

Chapter -2

Evolution of management thoughts

Introduction

Management has a long history; early tribes had leaders and councils of leader. Rulers and military men both saw the value of concepts that would allow them to manage. Over years the contributions of many people have given us several theories about management and how to approach it as a field of study. Theories refer to collection of ideas, concepts, principles, and methods.

2.1 Classical Schools of Management

One of the first schools of management thought, the **classical management theory**, developed during the Industrial Revolution when new problems related to the factory system began to appear. Managers were unsure of how to train employees (many of them non-English speaking immigrants) or deal with increased labor dissatisfaction, so they began to test solutions. As a result, the classical management theory developed from efforts to find the “one best way” to perform and manage tasks. This school of thought is made up of two branches: classical scientific and classical administrative, described in the following sections.

2.1.1 Classical scientific school

The **classical scientific branch** arose because of the need to increase productivity and efficiency. The emphasis was on trying to find the best way to get the most work done by examining how the work process was actually accomplished and by scrutinizing the skills of the workforce.

The classical scientific school owes its roots to several major contributors, including Frederick Taylor, Henry Gantt, and Frank and Lillian Gilbreth.

Frederick Taylor is often called the “father of scientific management.” Taylor believed that organizations should study tasks and develop precise procedures. As an example, in 1898, Taylor calculated how much iron from rail cars Bethlehem Steel plant workers could be unloading if they were using the correct movements, tools, and steps. The result was an amazing 47.5 tons per day instead of the mere 12.5 tons each worker had been averaging. In addition, by redesigning the shovels the workers used, Taylor was able to increase the length of work time and therefore decrease the number of people shoveling from 500 to 140. Lastly, he developed an incentive system that paid workers more money for meeting the new standard. Productivity at Bethlehem Steel shot up overnight. As a result, many theorists followed Taylor's philosophy when developing their own principles of management.

Henry Gantt, an associate of Taylor's, developed the Gantt chart, a bar graph that measures planned and completed work along each stage of production. Based on time instead of quantity, volume, or weight, this visual display chart has been a widely used planning and control tool since its development in 1910.

Frank and Lillian Gilbreth, a husband-and-wife team, studied job motions. In Frank's early career as an apprentice bricklayer, he was interested in standardization and method

study. He watched bricklayers and saw that some workers were slow and inefficient, while others were very productive. He discovered that each bricklayer used a different set of motions to lay bricks. From his observations, Frank isolated the basic movements necessary to do the job and eliminated unnecessary motions. Workers using these movements raised their output from 1,000 to 2,700 bricks per day. This was the first **motion study** designed to isolate the best possible method of performing a given job. Later, Frank and his wife Lillian studied job motions using a motion-picture camera and a split-second clock. When her husband died at the age of 56, Lillian continued their work.

Thanks to these contributors and others, the basic ideas regarding scientific management developed. They include the following:

- Developing new standard methods for doing each job
- Selecting, training, and developing workers instead of allowing them to choose their own tasks and train themselves
- Developing a spirit of cooperation between workers and management to ensure that work is carried out in accordance with devised procedures
- Dividing work between workers and management in almost equal shares, with each group taking over the work for which it is best fitted

2.1.2 Classical administrative school

Whereas scientific management focused on the productivity of individuals, the classical administrative approach concentrates on the total organization. The emphasis is on the development of managerial principles rather than work methods.

Contributors to this school of thought include Max Weber, Henri Fayol, Mary Parker Follett, and Chester I. Barnard. These theorists studied the flow of information within an organization and emphasized the importance of understanding how an organization operated.

In the late 1800s, **Max Weber** disliked that many European organizations were managed on a “personal” family-like basis and that employees were loyal to individual supervisors rather than to the organization. He believed that organizations should be managed impersonally and that a formal organizational structure, where specific rules were followed, was important. In other words, he didn't think that authority should be based on a person's personality. He thought authority should be something that was part of a person's job and passed from individual to individual as one person left and another took over. This nonpersonal, objective form of organization was called a **bureaucracy**.

Weber believed that all bureaucracies have the following characteristics:

- **A well-defined hierarchy.** All positions within a bureaucracy are structured in a way that permits the higher positions to supervise and control the lower positions. This clear chain of command facilitates control and order throughout the organization.
- **Division of labor and specialization.** All responsibilities in an organization are specialized so that each employee has the necessary expertise to do a particular task.
- **Rules and regulations.** Standard operating procedures govern all organizational activities to provide certainty and facilitate coordination.

- **Impersonal relationships between managers and employees.** Managers should maintain an impersonal relationship with employees so that favoritism and personal prejudice do not influence decisions.
- **Competence.** Competence, not “who you know,” should be the basis for all decisions made in hiring, job assignments, and promotions in order to foster ability and merit as the primary characteristics of a bureaucratic organization.
- **Records.** A bureaucracy needs to maintain complete files regarding all its activities.

Henri Fayol, a French mining engineer, developed 14 principles of management based on his management experiences. These principles provide modern-day managers with general guidelines on how a supervisor should organize his/her department and manage his/her staff. Although later research has created controversy over many of the following principles, they are still widely used in management theories.

- **Division of work:** Division of work and specialization produces more and better work with the same effort.
- **Authority and responsibility:** Authority is the right to give orders and the power to exact obedience. A manager has official authority because of his/her position, as well as personal authority based on individual personality, intelligence, and experience. Authority creates responsibility.
- **Discipline:** Obedience and respect within an organization are absolutely essential. Good discipline requires managers to apply sanctions whenever violations become apparent.
- **Unity of command:** An employee should receive orders from only one superior.
- **Unity of direction:** Organizational activities must have one central authority and one plan of action.
- **Subordination of individual interest to general interest:** The interests of one employee or group of employees are subordinate to the interests and goals of the organization.
- **Remuneration of personnel:** Salaries — the price of services rendered by employees — should be fair and provide satisfaction both to the employee and employer.
- **Centralization:** The objective of centralization is the best utilization of personnel. The degree of centralization varies according to the dynamics of each organization.
- **Scalar chain:** A chain of authority exists from the highest organizational authority to the lowest ranks.
- **Order:** Organizational order for materials and personnel is essential. The right materials and the right employees are necessary for each organizational function and activity.
- **Equity:** In organizations, equity is a combination of kindness and justice. Both equity and equality of treatment should be considered when dealing with employees.
- **Stability of tenure of personnel:** To attain the maximum productivity of personnel, a stable work force is needed.

- **Initiative:** Thinking out a plan and ensuring its success is an extremely strong motivator. Zeal, energy, and initiative are desired at all levels of the organizational ladder.
- **Esprit de corps:** refers to unity. Teamwork is fundamentally important to an organization. Work teams and extensive face-to-face verbal communication encourages teamwork.

Mary Parker Follett stressed the importance of an organization establishing common goals for its employees. However, she also began to think somewhat differently than the other theorists of her day, discarding command-style hierarchical organizations where employees were treated like robots. She began to talk about such things as ethics, power, and leadership. She encouraged managers to allow employees to participate in decision making. She stressed the importance of people rather than techniques — a concept very much before her time. As a result, she was a pioneer and often not taken seriously by management scholars of her time. But times change and innovative ideas from the past suddenly take on new meanings. Much of what managers do today is based on the fundamentals that Follett established more than 80 years ago.

Chester I Barnard, who was president of New Jersey Bell Telephone Company, introduced the idea of the **informal organization** — *cliques* (exclusive groups of people) that naturally form within a company. He felt that these informal organizations provided necessary and vital communication functions for the overall organization and that they could help the organization accomplish its goals.

Barnard felt that it was particularly important for managers to develop a sense of common purpose where a willingness to cooperate is strongly encouraged. He is credited with developing the **acceptance theory of management**, which emphasizes the willingness of employees to accept that managers have legitimate authority to act. Barnard felt that four factors affected the willingness of employees to accept authority:

- The employees must understand the communication.
- The employees accept the communication as being consistent with the organization's purposes.
- The employees feel that their actions will be consistent with the needs and desires of the other employees.
- The employees feel that they are mentally and physically able to carry out the order.

Barnard's sympathy for and understanding of employee needs positioned him as a bridge to the behavioral school of management, the next school of thought to emerge.

2.2 Behavioral Management Theory

As management research continued in the 20th century, questions began to come up regarding the interactions and motivations of the individual within organizations. Management principles developed during the classical period were simply not useful in dealing with many management situations and could not explain the behavior of individual employees. In short, classical theory ignored employee motivation and behavior. As a result, the behavioral school was a natural outgrowth of this revolutionary management experiment.

The **behavioral management theory** is often called the human relations movement because it addresses the human dimension of work. Behavioral theorists believed that a better understanding of human behavior at work, such as motivation, conflict, expectations, and group dynamics, improved productivity.

The theorists who contributed to this school viewed employees as individuals, resources, and assets to be developed and worked with — not as machines, as in the past. Several individuals and experiments contributed to this theory.

Elton Mayo's contributions came as part of the *Hawthorne studies*, a series of experiments that rigorously applied classical management theory only to reveal its shortcomings. The Hawthorne experiments consisted of two studies conducted at the Hawthorne Works of the Western Electric Company in Chicago from 1924 to 1932. The first study was conducted by a group of engineers seeking to determine the relationship of lighting levels to worker productivity. Surprisingly enough, they discovered that worker productivity increased as the lighting levels decreased — that is, until the employees were unable to see what they were doing, after which performance naturally declined.

A few years later, a second group of experiments began. Harvard researchers Mayo and F. J. Roethlisberger supervised a group of five women in a bank wiring room. They gave the women special privileges, such as the right to leave their workstations without permission, take rest periods, enjoy free lunches, and have variations in pay levels and workdays. This experiment also resulted in significantly increased rates of productivity.

In this case, Mayo and Roethlisberger concluded that the increase in productivity resulted from the supervisory arrangement rather than the changes in lighting or other associated worker benefits. Because the experimenters became the primary supervisors of the employees, the intense interest they displayed for the workers was the basis for the increased motivation and resulting productivity. Essentially, the experimenters became a part of the study and influenced its outcome. This is the origin of the term *Hawthorne effect*, which describes the special attention researchers give to a study's subjects and the impact that attention has on the study's findings.

The general conclusion from the Hawthorne studies was that human relations and the social needs of workers are crucial aspects of business management. This principle of human motivation helped revolutionize theories and practices of management.

Abraham Maslow, a practicing psychologist, developed one of the most widely recognized **need theories**, a theory of motivation based upon a consideration of human needs. His theory of human needs had three assumptions:

- Human needs are never completely satisfied.
- Human behavior is purposeful and is motivated by the need for satisfaction.
- Needs can be classified according to a hierarchical structure of importance, from the lowest to highest.

Maslow broke down the needs hierarchy into five specific areas:

- **Physiological needs.** Maslow grouped all physical needs necessary for maintaining basic human well-being, such as food and drink, into this category. After the need is satisfied, however, it is no longer is a motivator.

- **Safety needs.** These needs include the need for basic security, stability, protection, and freedom from fear. A normal state exists for an individual to have all these needs generally satisfied. Otherwise, they become primary motivators.
- **Belonging and love needs.** After the physical and safety needs are satisfied and are no longer motivators, the need for belonging and love emerges as a primary motivator. The individual strives to establish meaningful relationships with significant others.
- **Esteem needs.** An individual must develop self-confidence and wants to achieve status, reputation, fame, and glory.
- **Self-actualization needs.** Assuming that all the previous needs in the hierarchy are satisfied, an individual feels a need to find himself.

Maslow's hierarchy of needs theory helped managers visualize employee motivation.

Douglas McGregor was heavily influenced by both the Hawthorne studies and Maslow. He believed that two basic kinds of managers exist. One type, the Theory X manager, has a negative view of employees and assumes that they are lazy, untrustworthy, and incapable of assuming responsibility. On the other hand, the Theory Y manager assumes that employees are not only trustworthy and capable of assuming responsibility, but also have high levels of motivation.

An important aspect of McGregor's idea was his belief that managers who hold either set of assumptions can create **self-fulfilling prophecies** — that through their behavior, these managers create situations where subordinates act in ways that confirm the manager's original expectations.

As a group, these theorists discovered that people worked for inner satisfaction and not materialistic rewards, shifting the focus to the role of individuals in an organization's performance.

2.3 Quantitative School of Management

During World War II, mathematicians, physicists, and other scientists joined together to solve military problems. The quantitative school of management is a result of the research conducted during World War II. The **quantitative approach** to management involves the use of quantitative techniques, such as statistics, information models, and computer simulations, to improve decision making. This school consists of several branches, described in the following sections.

Management science

The management science school emerged to treat the problems associated with global warfare. Today, this view encourages managers to use mathematics, statistics, and other quantitative techniques to make management decisions.

Managers can use computer models to figure out the best way to do something — saving both money and time. Managers use several science applications.

- Mathematical forecasting helps make projections that are useful in the planning process.

- Inventory modeling helps control inventories by mathematically establishing how and when to order a product.
- Queuing theory helps allocate service personnel or workstations to minimize customer waiting and service cost.

Operations management

Operations management is a narrow branch of the quantitative approach to management. It focuses on managing the process of transforming materials, labor, and capital into useful goods and/or services. The product outputs can be either goods or services; effective operations management is a concern for both manufacturing and service organizations. The resource inputs, or factors of production, include the wide variety of raw materials, technologies, capital information, and people needed to create finished products. The transformation process, in turn, is the actual set of operations or activities through which various resources are utilized to produce finished goods or services of value to customers or clients.

Operations management today pays close attention to the demands of quality, customer service, and competition. The process begins with attention to the needs of customers: What do they want? Where do they want it? When do they want it? Based on the answers to these questions, managers line up resources and take any action necessary to meet customer expectations.

Management information systems

Management information systems (MIS) is the most recent subfield of the quantitative school. A management information system organizes past, present, and projected data from both internal and external sources and processes it into usable information, which it then makes available to managers at all organizational levels. The information systems are also able to organize data into usable and accessible formats. As a result, managers can identify alternatives quickly, evaluate alternatives by using a spreadsheet program, pose a series of “what-if” questions, and finally, select the best alternatives based on the answers to these questions.

Systems management theory

The **systems management theory** has had a significant effect on management science. A system is an interrelated set of elements functioning as a whole. An organization as a system is composed of four elements:

- **Inputs** — material or human resources
- **Transformation processes** — technological and managerial processes
- **Outputs** — products or services
- **Feedback** — reactions from the environment

In relationship to an organization, *inputs* include resources such as raw materials, money, technologies, and people. These inputs go through a transformation process where they're planned, organized, motivated, and controlled to ultimately meet the organization's goals.

The systems theory encourages managers to look at the organization from a broader perspective. Managers are beginning to recognize the various parts of the organization, and, in particular, the interrelations of the parts.

Contemporary system theorists find it helpful to analyze the effectiveness of organizations according to the degree that they are open or closed. The following terminology is important to your understanding of the systems approach:

- An organization that interacts little with its external environment (outside environment) and therefore receives little feedback from it is called a **closed system**.
- An **open system**, in contrast, interacts continually with its environment. Therefore, it is well informed about changes within its surroundings and its position relative to these changes.
- A **subsystem** is any system that is part of a larger one.
- **Entropy** is the tendency of systems to deteriorate or break down over time.
- **Synergy** is the ability of the whole system to equal more than the sum of its parts.

2.4 Contingency School of Management

The contingency school of management can be summarized as an “it all depends” approach. The appropriate management actions and approaches depend on the situation. Managers with a contingency view use a flexible approach, draw on a variety of theories and experiences, and evaluate many options as they solve problems.

Contingency management recognizes that there is no one best way to manage. In the contingency perspective, managers are faced with the task of determining which managerial approach is likely to be most effective in a given situation. For example, the approach used to manage a group of teenagers working in a fast-food restaurant would be very different from the approach used to manage a medical research team trying to find a cure for a disease.

Contingency thinking avoids the classical “one best way” arguments and recognizes the need to understand situational differences and respond appropriately to them. It does not apply certain management principles to any situation. Contingency theory is a recognition of the extreme importance of individual manager performance in any given situation. The contingency approach is highly dependent on the experience and judgment of the manager in a given organizational environment.

2.5 Quality School of Management

The quality school of management is a comprehensive concept for leading and operating an organization, aimed at continually improving performance by focusing on customers while addressing the needs of all stakeholders.

Kaizen approach

The very notion of continuous improvement suggests that managers, teams, and individuals learn from both their accomplishments and their mistakes. Quality managers help their employees gain insights from personal work experiences, and they encourage everyone to

share with others what they have learned. In this way, everyone reflects upon his or her own work experiences, including failures, and passes their newfound knowledge to others. Sharing experiences in this manner helps to create an organization that is continuously discovering new ways to improve.

Kaizen is the commitment to work toward steady, continual improvement. The best support for continuous improvement is an organization of people who give a high priority to learning. In this process, everyone in the organization participates by identifying opportunities for improvement, testing new approaches, recording the results, and recommending changes.

Reengineering approach

The reengineering approach to management focuses on creating change — big change — and fast. It centers on sensing the need to change, seeing change coming, and reacting effectively to change when it comes.

Reengineering — the radical redesign of business processes to achieve dramatic improvements in cost, quality, service, and speed — requires that every employee and manager look at all aspects of the company's operation and find ways to rebuild the organizational systems to improve efficiency, identify redundancies, and eliminate waste in every possible way. Reengineering is neither easy nor cheap, but companies that adopt this plan have reaped remarkable results.

Management in the Future

Modern management approaches respect the classical, human resource, and quantitative approaches to management. However, successful managers recognize that although each theoretical school has limitations in its applications, each approach also offers valuable insights that can broaden a manager's options in solving problems and achieving organizational goals. Successful managers work to extend these approaches to meet the demands of a dynamic environment.

Modern management approaches recognize that people are complex and variable. Employee needs change over time; people possess a range of talents and capabilities that can be developed. Organizations and managers, therefore, should respond to individuals with a wide variety of managerial strategies and job opportunities.

Key themes to be considered, as the twenty-first century progresses, include the following:

- The commitment to meet customer needs 100 percent of the time guides organizations toward quality management and continuous improvement of operations.
- Today's global economy is a dramatic influence on organizations, and opportunities abound to learn new ways of managing from practices in other countries.
- Organizations must reinvest in their most important asset, their people. If organizations cannot make the commitment to lifelong employment, they must commit to using attrition to reduce head count. They will not receive cooperation unless they make it clear that their people will not be working themselves out of a job.
- Managers must excel in their leadership responsibilities to perform numerous different roles.