pin industry as an example, Smith claimed that 10 individuals, each doing a specialized task, could produce about 48,000 pins a day among them. However, if each person worked alone performing each task separately, it would be quite an accomplishment to produce even 10 pins a day! Smith concluded that division of labor increased productivity by increasing each worker's skill and dexterity, saving time lost in changing tasks and creating labor-saving inventions and machinery. Job specialization continues to be popular. For example, think of the specialized tasks performed by members of a hospital surgery team, meal preparation tasks done by workers in restaurant kitchens, or positions played by players on a football team.



Source: Fotosearch/Stringer/Getty Images

Starting in the late eighteenth century when machine power was substituted for human power, a point in history known as the **industrial revolution**, it became more economical to manufacture goods in factories rather than at home. These large, efficient factories needed someone to forecast demand, ensure that enough material was on hand to make products, assign tasks to people, direct daily activities, and so forth. That "someone" was a manager. These managers would need formal theories to guide them in running these large organizations. It wasn't until the early 1900s, however, that the first steps toward developing such theories were taken.

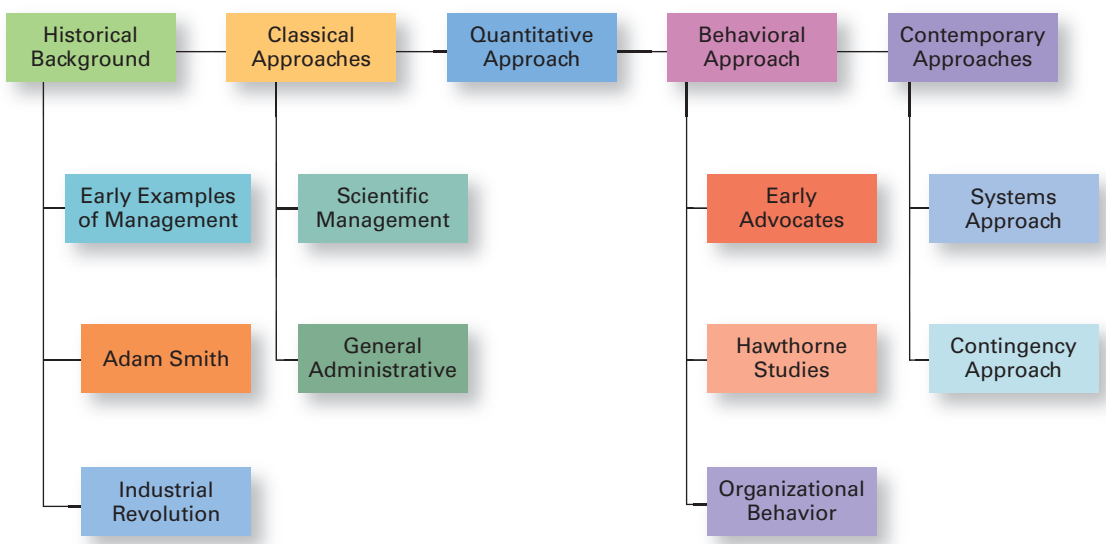
In this module, we'll look at four major approaches to management theory: classical, behavioral, quantitative, and contemporary. (See Exhibit MH-1.) Keep in



Source: Transcendental Graphics/Contributor/ Getty Images

Exhibit MH-1

Major Approaches to Management



division of labor (job specialization)
The breakdown of jobs into narrow and repetitive tasks

industrial revolution
A period during the late eighteenth century when machine power was substituted for human power, making it more economical to manufacture goods in factories than at home

mind that each approach is concerned with trying to explain management from the perspective of what was important at that time in history and the backgrounds and interests of the researchers. Each of the four approaches contributes to our overall understanding of management, but each is also a limited view of what it is and how to best practice it.

3000 BC – 1776	1911 – 1947	Late 1700s – 1950s	1940s – 1950s	1960s – present
Early Management	Classical Approach	Behavioral Approach	Quantitative Approach	Contemporary Approaches

CLASSICAL Approach

MH2

Although we've seen how management has been used in organized efforts since early history, the formal study of management didn't begin until early in the twentieth century. These first studies of management, often called the **classical approach**, emphasized rationality and making organizations and workers as efficient as possible. Two major theories comprise the classical approach: scientific management and general administrative theory. The two most important contributors to scientific management theory were Frederick W. Taylor and the husband-wife team of Frank and Lillian Gilbreth. The two most important contributors to general administrative theory were Henri Fayol and Max Weber. Let's take a look at each of these important figures in management history.

classical approach
First studies of management, which emphasized rationality and making organizations and workers as efficient as possible

Scientific Management

Source: Jacques Boyer/The Image Works

scientific management
An approach that involves using the scientific method to find the "one best way" for a job to be done

If you had to pinpoint when modern management theory was born, 1911 might be a good choice. That was when Frederick Winslow Taylor's *Principles of Scientific Management* was published. Its contents were widely embraced by managers around the world. Taylor's book described the theory of **scientific management**: the use of scientific methods to define the "one best way" for a job to be done.

Taylor worked at the Midvale and Bethlehem Steel Companies in Pennsylvania. As a mechanical engineer with a Quaker and Puritan background, he was continually appalled by workers' inefficiencies. Employees used vastly different techniques to do the same job. They often "took it easy" on the job, and Taylor believed that worker output was only about one-third of what was possible. Virtually no work standards existed, and workers were placed in jobs with little or no concern for matching their abilities and aptitudes with the tasks they were required to do. Taylor set out to remedy that by applying the scientific method to shop-floor jobs. He spent more than two decades passionately pursuing the "one best way" for such jobs to be done.

Taylor's experiences at Midvale led him to define clear guidelines for improving production efficiency. He argued that these four principles of management (see Exhibit MH-2) would result in prosperity for both workers and managers.[3] How did these scientific principles really work? Let's look at an example.

Probably the best known example of Taylor's scientific management efforts was the pig iron experiment. Workers loaded "pigs" of iron (each weighing 92 lbs.) onto rail cars. Their daily average output was 12.5 tons. However, Taylor believed that by scientifically analyzing the job to determine the "one best way" to load pig iron, output could be increased to 47 or 48 tons per day. After scientifically applying different combinations of procedures, techniques, and tools, Taylor succeeded in getting that level of productivity. How? By putting the right person on the job with the correct tools and equipment, having the worker follow his instructions exactly, and motivating the worker with an economic incentive of a significantly higher daily wage. Using similar approaches for other jobs, Taylor was able to define the "one best way" for doing each job. Overall, Taylor

1. Develop a science for each element of an individual's work to replace the old rule-of-thumb method.
2. Scientifically select and then train, teach, and develop the worker.
3. Heartily cooperate with the workers to ensure that all work is done in accordance with the principles of the science that has been developed.
4. Divide work and responsibility almost equally between management and workers. Management does all work for which it is better suited than the workers.

Exhibit MH-2
Taylor's Scientific Management Principles

Source: Taylor, Frederick Winslow, Principles of Scientific Management (New York: Harper, 1911).

achieved consistent productivity improvements in the range of 200 percent or more. Based on his groundbreaking studies of manual work using scientific principles, Taylor became known as the "father" of scientific management. His ideas spread in the United States and to other countries and inspired others to study and develop methods of scientific management. His most prominent followers were Frank and Lillian Gilbreth.

A construction contractor by trade, Frank Gilbreth gave up that career to study scientific management after hearing Taylor speak at a professional meeting. Frank and his wife Lillian, a psychologist, studied work to eliminate inefficient hand-and-body motions. The Gilbreths also experimented with the design and use of the proper tools and equipment for optimizing work performance.[4] Also, as parents of 12 children, the Gilbreths ran their household using scientific management principles and techniques. In fact, two of their children wrote a book, *Cheaper by the Dozen*, which described life with the two masters of efficiency.

Source: Bettmann/Corbis

Frank is probably best known for his bricklaying experiments. By carefully analyzing the bricklayer's job, he reduced the number of motions in laying exterior brick from 18 to about 5, and in laying interior brick from 18 to 2. Using Gilbreth's techniques, a bricklayer was more productive and less fatigued at the end of the day.

The Gilbreths invented a device called a microchronometer that recorded a worker's hand-and-body motions and the amount of time spent doing each motion. Wasted motions missed by the naked eye could be identified and eliminated. The Gilbreths also devised a classification scheme to label 17 basic hand motions (such as search, grasp, hold), which they called **therbligs** (Gilbreth spelled backward with the *th* transposed). This scheme gave the Gilbreths a more precise way of analyzing a worker's exact hand movements.

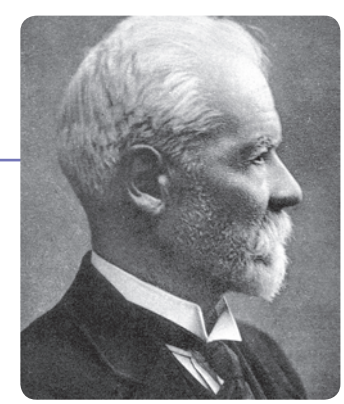
therbligs
A classification scheme for labeling basic hand motions

general administrative theory
An approach to management that focuses on describing what managers do and what constitutes good management practice

HOW TODAY'S MANAGERS USE SCIENTIFIC MANAGEMENT Many of the guidelines and techniques Taylor and the Gilbreths devised for improving production efficiency are still used in organizations today. When managers analyze the basic work tasks that must be performed, use time-and-motion study to eliminate wasted motions, hire the best-qualified workers for a job, or design incentive systems based on output, they're using the principles of scientific management.

General Administrative Theory

General administrative theory focused more on what managers do and what constituted good management practice. We introduced Henri Fayol in Chapter 1 because he first identified five functions that managers perform: planning, organizing, commanding, coordinating, and controlling.[5]



Source: Jacques Boyer/The Image Works

Fayol wrote during the same time period as Taylor. While Taylor was concerned with first-line managers and the scientific method, Fayol's attention was directed at the activities of *all* managers. He wrote from his personal experience as the managing director of a large French coal-mining firm.

Fayol described the practice of management as something distinct from accounting, finance, production, distribution, and other typical business functions. His belief that management was an activity common to all business endeavors, government, and even the home led him to develop 14 **principles of management**—fundamental rules of management that could be applied to all organizational situations and taught in schools. These principles are shown in Exhibit MH-3.

principles of management
Fundamental rules of management that could be applied in all organizational situations and taught in schools

Source: Hulton Archive/Getty Images

Max Weber (pronounced VAY-ber) was a German sociologist who studied organizations.[6] Writing in the early 1900s, he developed a theory of authority structures and relations based on an ideal type of organization he called a **bureaucracy**—a form of organization characterized by division of labor, a clearly defined hierarchy, detailed rules and regulations, and impersonal relationships. (See Exhibit MH-4.) Weber recognized that this "ideal bureaucracy" didn't exist in reality. Instead, he intended it as a basis for theorizing about how work could be done in large groups. His theory became the structural design for many of today's large organizations.

Bureaucracy, as described by Weber, is a lot like scientific management in its ideology. Both emphasized rationality, predictability, impersonality, technical competence, and authoritarianism. Although Weber's ideas were less practical than Taylor's, the fact that his "ideal type" still describes many contemporary organizations attests to their importance.

bureaucracy
A form of organization characterized by division of labor, a clearly defined hierarchy, detailed rules and regulations, and impersonal relationships

HOW TODAY'S MANAGERS USE GENERAL ADMINISTRATIVE THEORY Several of our current management ideas and practices can be directly traced to the contributions of general administrative theory. For instance, the functional view of the manager's job can be attributed to Fayol. In addition, his 14 principles serve as a frame of reference from which many current management concepts—such as managerial authority, centralized decision making, reporting to only one boss, and so forth—have evolved.

Exhibit MH-3

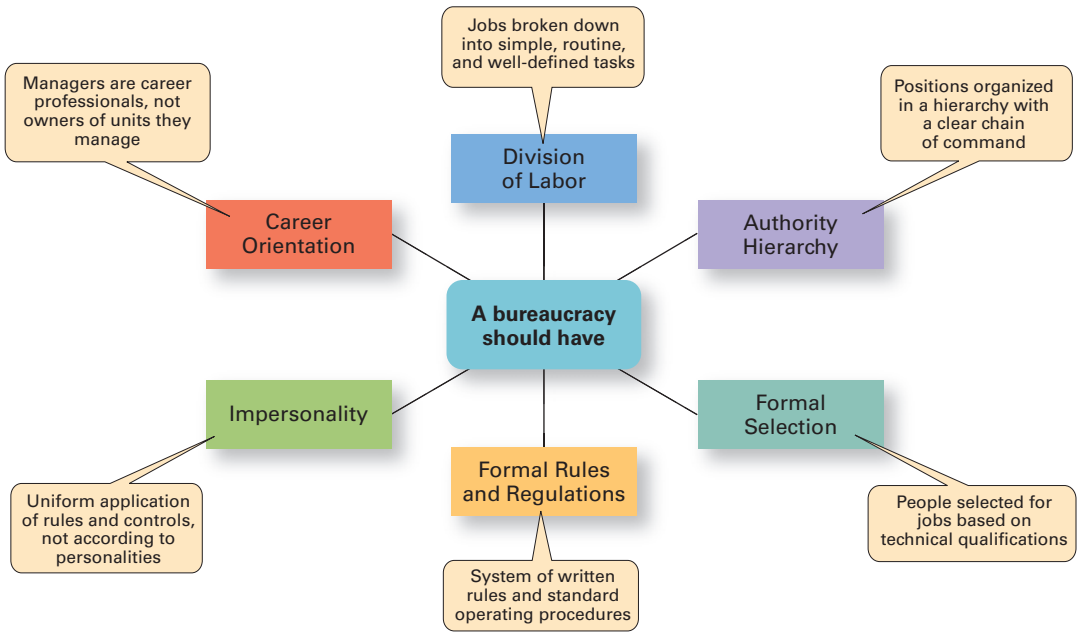
Fayol's Fourteen Principles of Management

1. **Division of work.** Specialization increases output by making employees more efficient.
2. **Authority.** Managers must be able to give orders, and authority gives them this right.
3. **Discipline.** Employees must obey and respect the rules that govern the organization.
4. **Unity of command.** Every employee should receive orders from only one superior.
5. **Unity of direction.** The organization should have a single plan of action to guide managers and workers.
6. **Subordination of individual interests to the general interest.** The interests of any one employee or group of employees should not take precedence over the interests of the organization as a whole.
7. **Remuneration.** Workers must be paid a fair wage for their services.
8. **Centralization.** This term refers to the degree to which subordinates are involved in decision making.
9. **Scalar chain.** The line of authority from top management to the lowest ranks is the scalar chain.
10. **Order.** People and materials should be in the right place at the right time.
11. **Equity.** Managers should be kind and fair to their subordinates.
12. **Stability of tenure of personnel.** Management should provide orderly personnel planning and ensure that replacements are available to fill vacancies.
13. **Initiative.** Employees allowed to originate and carry out plans will exert high levels of effort.
14. **Esprit de corps.** Promoting team spirit will build harmony and unity within the organization.

Source: Based on Henri Fayol's 1916 Principles of Management, "Administration Industrielle et Générale," translated by C. Storrs, *General and Industrial Management* (London: Sir Isaac Pitman & Sons, London, 1949).

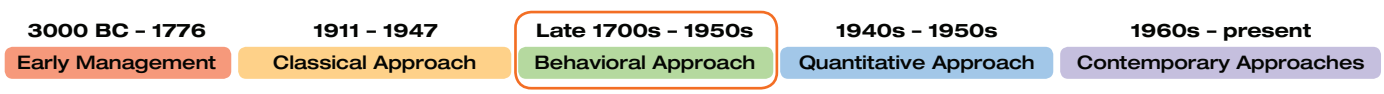
Exhibit MH-4

Characteristics of Weber's Bureaucracy



Source: Based on *Essays in Sociology* by Max Weber, translated, edited, and introduction by H. H. Gerth and C. Wright Mills (New York: Oxford University Press, 1946).

Weber's bureaucracy was an attempt to formulate an ideal prototype for organizations. Although many characteristics of Weber's bureaucracy are still evident in large organizations, his model isn't as popular today as it was in the twentieth century. Many managers feel that a bureaucratic structure hinders individual employees' creativity and limits an organization's ability to respond quickly to an increasingly dynamic environment. However, even in flexible organizations of creative professionals—such as Google, Samsung, General Electric, or Cisco Systems—bureaucratic mechanisms are necessary to ensure that resources are used efficiently and effectively.



BEHAVIORAL **Approach**

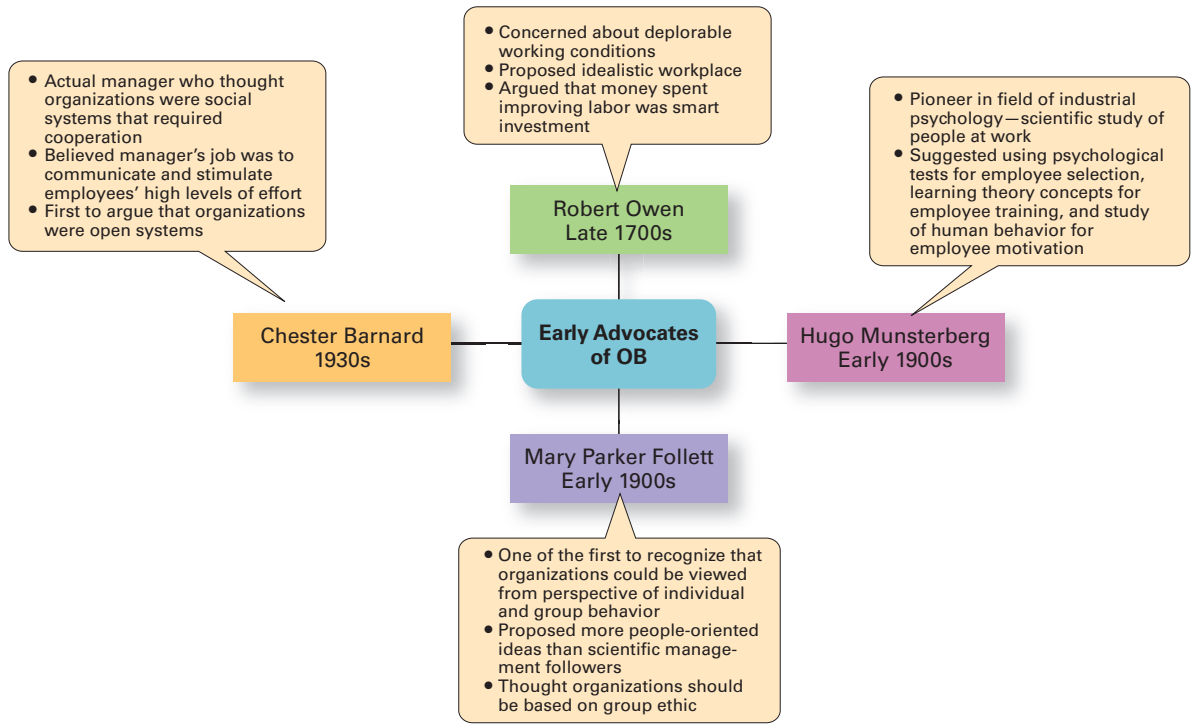
MH3

As we know, managers get things done by working with people. This explains why some writers have chosen to look at management by focusing on the organization's people. The field of study that researches the actions (behavior) of people at work is called **organizational behavior (OB)**. Much of what managers do today when managing people—motivating, leading, building trust, working with a team, managing conflict, and so forth—has come out of OB research.

organizational behavior (OB)
The study of the actions of people at work

Although a number of individuals in the early twentieth century recognized the importance of people to an organization's success, four stand out as early advocates of the OB approach: Robert Owen, Hugo Munsterberg, Mary Parker Follett, and Chester Barnard. Their contributions were varied and distinct, yet all believed that people were the most important asset of the organization and should be managed accordingly. Their ideas provided the foundation for such management practices as employee selection procedures, motivation programs, and work teams. Exhibit MH-5 summarizes each individual's most important ideas.

Exhibit MH-5
Early OB Advocates



Source: Morton College

Hawthorne Studies
A series of studies during the 1920s and 1930s that provided new insights into individual and group behavior

Without question, the most important contribution to the OB field came out of the **Hawthorne Studies**, a series of studies conducted at the Western Electric Company Works in Cicero, Illinois. These studies, which started in 1924, were initially designed by Western Electric industrial engineers as a scientific management experiment. They wanted to examine the effect of various lighting levels on worker productivity. Like any good scientific experiment, control and experimental groups were set up, with the experimental group exposed to various lighting intensities, and the control group working under a constant intensity. If you were the industrial engineers in charge of this experiment, what would you have expected to happen? It's logical to think that individual output in the experimental group would be directly related to the intensity of the light. However, they found that as the level of light was increased in the experimental group, output for both groups increased. Then, much to the surprise of the engineers, as the light level was decreased in the experimental group, productivity continued to increase in both groups. In fact, a productivity decrease was observed in the experimental group *only* when the level of light was reduced to that of a moonlit night. What would explain these unexpected results? The engineers weren't sure, but concluded that lighting intensity was not directly related to group productivity and that something else must have contributed to the results. They weren't able to pinpoint what that "something else" was, though.

In 1927, the Western Electric engineers asked Harvard professor Elton Mayo and his associates to join the study as consultants. Thus began a relationship that would last through 1932 and encompass numerous experiments in the redesign of jobs, changes in workday and workweek length, introduction of rest periods, and individual versus group wage plans.[7] For example, one experiment was designed to evaluate the effect of a group piecework incentive pay system on group productivity. The results indicated that the incentive plan had less effect on a worker's output than

group pressure, acceptance, and security. The researchers concluded that social norms or group standards were the key determinants of individual work behavior.

Scholars generally agree that the Hawthorne Studies had a game-changing impact on management beliefs about the role of people in organizations. Mayo concluded that people's behavior and attitudes are closely related, that group factors significantly affect individual behavior, that group standards establish individual worker output, and that money is less a factor in determining output than group standards, group attitudes, and security. These conclusions led to a new emphasis on the human behavior factor in the management of organizations.

Although critics attacked the research procedures, analyses of findings, and conclusions, it's of little importance from a historical perspective whether the Hawthorne Studies were academically sound or their conclusions justified.[8] What *is* important is that they stimulated an interest in human behavior in organizations.

HOW TODAY'S MANAGERS USE THE BEHAVIORAL APPROACH The behavioral approach has largely shaped how today's organizations are managed. From the way managers design jobs to the way they work with employee teams to the way they communicate, we see elements of the behavioral approach. Much of what the early OB advocates proposed and the conclusions from the Hawthorne studies have provided the foundation for our current theories of motivation, leadership, group behavior and development, and numerous other behavioral approaches.

3000 BC – 1776	1911 – 1947	Late 1700s – 1950s	1940s – 1950s	1960s – present
Early Management	Classical Approach	Behavioral Approach	Quantitative Approach	Contemporary Approaches

QUANTITATIVE **Approach**

Although passengers bumping into each other when trying to find their seats on an airplane can be a mild annoyance for them, it's a bigger problem for airlines because lines get backed up, slowing down how quickly the plane can get back in the air. Based on research in space-time geometry, one airline innovated a unique boarding process called "reverse pyramid" that has saved at least two minutes in boarding time.[9] This is an example of the **quantitative approach**, which is the use of quantitative techniques to improve decision making. This approach also is known as *management science*.

MH4

quantitative approach
The use of quantitative techniques to improve decision making

The quantitative approach evolved from mathematical and statistical solutions developed for military problems during World War II. After the war was over, many of these techniques used for military problems were applied to businesses. For example, one group of military officers, nicknamed the Whiz Kids, joined Ford Motor Company in the mid-1940s and immediately began using statistical methods and quantitative models to improve decision making.

Source: Bert Hardy/Getty Images

What exactly does the quantitative approach do? It involves applying statistics, optimization models, information models, computer simulations, and other quantitative techniques to management activities. Linear programming, for instance, is a technique that managers use to improve resource allocation decisions. Work scheduling can be more efficient as a result of critical-path scheduling analysis. The economic order quantity model helps managers determine optimum inventory levels. Each of these is an example of quantitative techniques being applied to improve managerial decision making. Another area where quantitative techniques are used frequently is in total quality management.

Exhibit MH-6
What Is Quality Management?

1. **Intense focus on the customer.** The customer includes outsiders who buy the organization's products or services and internal customers who interact with and serve others in the organization.
2. **Concern for continual improvement.** Quality management is a commitment to never being satisfied. "Very good" is not good enough. Quality can always be improved.
3. **Process focused.** Quality management focuses on work processes as the quality of goods and services is continually improved.
4. **Improvement in the quality of everything the organization does.** This relates to the final product, how the organization handles deliveries, how rapidly it responds to complaints, how politely the phones are answered, and the like.
5. **Accurate measurement.** Quality management uses statistical techniques to measure every critical variable in the organization's operations. These are compared against standards to identify problems, trace them to their roots, and eliminate their causes.
6. **Empowerment of employees.** Quality management involves the people on the line in the improvement process. Teams are widely used in quality management programs as empowerment vehicles for finding and solving problems.

Source: AP Images

A quality revolution swept through both the business and public sectors in the 1980s and 1990s.[10] It was inspired by a small group of quality experts, the most famous being W. Edwards Deming (pictured at right) and Joseph M. Juran. The ideas and techniques they advocated in the 1950s had few supporters in the United States but were enthusiastically embraced by Japanese organizations. As Japanese manufacturers began beating U.S. competitors in quality comparisons, however, Western managers soon took a more serious look at Deming's and Juran's ideas, which became the basis for today's quality management programs.

Total quality management, or **TQM**, is a management philosophy devoted to continual improvement and responding to customer needs and expectations. (See Exhibit MH-6.) The term *customer* includes anyone who interacts with the organization's product or services, internally or externally. It encompasses employees and suppliers, as well as the people who purchase the organization's goods or services. *Continual improvement* isn't possible without accurate measurements, which require statistical techniques that measure every critical variable in the organization's work processes. These measurements are compared against standards to identify and correct problems.

total quality management (TQM)
A philosophy of management that is driven by continuous improvement and responsiveness to customer needs and expectations

HOW TODAY'S MANAGERS USE THE QUANTITATIVE APPROACH No one likes long lines, especially residents of New York City. If they see a long checkout line, they often go somewhere else. However, at Whole Foods' first gourmet supermarkets in Manhattan, customers found something different—that is, the longer the line, the shorter the wait. When ready to check out, customers are guided into serpentine single lines that feed into numerous checkout lanes. Whole Foods, widely known for its organic food selections, can charge premium prices, which allow it the luxury of staffing all those checkout lanes. And customers are finding that their wait times are shorter than expected.[11] The science of keeping lines moving is known as queue management. And for Whole Foods, this quantitative technique has translated into strong sales at its Manhattan stores.

The quantitative approach contributes directly to management decision making in the areas of planning and control. For instance, when managers make budgeting, queuing, scheduling, quality control, and similar decisions, they typically rely on quantitative techniques. Specialized software has made the use of these techniques less intimidating for managers, although many still feel anxious about using them.

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CONTEMPORARY **Approaches**

MH5

As we've seen, many elements of the earlier approaches to management theory continue to influence how managers manage. Most of these earlier approaches focused on managers' concerns *inside* the organization. Starting in the 1960s, management researchers began to look at what was happening in the external environment *outside* the boundaries of the organization. Two contemporary management perspectives—systems and contingency—are part of this approach. Systems theory is a basic theory in the physical sciences, but had never been applied to organized human efforts. In 1938, Chester Barnard, a telephone company executive, first wrote in his book, *The Functions of an Executive,* that an organization functioned as a cooperative system. However, it wasn't until the 1960s that management researchers began to look more carefully at systems theory and how it related to organizations.

Source: Frederic J. Brown/AFP/Getty Images/Newscom

A **system** is a set of interrelated and interdependent parts arranged in a manner that produces a unified whole. The two basic types of systems are closed and open. **Closed systems** are not influenced by and do not interact with their environment. In contrast, **open systems** are influenced by and do interact with their environment. Today, when we describe organizations as systems, we mean open systems. Exhibit MH-7 shows a diagram of an organization from an open systems perspective. As you can see, an organization takes in inputs (resources) from the environment and transforms or processes these resources into outputs that are distributed into the environment. The organization is "open" to and interacts with its environment.

How does the systems approach contribute to our understanding of management? Researchers envisioned an organization as made up of "interdependent factors, including individuals, groups, attitudes, motives, formal structure, interactions, goals, status, and authority."[12] What this means is that as managers coordinate work activities in the various parts of the organization, they ensure that all these parts are working together so the organization's goals can be achieved. For example, the systems approach recognizes that, no matter how efficient the production department, the marketing department must anticipate changes in customer tastes and work with the product development department in creating products customers want—or the organization's overall performance will suffer.

system
A set of interrelated and interdependent parts arranged in a manner that produces a unified whole

closed systems
Systems that are not influenced by and do not interact with their environment

open systems
Systems that interact with their environment

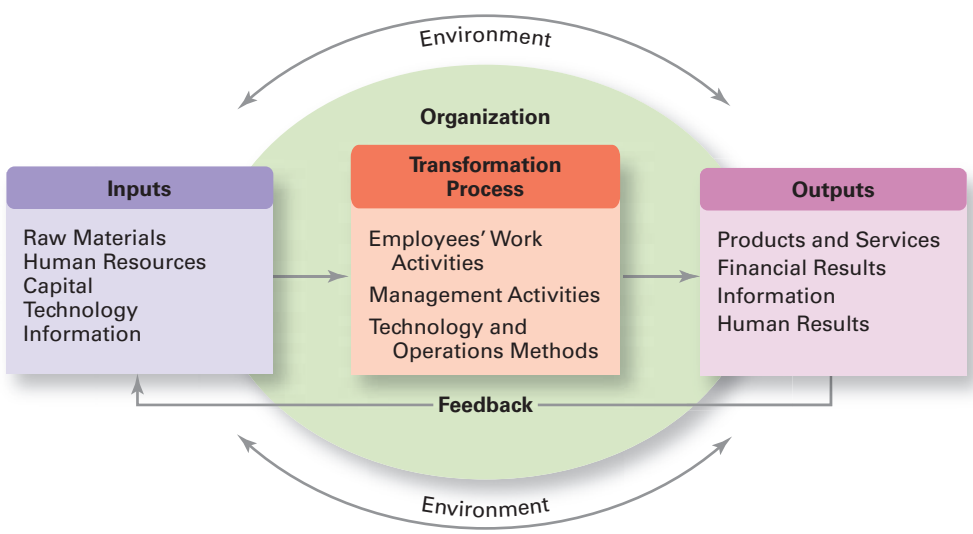

Exhibit MH-7
Organization as an Open System

In addition, the systems approach implies that decisions and actions in one organizational area will affect other areas. For example, if the purchasing department doesn't acquire the right quantity and quality of inputs, the production department won't be able to do its job.

Finally, the systems approach recognizes that organizations are not self-contained. They rely on their environment for essential inputs and as outlets to absorb their outputs. No organization can survive for long if it ignores government regulations, supplier relations, or the varied external constituencies on which it depends.

How relevant is the systems approach to management? Quite relevant. Consider, for example, a shift manager at a Starbucks restaurant who must coordinate the work of employees filling customer orders at the front counter and the drive-through windows, direct the delivery and unloading of food supplies, and address any customer concerns that come up. This manager "manages" all parts of the "system" so that the restaurant meets its daily sales goals.

contingency approach
A management approach that recognizes organizations as different, which means they face different situations (contingencies) and require different ways of managing

The early management theorists came up with management principles they generally assumed to be universally applicable. Later research found exceptions to many of these principles. For example, division of labor is valuable and widely used, but jobs can become *too* specialized. Bureaucracy is desirable in many situations, but in other circumstances, other structural designs are *more* effective. Management is not (and cannot be) based on simplistic principles to be applied in all situations. Different and changing situations require managers to use different approaches and techniques. The **contingency approach** (sometimes called the *situational approach*) says that organizations are different, face different situations (contingencies), and require different ways of managing.

A good way to describe contingency is "if, then." *If* this is the way my situation is, *then* this is the best way for me to manage in this situation. It's intuitively logical because organizations and even units within the same organization differ—in size, goals, work activities, and the like. It would be surprising to find universally applicable management rules that would work in *all* situations. But, of course, it's one thing to say that the way to manage "depends on the situation" and another to say what the situation is. Management researchers continue working to identify these situational variables. Exhibit MH-8 describes four popular contingency variables. Although the list is by no means comprehensive—more than 100 different variables have been identified—it represents those most widely used and gives you an idea of what we mean by

Exhibit MH-8
Popular Contingency Variables

Organization Size. As size increases, so do the problems of coordination. For instance, the type of organization structure appropriate for an organization of 50,000 employees is likely to be inefficient for an organization of 50 employees.

Routineness of Task Technology. To achieve its purpose, an organization uses technology. Routine technologies require organizational structures, leadership styles, and control systems that differ from those required by customized or nonroutine technologies.

Environmental Uncertainty. The degree of uncertainty caused by environmental changes influences the management process. What works best in a stable and predictable environment may be totally inappropriate in a rapidly changing and unpredictable environment.

Individual Differences. Individuals differ in terms of their desire for growth, autonomy, tolerance of ambiguity, and expectations. These and other individual differences are particularly important when managers select motivation techniques, leadership styles, and job designs.

the term *contingency variable.* The primary value of the contingency approach is that it stresses there are no simplistic or universal rules for managers to follow.

So what do managers face today when managing? Although the dawn of the information age is said to have begun with Samuel Morse's telegraph in 1837, dramatic changes in information technology that occurred in the latter part of the twentieth century and continue through today directly affect the manager's job. Managers now may manage employees who are working from home or working halfway around the world. An organization's computing resources used to be mainframe computers locked away in temperature-controlled rooms and only accessed by the experts. Now, practically everyone in an organization is connected—wired or wireless—with devices no larger than the palm of the hand. Just like the impact of the industrial revolution in the 1700s on the emergence of management, the information age has brought dramatic changes that continue to influence the way organizations are managed.

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