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Unit 2: Principles of Management

Name: _____

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Principles of Management – Concept

A managerial principle is a broad and general guideline for decision making and behaviour. For example, while deciding about promotion of an employee one manager may consider seniority, whereas the other may follow the principle of merit. One may distinguish principles of management from those of pure science. Management principles are not as rigid as principles of pure science.

Nature of Principles of Management

By nature, is meant qualities and characteristics of anything. Principles are general propositions, which are applicable when certain conditions are present. These have been developed based on observation and experimentation as well as personal experiences of the managers. Depending upon how they are derived and how effective they are in explaining and predicting managerial behaviour, they contribute towards the development of management both as a science and as an art.

- (i) Universal applicability: The principles of management are intended to apply to all types of organisations, business as well as non-business, small as well large, public sector as well as private sector, manufacturing as well as the services sectors. However, the extent of their applicability would vary with the nature of the organisation, business activity, scale of operations and the like
- (ii) General guidelines: The principles are guidelines to action but do not provide readymade solutions to all managerial problems. This is so because real business situations are very complex and dynamic and are a result of many factors. \
- (iii) Formed by practice and experimentation: The principles of management are formed by experience and collective wisdom of managers as well as experimentation. For example, it is a matter of common experience that discipline is indispensable for accomplishing any purpose.
- (iv) Flexible: The principles of management are not rigid prescriptions, which have to be followed absolutely. They are flexible and can be modified by the manager when the situation so demands. They give the manager enough discretion to do so. For example, the degree of concentration of authority (centralisation) or its dispersal (decentralisation) will depend upon the situations and circumstances of each enterprise.
- (v) Cause and effect relationships: The principles of management are intended to establish relationship between cause and effect so that they can be used in similar situations in many cases. As such, they tell us if a principle was applied in a situation, what would be its likely effect. The principles of management are less than perfect since they mainly apply to human behavior. In real life, situations are not identical. So, accurate cause and effect relationships may be difficult to establish.
- (vi) Contingent: The application of principles of management is contingent or dependent upon the prevailing situation at a point of time. The application of principles has to be changed as per requirements. For example, employees deserve fair and just remuneration. But what is just, and fair is determined by multiple factors.
- (vii) Mainly behavioural: Management principles aim at influencing behaviour of human beings. Therefore, principles of management are mainly behavioural in nature. It is not that these principles do not pertain to things and phenomenon at all, it is just a matter of emphasis. Moreover, principles enable a better understanding of the relationship between human and material resources in accomplishing organisational purposes.

Significance of Principles of Management

- (i) Providing managers with useful insights into reality: The principles of management provide the managers with useful insights into real world situations. Adherence to these principles will add to their knowledge, ability and understanding of managerial situations and circumstances. It will also enable managers to learn from past mistakes and conserve time by solving recurring problems quickly.
- (ii) Optimum utilisation of resources and effective administration: Resources both human and material available with the company are limited. They must be put to optimum use. By optimum use we mean that the resources should be used in such a manner that they should give maximum benefit with minimum cost. Principles equip the managers to foresee the cause and effect relationships of their decisions and actions.
- (iii) Scientific decisions: Decisions must be based on facts, thoughtful and justifiable in terms of the intended purposes. They must be timely, realistic and subject to measurement and evaluation. Management principles help in thoughtful decision-making. They emphasise logic rather than blind faith.
- (iv) Meeting changing environment requirements: Although the principles are general guidelines, but they are modified and as such help managers to meet changing requirements of the environment. You have already studied that management principles are flexible to adapt to dynamic business environment. For example, management principles emphasise division of work and specialisation.
- (v) Fulfilling social responsibility: The increased awareness of the public, forces businesses especially limited companies to fulfil their social responsibilities. Management theory and management principles have also evolved in response to these demands. Moreover, the interpretation of the principles also assumes newer and contemporary meanings with the change in time. So, if one were to talk of 'equity' today, it does not apply to wages alone
- (vi) Management training, education and research: Principles of management are at the core of management theory. As such these are used as a basis for management training, education and research. You must be aware that entrance to management institutes is preceded by management aptitude tests.

Taylor's Scientific Principles

“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. Therefore, it would be to discuss these principles.

- (i) Science not Rule of Thumb: Taylor pioneered the introduction of the method of scientific inquiry into the domain of management practice. We have already referred to the limitations of the rule of thumb approach of management. As different managers would follow their indigenous rules of thumb, it is but a statement of the obvious that all would not be equally effective. Taylor believed that there was only one best method to maximise efficiency. This method can be developed through study and analysis. The method so developed should substitute ‘Rule of Thumb’ throughout the organisation. Scientific method involved investigation of traditional methods through work-study
- (ii) Harmony, Not Discord: Factory system of production implied that managers served as a link between the owners and the workers. Since as managers they had the mandate to ‘get work done’ from the workers, it should not be difficult for you to appreciate that there always existed the possibility of a kind of class-conflict, the managers versus workers. Taylor recognised that this conflict helped none, the workers, the managers or the factory owners
- (iii) Cooperation, Not Individualism: There should be complete cooperation between the labour and the management instead of individualism. This principle is an extension of principle of ‘Harmony not discord’. Competition should be replaced by cooperation. Both should realise that they need each other. For this, management should not close its ears to any constructive suggestions made by the employees. They should be rewarded for their suggestions which results in substantial reduction in costs.
- (iv) Development of Each and Every Person to His or Her Greatest Efficiency and Prosperity: Industrial efficiency depends to a large extent on personnel competencies. As such, scientific management also stood for worker development. Worker training was essential also to learn the ‘best method’ developed because of the scientific approach. Taylor was of the view that the concern for efficiency could be built in right from the process of employee selection. Each person should be scientifically selected. Then work assigned should suit her/his physical, mental and intellectual capabilities.

Techniques of Scientific Management (Functional Foremanship)

In the factory system, the foreman represents the managerial figure with whom the workers are in face-to-face contact daily. In the first chapter of the book, you have seen that the foreman is the lowest ranking manager and the highest-ranking worker. He is the pivot around whom revolves the entire production planning, implementation and control.

Thus, Taylor concentrated on improving the performance of this role in the factory set-up. In fact, he identified a list of qualities of a good foreman/supervisor and found that no single person could fit them all. This prompted him to suggest functional foremanship through eight persons Taylor advocated separation of planning and execution functions. This concept was extended to the lowest level of the shop floor. It was known as functional foremanship.

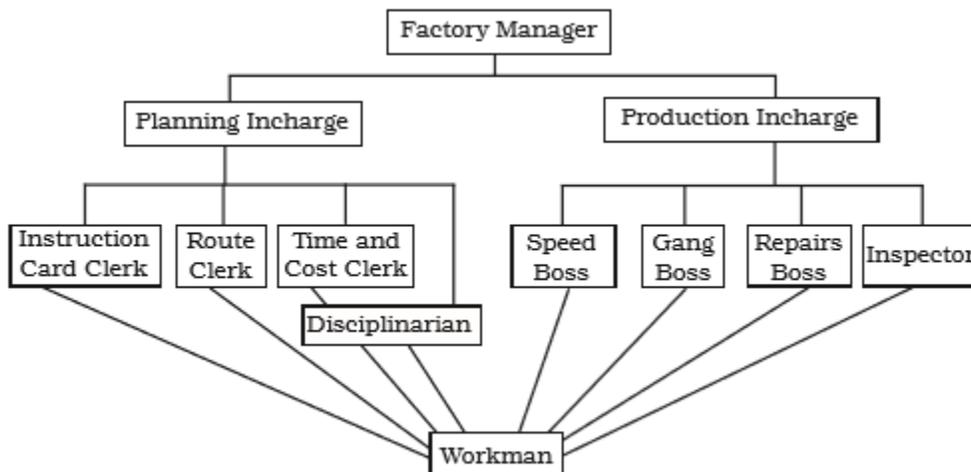
Under the factory manager there was a planning in charge and a production in charge.

Under planning in charge four personnel namely instruction card clerk, route clerk, time and cost clerk and a disciplinarian worked. These four personnel would draft instructions for the workers, specify the route of production, prepare time and cost sheet and ensure discipline respectively.

Under Production in charge, personnel who would work were speed boss, gang boss, repair boss, and inspector. These respectively were responsible for timely and accurate completion of job, keeping machines and tools etc., ready for operation by workers, ensure proper working condition of machines and tools and check the quality of work.

Functional foremanship is an extension of the principle of division of work and specialisation to the shop floor. Each worker will have to take orders from these eight foremen in the related process or function of production.

Foremen should have intelligence, education, tact, grit, judgment, special knowledge, manual dexterity, and energy, honesty and good health. Since all these qualities could not be found in a single person so Taylor proposed eight specialists. Each specialist is to be assigned work according to her/his qualities. For example, those with technical mastery, intelligence and grit may be given planning work. Those with energy and good health may be assigned execution work.



Standardization and Simplification of Work

Taylor was an ardent supporter of standardisation. According to him scientific method should be used to analyse methods of production prevalent under the rule of thumb. The best practices can be kept and further refined to develop a standard which should be followed throughout the organisation.

This can be done through work-study techniques which include time study, motion study, fatigue study and method study, and which are discussed further in this chapter. It may be pointed out that even the contemporary techniques of business process including reengineering, kaizen (continuous improvement) and benchmarking are aimed at standardising the work.

Standardisation refers to the process of setting standards for every business activity; it can be standardisation of process, raw material, time, product, machinery, methods or working conditions. These standards are the benchmarks, which must be adhered to during production. The objectives of standardisation are:

- (i) To reduce a given line or product to fixed types, sizes and characteristics.
- (ii) To establish interchange ability of manufactured parts and products.
- (iii) To establish standards of excellence and quality in materials.
- (iv) To establish standards of performance of men and machines.

Simplification aims at eliminating superfluous varieties, sizes and dimensions while standardisation implies devising new varieties instead of the existing ones.

Simplification aims at eliminating unnecessary diversity of products. It results in savings of cost of labour, machines and tools. It implies reduced inventories, fuller utilisation of equipment and increasing turnover. Most large companies like Nokia, Toyota and Microsoft etc. have successfully implemented standardisation and simplification. This is evident from their large share in their respective markets.

Taylor's Scientific Principles (Method Study, Motion Study, Fatigue Study, Differential Piece Wage System)

Method study: The objective of method study is to find out one best way of doing the job. There are various methods of doing the job. To determine the best way there are several parameters. Right from procurement of raw materials till the final product is delivered to the customer every activity is part of method study. Taylor devised the concept of assembly line by using method study. Ford Motor Company used this concept very successfully. Even now auto companies are using it.

Motion study: 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. Unnecessary movements are sought to be eliminated so that it takes less time to complete the job efficiently. For example, Taylor and his associate Frank Gilbert were able to reduce motions in brick layering from 18 to just 5. Taylor demonstrated that productivity increased to about four times by this process.

On close examination of body motions, for example, it is possible to find out:

- (i) Motions which are productive
- (ii) Motions which are incidental (e.g., going to stores)
- (iii) Motions which are unproductive.

Taylor used stopwatches and various symbols and colours to identify different motions. Through motion studies, Taylor was able to design suitable equipment and tools to educate workers on their use. The results achieved by him were truly remarkable.

Time study: It determines the standard time taken to perform a well-defined job. Time measuring devices are used for each element of task. The standard time is fixed for the whole of the task by taking several readings. The method of time study will depend upon volume and frequency of the task, the cycle time of the operation and time measurement costs.

The objective of time study is to determine the number of workers to be employed; frame suitable incentive schemes and determine labour costs.

For example, based on several observations it is determined that standard time taken by the worker to make one cardboard box is 20 minutes. So in one hour she/he will make 3 boxes. If a worker must put in 8 hours of work in a shift and deducting one hour for rest and lunch, it is determined that in 7 hours a worker makes 21 boxes @ 3 boxes per hour. Now this is the standard task a worker must do. Wages can be decided accordingly.

Fatigue Study: A person is bound to feel tired physically and mentally if she/he does not rest while working. The rest intervals will help one to regain stamina and work again with the same capacity. This will result in increased productivity. Fatigue study seeks to determine the amount and frequency of rest intervals in completing a task.

For example, normally in a plant, work takes place in three shifts of eight hours each. Even in a single shift a worker must be given some rest interval to take her/his lunch etc. If the work involves heavy manual labour, then small pauses have to be frequently given to the worker so that she/he can recharge her/his energy level for optimum contribution

Differential Piece Wage System

Taylor was a strong advocate of piece wage system. He wanted to differentiate between efficient and inefficient workers. The standard time and other parameters should be determined based on the work study discussed above. The workers can then be classified as efficient or inefficient based on these standards. He wanted to reward efficient workers.

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 $11 \times 50 =$ Rs. 550 per day whereas a worker who makes 9 units will get $9 \times 40 =$ Rs. 360 per day.

According to Taylor, the difference of Rs. 190 should be enough for the inefficient worker to be motivated to perform better. From his own experience, Taylor gives the example of a worker named Schmidt who was able to earn 60% more wages from \$1.15 to \$1.85 on increasing pig iron loading from 12.5 tons per man per day to 47 tons per man per day in box cars at Bethlehem Steel works by following scientific management techniques.

It is important to have a relook at the techniques of scientific management as comprising a unified whole of Taylor's prescription of efficiency. Search for efficiency requires the search for one best method and the chosen method must lead to the determination of a fair day's work.

There must be a compensation system that differentiates those who are able to accomplish/exceed the fair day's work. This differential system must be based on the premise that efficiency is the result of the joint efforts of the managers and the workers

Rather than quarrelling over the share in the resultant surplus, the workers and managers should work in harmony for maximising the output rather than restricting it. Clearly the sum and substance of Taylor's ideas lies not in the disjointed description of principles and techniques of scientific management, but in the change of the mindset, which he referred to as mental revolution.

Mental revolution involves a change in the attitude of workers and management towards one another from competition to cooperation. Both should realise that they require one another. Both should aim to increase the size of surplus.

We can also examine the present status of scientific management. Today, many new techniques have been developed as a sequel to scientific management. Operations research was developed in the second World War to optimise the deployment of war material.

Assembly line was also discovered by F.W. Taylor, which was used very successfully by Ford motor company for manufacturing 'Model T' car for the masses. This concept is much used now. The latest development in scientific management is 'LEAN MANUFACTURING'. Today robotics and computers are being used in production and other business activities. This is part of scientific management of these activities. It has increased productivity levels. The techniques of operation research have also been developed and are being used because of scientific management

Fayol's Principles

Henri Fayol (1841-1925) was a French management theorist whose theories concerning scientific organisation of labour were widely influential in the beginning of twentieth century. He graduated from the mining academy of St. Etienne in 1860 in mining engineering.

His theories deal with organisation of production in the context of a competitive enterprise that must control its production costs. Fayol was the first to identify four functions of management – Planning, Organising, Directing and Controlling although his version was a bit different – Plan, Organise, Command, Coordinate and Control

The 14 principles of management propounded by him were discussed in detail in his book published in 1917, 'Administration industrielle et generale'. It was published in English as 'General and Industrial Management' in 1949 and is widely considered a foundational work in classical management theory. For his contribution he is also known as the 'Father of General Management' The 14 principles of management given by him are:

1. Division of Work: Work is divided into small tasks/jobs. A trained specialist who is competent is required to perform each job. Thus, division of work leads to specialisation. According to Fayol, "The intent of division of work is to produce more and better work for the same effort. Specialisation is the most efficient way to use human effort."
2. Authority and Responsibility: According to Fayol, "Authority is the right to give orders and obtain obedience, and responsibility is the corollary of authority. The two types of authority are official authority, which is the authority to command, and personal authority which is the authority of the individual manager." Authority is both formal and informal. Managers require authority commensurate with their responsibility.
3. Discipline: Discipline is the obedience to organisational rules and employment agreement which are necessary for the working of the organisation. According to Fayol, discipline requires good superiors at all levels, clear and fair agreements and judicious application of penalties.
4. Unity of Command: According to Fayol there should be one and only one boss for every individual employee. If an employee gets orders from two superiors at the same time the principle of unity of command is violated. The principle of unity of command states that each participant in a formal organisation should receive orders from and be responsible to only one superior.
5. Unity of Direction: All the units of an organisation should be moving towards the same objectives through coordinated and focussed efforts. Each group of activities having the same objective must have one head and one plan. This ensures unity of action and coordination. For example, if a company is manufacturing motorcycles as well as cars then it should have two separate divisions for both. Each division should have its own in charge, plans and execution resources.
6. Subordination of Individual Interest to General Interest: The interests of an organisation should take priority over the interests of any one individual employee according to Fayol. Every worker has some individual interest for working in a company. The company has got its own objectives. For example, the company would want to get maximum output from its employees at a competitive cost (salary). On the other hand, an employee may want to get maximum salary while working the least

7. Remuneration of Employees: The overall pay and compensation should be fair to both employees and the organisation. The employees should be paid fair wages, which should give them at least a reasonable standard of living. At the same time, it should be within the paying capacity of the company. In other words, remuneration should be just and equitable.
8. Centralisation and Decentralisation: The concentration of decision-making authority is called centralisation whereas its dispersal among more than one person is known as decentralisation. According to Fayol, "There is a need to balance subordinate involvement through decentralization with managers, retention of final authority through centralization"
9. Scalar Chain: An organization consists of superiors and subordinates. The formal lines of authority from highest to lowest ranks are known as 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."
10. Order: According to Fayol "People and materials must be in suitable places at appropriate time for maximum efficiency." The principle of order states that 'A place for everything (everyone) and everything (everyone) in its (her/his) place'. Essentially it means orderliness. If there is a fixed place for everything and it is present there, then there will be no hindrance in the activities of business/ factory. This will lead to increased productivity and efficiency.
11. Equity: Good sense and experience are needed to ensure fairness to all employees, who should be treated as fairly as possible," according to Fayol. This principle emphasizes kindness and justice in the behavior of managers towards workers. This will ensure loyalty and devotion. Fayol does not rule out use of force sometimes. Rather he says that lazy personnel should be dealt with sternly to send the message that everyone is equal in the eyes of the management.
12. Stability of Personnel: "Employee turnover should be minimized to maintain organizational efficiency", according to Fayol. Personnel should be selected and appointed after due and rigorous procedure. But once selected they should be kept at their post/ position for a minimum fixed tenure. They should have stability of tenure. They should be given reasonable time to show results.
13. Initiative: Workers should be encouraged to develop and carry out their plans for improvements according to Fayol. Initiative means taking the first step with self-motivation. It is thinking out and executing the plan. It is one of the traits of an intelligent person. Initiative should be encouraged. But it does not mean going against the established practices of the company for the sake of being different. A good company should have an employee suggestion system whereby initiative/ suggestions which result in substantial cost/time reduction should be rewarded.
14. Esprit De Corps: Management should promote a team spirit of unity and harmony among employees, according to Fayol. Management should promote teamwork especially in large organizations because otherwise objectives would be difficult to realize. It will also result in a loss of coordination. A manager should replace 'I' with 'We' in all his conversations with workers to foster team spirit

Sl	Basis of Difference	Henri Fayol	F.W. Taylor
1	Perspective	Top level of management	Shop floor level of a factory
2	Unity of Command	Staunch Proponent	Did not feel that it is important as under functional foremanship a worker received orders from eight specialists.
3	Applicability	Applicable universally	Applicable to specialized situations
4	Basis of Formation	Personal experience	Observations and experimentation
5	Focus	Improving overall administration	Increasing productivity
6	Personality	Practitioner	Scientist
7	Expression	General Theory of Administration	Scientific management