

Chapter 2

Principles of Management

Introduction

Management principles have evolved over a period of time and are in the continuous process of evolution. Various schools of thought have outlined principles to guide management practices. A number of management thinkers and writers like F.W. Taylor, Henri Fayol Peter F. Drukor and Abraham Maslow have contributed immensely towards the study of management as a discipline.

1. *Give the meaning of Principles of Management.

Ans: Principles of management are the statements of basic truths about some phenomena that provide a broad and general guidelines to the managers for decision making and actions.

2. *Explain any four characteristics (or features or nature) of principles of management.

Ans: Features or characteristics of principles of management: The main features of principles of management are:

- (1) **Universal applicability:** Management principles have universal applicability. They can be applied in all types of organizations, business as well as non-business, small as well as large, public sector as well as private sector. However, the extent of their application varies from concern to concern. For example, the principle of division of work is applicable to all organizations.
- (2) **General guidelines:** The principles of management act as general guidelines to the managers. They play an advisory role in solving the problems.
- (3) **Formed by practice and experimentation:** The principles of management are formed by experience and collective wisdom of managers as well as experimentation. For example, principle of discipline is formed by experience.
- (4) **Flexible:** The principles of management are flexible and can be modified by the managers according to the situation. For example, the degree of centralization and decentralization may be different in each enterprise depending upon the situations.
- (5) **Mainly behavioural:** Principles of management aim at influencing the human behaviour. Therefore, the management principles are mainly behavioural in nature.
- (6) **Cause and effect relationship:** The principles of management establish a relationship between cause and effect. They tell us what would be the result if a particular principle is applied in a given situation. For example, the principle of division of work leads to increase in efficiency. In this case, the division of work is the cause and the increase in efficiency is the effect.
- (7) **Contingent:** The application of principles of management is contingent or dependent upon the prevailing situation at a particular point of time.

3. Name any one new technique of management developed on the basis of principles of management.

Ans: Business process outsourcing (BPO)

4. *State any two characteristics (or features) of principles of management.

- Ans:
- (1) **Universal applicability:** Principles of management have universal applicability.
 - (2) **General guidelines:** Principles of management act as general guidelines to managers.
 - (3) **Flexible:** Principles of management are flexible.

5. State any one characteristics (or feature) of principles of management.

Ans: Write any one point of Q. 4 above.

6. What do you mean by 'universal applicability' of principles of management?

Ans: Universal applicability of principles of management means principles of management can be applied in all types of organizations business as well as non-business, small as well as large; public sector as well as private sector.

7. *Explain any four points regarding significance of principles of management.

(OR) Discuss the significance of principles of management by explaining any four points.

Ans: **Significance or importance of principles of management:** Principles of management guide managers in taking and implementing decisions. Following points will reveal the significance (or importance) of principles of management.

- (1) **Providing managers with useful insights into reality:** The principles of management provide the managers with useful insights into real world situations. They add to their knowledge, ability and understanding of managerial situations and thus increase managerial efficiency. For example, by following the principles of delegation, a manager can give routine decision making powers to his subordinates and can retain authority to deal with exceptional situations.
- (2) **Optimum utilization of resources and effective administration:** Principles of management equip the managers to reduce wastages of all kinds such as wastage of materials, wastage of labour time etc. Thus, management principles enable the managers to make optimum utilization of resources and leads to the production of quality products with minimum cost. Principles of management will contribute to effective administration by limiting the boundary of managerial discretion.
- (3) **Scientific decisions:** Management principles help in thoughtful decision making. They emphasise logic rather than blind faith. Management decisions taken on the basis of principles are free from bias and prejudice. They are based on the objective assessment of the situation.
- (4) **Meeting changing environment requirements:** Management principles being flexible, help managers to meet changing requirements of the environment. For example, management principles emphasise division of work and specialization. In modern times, this principle has been extended to the entire business whereby companies are specializing in their core competent areas and outsourcing (BPO) non-core business such as share transfer and advertising to outside agencies.
- (5) **Fulfilling social responsibility:** Management principles also help managers to fulfill the social responsibility of business. For example, the principle of 'equity' assures fair wages to employees, value to the customer, care for environment and so on.

(6) **Management training, education and research:** Management principles are used as a basis for management training, education and research. For example, entrance to management institutes is preceded by management aptitude tests. Professional courses like MBA, BBA also teach these principles as part of their curriculum. The research on these principles enable the development of new management techniques like operations research, just in time and so on.

8. ***State any two points of significance of principles of management.**

Ans: (1) **Providing managers with useful insights into reality:** The principles of management provide the managers with useful insights into real world situations.

(2) **Optimum utilization of resources and effective administration:** Management principles enable the managers to make optimum utilization of resources and leads to increased productivity.

(3) **Scientific decisions:** Management principles help in thoughtful decision making.

(4) **Management training, education and research:** Management principles are used as a basis for management training, education and research.

9. **State any one point of significance of principles of management.**

Ans: Write any one point of (Q) 8 above.

Taylor's Scientific Management

Fredrick Winslow Taylor (1856 – 1915) was an American mechanical engineer. Starting from apprentice to executive, he worked in different capacities in many companies including Bethlehem Steel Company. For a short period, he was also a professor in Tuck school of business. During his service, he made a remarkable contribution to reshape and perfect the factory system of production.

Taylor thought that by scientifically analyzing work, it would be possible to find 'one best way' to do it. He is most remembered for his time and motion studies. He is known for coinage of the term 'Scientific Management' in his article, 'The principles of Scientific Management' published in 1911. Based on this work, he emerged as the Father of Scientific Management'. Taylor proposed scientific management in the place of rule of thumb (i.e., principle based on practice rather than theory). In the words of Taylor, Scientific management means knowing exactly what you want men to do and seeing that they do it in the best and cheapest way. The Bethlehem Steel Company where Taylor himself worked achieved three-fold increase in productivity by application of scientific management principles.

10. ***Define scientific management.**

Ans: In the words of F.W. Taylor, "Scientific management means knowing exactly what you want men to do and seeing that they do it in the best and cheapest way."

11. ***Who is called the 'Father of Scientific management'?**

Ans: F.W. Taylor

Principles of Scientific Management

12. ***Explain the principles of scientific management. (OR) Explain F.W. Taylor's scientific management principles.**

(OR) Explain the principles of management contributed by F.W. Taylor.

Ans: Following are the principles of scientific management (SM) contributed by F.W. Taylor.

1. **Science, not rule of thumb:** Application of science in the place of Rule of thumb is one of the principles of scientific management. Under scientific management, each piece of work (e.g., even a small activity like loading of goods) is scientifically analysed to determine the time and standard method of doing it with utmost efficiency. The equipments and tools to be used and the working conditions are also determined scientifically. Thus, SM involves the development of one best method through study and analysis, which contributes to save human energy, time and materials. Management should share the gains of the company with the workers. At the same time, workers should work hard for the prosperity of the company. Japanese work culture is a classic example of such a situation.
2. **Harmony, not discord:** Securing atmosphere of harmony in the place of discord (i.e., lack of harmony or agreement) is another important principle of scientific management. Under scientific management, there should be complete harmony of interest between the workers and the managers. To achieve this, Taylor called for complete "mental revolution" on the part of both management and workers. Both should realize that each one is important and the true interests of the two are one and the same. Management should share the gains of the company with the workers. At the same time, workers should work hard for the prosperity of the company.
3. **Co-operation, not individualism:** Replacing individualism by co-operation is another important principle of scientific management. Scientific management aims at promoting a spirit of co-operation and team work between management and workers. To achieve this, the management has to receive constructive suggestions from the employees and they should be rewarded for their good work. Further, while taking important decisions, workers should be taken into confidence. At the same time, workers should not go on strike making unreasonable demands on the management.
4. **Development of each and every person to his/her greatest efficiency and prosperity:** Allowing development of each worker to his great efficiency and prosperity, and not restricting him is another important principle of scientific management. This can be ensured by scientific selection of employees, assignment of work according to their physical and mental capabilities, training them systematically and rewarding them with promotion and higher wages. This will contribute to their greatest efficiency and prosperity for both organization and workers.

13. State any two principles of scientific management.

- Ans: (1) **Science, not rule of thumb:** Application of science in the place of rule of thumb is one of the principles of scientific management.
- (2) **Harmony, not discord:** Securing atmosphere of harmony in the place of discord is another important principle of scientific management.

14. *State any one principle of scientific management.

- Ans: (1) Science, Not Rule of Thumb.
- (2) Harmony, not discord.

Techniques of Scientist Management

- (1) **Functional Foremanship:** Taylor suggested that the performance of foreman / supervisor should be improved in the factory set up. For this purpose he identified a list of qualities of a good foreman / supervisor such as intelligence, education, tact, judgement, energy, honesty and good health. Since all these qualities could not be found in a single person, Taylor proposed Eight specialists to perform the job of Foreman. This is known as functional foremanship. Taylor advocated separation of planning and execution functions.

According to him, under factory manager there should be planning incharge and production incharge.

Under planning incharge, there must be:

- (i) **Instruction card clerk** to draft instruction for the workers.
- (ii) **Route clerk** to specify the route of production.
- (iii) **Time and cost clerk** to prepare time and cost sheet,
- (iv) **Disciplinarian** to ensure discipline

Under production incharge, there must be

- (i) **Speed boss:** To ensure timely and accurate completion of job.
 - (ii) **Gang boss:** To keep machines and tools ready for operation by workers.
 - (iii) **Repair boss:** To ensure proper working condition of machines and tools.
 - (iv) **Inspector** to check the quality of work.
- (2) **Standardisation and simplification of work:** According to F.W. Taylor, standards must be set for every business activity, it can be standardization of process, raw material, time, product, machinery, methods and working conditions.

Finally, standards of performance of men and machines must be established. A standard can be developed through time study, motion study, fatigue study and method study. These standards are bench marks, which must be adhered to during production.

Simplification aims at eliminating superfluous (unnecessary) varieties, sizes, dimensions and unnecessary diversity of products.

- (3) **Method study:** The objective of method study is to find out one best way of doing the job. Method study involves the study of all activities starting from procurement of raw materials till the delivery of final product to the customer. For this purpose, many techniques like process charts and operations research are used.
- (4) **Motion study:** Motion study involves the study of movements like lifting, putting objects, sitting and changing positions etc. which are undertaken while doing a typical job. Motion study is conducted to eliminate unnecessary (unproductive) movements so that a job can be completed efficiently by taking less time.

Through motion study, by concentrating only on productive motions, Taylor was able to show 4 times increase in productivity.

- (5) **Time study:** Time study is conducted to determine the standard time required to perform a well defined job. Time measuring devices such as stop watch are used to measure the time required for each element of task. The standard time is fixed for the whole of the task by taking several readings.

For example, on the basis of several observations it is determined that standard time taken by the worker to make one cardboard box is 20 minutes. So, in one hour a worker will make 3 boxes. Assuming that a worker has to put in 8 hours of work per day and one hour is deducted for rest and lunch, it is determined that in 7 hours (8 – 1) a worker makes 21 boxes. Now this is the standard task a worker has to do. Wages can be decided accordingly.

(6) **Fatigue study:** Fatigue study is conducted to determine the amount and frequency of rest intervals in completing a task. A worker has to be given some rest interval to take his/her lunch. If the work involves heavy manual labour, then small pauses have to be frequently given to the worker so that he / she can recharge his/her energy level for optimum production.

(7) **Differential piece wage system:** Taylor advocated the development and application of piece wage system to differentiate between efficient and inefficient workers. This is to reward efficient workers and to motivate inefficient workers to perform better.

Taylor introduced different rates of wage payment for those who performed above standard and for those who performed below standard. For example, it is determined that standard output per worker per day is 10 units and those who made standard or more than standard will get Rs. 50 per unit and those below will get Rs. 40 per unit. Now, an efficient worker making 11 units will get $11 \times 50 = \text{Rs. } 550$ per day, whereas a worker who makes 9 units will get $9 \times 40 = \text{Rs. } 360$ per day. According to Taylor, the difference of (Rs. 550 – Rs. 360) Rs. 190 should be enough for the inefficient worker to be motivated to perform better.

15. Explain the functional foremanship of Taylor.

Ans: Functional Foremanship: Taylor suggested that the performance of foreman / supervisor should be improved in the factory set up. For this purpose he identified a list of qualities of a good foreman / supervisor such as intelligence, education, tact, judgement, energy, honesty and good health. Since all these qualities could not be found in a single person, Taylor proposed Eight specialists to perform the job of Foreman. This is known as functional foremanship. Taylor advocated separation of planning and execution functions.

According to him, under factory manager there should be planning incharge and production incharge.

Under planning incharge, there must be:

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- (iv) **Disciplinarian** to ensure discipline.

Under production incharge, there must be:

- (i) **Speed boss:** To ensure timely and accurate completion of job.
- (ii) **Gang boss:** To keep machines and tools ready for operation by workers.
- (iii) **Repair boss:** To ensure proper working condition of machines and tools.
- (iv) **Inspector** to check the quality of work.

16. *Who advocated separation of planning and execution function in any organization?

Ans: F.W. Taylor

17. What is functional foremanship?

Ans: Functional foremanship is an extension of the principle of division of work and specialization to the shop floor wherein each worker will get orders and guidance from 8 foremen in the related process or function of production.

18. Name any two foremen under functional foremanship.

- Ans:** (1) Instruction card clerk
(2) Route clerk
(3) Time and cost clerk
(4) Disciplinarian
(5) Speed boss
(6) Gang boss
(7) Repairs boss
(8) Inspector

19. *Name any one foreman under functional foremanship.

Ans: Write any one point of Q. 18 above

20. *She / he keeps machines, materials, tools etc., ready for operations by concerned workers'. Whose work is described by this sentence under functional foremanship?

Ans: Gang boss

21. What is 'standardisation' according to Taylor?

Ans: According to Taylor, "Standardisation refers to the process of setting standards for every business activity such as standard process, standard raw material, standard time, standard product, standard machinery, standard methods or working conditions.

22. What is the aim of simplification according to Taylor?

Ans: According to Taylor simplification aims at eliminating superfluous varieties, sizes and dimensions (relating to product)

23. How simplification differs from standardization according to Taylor?

Ans: According to Taylor, simplification aims at eliminating superfluous varieties, sizes and dimensions while standardization implies devising (i.e., creating or developing) new varieties instead of the existing ones.

24. What are the four aspects of work study developed by Taylor? Explain.

Ans:

- (1) **Method study:** The objective of method study is to find out one best way of doing the job. Method study involves the study of all activities starting from procurement of raw materials till the delivery of final product to the customer. For this purpose, many techniques like process charts and operations research are used.
- (2) **Motion study:** Motion study involves the study of movements like lifting, putting objects, sitting and changing positions etc. which are undertaken while doing a typical job. Motion study is conducted to eliminate unnecessary (unproductive) movements so that a job can be completed efficiently by taking less time. Through motion study, by concentrating only on productive motions, Taylor was able to show 4 times increase in productivity.
- (3) **Time study:** Time study is conducted to determine the standard time required to perform a well defined job. Time measuring devices such as stop watch are used to measure the time required for each element of task the standard time is fixed for the whole of the task by taking several readings. For example, on the basis of several observations it is determined that standard time taken by the worker to make one cardboard box is 20 minutes. So, in one hour a worker will make 3 boxes. Assuming that a worker has to put in 8 hours of work per day and

one hour is deducted for rest and lunch, it is determined that in 7 hours (8 – 1) a worker makes 21 boxes. Now this is the standard task a worker has to do. Wages can be decided accordingly.

(4) **Fatigue study:** Fatigue study is conducted to determine the amount and frequency of rest intervals in completing a task. A worker has to be given some rest interval to take his/her lunch. If the work involves heavy manual labour, then small pauses have to be frequently given to the worker so that he / she can recharge his/her energy level for optimum production.

25. *What is the objective of method study according to Taylor?

Ans: The objective of method study is to find out one best way of doing the job.

26. Give the meaning of motion study.

Ans: Motion study refers to the study of movements like lifting, putting objects, sitting and changing positions etc., which are undertaken while doing a typical job.

27. What is time study?

Ans: Time study is a study conducted to determine the standard time to be taken to perform a well defined job.

28. What is Fatigue study?

Ans: Fatigue study is a study conducted to determine the amount and frequency of rest intervals in completing a task.

29. Give the meaning of differential piece wage system.

Ans: A piece wage system developed by F.W. Taylor to differentiate between efficient and inefficient workers whereby efficient workers are given wages at higher rate per piece and inefficient workers are given wages at lower rate piece is called differential piece wage system.

30. *Who introduced differential piece rate system? (OR) Who strongly advocated piecewage system?

Ans: F.W. Taylor.

31. *What is 'mental revolution'? (OR) Give the meaning of mental revolution as propounded by Taylor.

Ans: The term 'mental revolution' is a coinage of F.W. Taylor, the father of scientific management. Mental revolution means a complete change in the mindset and attitude of workers and management towards one another from competition to cooperation. Both should realize that each one is important and the true interests of the two are one and the same.

Fayol's Principles of Management

Henri Fayol, (1841 to 1925), a mining engineer and management theorist (French national), based on his experience, developed administrative theory and propounded 14 principles of management. Hence, he is known as the 'Father of General management'

32. *Who is known as the Father of General management?

Ans: Henri Fayol

33. *State the number of principles of management propounded by Henri Fayol.

Ans: 14 (Fourteen)

34. *Briefly explain any four principles of management contributed by Henri Fayol.

Ans: Henri Fayol had propounded 14 principles of management. They are:

- (1) **Division of work:** According to this principle, work should be divided into small jobs (or tasks). Each job should be performed by trained specialist (i.e., specialization). The aim (or purpose) of division of work is to produce more and better work for the same effort. In fact, this results in efficient and effective output.
- (2) **Authority and responsibility:** According to Fayol, managers require authority commensurate with their responsibility. There should be a balance between authority and responsibility. It means a manager should have the authority which is sufficient to carry out his responsibility.
- (3) **Discipline:** Discipline i.e., obedience to organizational rules and employment agreement is essential for the successful running of any organization. A well disciplined work force ensures improvement in the quantity and quality of production. According to Fayol, discipline requires good superiors at all levels.
- (4) **Unity of command:** According to this principle, there should be only one boss for every individual employee. Each employee should be commanded (i.e., receive orders) by one superior and be responsible to that one superior only. This principle helps to avoid confusion regarding tasks to be done.
- (5) **Unity of direction:** According to this principle, each group of activities having the same objective (e.g., manufacturing motor cycles) must have one head (e.g., leader) and one plan. It ensures unity of action and coordination.
- (6) **Subordination of individual interest to general interest:** According to Fayol, in any organization, the interests of an organization (i.e., general interest) should take priority over the interests of any one individual employee. Individual interest of workers should not disturb the interest of the organization.
- (7) **Remuneration of employees:** The employees should be paid fair and adequate remuneration. At the same time, it should be within the paying capacity of the company. Thus, it should be just and equitable.
- (8) **Centralisation and decentralization:** According to Fayol, there is a need to balance subordinates' involvement in decision making through decentralization with managers' retaining final authority through centralization.
- (9) **Scalar chain:** According to Fayol, organizations should have a chain of authority and communication that runs from top to bottom and should be followed by managers and the subordinates. According to Fayol, this chain should not be violated in the normal course of formal communication. However, in case of emergency this can be violated so that the communication is not delayed.
- (10) **Order:** According to Fayol, in an organization, 'there should be a place for everything / everyone and everything / everyone must be in its place. Then there will be no hindrance in the activities of business.
- (11) **Equity:** This principle emphasises kindness and justice in the behaviour of managers towards workers. This will ensure loyalty and devotion. There should be no discrimination against anyone on account of sex, religion, language, caste or nationality. The application of this principle made it possible to see Indians as CEO's of many MNC's like Sathya Nadella as CEO in Microsoft, Sundar Pichai as CEO of Google.
- (12) **Stability of personnel:** According to Fayol, employee turnover should be minimized to maintain organizational efficiency.
- (13) **Initiative:** According to Fayol, workers should be encouraged to develop and carry out their plans for improvements. Initiative (taking the first step with self motivation) should be encouraged.
- (14) **Esprit De corps:** According to Fayol, management should promote a team spirit of unity and harmony among employees. A manager should replace 'I' with 'We' in all his conversations with workers to foster team spirit.

Practical Oriented Question

35. *As a general manager, list out any ten Fayol's principles of management which you would like to adopt in your business organization.

Ans: As a general manager, I would like to adopt the following Fayol's principles of management in my organization.

- (1) Division of work
- (2) Authority and responsibility
- (3) Discipline
- (4) Unity of command
- (5) Unity of direction
- (6) Subordination of individual interest to general interest
- (7) Remuneration to employees
- (8) Centralisation and decentralization
- (9) Scalar chain
- (10) Order
- (11) Equity
- (12) Stability of personnel
- (13) Initiative
- (14) Esprit De Corps

36. Mention any two principles of management contributed by Fayol.

Ans: (1) Division of work
(2) Unity of command (or any two points of Q.No. 34 above)

37. Mention any one Fayol's principles of management.

Ans: Division of work

38. *What is 'discipline' according to Fayol?

Ans: According to Fayol, discipline means the obedience to organizational rules and employment agreement which are necessary for the working of the organization.

39. *What is unity of command?

Ans: Unity of command means, in a formal organization every individual employee should receive orders from (i.e., be commanded by) one superior and be responsible to that one superior only. Therefore, every individual employee should have only one boss.

40. *Which management principle of Fayol advocates that there should be only one boss for every individual employee?

Ans: Unity of command.

41. *What is 'unity of direction'?

Ans: Unity of direction means, each group of activities having the same objective must have one head (i.e., manager) and one plan. This ensures unity of action and coordination.

42. *State any two differences between unity of command and unity of direction.

Ans: Difference between unity of command and unity of direction.

	Basis	Unity of Command	Unity of Direction
(1)	Meaning	One subordinate should receive orders from one superior and should be responsible to only one superior.	Each group of activities having same objective must have one head and one plan.
(2)	Aim	It prevents dual subordination.	It prevents overlapping of activities.

43. *What is scalar chain?

Ans: Scalar chain is the formal lines of authority from the highest rank to the lowest rank in the organization.

Scalar chain principle says that every information should pass from top level to bottom level in the scalar chain.

It is one of the principle of management propounded by Henri Fayol.

44. *What is Gang Plank?

Ans: Gang plank is a shorter route in scalar chain which allows employees at the same level to communicate with each other directly to avoid delay in communication. Gank plank can be used only in case of emergency.

45. *When is 'gang plank' is used?

Ans: Gang plank can be used only in case of emergency.

46. *Which management principle of Fayol states that 'there should be a place for every thing (every one) and everything (everyone) must be in its (his/her) place'.

Ans: Order

47. What is meant by Esprit De Corps?

Ans: Esprit De Corps means management should take necessary steps to promote a team spirit of unity and harmony among employees.

A manager should replace 'I' with 'we' in all his conservations with workers to foster team spirit.