

## 1. Details of Module and its structure

Module Detail	
Subject Name	Business Studies
Course Name	Business Studies 03 (Class XII, Semester - 1)
Module Name/Title	Principles of Management – Part 2
Module Id	lebs_10202
Pre-requisites	Knowledge about the scientific management and its principles
Objectives	After going through this lesson, the learners will be able to understand the following: <ol style="list-style-type: none"><li>1. Meaning and definition of scientific management</li><li>2. Feature scientific Management</li><li>3. Scientific management theory</li><li>4. F.W.Taylor ,father of scientific management</li><li>5. Principles of scientific management</li></ol>
Keywords	Scientific Management, F.W.Taylor, Harmony not discord, Science not rule of thumb, Cooperation not individualism, Development of each and every personnel to his greatest efficiency.

## 2. Development team

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## Introduction

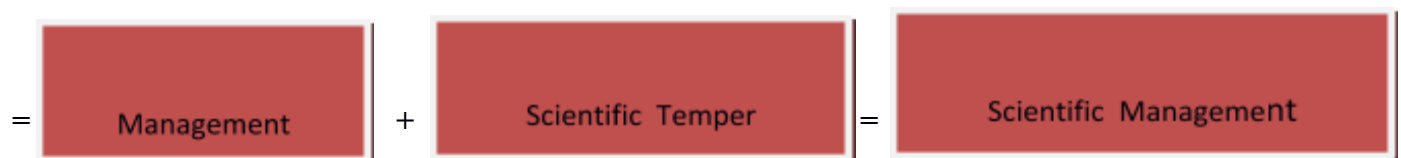
Darwin has correctly said “survival of the fittest” We are living in an era of innovation and modernization where the organizations who seek to improve their business through effectiveness and efficiency has to follow some scientific system of managing things, only then they can survive in this dynamic world.

Even we can see that above theory fits in classroom too where proactive teachers establish routines, lessons and activities for the students which teach them about how to behave in class room and students commit no or less mistakes on the other hand the teacher who does not follow this system of management will fail to control the class which results in wastage of time, energy and everything. So what is this system called which help the person to manage the things without wastage.

The answer is scientific management.

## Scientific Management

### What is scientific management



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In simple words it is an application of science to management.

It is the art of knowing what exactly you want from your men to do & then seeing that it is done in best possible manner.

Scientific management means application of principles and methods of science in the field of management.



### **Definition of Scientific Management**

According to Fredrick Winslow Taylor, “Scientific management means knowing exactly what you want men to do and seeing that they do it in the best and the cheapest way.”

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According to Lloyed, Dodd and zynch, In broad outline “Scientific management seeks to get the maximum from methods, men materials, machines and money and it controls the works of production from the location and layout of the worker to the final distribution of the product.”



1. From the above definitions we can draw the following features of scientific management.
2. It is a systematic method or way to solve industrial problems.
3. Scientific management results in economy of cost. To achieve economy all the unnecessary activities should be eliminated to achieve maximum output at the minimum cost.
4. Scientific work is always planned and all the activities should go as per the plan.
5. It does not believe on hit and trial approach
6. It focuses on achieving maximum efficiency.

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7. It involves a complete change in the mental attitude of workers as well as the management.

### **Scientific Management Theory**

Scientific management theory is also called classical management theory. The focus of this management theory was on increasing worker productivity. The scientific theory of management is considered better for businesses based on repetitive tasks, such as a factory.

Classical or scientific management theory is based on four main points.

There should be a standard method for doing each job.

Workers should be carefully selected after considering their skills and abilities.

Work should be planned.

Incentives should be given to encourage more output.

### **Fredrick Winslow Taylor**

#### **Founder of Scientific Management Movement**

Scientific management concept is propounded by Fredrick Winslow Taylor (F.W Taylor) – the father of scientific management. Fredrick Winslow Taylor (March 20, 1856 – March 21, 1915) He was an American mechanical engineer, who sought to improve industrial efficiency and was one of the first **management** consultants.

In 1874, he became an apprentice mechanist, learning factory conditions at the grass roots level. He earned a degree in mechanical engineering.

He was one of the intellectual leaders of the efficiency movement and was highly influential in reshaping the factory system of production.

He is regarded as the father of scientific management.

He developed four basic principles of scientific management. These principles are also known simply as "Taylorism".

Taylor suggested the idea of “a fair day’s pay for a fair day’s work”

Taylor said that ill directed movement of the workers are NATIONAL LOSS

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He said the worker who is doing more work and in a productive way should be paid more and the other who is less productive should be paid less.



### **Principles of Scientific Management**

In the earlier days of the Industrial Revolution, in the absence of an established theory of factory organization, factory owners or managers relied on personal judgment in attending to the problems they confronted in the course of managing their work. This is what is referred to as 'rule of thumb'. Managing factories by rule of thumb enabled them to handle the situations as they arose but suffered from the limitation of a trial and error approach. For their experiences to be emulated, it was

Important to know what works and why does it work. For this, there was a need to follow an approach that was based on the method of science defining a problem, developing alternative

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solutions, anticipating consequences, measuring progress and drawing conclusions. He proposed scientific management as opposed to rule of thumb. He broke up human activity into small parts and found out how it could be done effectively, in less time and with increased productivity. **His main focus was on reducing wastage.** The Bethlehem Steel company where Taylor himself worked achieved three-fold increase in productivity by application of scientific management principles. Therefore, it is really important to discuss these principles in detail.

### **1) Science not Rule of Thumb:**

This principle says that we should not stuck with old techniques of doing work rather we should develop new techniques which can make the work simpler,quicker and easier.

The idea of scientific management originates from science. This principle suggests the use and application of scientific methods and techniques in performing the activities.

**‘Rule of Thumb’** means the application of Hit and Trial approach or the methods developed by the manager based on his past experience. All these methods are not scientific; so they do not guarantee a specific output.

This principle emphasizes on “thinking before doing”.

Trail and Error Method’ should be avoided.

He believed that there is only one best method to maximize efficiency.

**For example,** In rule of thumb the standard time required to do particular job is decided by the managers on the basis of his past experience. Taylor insists that standard time for a job should be set up scientifically by the performing time study in the organisation and then the day’s target should be fixed.

### **Positive impacts of this principle:**

1. Standardized results;
2. Guarantee a specific outcome
3. Objectives can be achieved in fruitful manner.



(ii) **Harmony, Not Discord:** In every organization there are two groups of people i.e. “workers group’ and ‘management group’ and both always feel rivalry with each other. There always existed the possibility of a kind of class-conflict, the managers versus workers. Workers always feel that they are overburdened and are paid less and Management feels that workers are good for nothing and are paid unnecessarily.

In this principle, Taylor says that both the groups should work together with a positive attitude towards each other They must share the ‘Give and Take’ relationship while working with each other for the success of an organization as well as for their own betterment.

Taylor emphasized on *Mental Revolution* which means a change of attitude of both workers and managers. thus both should work with each other in harmony and avoid discord. Management should take care of the workers by providing them better facilities ,working environment, and workers should take care of the management by giving their best result for the achievement of



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the organizational goals. Both groups should feel and work together as a family with one goal and in one direction.

**For example**, the main objective of workers is to earn more and the objective of management is to maximise production; instead of discording with each other's, the objective of the workers earn more by producing more will help in maximizing the production also.

**Positive impacts of this principle:**

1. Change of attitude of both groups towards each other.
2. Class conflict converted into cordial relationship
3. Organization goals can be achieved easily.
5. Development of team spirit.
6. High morale of employees.





7. **Cooperation not individualism:** This principle is an extension of harmony not discord principle. ‘**Cooperation**’ means acting jointly, Taylor emphasized that the workers and the management should act jointly and in unison to achieve the organizational objectives. Competition should be replaced by cooperation. Both should realise that they need each other. Management as well as the employees are basically the two side of the same coin means they are an important component of the organization and without them the organization cannot work properly.

To have cooperation, management should welcome good suggestions of employees and they should be rewarded for their suggestion. At the same time workers should not go on strike and make unreasonable demands. This principle is very important as no individual on his own can make a change in the organization and the workers always need management’s help to achieve the specified targets. Thus, the management should try to maintain a cordial relation with the workers.

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**For example,** while assigning job to workers if management ask them about their interest and then work is assigned according to their interest, definitely the workers will perform it more efficient

**Positive impacts of this principle:**

1. Development of team spirit.
2. High morale.
3. Cooperation and coordination in the organisation.



**Development of Each and Every Person to His or Her Greatest Efficiency and Prosperity:**

workers are the key elements of any organization. Hence, through this scientific principle Taylor emphasized on the need of developing each and every individual in the organization to his / her greatest efficiency through proper training. Each person should be scientifically selected. Then work assigned should suit her/his physical, mental and intellectual capabilities. Efficient

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employees would produce more and earn more. This will ensure their greatest efficiency and prosperity for both company and workers.

For example Taylor insisted care should be taken while selecting the employees and after selecting they must be given job to their qualification.

### **Positive Impacts of This Principle:**

1. Satisfied workers
2. Increased efficiency
3. Better coordination and performance
4. Standardized and quality production



### **Criticism of scientific management**

From the foregoing discussion it is clear that Taylor was the great supporter of use of scientific method of production in business but still this scientific theory is criticized by many people. The arguments against this theory are

#### **Criticism of scientific management**

The main argument against Taylor is this dehumanization of workers.

It has no scope for workers to excel or think because every activity is specified.



**Summary:** You all must have realized from the above discussion that Taylor was of strong belief that for maximum efficiency a business must follow scientific system of production. He used his experience to develop scientific techniques.