

Paper –Principles and Practice of Management

Dr. James Hussain

Paper Code-MB-101,

Assistant Professor (Guest Faculty)

MBA, Sem-I

[Email.-mbajames123@gmail.com](mailto:mbajames123@gmail.com)

Topic- Elements and Tools of Scientific Management

Taylor conducted various experiments at his work-places to find out how human beings could be made more efficient by standardising the work and better method of doing the work. These experiments have provided the following features of scientific management:

1. Separation of Planning and Doing. Taylor emphasised the separation of planning aspect from actual doing of the work. Before Taylor's scientific management, a worker used to plan about how he had to work and what instruments were necessary for that. The worker was put under the supervision of a supervisor commonly known as gang boss. Thus, supervisor's Job was merely to see how the workers were performing. This was creating a lot of problems, and Taylor emphasised that planning should be left to the supervisor and the worker should emphasise only operational work.

2. Functional Foremanship. Separation of planning from doing resulted in development of supervision system which could take planning work adequately besides keeping supervision on workers. For this purpose, Taylor evolved the concept of functional foremanship based on specialisation of functions. In this system, eight persons are involved to direct the activities of workers. Out of these, four persons are concerned with planning: (0 route clerk, (10) instruction card clerk. (i) time and cost clerk and (iv) disciplinarian. The remaining four persons are concerned with doing aspect of the work. These are: (0 speed boss, (t) inspector. (maintenance foreman, and (t) gang boss. All of them give directions to workers on different aspects of work. This is against unity of command principle

3. Job Analysis. Job analysis is undertaken to find out the one best way of doing the things. The best way of doing a job is one which requires the least movements, consequently less time and cost. The best way of doing the things can be determined by taking up time motion-fatigue studies. (0) Time study involves the determination of time a movement takes to complete. The movement which takes minimum time is the best one. This helps in fixing the fair work for a period. (10) Motion study involves the study of movements in parts which are involved in doing a job and thereby eliminating the wasteful movements and performing only necessary movements. Elimination of unnecessary movements in doing work reduces time taken in performing a work and also the fatigue of workers. (0) Fatigue study shows the amount and frequency of rest required in completing the work. After a certain period of time, workers feel fatigue and cannot work with full capacity. Therefore, they require rest in between. When the rest is allowed, they start working with full capacity. Thus, job analysts, as given by Taylor, suggest the fair amount of a day's work requiring certain movements. Functional foremanship and rest periods to complete it.

4. Standardisation. As far as possible, standardisation should be maintained in respect of instruments and tools, period of work, amount of work, working conditions, cost of production, etc. These things should be fixed in advance on the basis of job analysis and various elements of costs that go in performing a work.

5. Scientific Selection and Training of Workers. Taylor has suggested that workers should be selected on scientific basis taking into account their education, work experience, aptitude, physical strength, etc. A worker should be given work for which he is physically and technically

most suitable. Apart from selection, proper emphasis should be given on the training of workers which makes them more efficient and effective.

6. Financial Incentives. Financial incentives can motivate workers to put in their maximum efforts. If provisions exist to earn higher wages by putting in extra effort, workers will be motivated to earn more. Taylor himself applied the concept of differential piece rate system which was highly motivating. According to this scheme, a worker who completes the norm work gets wages at higher rate per piece and one who does not complete gets at lower rate. Thus, there is considerable difference in wages between those who complete the work and those who do not complete. To make the differential piece rate system work, Taylor has suggested that wages should be based on individual performance and not on the position which he occupies. Further, the wage rate on estimates should be fixed on accurate knowledge and not 7. Economy. While applying scientific management, not only scientific and technical aspects should be considered but adequate consideration should be given to economy and profit. For this purpose, techniques of cost estimates and control should be adopted. The economy and profit can be achieved by making the resources more productive as well as by eliminating the wastages. Taylor has clarified by giving examples of how resources are wasted by not following scientific management.

8. Mental Revolution. Scientific management depends on the mutual co-operation between management and workers. For this co-operation, there should be mental change in both parties from conflict to co-operation. Taylor feels that this is the most important feature of scientific management because in its absence, no principle of scientific management can be applied.