

# SOLUTIONS MANUAL



## **CHAPTER 2**

# **THE MANAGEMENT MOVEMENT**

### **Learning Objectives**

1. Explain why management did not emerge as a recognized discipline until the 20th century.
2. Describe the three facets of the U.S. Industrial Revolution.
3. Discuss the role the captains of industry played in the development of modern organizations.
4. Define scientific management, and outline the role that Frederick W. Taylor and his contemporaries played in its development.
5. Summarize Henri Fayol's contributions to modern management.
6. Discuss the human relations thrust in management, with emphasis on the role of the Hawthorne experiments.
7. Define the management process period, the management theory jungle, the systems approach, and the contingency approach.
8. Compare the major differences in the American, Japanese, and Theory Z organizations.
9. Summarize the eight characteristics of excellent companies identified by Peters and Waterman.
10. Explain why the international aspects of management are currently being emphasized.
11. Discuss some predictions as to how managers might manage in the 21<sup>st</sup> Century.

### **Chapter Overview**

Management owes a great debt to its founders. These early management pioneers were able to synthesize information and categorize data so that a clear understanding of the newly formed discipline could occur. Most of the pioneers had their roots in the engineering field and, therefore, most of the early ideas dealt with how to apply mathematics to what would eventually be called the management of the organization.

Following the engineers were social reformers and psychologists. They studied the behavioral aspects of the organization and added the "human aspect" to the study of the workforce. During the awakening period, excitement was generated constantly as business and academia began to formulate the basic ideas that would eventually be called the principles of management. Eventually the field grew and expanded so rapidly that many of the ideas became in conflict with one another and separate schools of thought emerged. One author described this as the management theory jungle.

The focus in the modern organization is not on the school of thought or theory behind management but on how to make the organization more responsive to its publics and customers. Excellent companies all seem to be very interested in quality management and in control of costs. The modern organization does not live in a vacuum. As domestic markets become saturated, the international marketplace has increasingly become the arena where competition takes place. Management is in the process of learning how to adapt to this new competitive environment.

## Lecture Outline

- I. U. S. Industrial Revolution (1860-1875)
  - A. The shift from an agrarian society to an industrialized society began about 1860.
  - B. Daniel Wren described this revolution as having three primary facets.
    - 1. Power—the steam engine was invented.
    - 2. Transportation—canals, railroads, and road systems emerged.
    - 3. Communication—the telegraph, telephone and radio was invented.

Learning Objectives #1, 2; Review Question #1; Figure 2.1; Management Illustration 2.1

- II. Captains of Industry (1875-1900)
  - A. The primary leaders were:
    - 1. John D. Rockefeller (oil)
    - 2. James B. Duke (tobacco)
    - 3. Andrew Carnegie (steel)
    - 4. Cornelius Vanderbilt (steamships and railroads)
  - B. The Sherman Antitrust Act was passed in 1890 to check corporate practices “in restraint of trade”.
  - C. Corporations became large enough that decision making became a more formalized process.
  - D. Engineers became important to organizations and their production systems.

Learning Objective #3; Review Question #2

- III. **Scientific Management** and Frederick. W. Taylor (1895-1920)—sought to increase productivity and make the work easier by scientifically studying work methods and establishing standards.
  - A. Developments that impacted the organization:
    - 1. Specialized tasks—no one person could perform all the tasks necessary to make a product.
    - 2. Specialized departments—work flow was compartmentalized.
    - 3. There was a need to coordinate, integrate, and systematize work tasks and flow.
    - 4. **Soldiering**—the actions of employees who intentionally restrict output.
  - B. F. W. Taylor developed four basic principles of scientific management:
    - 1. Scientific method of designing jobs.
    - 2. Scientific selection and progressive teaching and development of employees.
    - 3. Bringing together scientifically selected employees and scientific job designs.
    - 4. Division of work with interdependence.
  - C. The concepts of line and staff were developed.

Key Terms #1, 2; Learning Objective #4; Review Question #3; Management Illustration 2.2, 2.3

D. Other Scientific Management Pioneers

1. Carl Barth popularized Taylor's ideas.
2. Morris Cooke applied scientific management to bringing labor and management together.
3. Henry Lawrence Gantt worked in production control, developed the "Gantt Chart", and believed that business had a social responsibility to the community.
4. Frank Gilbreth studied motions and work methods.
5. Lillian Gilbreth (First Lady of Management) combined motion study with psychology.

Learning Objective #4; Review Question #4; Figure 2.2

IV. Fayol's Theory of Management

- A. First person to issue a complete statement on a theory of general management.
- B. Developed fourteen (14) principles (first published in French in 1916; published in English in 1949):
  1. Division of work—concept of specialization of work.
  2. Authority—formal (positional) authority versus personal authority.
  3. Discipline—based on obedience and respect.
  4. Unity of command—each employee should receive orders from only one superior.
  5. Unity of direction—one boss and one plan for a group of activities have the same objective.
  6. Subordination of people—subordination of individual interests to the general interest.
  7. Remuneration—mode of payment of wages was dependent on many factors.
  8. Centralization—depended on situation authority and formal communication channels.
  9. Scalar chain (line of authority)—shows the routing of the line of authority.
  10. Order—ensured a place for everything.
  11. Equity—resulted from kindness and justice.
  12. Stability of tenured personnel—called for orderly personnel planning.
  13. Initiative—called for individual zeal and energy in all efforts.
  14. Esprit de corps—stressed the building of harmony and unity within the organization.

Learning Objective #5; Review Question #5

V. **Period of Solidification**—a period in the 1920s and 1930s in which management became recognized as a discipline.

- A. Universities began to teach management.
- B. Professional societies became interested in management.
- C. Organizations formed to advance management thought.

Key Term #3; Figure 2.3

- VI. The Human Relations Thrust (1931 to late 1940s)
  - A. Labor unions gained advantages.
  - B. The general climate emphasized understanding in the workplace.

Learning Objective #6; Figure 2.4

- C. The **Hawthorne Studies**
  - 1. Series of experiments conducted in 1924 that studied the physical working conditions at the Hawthorne Plant of Western Electric in Cicero, Illinois.
  - 2. Concluded that other factors besides the physical environment affect worker productivity.
    - a. Informal group pressures.
    - b. Individual recognition.
    - c. Participation in making decisions.
  - 3. Attention paid to workers by the researchers positively biased their productivity (called the “Hawthorne effect”).

Key Term #4; Learning Objective #6; Review Question #6; Management Illustration 2.4

- VII. Early Champions of Human Relations
  - A. Mary Parker Follett emphasized the need for human relations in organizations.
  - B. Chester Barnard (New Jersey Bell Telephone) emphasized the psychological aspects of organizations.
- VIII. The Professional Manager
  - A. Did not exist until the 1930s.
  - B. Characterized as career people who did not necessarily have a controlling interest in the enterprises where they worked.
  - C. Bears a responsibility to employees, stockholders, and the public.
- IX. Changing Styles of Management
  - A. Managers began to stress the importance of workers and their needs.
  - B. James F. Lincoln (Lincoln Electric Company) emphasized the need of individuals to express themselves and formulated a plan to do this that included:
    - 1. An advisory board of employees.
    - 2. A piece-rate compensation system.
    - 3. A suggestion system.
    - 4. Employee ownership of stock.
    - 5. Year-end bonuses.
    - 6. Life insurance for all employees.
    - 7. Two weeks’ paid vacation.
    - 8. Annuity pension plan.
    - 9. A promotion policy.

- C. Henry Dennison (Dennison Manufacturing Company) felt that an organization drew its strength from members who are motivated.
- D. Charles McCormick (McCormick Spices) developed a **multiple-management plan** (used participation as a training and motivational tool) by selecting young employees from various company departments to form a junior board of directors.
- E. William Given, Jr. (American Brake Shoe and Foundry Company), used **bottom-up management** through delegation; participation solicited from all employees from the bottom to the top of the organization.
- F. Joseph Scanlon developed the **Scanlon Plan** in 1930 to provide bonuses to employees for their efforts in reducing labor costs.

Key Terms #5, 6, 7; Review Question #7; Management illustration 2.5

- X. Management Process Period (1950s to early 1960s)
  - A. The **process approach to management** was an attempt to identify and define a process for attaining desired objectives, which focuses on planning, controlling, organizing, staffing, and leading.
  - B. The attempt was made to breakdown the management process into distinct functions.
  - C. Oliver Sheldon (1923) defined management as the determination of business policy, the execution of the policy, the organization and the control of executives.
  - D. Ralph C. David (1935) the first American to publish the functional breakdown of management – planning, organizing, and controlling.

Key Term #8; Learning Objective #7; Review Question #8

- XI. Other Approaches
  - A. The decision theory school was based on the economic theory and the theory of consumer choice.
  - B. The mathematical school viewed management as a system of mathematical relationships.
  - C. Chester Barnard and sociological school saw management as a system of cultural interrelationships.
  - D. Harold Koontz discussed the **management theory jungle** (the fragmentation of management theory resulting from multiple approaches to studying the management process).

Key Term #9; Review Question #9

- XII. The **Systems Approach**
  - A. The manager was asked to view the job of management as an integrated whole that considers both internal and external environmental factors.
  - B. The approach included behavioral as well as mathematical and forecasting techniques.

Key Term #10; Learning Objective #7; Review Question #10

XIII. The **Contingency Approach**

- A. Different situations and conditions require different management approaches.
- B. The approach outlines which style of management works best under which conditions.

Key Term #11; Learning Objective #7; Review Question #12

XIV. The Japanese Management Movement and Theory Z

- A. The Japanese encouraged more employee participation.
- B. Top management acts as a facilitator rather than an issuer of edicts.
- C. **Theory Z** (developed by William Ouchi) attempts to integrate American and Japanese management practices by emphasizing:
  - 1. Individual responsibility.
  - 2. Collective decision making.
  - 3. Slow evaluation and promotion.
  - 4. Holistic concern for employees

Key Term #12; Learning Objective #8; Review Question #13; Figure 2.5

XV. Search for Excellence

- A. ***In Search of Excellence***—Thomas Peters and Robert Waterman, Jr., identified 36 companies with an excellent 20-year performance record. The authors identified eight characteristics of excellence after interviewing managers in each company.
- B. The attributes of excellence were widely spread among top management circles.

Key Term #13; Learning Objective #9; Review Question #14; Figure 2.6; Management Illustration 2.6

XVI. The Emphasis on Quality

- A. The quality of American products had reached a low by the early 1970s, especially when compared to Japanese products.
- B. A renewed emphasis on quality gained steam in the late 1970s to the early 1990s.
  - 1. Preventing mistakes and rejects became the primary goal.
  - 2. Led to the development of Total Quality Management.

Review Question #11

XVII. The International and Global Movement

- A. In the past 20 years, many U.S. companies have turned to the international arena for new markets and profits.
- B. Because an even greater number of U.S. companies are affected by foreign competition, alliances, and investment, U.S. managers are forced to think internationally and globally.

Learning Objective #10; Review Question #15

XVIII. Management in the Twenty-First Century

- A. *Beyond the Workplace 2000* offers predictions regarding what organizations and management might look like in the 21<sup>st</sup> century.
- B. The rate of change will continue to accelerate and both organizations and managers will be required to adapt.

Learning Objective #11; Review Question #16

XIX. Conclusion

- A. The management discipline did not develop and mature at the same rate in all parts of the country.
- B. The management discipline developed from a series of major and minor events.

Figure 2.7

**Barriers to Student Understanding**

1. The first barrier that students will experience with this chapter is that it is primarily historical in nature and contains many isolated facts and dates that are not easily remembered. The best approach to solving this problem is to have the students outline the material by major contributor and by the dates of the occurrence. Then students can describe what was occurring at the time of the development (such as the Civil War, the Women’s Movement, the Great Depression, the Union Movement, etc.). Next, have the students relate why and how the principles were developed and show the students why, in a modern sense, these developments were so important.
2. Author Daniel Wren in his book *The Evolution of Management Thought* (see bibliography) presents many excellent stories that can add to the students’ history lesson and aid their understanding.
3. Ask students to describe what it must have been like to be a worker or a manager in these early times. Ask them how they think the principles (which we think are relatively simple in nature today) were first conceived. This approach will help the students to grasp the significance of the contributions of the early management pioneers. Stress the unique role of the women pioneers.
4. Students do not seem to understand the significance of all the many theories or schools of thought present in management. By having them read Harold Koontz’s “the Management Theory Jungle” (see bibliography), they will better understand the myriad schools of thought present in the field.
5. Lastly, students seem to have difficulty understanding the difference between American and Japanese management systems. Ask them to carefully explain what they think Theory Z is and describe its contribution to management thought.

**Key Terms**

1. Soldiering
2. Scientific Management
3. Period of Solidification
4. Hawthorne Studies



5. McCormick Multiple-Management Plan
6. Bottom-up Management
7. Scanlon Plan
8. Process Approach to Management
9. Management Theory Jungle
10. Systems Approach to Management
11. Contingency Approach to Management
12. Theory Z
13. In Search of Excellence

### **Suggested Answers to Analyzing Management Skills**

- What are the benefits of understanding how management theory and practice has changed over the past 100 years? How might you use this information as a manager?

A historical knowledge of management is necessary to understanding where the discipline is now and where it is going. Understanding historical management developments helps modern practitioners to become familiar with the events that led to current management practices and philosophies. As the saying goes, “there is nothing new under the sun,” which is true of most of the challenges faced by 21<sup>st</sup> century managers. Further, a historical perspective helps current managers understand that what worked at one point in time might not be appropriate in the current era and vice versa. Managers should generally attempt to build upon previous successes throughout history and seek to avoid those management practices that have resulted in poor performance or failure.

### **Suggested Answers to Applying Management Skills**

- Recall or imagine a workplace task that you found inefficient or tedious. Imagine that your manager asks you for suggestions to improve the procedure for completing the task. What would be your general approach for improving the procedure?

Here students might rely on applying the principles of scientific management, such as job design, worker selection, task training, or the division of work. Alternatively, students might develop suggestions based on a human relations perspective or, if the tedious task cannot be eliminated, students might consider a system of incentive pay to motivate employees to perform mundane duties.

### **Answers to Review Questions**

1. What were the three facets of the Industrial Revolution in America? Discuss the impact of each of the facets on the development of today’s industry.

**Power, transportation, and communication** are the three facets. All three had a major impact on the location and growth of industry. Their availability, cost, and form have determined, to a large extent, which American industries have flourished and which have declined.

2. What effect did the captains of industry have on the relationships between government and industry?

Government passed numerous laws to regulate business and control the corporate practices introduced by the captains of industry, in order to protect the interests of the public and employees. Before this time government had not interfered with business in any significant manner.

3. What is scientific management? Discuss the four main principles of scientific management.

Scientific management is a philosophy and attitude toward the use of human effort; it seeks to maximize output with minimum effort through the elimination of waste and inefficiency at the operative level. The main principles were: (1) The development of a scientific method of designing jobs to replace the old rule-of-thumb methods. This involved gathering, classifying, and tabulating data to arrive at "one best way" to perform a task or a series of tasks. (2) The scientific selection and progressive teaching and development of employees. Taylor saw the value of matching jobs to the worker and to studying their strengths and weaknesses. (3) The bringing together of scientifically selected employees and scientifically developed methods for designing. (4) A division of work resulting in a interdependence between management and the workers. Cooperation would naturally follow.

4. Discuss the major contribution to scientific management of Morris Cooke, Henry Lawrence Gantt, and Frank and Lillian Gilbreth.

Morris Cooke applied scientific management to educational and municipal organizations. He worked hard to bring labor and management together for greater productivity. Henry Lawrence Gantt developed the Gantt Chart, which graphically depicted both expected and completed production. He also was an advocate of corporate social and community responsibility. Frank and Lillian Gilbreth studied motion and work methods. Lillian's field was psychology and she worked in trying to better morale in the workplace.

5. What was Henri Fayol's major contribution to the management movement?

He was probably the first to outline what are now called the functions of management in a systematic way.

6. Discuss the impact of the Hawthorne studies on management thought.

They generated great interest in human problems in the workplace and focused attention on the human factor. Psychological and social conditions on the job, as well as the importance of effective supervision, also emerged as significant areas of concern.

7. Describe in detail the following approaches to the management process: Lincoln Electric Company, the McCormick multiple-management plan, bottom-up management, and the Scanlon Plan.

The Lincoln Electric Company emphasized the need of all individuals to express themselves. The McCormick multiple management plan used participation in the decision making process as a training and motivational tool. The bottom-up management process developed by William Gifford, Jr., stressed that widespread involvement and delegation of authority encouraged decision making and idea generation. The Scanlon Plan developed a productivity plan that gave employees a bonus for tangible savings in labor costs.

8. What is the process approach to management? Discuss some of the major contributors to this approach.

This was an attempt to identify and define a process for attaining desired objectives. This process approach led management to become primarily concerned with identifying and refining the functions or components of the management process. Contributors were Henri Fayol (presented explicitly a functional analysis of the management process), Oliver Sheldon (saw management as a determination of business policy), Ralph C. Davis (subdivided management into planning, organizing, and controlling), and Constance Storm Fayol's work into English.

9. Discuss the factors that led to the management theory jungle.

In the late 1950s differing disciplines (engineering, mathematics, sociologists, psychologists, and case analysts) began to argue over what was the correct way to study and refine the field of management. Like the children's tale of the "blind men and the elephant", these groups all saw management from a different perspective. None were completely right or completely wrong. Koontz tried to unite the various schools by stressing commonality and unification.

10. What is the systems approach to the management process?

The systems approach (which followed a fragmentation period) sought to integrate and view management as a framework for visualizing internal and external environmental factors as an integrated whole. Briefly, it is a holistic view.

11. Describe the period beginning in the late 1970s where significant emphasis was placed on the quality of products and services.

By the early 1970s the quality of American products and services had reached a low. The low quality of American products and services, especially in comparison to the quality successes of the Japanese, forced American managers to consider quality as a way to better position American products and services. Specifically, in order to improve quality, managers focused on preventing mistakes and rejects instead of finding and rejecting them.

12. Describe the contingency approach to management.

This method concluded that different situations and conditions require different management approaches. Therefore, there is no one best way to manage. Conditions can be matched to successful management styles, but change in style based on conditions is central to this idea.

13. What is Theory Z?

Basically, the theory, as outlined by Ouchi, suggests that everyone should have an opportunity to participate in making decisions. Democracy in the workplace is a sound concept.

14. Identify the eight characteristics of successful companies as reported by the authors of *In Search of Excellence*.

Successful companies (1) have a bias for action, (2) work close to the customer, (3) exercise autonomy and entrepreneurship, (4) achieve productivity through people, (5) are hands on and value driven, (6) stick to the knitting, (7) have a simple form and a lean headquarters staff, and (8) utilize simultaneous loose-tight properties.

15. How are companies that do not trade internationally affected by international markets?

These companies are likely to be up against stiff competition due to imports whether they are directly involved in international business or not.

16. Discuss several predictions concerning how organizations might be structured and managed in the twenty-first century.

Beyond Workplace 2000 makes the following predictions: (1) the quality, service, cost, and speed gaps between rival companies will all but close and will no longer be a source of competitive advantage, (2) all American businesses and their employees will be forced to become agile, flexible, and highly adaptive, (3) every American company will have to focus on the unique knowledge, skill, or capability that it does well, (4) organizational structures will become extremely fluid, and (5) future bosses will act more as team leaders who coordinate team activities than traditional managers.

### **Suggested Answers to Skill-Building Questions**

1. From the viewpoint of a practicing manager, what do you see as the major lessons to be learned from the evolution of management thought?

As a practicing manager, the history of the management provides an understanding of where the discipline is and where it is going. Many of today's management problems began during the early management movement. Understanding the historical evolution of these problems helps the modern manager cope with them. Modern practicing managers can study what has worked in the past and what has not worked in different contexts. It is important to develop a feel for why and how things happened and to apply this knowledge to the practice of management.

2. Why do you think many people have misinterpreted Fredrick W. Taylor's scientific management principles as being inhumane?

Scientific management is largely perceived as only increasing output. While this theory did seek to maximize output by finding the one best method to perform tasks, it also sought to minimize effort and reward the increased output that the same amount of or lesser effort produced.

3. Offer some general guidelines for applying scientific management principles in a manner that would be positively received by employees.

The following two benefits should be emphasized: (a) the same or less effort will be required and (b) increased output will provide increased rewards.

4. What challenges do you think will be presented by the continued internationalization of companies?

The challenges of companies expanding into foreign markets will be dynamic and ever changing. Management, to go international, must have a strategy in place and be extremely competitive in foreign markets. The overall quality of products or service will be a challenge for U.S. managers, who must think in terms of international and global rather than local or national markets

### **Skill Building Exercise 2.1**

#### **What Have We Learned?**

This exercise presents a good opportunity to discuss the “tunelessness” or lack thereof of management principles. Are our expectations and standards higher today? Would Taylor echo Grayson’s remarks if he were alive now?

- a. Do think that Taylor’s position is equally applicable today?

The quote from Frederick Taylor indicates that in 1911 there was tension between workers and management, fear that increased productivity would not result in increased rewards, and deep concern for job security. Labor today expresses similar concerns.

- b. Looking at Taylor’s and Grayson’s remarks, which were made approximately 73 years apart, one has to wonder what we have learned. Many other similar comparisons could be made. Why do you think that managers don’t seem to learn as much as they could from the past?

Managers rarely study the past. People usually convince themselves that their current situations are unique. This is obviously not true when it comes to labor and management difficulties. If problems are made to be small when in reality they are large and deep-seated the failure to solve them can have very adverse effects on the corporation. As has often been said, “If you don’t understand and profit from the mistakes of the past, you will be doomed to repeat the mistakes in the future.”

### **Skill Building Exercise 2.2**

#### **Finding the One Best Way**

This exercise provides students the opportunity to apply the principles of scientific management to a familiar real world situation. In their analysis, students should focus on job design, equipment and materials placement, the knowledge that is generated after each attempt, and the gathering of productivity data to determine the most productive method of stuffing envelopes. When the class is together, have students compare their methods and data to find the “one best way.”

You may want to finish this exercise by asking (1) were you able to improve your first method in step b? (2) Did you pick up further improvements from others in your class (step c)?

### **Suggested Answers to Case Incident Questions**

#### **Case 2.1 Granddad’s Company**

1. Do you agree with Richard? Why or why not?

Although it is difficult to argue with success, Richard is probably right—times have changed. What the company needs to do is identify past approaches that are suited for the future and discard the rest. Just because James Jr.’s style was successful in the past does not necessarily mean that it will be successful in the future.

2. Are the principles of scientific management applicable in today's organization? Explain your answer.

Training and planning are more important than ever. Specialization of work and division of labor are important but should not be carried to extremes. The manager must be careful in how they apply the principles. The bottom line here is the question of style not principles and their application.

### **Case 2.2 Return to Scientific Management**

1. What do you think the person means?

The participant meant that there are identifiable reasons for the lack of motivation and scientific management theories may help target areas of concern. It certainly may not be the sole alternative but can help identify problems. It may show what is required, what training is needed, who must fit the job and vice-versa. An understanding of requirements by a worker would deter resistance (which is in the form of absenteeism, turnover, and poor workmanship.)

2. Do you agree? Discuss.

It is helpful to apply scientific management to such a problem; however, many other approaches may complement the solution. Observing how human relations are promoted may allow understanding and sincerity to those with the ability to change the working environment. By looking into the needs, wants, and demands of the workforce and then addressing them, employee productivity *should* change positively through their increased effort and motivation.

Another way to improve would be to introduce a form of participative management giving decision-making power to more of the workforce. They would increase productivity by having a feeling of ownership for their work. One important thing to keep in mind is that each position in each department of each firm will have different requirements for the management.

3. Take one of the jobs in the above case and show how you could apply scientific management.

Scientific management could be applied to each position by observing tasks and physical motions. Follow this with sketches of efficient actions to get the task easily and quickly. At the same time a task or a group of tasks is observed, the individual worker should be assessed as well. The worker's strengths and weaknesses should be matched with a position that would be complementary. This would allow efficient work processes to be achieved. The worker would understand why and how tasks are performed and the tasks would be performed without resistance.

Gathering data of observations is how scientific management should be initiated. Analyzing it will take some time and effort as well as follow-up observations.

### **Suggested Student Projects**

1. Ask students to pick out their favorite management pioneer and tell why. Would the pioneer have a place in today's society?
2. Go to the library and examine Peters and Waterman's book *In Search of Excellence* or read the article by Daniel T. Carroll (see bibliography) and determine what has happened to one or more of the companies cited by the authors. Are they still excellent? Are they still competitive? What do you think happened?