

UNIT ONE

GENERAL MANAGEMENT

CHAPTER 1

Scientific Management
History, Concept, and Evolution

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Schools of Management Thought
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Functions of Management

UNIT 1: GENERAL MANAGEMENT

This unit focuses on general management. It is broadly divided into five chapters covering specific topics, namely,

1. Scientific Management
History, Concept, and Evolution
2. Schools of Management Thought
Classical Theories
3. Schools of Management Thought
Neoclassical Theories
4. Schools of Management Thought
Modern Theories
5. Functions of Management

Chapter 1: This chapter tells about the evolution of management concepts from the 14th century to the modern period in management. The presentation of development of management thoughts in chronological order will be an asset to the reader. The definitions of management by different management thinkers will motivate the readers to think about improvements in the ongoing management trends.

The difference between administration, management, and organization is presented very well, which will clarify the confusions of the readers about these concepts. Broadly, this chapter tells the reader the history of management, nature and features of management, characteristics and hierarchy of management, and the skills required by a present-day manager.

Chapter 2: This chapter explains the different types of schools of management, right from autocracy to modern management, with emphasis on the contributions of Charles Babbage, F. W. Taylor, Henry Fayol, the Gilberths, H. L. Gantt, etc. The chapter provides the reader a clear distinction between objectives and principles of management.

Chapter 3: This chapter focuses on human behavioral sciences and the results achieved through the human relations school. The contributions of Elton Mayo (Hawthorne experiments), Douglas McGregor (Theory X and Theory Y), Frederick Herzberg (two factor theory), Abraham Maslow (need hierarchy theory), Victor Vroom (expectancy/valence theory), and others have been discussed, with which a modern manager is directed to concentrate on the human relations concept to achieve the best results. A clear distinction between scientific management and HR management is presented in a tabular form for better understanding.

Chapter 4: This chapter concentrates on the concepts of modern schools of management. Concepts like management by objectives (MBO), social and systems approaches to management, contingency school, Harold Koontz's jungle of management, etc., with their merits and demerits and salient features, are discussed so that the reader can apply the appropriate concept as and when required. Comparison of various schools of management is very well presented.

Chapter 5: This chapter deals with functions of management, viz., planning, organizing, staffing, directing, coordination, reporting, and budgeting (PODSCORB; as given by Luther Gullick) and explains how to apply these functions to an organization. Besides that, the planning function and the types of planning are also explained; planning being the first and foremost function of management.

CHAPTER

1

Scientific Management *History, Concept, and Evolution*

Chapter Objectives

After studying this chapter, you should be able to

- know the history of management,
- understand the nature and features of management,
- understand the hierarchy of management, and
- know the skills required by a manager.

1.1 INTRODUCTION

Adam, the first MAN in this world, is supposed to be the first MANAGER because he could MANAGE to earn food, made weapons, controlled successor MEN, discovered the “Tact” of hunting, got the work done by beasts, and so forth. This act of MAN to **MANAGE MEN** Tactfully so as to get the work done is called MANAGEMENT. However, according to the known history, the “management” that we understand today has taken several shapes. The evolution of the so-called scientific and modern management can be reviewed under five phases. In this chapter, we will discuss these five phases and the history of the management science and its development.

1.2 MANAGEMENT: HISTORY AND DEVELOPMENT

It is very difficult to say when “management” took the name and shape. However, in the Stone Age, there could be production problems associated with making arrows for hunting. Then the man would have learned how to use the beasts initially for transportation, and later for other kinds of work such as agriculture. Therefore, it is not wrong if anybody says that management started with Adam, and the first manager must be Adam only.

However, the management and its developments as known to the historians are available from the period when man learned to live in a civilization. Therefore, for the ease of the present discussion, the development of scientific management is classified into five phases, starting from the age of human civilization. The five major phases are as follows:

1. Handicraft era—individual management or handicraft system,
2. Industrial Revolution era—industrial management or factory system,
3. Scientific management era—classical and neoclassical management,
4. Operations research era—modern management, and
5. Computerized systems era—ultra modern management.

1.2.1 Handicraft Era (14th Century to 18th Century)

During the handicraft era, the businesses used to be under the handicraft system. The tradesmen were divided into certain groups, such as blacksmith, goldsmith, carpenter, potter, etc. to do certain types of work. There existed small privately-owned shops, which employed some tradesmen. Products such as furniture and household items were made up of leather, metals, wood, clay, sand, and stone. The management features during this period are as follows:

- The management of handicraft shops was generally done by an individual.
- The volume of persons managed by him was very limited. Thus, the management was comparatively simple.
- The initiative or decision making used to be fast and was based on the judgment of the master.
- Remuneration varied from place to place, time to time, and situation to situation, or it was task based.
- Kinds of work in a day were not clearly defined.
- The disputes, if any, were solved locally.

1.2.2 Industrial Revolution Era (18th Century to 19th Century)

The major contributions, noteworthy to the development of management field, are listed below:

- Adam Smith's book, *The Wealth of Nations*, published in 1776, was one of the first works promoting "specialization of labor" as an effort toward the improvement of productivity. The concept of planning and designing a process for efficient and effective use of the workforce, division of labor, skill development, time saving, and the use of specialized machines were the major points of discussion in the publication.
- James Watt's steam engine (1764) became the example for the use of mechanical power to increase productivity.
- Around 1800, Matthew Boulton made some attempts for organizational improvement.
- The factory system began to develop in the early 1800s, which could be called the start of the Industrial Revolution era.
- In this period, popularly known as the Industrial Revolution period, numerous inventions and discoveries of various machinery and mechanisms freed humans and beasts as sources of power/energy in industry.
- Henry Slater's use of water and steam power in textile mills in New England and Eli Whitney's concept of "interchangeability of parts" stimulated the factory system and led to rapid growth.
- Charles Babbage (1832), a self-made mathematician, suggested division of labor for productivity improvement.

Around 1830, the discovery and expansion of railroad generated new demands for steel and industrial products and also placed heavy demands on capital. This led to the disconnection of ownership from management and blazed the beginning of professional management. The features of management during this phase are summarized below:

- The factory system was developed.
- Large groups of workers worked together.
- Planning and designing of a process were included as a part of management.
- Discoveries and inventions of machines and mechanisms helped in the mechanization of work for improving productivity.
- Machinery replaced the humans and beasts as energy/power source.
- The concept of specialization of labor came to the forefront.
- Ownerships started turning into professional management.
- The public law and general laws took shape.
- Leadership styles were combinations of bureaucratic and autocratic styles.
- Management became the art of getting things done.

1.2.3 Scientific Management Era (Early 19th Century)

Necessity is the mother of invention, and the first engineers often had a dedication to purpose born of necessity. The first engineering discipline, i.e., military engineering, was developed to meet the basic needs of survival.

- The factory system was well instituted by the early 1900s.
- Frederick Winslow Taylor, a dissatisfied worker in one of those factories in Philadelphia (Midvale Steel Company), started his career as a laborer and advanced through the ranks to become foreman, master mechanic, and finally chief engineer. He pointed out the "deplorable," "boondoggling," "loafing," and general inefficiencies that existed in his factory.
- Taylor could not digest such practices and conducted some experiments on his ideas for improvement. Believing in scientific approach to management to improve labor efficiency, he proposed certain principles (the detailed study is given in the next chapters.)
- In his book, *Principles of Scientific Management* (1915), the "shop system" encompassed the attention to training, instructions, specifications, standards (by stopwatch studies), and incentive pay systems, which brought him the title, "father of scientific management."
- His tasks in the fields of metal cutting, shoveling, handling of pig iron, analysis of work requirements/specifications (work design and method study), determining the amount of time (work measurement and time study), piece rate system, scientific management, etc. are noteworthy.
- F. B. Gilbreth, influenced by Taylor's work, along with his wife Lillian Gilbreth, worked on the analysis of fundamental motions of the parts of human body, particularly, hands, legs, eyes, and trunk/body at the micro level. Their studies are known as motion economy, motion study, and micro-motion study. Gilbreth's theories have occupied a significant position in the field of industrial engineering.
- H. L. Gantt devised a chart used for scheduling. He also developed wage incentive plans.
- Emerson and Merrick attempted to use Taylor's approach and developed their own ideas in analyzing labor efforts.
- Henry Ford's contribution is another major turn, with his idea of the use of conveyors for progressive assembly.
- F. Wilson Harris proposed the economic order quantity (EOQ) model.
- Walter Shewhart developed the statistical quality control (SQC).
- Henry Fayol's principles of organization streamlined the factory system.
- Elton Mayo diverted the attention of managers and engineers to behavioral factors.
- L. H. C. Tippett contributed to work-sampling activities.
- Abraham Maslow propounded the theory of needs to improve productivity through motivation.
- McGregor was another contributor in this direction through his Theory X and Theory Y.
- Herzberg's two factor theory, Vrooms's expectancy-valence, etc. are some more theories to note.

The management style during this period can be understood through the following lines:

- Management had turned up more as a science than as an art.
- Scientific methods were developed for process improvements.

- Remuneration was made based on transforming time into money through analytical and mathematical calculations.
- Classical management theories (F. W. Taylor's scientific management and Fayol's organization principles) strengthened the authority and responsibility of management.
- Neoclassical theories (Mayo's Hawthorne experiments, Maslow's need hierarchy, McGregor's Theory X and Theory Y) realized the human needs and hence motivated the workmen.
- Labor laws were developed and they strengthened the workforce.
- The concepts of quality and economy emerged.
- Participative management came into existence.
- Leadership or management style was changed from autocratic style to democratic or task oriented styles.

Thought for Young Managers and Engineers (TYME)

By the late 1920s, the United States had become so production oriented that many firms overproduced. Prices fell, and a depression occurred. What reasons can you find for this situation? Guess what the effects of this were with reference to the industrial management field.

1.2.4 Operations Research Era (Late 19th Century)

Operations research is a subject evolved during the days of World War II. It involves decision making by arriving at solutions to problems using quantitative techniques in a systematic way. During World War II, battle problems and risk situations, such as transporting troops, necessitated a careful analysis for which researchers employed mathematical equations and analytical methods for simulating and analyzing the effects of various warfare decision strategies. Later on, these techniques of competitive analysis were successfully applied to problems in the business world. Operations research techniques such as linear programming, transportation problems, assignment problems, inventory control models, and waiting line models helped industrial engineers a lot to analyze and to take decisions to improve productivity.

The power of operations research was doubled during 1950s with the discovery of computers. Operations research methods, such as linear programming and simulation, were applied to find optimum solutions for complex business problems. These could be solved accurately at a much faster rate by using computers. However, industrial engineers found it too complex, even on computers, to solve some of the scheduling and production problems. Perhaps, this was because well-documented accounting systems and good production control systems were not available. That is how the industrial engineers were compelled to take part in the establishment of the systems and procedures to enable application of operations research methods on computers.

During the late 1960s, Joseph Orlicky, Oliver Wight, and others introduced the following new concepts:

- independent demand,
- time phasing,
- material requirement planning (MRP), and
- capacity requirements planning (CRP).

The new approaches realized the advantage of the speed and memory capacity of computers and enabled to control production in such a way that could never be done manually due to the enormous number of calculations involved.

In the western side, the 1970s and 1980s enjoyed a continued development of the following:

- manufacturing resource planning (MRP-II) systems,
- just-in-time (JIT) inventory concepts, and
- enterprise resource planning (ERP).

In the eastern side, the 1970s and 1980s witnessed the development of the following:

- quality circles, kanban,
- total quality management (TQM),
- poka-yoke devices,
- kaizen, etc.

Summarily, the management in this period is as follows:

- Management was the application of science and art and hence was a profession.
- Accountability predominated authority and responsibility of management.
- The concept of optimization of resources gained prime importance.
- Management was challenging and about working against odds.
- Improvement in productivity by judicious applications of optimization models made the managers' role significant in management.
- Work allocation and work extraction were based on suitable modeling.
- Good documentation procedures made management systematic and streamlined.
- Decision making was oriented on quantitative as well as qualitative aspects.

1.2.5 Computerized Systems Era (Early 20th Century)

Today's manufacturing sector is undergoing nothing short of an electronic revolution. The electronic revolution started with microprocessors, which are known as "chips" or processing elements used in computers. These microprocessors and computers are being installed in virtually every type of material handling and processing equipment. The movement is now geared up to move toward more fully automated factories and service systems. Some of the developments in the recent past that have largely affected the style of management are as follows:

- computerized scanners are able to identify products by sensing or reading the bar codes printed on them;
- automatic receipt, selection;
- automatic storage and retrieval systems (AS/RS);
- computer graphics;
- computer animation and many more wonders of computers;
- cloning;
- automatic guided vehicles (AGV);

- computer/numerical controlled machines (CNC); and
- robots.

Some of the radical changes occurred in the functions of management may be attributed to the following:

- computer aided process planning (CAPP),
- computer aided design and computer aided manufacturing (CAD/CAM),
- computer aided plant layout planning,
- simulation and modeling,
- boundaryless and virtual organization structure,
- project or network organizations, and
- human resource management (HRM).

During this period, the management took a different shape.

- The management process was computerized or automated, with a little or no human effort.
- This management believed in the principle, “you set a system—then it sets you.”
- Computers replaced the machinery and human efforts in planning, designing, processing, transporting, communication, and information transmission.
- Manipulations and maneuverings were reduced.
- Management was conducted through system approach.

The history and major developments of industrial engineering and management are given in Table 1.1.

Table 1.1 History and major developments of industrial engineering and management

AD 1982	Thomas Peters and Robert Waterman identified characteristics of companies they considered excellent.		
AD 1981	Willam Ouchi discussed selected Japanese managerial practices adapted in the U.S. environment.		
AD 1974	Peter F. Drucker and W. Edwards Deming introduced quality control in Japan.		
AD 1969	Laurence Peter observed that eventually people get promoted to a level where they are incompetent.		
AD 1947	Max Weber's theory of bureaucracy		
AD 1938	Chester Barnard's functions of executive		
AD 1933	Elton Mayo and F. J. Roethlisberger on the influence of social attitudes and relationships of work groups on performance		
AD 1917	Vilfredo Pareto's books on social systems approach to organization and management		
AD 1916	Henri Fayol's 14 principles of management		
AD 1912	Hugo Munsterberg on application of psychology to industry and management		
AD 1911	Principles of scientific management		
AD 1910	Walter Dill Scott on application of psychology to advertising, marketing, and personnel		
AD 1903	Frederick W. Taylor's primary concern was to raise productivity through greater efficiency in production and increased pay for workers.		
AD 1901	Henry L. Gantt caked for scientific selection of workers and "harmonious cooperation" between labor and management.		
AD 1900	Frank and Lillian Gilbreth focused on the human aspects of work and the understanding of workers personalities and needs.		
AD 1800	Eli Whitney on parts of interchangeability		
AD 1776	Adam Smith on division of labor		
AD 1500	Machiavelli developed guidelines for the use of personal power.		
AD 1300	Venetians developed center of commercial sea power and laws of commerce (AD 450–1500)	Romans developed the system of Senate which advised the consuls and emperor	Indian Civilization
AD 500			Indus Valley Civilization
AD 450	Greeks developed strong form of local bodies		Harappa and Mohenjo-daro Civilization
200 BC			Town planning
500 BC			Trading, etc.
800 BC			
1000 BC		Egyptians developed first national government and extensive civilization	
1500 BC	Sumerians developed written records		
2400 BC			
2700 BC			
3000 BC			

Chinese developed capable governments and civilizations rich in science and art.

Babylonians developed the Code of Hammurabi

Self-Assessment 1

Content-Based Questions

1. Explain the progress and developments which occurred in the field of management from 18th to 20th centuries.
2. Explain the developments in the area of management during the following eras:
 - (a) the Industrial Revolution era, and
 - (b) the computerized systems era.
3. Enumerate the personalities (at least 10) and their contributions toward the development of the management.
4. What is the impact of Industrial Revolution on the growth of industrial management?
5. Explain the features of management during the scientific management era.
6. Explain the style of management during the handicraft era.
7. Describe the change which occurred in the style of management during the operations research era.

Concept-Based Questions

8. Write an essay on the influence of computers on the developments in management.
9. The concepts of management grew rapidly during the period between the two world wars. Do you agree with the statement? Give reasons to support your answer.
10. Distinguish between the styles of management during the handicraft era and the scientific management era.
11. What are the features of management in the present computer systems era? What change did you notice as compared to the scientific management era?
12. Write an essay on how changes have taken place in the style of management from the handicraft era (18th century) to the computer systems era (21st century).

1.3 MANAGEMENT: DEFINITION AND MEANING

Management is

“knowing exactly what you want men to do and then seeing that they do it in the best and cheapest ways.” – F. W. Taylor

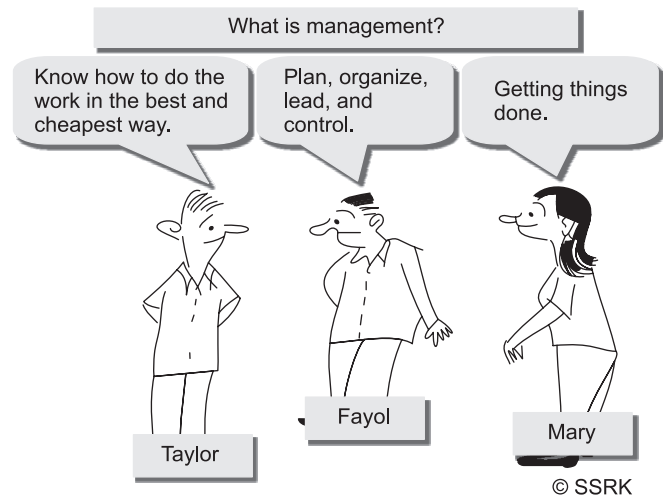
“to forecast and plan, to organize, to command, to coordinate, and to control.” – Henry Fayol

“the art of getting things done through other people.” – Mary Parker Follett

“the process of planning, organizing, leading, and controlling the efforts of organization members; and of using all other organizational resources to achieve stated organizational goals.” – James A. F. Stoner

“the art of applying the economic principles that underline the control of men and materials in the enterprise under consideration.” – Kimball and Kimball

“the force that integrates men and physical plant into an effective operating unit.” – Keith and Gubelline



“a multipurpose organ that manages a business, manages a manager, and manages workers and work.” – Peter Drucker
 “the creation and maintenance of an internal environment in an enterprise where individuals, working together in groups, can perform efficiently and effectively towards the attainment of group goals.” – Koontz and O’Donnell

“principally the task of planning, coordinating, motivating, and controlling the efforts of others towards a specific objective.” – James Lundy

“the attainment of pre-established goals by the direction of human performance along pre-established lines.”

– Lawrence Appley

“guiding human and physical resources into dynamic organization units which attain their objectives to the satisfaction of those served and with a high degree of morale and sense of attainment on the part of those rendering the service.”

– American Management Association (AMA)

1.4 MANAGEMENT, ADMINISTRATION, AND ORGANIZATION

In the study of management literature, the terms “management,” “administration,” and “organization” are often used synonymously, and many authors do not find any difference, particularly between “management” and “administration.” These three terms are neither synonymous nor interchangeable. Although these terms are distinctly differentiated by some authors, the sense that is taken by people of different fields is still controversial and confusing.

According to Oliver Sheldon, “Administration is a top-level function while management is a lower-level function, which is concerned with the execution of policies laid down by administration.”

According to the British authors, such as Brech and others, “Management is a wider concept which includes administration.”

Suppose an institution (or a college) is run by a sponsor, say, X , and Y is the principal (or head) of the institution. Now, the convention in this field is that X belongs to management, while Y is the administrator.

We can cite another example by considering a company with president, vice president, and board of directors as the administrators, while managers execute their policies and instructions.

In American convention, administration is at the top level, and management is at a lower level to execute the decisions and policies. Englishmen believe that managers are at the top of administrators.

Keeping the arguments and debates aside, most authors distinguish the terms as follows:

- Administration determines objectives, lays down policies, holds the leadership, gives proper guidance and directions, and approves the work of managers.
- Management plans, executes, implements, coordinates, supervises, and carries out the decisions and policies of administration.
- Organization is the framework for the above process which delegates authority and fixes responsibility, which converts tasks into actions.

Thus, in simple words, *management* executes the policies laid down by *administration* through the framework of *organization*.

Table 1.2 depicts the clear distinction between the three terms.

1.5 IS MANAGEMENT AN ART OR A SCIENCE?

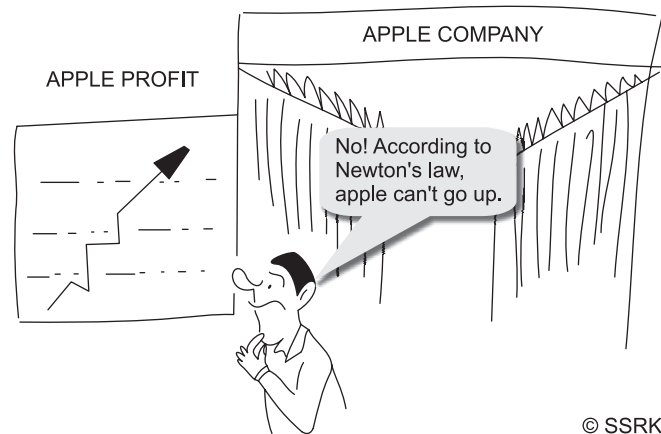
One of the eternal questions in the field of management is whether it is an art or a science. This is discussed in the following sections.

1.5.1 Management as a Science

Science is a systematic theoretical knowledge derived empirically, tested critically, and then generalized into laws, theories, or principles, such as correlation, cause and effect relationship, functional association (for example, if *Y* is a function of *X*, the value of *Y* depends on the value of *X*). For example, a manager may say from his experience how much raw material is required

to complete a certain job which is only an approximation and may go high or low, but it can be calculated exactly by using scientific principles.

Not only in the resources and output measurements, but also in the process of management, the role of science cannot be overruled. Management has come up as a body of systematized knowledge comprising of general principles. The principles of management are not generated overnight but are the outcome of a distillation of the experiences of practicing managers and hence can be inferred as empirically derived. Researchers have scrutinized, proved or rejected, or confirmed the facts in the principles of management. Hence, management is a science.



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Until F. W. Taylor identified the scientific nature in practicing management, it was believed to be exercised by some rules of thumb and experiences. According to him, every work can be quantified and measured, which in turn is translated in terms of money. Unless some principles, rules, regulations, actions, and disciplinary measures are imposed, nobody will work effectively. The systematic procedures make the management to be called as a science. The following arguments are in the favor of management to be claimed as a science:

- A hierarchy (systematic line up) in the flow of authority keeps the organization more efficient.

Table 1.2 Distinction between administration, management, and organization

S. No.	Administration	Management	Organization
1.	It is the process of determining the goals and objectives to be achieved.	It is the process of planning the operation or work so as to achieve the goals laid by administration.	It is the process of dividing the work into tasks and duties, and allocating them suitably.
2.	It lays down policies and principles.	It executes the policies and programs.	It programs, chalks out, and fixes the activities.
3.	It frames the strategies and the cult.	It frames the procedures and action plans.	It frames the line of action and accountability.
4.	It provides (a) direction, (b) guidance, and (c) leadership.	It (a) supervises, (b) controls, and (c) coordinates.	It (a) delegates authority, (b) fixes responsibility, and (c) draws accountability.
5.	It occupies the first position in the management process and stands at the top.	It occupies second (or the middle) position in the management process.	It occupies the third position in the management process.
6.	It shows path and provides strength to management.	It follows administration and derives strength from administration.	It is solely responsible for the execution of plans and actions.
7.	It is composed of one or very few members.	It is composed of a few to some members.	It is composed of a big structure or network.
8.	It stands at the top or peak.	It spreads in the middle.	It distributes from middle to bottom.

- The imposition of strict discipline on the employees with certain rules and regulations makes management easy.
- Work measurement (time study and method study), job evaluation, and merit rating are the scientific bases and form the scales for good wage administration.
- Beliefs and personal opinions cannot do justice to all equally.
- Favoritism and attitudinal problems are avoided if the process of management is made on some scientific methods.
- Technological sequence and scientific measurements can bring ease of working and uniformity in doing the job.
- Science provides the essence for pudding; art can add only flavor to it.

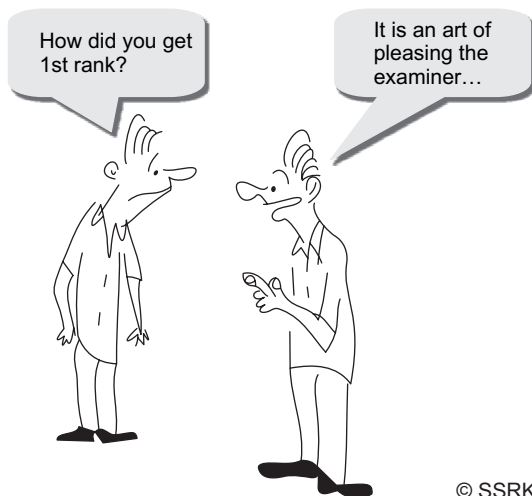
1.5.2 Management as an Art

Select a group of people and give the same problem to all. You can find each of them solving the problem in a different way. You may also find that a class of 50 students learning the same subject, in the same environment, may get different marks in their examination. Why?

Though the same answer is written, one may write it more effectively as compared to the other. This difference is because of the art of presenting.

The art of management is tactfully applying the knowhow and/or systematic skills for the effective accomplishment of concrete results. Every art is practical in which the practitioner's competence is proved in the results. Art involves creativeness. The following points advocate in favor of good management being an art:

- The process of management involves the use of knowhow or skills. A person may sometimes be able to manage well by rules and regulations, but he may not succeed in every situation unless he has those social skills which are necessary for exercising leadership.
- No doubt technical skills and knowledge are necessary for good decision making on various aspects of work, but applying these skills and implementing the decision requires tact.



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- The process of management is directed toward the effective accomplishment of concrete results. Science (the principles) may be sufficient to make workers efficient, but art (tact) only can make them effective.
- Unless the exercise of management results in the effective realization of organizational goals, it is not successful. The proof of cooking lies in eating. Science may be sufficient to cook, but art can make the dish delicious.
- Science helps in workers' work, but art makes the workers work willfully.
- Authority may use science (thumb rules), but responsibility exercises art.
- Science stands on legality or a system, while art stands on logic or love.
- Management, if creative, can motivate the doers more.
- Management is personalized in the sense that every manager has his own approach to solving problems. The practice of management calls for the exercise of judgment, perception, and flexibility, and these vary from one practitioner of management to another. Not every manager is equally good at his job. One needs to exercise the art of management to own credit to one's job.

1.5.3 Management as Both Science and Art

If science gives life to management, art provides external beauty to it. For a delicious dish of "management," science is the set of ingredients mixed in right proportions, but art adds the flavor to it. Management as science becomes efficient, but art makes it effective. Various reasons are given in the above paragraphs to suggest how management is both a science and an art.

1.5.4 Management as a Profession

A professional manager uses a blend of science and art of management in the right proportion to solve problems. Profession involves application of expert knowledge and skill, guided and governed by a code of conduct, with social responsibilities, for the solution of specific problems. Science provides the pool of expert knowledge in exercising authority, while art calls the manager to count on responsibility. Thus, the professional manager goes with balanced action and activity that keep him conscious in carrying out the work confidently. A professional manager can bring up integrity and universal acceptance. It is the development of management as a profession that raised the position of manager from a mere businessman to a respected and responsible citizen of the society, who is expected to make maximum utilization of human and material resources for economic prosperity. The following points project management as a profession:

Systematized body of knowledge: Management process is not carried out by fluke or fake. There is a systematized body which takes care of all professional aspects like any other professions, such as medicine, engineering, and law.

Formal method of acquisition of knowledge: Profession is generally defined as an occupation based on specialized intellectual study and training with a purpose. Management is also such a course of study, and the method of acquisition is quite formal, methodical, and systematic.

Existence of ethical codes: Like other professionals, managers also have ethics and codes of conduct. Discipline and line of controls are strictly adhered in this field.

Service motive: A professional has a service motive to the mankind. For instance, a doctor in health service, lawyer in legal service, and so forth. Similarly, the modern manager also holds social responsibility and a service motto to the mankind.

1.6 NATURE AND FEATURES (CHARACTERISTICS) OF MANAGEMENT

The important characteristics of management are as follows:

Management is mathematical and scientific: The experiences of managers, over the years, have become the base for framing certain principles for practicing management, which is being proven every day. Management, as a science, rigid to a certain extent is calculative. Work study, statistical quality control, capacity planning, inventory problems, etc. can be solved by using the principles of mathematics. Hence, the management practitioner has to employ mathematical tools and scientific techniques to reach the organizational goals.

Management is art and tact: Management is often considered as an art of getting things done. Everybody in the organization knows what he has to do, but results differ from person to person when the work is actually done. A good manager can extract work from his subordinates by creating a congenial atmosphere and through seeking their acceptance to work. Inducing the willfulness of working is the art of a good manager. Thus, management is practicing the act of art and tact.

Management is a system of authority and responsibility: Management directs to do work by the virtue of its authority. At the same time, it holds the responsibility of executing the aftereffects. The blend of authority and responsibility may vary from person to person and situation to situation. However, authority and responsibility should go hand in hand. Hierarchy of command and control characterizes management.

Management is accountability: This characteristic of management keeps every level of management alert and awake. Accountability of management raises efficiency and effectiveness. Management audit is one of the prominent concepts of modern management which depicts its accountability for success or any lapses.

Management is goal-oriented: Management has clearly defined goals and objectives which it strives to achieve and toward which it drives its forces. The goals may be oriented to gain profits or benefits or welfare or charity or whatsoever, but they should foster certain path that is to be aimed and followed by everyone concerned.

Management is a distinct process: Management is a distinct process of various activities such as planning, organizing, staffing, directing, controlling, budgeting, and coordinating. Hence, every activity of management distinctly signifies and describes the style and functioning.

Management is decision making: Managers are essentially decision makers. A correct decision leads to success, while a wrong

decision results in the failure of management. Thus, effectiveness or efficiency (or simply success or failure) is the result of this characteristic of management.

Management is economic efficiency: Management is generally composed of four Ms: men, material, machines, and methods through which its blood, called money, flows. Management's one important characteristic is to find a way to draw a line that will actively operate every "M" in an efficient manner.

Management is the welfare of mankind: Management is of the people, by the people, and for the people. Therefore, the most important characteristic of management is to have concern for people and their welfare. People include owners, shareholders, stakeholders, employees, customers, and all those concerned directly or indirectly.

Management is an experience: History repeats itself; of course, if not circularly, spirally. Problems that occur may not be identical or exactly same but they may be more or less similar. Whatever happened yesterday could happen today or tomorrow. However, the intensity or features may change. The experiences of yesterday's manager of tackling such problems will certainly help today's manager if they are recorded. Therefore, management is practicing experiences. Hence, experiences and minutes recorded characterize the management continuum.



Management team building through coordination: Management is not done by one, but by a group (or groups). In this process, every individual may have different nature, thought, behavior, discipline, and character. The characteristics of good management are to build up team spirit and coordinate the team to move toward the goals.

Management is a profession: Like medicine, engineering, or law, management can also be considered a profession. This is due to the fact that a manager needs to apply scientific principles artistically, for which he needs to use his judicious, unbiased, and universally acceptable policies. Thus, manager is director to a certain group, a leader in his domain, for which he/she should be professional.

Thought for Young Managers and Engineers (TYME)

A manager is also a professional like a doctor, engineer, or lawyer. But this sentence is confined only to books and such a thing is not found in full reality. Can you explore some reasons?

Management is universal: Management is found in every act of human life. Management is so commonly used word even by those who may or may not be designated as a manager. Everyone of us manages everything, occurring every day, whether official or personal. Hence, management is universal and is in every walk of life, every moment.

Management is dynamic: Management is composed of certain human groups. The human groups work in a society. The environment of the society is subject to changes every day, and change is inevitable. Obviously, changing environment brings certain challenges. Hence, another characteristic of the management is that it is dynamic in nature.

Self-Assessment 2

Content-Based Questions

1. Give any four definitions of management and explain their focus and concept.
2. Distinguish the terms administration, organization, and management.
3. What are the levels of management? Describe their roles and responsibilities.
4. Describe the characteristics of management.
5. Why is management considered a profession, and what factors make it a profession? Explore.

Concept-Based Questions

6. “Management executes the policies laid down by administration through the framework of organization.” Explain.
7. Do you think management is an art? Is it a science? Explain your answer with examples.
8. “Management is an art of getting things done.” Explain.
9. Like engineers, doctors, and lawyers, do you think managers are also professionals? If so, why? If not, why not?

1.7 MANAGEMENT HIERARCHY: LEVELS OF MANAGEMENT

Management is getting things done and those who do this job are called managers. Though the primary task of the manager

is to get the work done, there is a large difference between one manager and the other depending on the level of authority and responsibility. Management hierarchy is broadly classified (Fig. 1.1) into three categories:

Top management: This level of management in an industry consists of shareholders, stakeholders, board of directors, chief executive(s), managing director, chairperson or president, vice chairman or vice presidents, secretary, general manager, etc. (For a university, chancellor, vice chancellor, members of executive council, rector, registrar, and directors may be considered in this level.)

Middle management: For convenience, this level can be further divided into two sublevels as upper middle-level and lower middle-level management. The upper middle level consists of assistant or deputy general managers, senior managers, managers of various functional areas, such as production, finance, materials, accounts, maintenance, and quality. The middle-level managers are deputy managers, assistant managers, and departmental heads.

Lower management: The lower-level managers include superintendents, assistant engineers, trainee managers, etc. They stand on the bottom line and the base for the entire organization. Workmen are under their control and are responsible for production.

The above information is summarized in Table 1.3 for easy and ready reference.

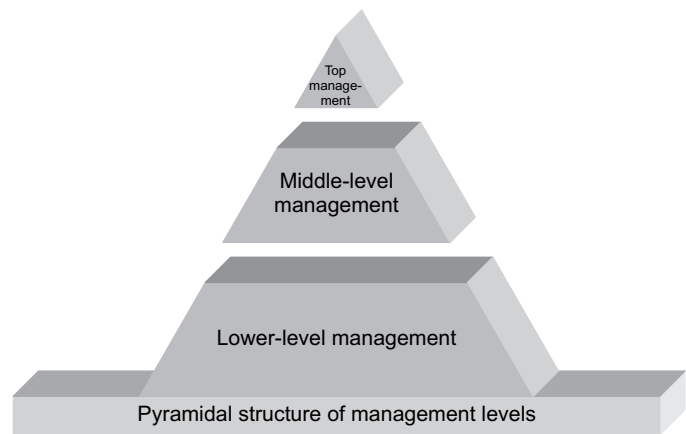


Figure 1.1 Management hierarchy

Table 1.3 Levels of management

S. No.	Management level	Represented by	General functions
1.	Top management	<ul style="list-style-type: none"> • Board of directors • Managing director(s) • Chief executive(s) • General manager(s) • President • Secretary • Vice president(s) • Share/Stakeholders 	<ul style="list-style-type: none"> • Establish vision and mission • Determine goals and objectives • Formulate strategies • Establish policies • Perspective plans • Monitor performances • Review the results

(Contd.)

S. No.	Management level		Represented by	General functions
2.	Middle management	Upper middle level	<ul style="list-style-type: none"> • Production/Works manager • Finance/Accounts manager • Personnel/HR manager • Materials/Stores manager • Quality control manager • Marketing manager • R&D manager • Project manager 	<ul style="list-style-type: none"> • Establish organization • Exercise control • Assign duties and responsibilities • Selection/training/placement • Design policies for operating routines • Welfare of employees (HR) • Long range plans • Plan for the unit
		Lower middle level	<ul style="list-style-type: none"> • Departmental heads • Superintendents • Project leaders 	<ul style="list-style-type: none"> • Plan operations in detail • Bridge the gap between top and lower management • Coordination • Manpower development • Short range plans
3.	Lower management		<ul style="list-style-type: none"> • Section head(s) • Shift in-charge(s) • Foremen • Supervisor(s) • Work inspectors • Project head(s) • Gang boss • Group leaders 	<ul style="list-style-type: none"> • Bridge the gap between management and workmen • Plan routines • Roll plans • Direct supervision of work • Arrange tools and materials • Arrange facilities

1.8 MANAGERIAL SKILLS/MANAGERIAL QUALITIES

We often talk about other people and comment on them such as “he is a good manager,” “he is a good administrator,” “he has good managerial qualities,” “he does not have managerial skills,” and so on.

What are these skills or qualities? Let us discuss.

Managerial skill or quality is the ability of a manager to get smooth functioning of management process and get the work done by the people under him/her.

This ability is considered to be more of an art than a science. Even though there are scientific and technological principles, it depends again on the art of using them in time. It involves and requires the following:

- obligation to make effective utilization of human, material, financial, and time resources,
- sound judgment to handle complex situations,
- complete knowledge, knowhow, and understanding of the work and its intricacies,
- good human relationship,
- perspective outlook, and
- coordination, cooperation, and the ability of appraisal.

Managerial skills are generally classified as given below:

1. Technical skills
2. Conceptual skills or administrative skills
 - (a) Decision making skills
 - (b) Organizational skills
 - (c) Coordination skills
3. Soft skills or human relation skills
 - (a) Communication skills
 - (b) Motivation skills
 - (c) Leadership skills

On close observation, we can notice that these three types of skills are almost mutually exclusive. Further, we can understand that the lower level of management requires more technical skills than conceptual skills, while at top levels, this reverses. Note that soft skills are required at each level of management. This is illustrated for our comprehension in Fig. 1.2.

Thought for Young Managers and Engineers (TYME)
 Generally, the lower-level and middle-level people of an organization feel that “the top-level managers” are highly paid, and it is not worth paying so much for what they do. Do you think lower/middle-level managers are right? If so give reasons. If not, how do you convince them that the pay of top-level managers is justified.

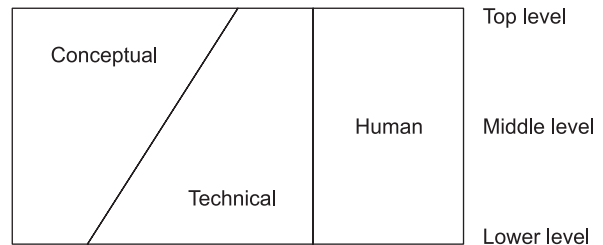


Figure 1.2 Technical, conceptual, and human relation skills are required by every level of management

1.8.1 Technical Skills

Technical skill refers to the ability to utilize technical aspects, such as knowledge of equipment, tools, methods, processes, techniques, and so forth. It is mainly concerned with the ways of doing and conducting work, and depends on specialization in that particular field.

Technical skills play a dominant role at the lower level of management because, by nature, its job involves supervising more on the shop floor and is directly connected with workers or operators in providing guidance or assisting with technical matters. A supervisor with little or no technical knowhow and sound job knowledge is not respected by his workers. As the

level of management increases, the importance of technical skills comes down.

1.8.2 Conceptual Skills or Administrative Skills

Conceptual or administrative skills are concerned with organizational and decision making skills. These skills are the ability to see the organization as a whole, and to identify and recognize the inter-relationships and cross functions among various functional areas of the firm, including internal and external forces. It is easier to learn technical skills than administrative skills. This is perhaps so because technical skills are more scientific, while administrative skills are more of an art. Administrative skills extend to visualizing the relation of an organization with the whole industry, competitors, community; political, legal, economic and social forces; and its boundaries. Sometimes these forces may even work beyond the national boundaries. *However administrative skills use the authorities of the manager, the responsibilities always alarm and warn.* These skills may be further understood under two categories: decision making and organizational skills.

Decision making skill: This skill is to take a timely and accurate decision. This requires mental ability, sharp thinking, sound knowledge, presence of mind, and broad perspective. Of course, experience matters a lot in exercising this skill.

Organization skill: This skill helps in uniting all the forces of the firm to strive toward reaching the common objectives and organizational goals. Simply, it is to place the right man for the right job. This requires the ability of efficient manpower planning, material planning, effective utilization of time and finance, and optimum utilization of various other resources.

Coordination Skill: This skill is concerned with unifying and integrating the individual interests and goals with the organizational goals. It is analogous to the role of a music director in a music troop. When a song is played, every individual member in a group may be interested in only the instrument which he plays, but the music director has to use his senses to make the right mix of all the rhythmic notes for the song to be melodious. Similarly, a manager also has to integrate all his employees with their individual performances and abilities for achieving the organizational goals. Further, the manager should have enough patience, humility, uniting attitude, and the ability to convince.

The effectiveness of conceptual skills comes out of the following qualities:

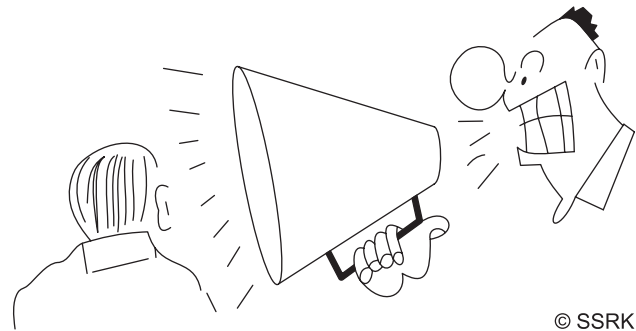
- creativity,
- problem solving technique,
- operations research techniques,
- analytical thinking,
- Belief in team work (esprit-de'-corps),
- coordination,
- cooperation, and
- SWOT analysis

1.8.3 Soft Skills or Human Relation Skills

Human relation skills are oriented to get the work done not just efficiently (*to do right things*) but effectively (*to do things right*) by building cordial and cooperative group relationship. Thus, human relation skills are mainly composed of behavioral aspects

and attitudes, including communication skills, motivation skills, and leadership skills.

Communication skills: They are the ability to pass information to others concerned with accuracy, brevity, and clarity (These three are called the ABCs of communication skills). Improper, insufficient, and poorly expressed communication leads to confusion and mess up.



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Motivation skills: These skills are meant to inspire subordinates and divert them to work more. A manager may choose either positive (such as patting, appreciation, awards, rewards, promotion, and increment) or negative (such as punishment, transfer, suspension, and ousting) motivational aspects to inculcate work mindedness in the subordinates.

Leadership skills: They enable the manager in uniting, leading, and coordinating the people working under him so as to achieve organizational goals. Several types of leadership styles practiced by various leaders in history can be observed in literature. One or a blend of the philosophies, such as autocratic, bureaucratic, democratic, hippocratic, and laissez faire styles, can be noticed in leaders. Some authors classify leadership styles as task-oriented, time-oriented, result-oriented, and operator-oriented leadership. Leadership is interrelated with authority and responsibility. The style of leadership depends on the ratio of authority and responsibility the leader mixes.

1.9 RESPONSIBILITIES OF A MANAGER

In the past, it was believed that the manager of a business firm had only one responsibility—to earn profit for the company and its shareholders. However, this carries a little truth in present day business environment. Though the main purpose of any firm is to make profits out of its products or services, the companies all over the world have recognized the importance of social responsibility and the significance of serving the society in various aspects.

Howard Bowen defines social responsibilities of a businessman (manager) as “Obligation to pursue those policies to make decisions or to follow those lines of action, which are defined as the objects and values of our society.”

Walton suggested six models of responsibility of a business firm (Fig. 1.3), as listed below.

Responsibility toward

1. the company (or business firm),
2. the shareholders (or owners),
3. the subordinates (or employees),
4. the state (or government),

5. the customer (or consumer), and
6. the community (or society).

(For readers/students: Remember these 6 responsibilities as 3S and 3Cs)

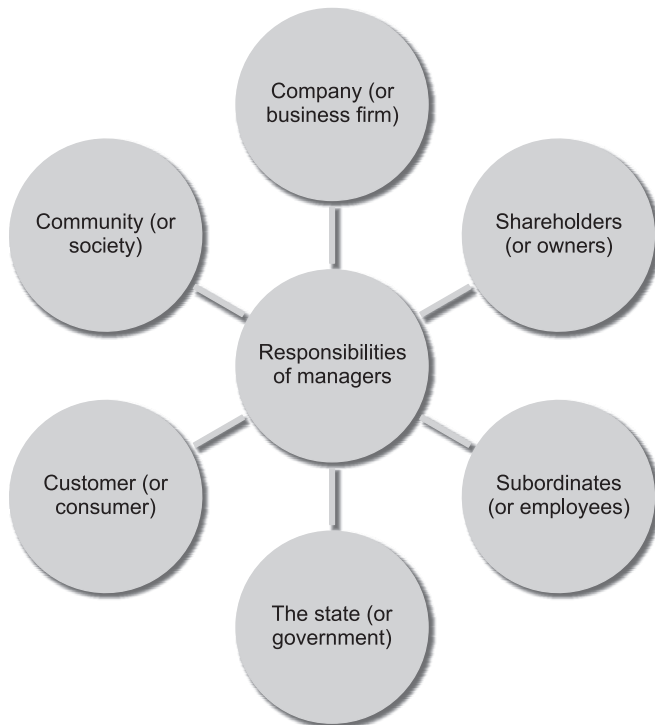


Figure 1.3 Six responsibilities of a business firm

These six responsibilities are briefly explained in the paragraphs to follow.

Responsibility toward the business firm or company: The fundamental responsibility of a manager is to work for growth, expansion, and stability of the company, to do and to be in the business, and to earn enough profits. In fact, the manager is meant for this purpose and this is attained if the goods produced (or service provided) are at the lowest possible prices or within the reach of the target customer. Thus, the manager of a business firm owes great responsibility in this regard as to utilize various production factors effectively.

Responsibilities toward the shareholders or owners: A sole proprietor or partner in a partnership firm has no responsibility to others. However, a manager in an organization owes responsibility not only to safeguard the investment of shareholders, but also to provide a reasonable return on their money. Further, the manager has to maintain a careful balance between the long term needs of the business enterprise and the need to pay the current dividend. The manager needs to design a dynamic policy and a suitable strategy in this regard.

Responsibility toward the employees: Employees are the brain and brawn for a business. So, it is the pious duty of a manager to keep them satisfied. As Peter Drucker has remarked about worker and work, “the growth and development of business is mainly dependent upon the actuated potentiality of employees.” Hence, the manager must sincerely safeguard their interest. Employees’

interests are in fair wages and congenial work environment, satisfactory working conditions, security of employment, prospects of promotion, incentives to workers and opportunities of career development, etc. A manager owes a great responsibility toward his employees to the extent of fighting with his superiors for the wage and welfare of his employees, through which he can seek cooperation and support blended with willful work from the employees.

Responsibility toward the government or state: Business is the major source of income in any country in terms of taxes. On the one hand, it is the responsibility of the management or the managers to pay taxes and other dues to the government regularly and, on the other hand, they must mould their business policies so as to produce their products or provide the services in accordance with the accepted/stipulated standards. Further, the products or services of certain business firms keep up the repute of the country or state, for example, the toys and electronic goods of China, Hong Kong, Taiwan, and Japan. Particularly, in communist and socialist economies today, business is not only the pursuit of economic gain, but also a social function.

Responsibility toward the customer or consumer: Mahatma Gandhi said, “You are not favoring the customer, but customer is favoring you by giving a chance to serve him. He is not an interruption to your business, but he is the purpose of it.” Further, in the words of Peter Drucker, “The main purpose of business is to create a customer and to keep customers.” The larger the number of customers, the more successful the business is. Therefore, it is essential for managers of a business firm to give full satisfaction to its customer regarding the quality of goods or service in terms of price and quantity (weight or volume), durability and performance, etc. Customer satisfaction is the ultimate objective of any business activity, and managers must look after customers’ interest.

Responsibility toward the community or society: A business operates in the society. So, it has certain definite responsibilities, though not defined clearly, toward the community. For example, industries have to limit themselves to control pollution to safeguard the interest of society and its well-being. There may not be any hard and fast rule for this responsibility, but a civilized society is organized on the basis of ethical principles and promises for its members, and its business managers have to conform to them. Sometimes, the goods and services which a business provides set the basic standards of living for the society, and some other times, the society sets the standards for the product or service. A dynamic and expanding business system should understand the relation between the product and service, and should offer a genuine contribution to the betterment of the society. Further, the managers should shoulder the responsibility of creating new wants with their innovation. These new wants have to be shaped up in the form of new goods and/or services for the increment and happiness of the mankind for higher standard of living.

Thus, the responsibilities of managers are multidimensional. Manager should not confine their responsibilities only to one or two sections of the society. They should serve all. It is important to recognize the responsibility and more important is to accomplish it.

1.10 MANAGER VS. SOCIAL RESPONSIBILITY

Positive or sympathetic arguments are as follows:

Business is a part of society: A business operates within a set of cultural norms and constraints bounded by the unwritten laws of society. Any product produced or any service provided is for people. Obviously, unless the sentiments, cultural, and ethical values are embedded, the product or service is saleable. These values are ever changing and the manager should observe these changes and must reflect these changes in decision making processes as a manager. Therefore, business organizations are creatures of society and must respond to social demands that are not only economic but also legal, political social, and technical. Moreover, business as a sub-system of society should contribute to the welfare of the system as a whole and not only to the sub-system alone.

Government regulations: Sometimes, certain issues may not be illegal, but may be immoral. Government intervention becomes inevitable in a business system if it is unable to fulfill its social roles. We frequently come across news regarding immoral behavior of businesses. For instance, an educational institution has to follow certain norms, otherwise, it invites intervention of the government directly, or of a board or university operated by the government. Therefore, organizations often prefer to conduct certain programs in favor of social benefit because, in any case, government regulation is costlier than the cost of social responsibility programs. Government regulation curtails flexibility and freedom of doing business, which may be against the basic features of the democratic country.

Long-run self-interest of business: Social responsibility ensures long-run self-interest of business. Initially, the cost of discharging social responsibility may be high, but in the long run, the business can do better by creating better public image among the various interested groups. In fact, many managers have realized that taking welfare measures for workers and society has made the organization not only reputed, but also paid rich dividends in the form of improved productivity.

Cooperation of people: Economic progress is impossible without the active cooperation of the people in any country. People cannot be enthused to contribute to development unless they have a reasonable assurance of the fruits of development. Thus, the urge for social justice is widespread and universally accepted. The manager can convert this urge of the society into a program of action through social responsibility, which results in the response of the people in the form of their cooperation and support.

Negative or contradicting arguments are as follows:

Setback to basic functions of business: According to the widely respected economist, Milton Friedman, “the only responsibility of business is to earn profit.” His basic contention is that social responsibility is contrary to basic business functions. The basic claim is that the mechanism of the market and the firm’s product

mix provides less consumer satisfaction if the price of a product in the market does not truly reflect the relative cost of producing it, but includes the cost of social action.

Social values dominate business: Business should not be socially responsible, if so, the business values will be misused and/or dominated by societal values. Sentiments and social values may cloud the business, and the right spirit of the management may not see the light.

Inefficiency of individuals: There is hardly any business without self interest. In fact, the real efficiency will not come out unless there is any profit or benefit, or own interest. Any replacement of altruism for egotism will therefore be fatal to the efficiency of the system. Therefore, managers should manage basically in the interests of the shareholders. Further, shareholders should be put in a position to decide how the property will be used such that it is automatically useful to the society.

Self-Assessment 3

Content-Based Questions

- Describe the roles and responsibilities of top management. How do they differ from middle management and lower management?
- Briefly describe various responsibilities of a manager.
- Discuss the role of a manager in discharging social responsibility. Discuss the positive and negative arguments of this role of manager vs. social responsibility.
- What are the skills that are necessarily required to be possessed by a good manager? Discuss.
- (a) Why social responsibility has become an important facet of management in the present times? (b) How is it discharged?
- Write short notes on

(a) Technical skills	(b) Organization skills
(c) Soft skills	(d) Conceptual skills
(e) Communication skills	
- List out the responsibilities of a manager and explain.

Concept-Based Questions

- Distinguish between communication skills and linguistic skills.
- Describe how soft skills help a manager to prove himself/herself better.
- What type of skills does a top-level manager need to develop? Why?
- A manager’s role is not just to earn profit for shareholders but he is also responsible for the welfare of society and employees also. Do you agree? Justify your answer.
- According to Milton Friedman, “the only responsibility of business is to earn profit.” Do you agree? Justify your answer.
- According to Peter Drucker, “the main purpose of business is to create a customer and to keep customers.” What is the role of a manager in the favor of this statement?