Evolution of Management

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Evolution of Management Concept

- The evolution of management thought is a process that started in the early days of man.
- It began since the period man saw the need to live in groups.
- Mighty men were able to organize the masses, share them into various groups.
- The sharing was done accord to the masses' strength, mental capacities, and intelligence.
- The point is that management has been practiced in one way or the other since civilization began.
- If you want a good example where advance management principles where applied, consider the organization of the olden days Roman Catholic Church, military forces as well as ancient Greece. These are all excellent examples.
- But the industrial revolution brought drastic change.
- And suddenly, the need to develop a more holistic and formal management theory became a necessity.

Scientific Management

Frederick Taylor and Scientific Management

In 1911, Frederick Winslow Taylor published his work, *The Principles of Scientific Management*, in which he described how the application of the scientific method to the management of workers greatly could improve productivity. Scientific management methods called for optimizing the way that tasks were performed and simplifying the jobs enough so that workers could be trained to perform their specialized sequence of motions in the one "best" way.

Prior to scientific management, work was performed by skilled craftsmen who had learned their jobs in lengthy apprenticeships. They made their own decisions about how their job was to be performed. Scientific management took away much of this autonomy and converted skilled crafts into a series of simplified jobs that could be performed by unskilled workers who easily could be trained for the tasks.

Taylor became interested in improving worker productivity early in his career when he observed gross inefficiencies during his contact with steel workers.

Soldiering

Soldiering

Working in the steel industry, Taylor had observed the phenomenon of workers' purposely operating well below their capacity, that is, *soldiering*. He attributed soldiering to three causes:

1. The almost universally held belief among workers that if they became more productive, fewer of them would be needed and jobs would be eliminated.
2. Non-incentive wage systems encourage low productivity if the employee will receive the same pay regardless of how much is produced, assuming the employee can convince the employer that the slow pace really is a good pace for the job. Employees take great care never to work at a good pace for fear that this faster pace would become the new standard. If employees are paid by the quantity they produce, they fear that management will decrease their per-unit pay if the quantity increases.
3. Workers waste much of their effort by relying on rule-of-thumb methods rather than on optimal work methods that can be determined by scientific study of the task.

To counter soldiering and to improve efficiency, Taylor began to conduct experiments to determine the best level of performance for certain jobs, and what was necessary to achieve this performance.

Time Studies

Taylor argued that even the most basic, mindless tasks could be planned in a way that dramatically would increase productivity, and that scientific management of the work was more effective than the "initiative and incentive" method of motivating workers. The initiative and incentive method offered an incentive to increase productivity but placed the responsibility on the worker to figure out how to do it.

To scientifically determine the optimal way to perform a job, Taylor performed experiments that he called *time studies*, (also known as *time and motion studies*). These studies were characterized by the use of a stopwatch to time a worker's sequence of motions, with the goal of determining the one best way to perform a job.

The following are examples of some of the time-and-motion studies that were performed by Taylor and others in the era of scientific management.

Pig Iron

If workers were moving 12 1/2 tons of pig iron per day and they could be incentivized to try to move 47 1/2 tons per day, left to their own wits they probably would become exhausted after a few hours and fail to reach their goal. However, by first conducting experiments to determine the amount of resting that was necessary, the worker's manager could determine the optimal timing of lifting and resting so that the worker could move the 47 1/2 tons per day without tiring.

Not all workers were physically capable of moving 47 1/2 tons per day; perhaps only 1/8 of the pig iron handlers were capable of doing so. While these 1/8 were not extraordinary people who were highly prized by society, their physical capabilities were well-suited to moving pig iron. This example suggests that workers should be selected according to how well they are suited for a particular job.

The Science of Shoveling

In another study of the "science of shoveling", Taylor ran time studies to determine that the optimal weight that a worker should lift in a shovel was 21 pounds. Since there is a wide range of densities of materials, the shovel should be sized so that it would hold 21 pounds of the substance being shoveled. The firm provided the workers with optimal shovels. The result was a three to four fold increase in productivity and workers were rewarded with pay increases. Prior to scientific management, workers used their own shovels and rarely had the optimal one for the job.

Bricklaying

Others performed experiments that focused on specific motions, such as Gilbreth's bricklaying experiments that resulted in a dramatic decrease in the number of motions required to lay bricks. The husband and wife Gilbreth team used motion picture technology to study the motions of the workers in some of their experiments.

Taylor's 4 Principles of Scientific Management

After years of various experiments to determine optimal work methods, Taylor proposed the following four principles of scientific management:

1. Replace rule-of-thumb work methods with methods based on a scientific study of the tasks.

2. Scientifically select, train, and develop each worker rather than passively leaving them to train themselves.

3. Cooperate with the workers to ensure that the scientifically developed methods are being followed.

4. Divide work nearly equally between managers and workers, so that the managers apply scientific management principles to planning the work and the workers actually perform the tasks.

These principles were implemented in many factories, often increasing productivity by a factor of three or more. Henry Ford applied Taylor's principles in his automobile factories, and families even began to perform their household tasks based on the results of time and motion studies.

Drawbacks of Scientific Management

While scientific management principles improved productivity and had a substantial impact on industry, they also increased the monotony of work. The core job dimensions of skill variety, task identity, task significance, autonomy, and feedback all were missing from the picture of scientific management.

While in many cases the new ways of working were accepted by the workers, in some cases they were not. The use of stopwatches often was a protested issue and led to a strike at one factory where "Taylorism" was being tested. Complaints that Taylorism was dehumanizing led to an investigation by the United States Congress. Despite its controversy, scientific management changed the way that work was done, and forms of it continue to be used today.

Fayol’s Administrative Management

Definition:

The **Administrative Theory** is based on the concept of departmentalization, which means the different activities to be performed for achieving the common purpose of the organization should be identified and be classified into different groups or departments, such that the task can be accomplished effectively.

•The administrative theory is given by Henri Fayol, who believed that more emphasis should be laid on organizational management and the human and behavioral factors in the management.
• Thus, unlike the scientific management theory of Taylor where more emphasis was on improving the worker’s efficiency and minimizing the task time
•here the main focus is on how the management of the organization is structured and how well the individuals therein are organized to accomplish the tasks given to them.

- The other difference between these two is, the administrative theory focuses on improving the efficiency of management first so that the processes can be standardized and then moves to the operational level where the individual workers are made to learn the changes and implement those in their routine jobs.

- While in the case of the scientific management theory, it emphasizes on improving the efficiency of the workers at the operating level first which in turn improves the efficiency of the management. Thus, the administrative theory follows the top-down approach while the scientific management theory follows the bottom-up approach.

- Fayol has given 14 principles of management with the intent to improve the functioning of the managers.

The Bureaucratic Model

A German Sociologist called Max Weber proposed this model. And it includes a system of rules, division of labor hinged on functional specialization, legal authority, and power, the hierarchy of authority and placement of employees based on their technical competence.

Max Weber bureaucracy ideally has the following characteristics:

i. Specialization of labor
ii. A formal set of rules and regulations
iii. Well-defined hierarchy within the organization
iv. Impersonality in the application of rules

Max Weber listed six major principles of the bureaucratic form as follows:

A formal hierarchical structure – In a bureaucratic organization, each level controls the level below it. Also, the level above it controls it. A formal hierarchy is the basis of central planning and centralized decision-making.

Rules-based Management – The organization uses rules to exert control. Therefore, the lower levels seamlessly execute the decisions made at higher levels.

Functional Specialty organization – Specialists do the work. Also, the organization divides employees into units based on the type of work they do or the skills they possess.

Up-focused or In-focused Mission – If the mission of the organization is to serve the stockholders, board, or any other agency that empowered it, then it is up-focused. On the other hand, if the mission is to serve the organization itself and those within it (like generating profits, etc.), then it is in-focused.

Impersonal – Bureaucratic organizations treat all employees equally. They also treat all customers equally and do not allow individual differences to influence them.

Employment based on Technical Qualifications – Selection as well as the

Hawthorne Experiments and Human Relations

Professor George Elton Mayo (1880-1949) has secured fame as the leader in a series of experiments which became one of the great turning-points in management thinking.

At the Hawthorne plant of Western Electric, he discovered that job satisfaction increased through employee participation in decisions rather than through short-term incentives.

Mayo's importance to management lies in the fact that he established evidence on the value of a management approach and style which, although not necessarily an alternative to F W Taylor's scientific management, presented facts which Taylorites could not ignore.

Key theories

Hawthorne

The Hawthorne plant of Western Electric was located in Chicago. It had some 29,000 employees and manufactured telephones and telephone equipment, principally for AT & T. The company had a reputation for advanced personnel policies and had welcomed a research study by the National Research Council into the relationship between work-place lighting and individual efficiency.

The experiments

The study began in 1924 by isolating two groups of workers in order to experiment with the impact of various incentives on their productivity. Improvements to levels of lighting produced increases in productivity, but so too did reversion to standard lighting and even below-standard lighting in both groups. The initial assumption therefore was that increased output stemmed from variation alone.

Other incentives - including payment incentives and rest pauses - were manipulated at regular intervals, and although output levels varied, the trend was inexorably upwards. Whatever experimentation was applied, output went up. Although it had been fairly conclusively determined that lighting had little or nothing to do with output levels, the Assistant Works Manager (George Pennock) agreed that something peculiar was going on and that experimentation should continue.

Interpreting Hawthorne

For industry to benefit from the experiments at Hawthorne, Mayo first concluded that supervisors needed training in understanding the personal problems of workers, and also in listening and interviewing techniques. He held that the new supervisor should be less aloof, more people-oriented, more concerned, and skilled in handling personal and social situations.
It was only later, after a period of reflection, that Mayo was able to conclude that:
job satisfaction increased as workers were given more freedom to determine the conditions of their working environment and to set their own standards of output;
intensified interaction and cooperation created a high level of group cohesion;
job satisfaction and output depended more on cooperation and a feeling of worth than on physical working conditions.

In Mayo's view, workers had been unable to find satisfactory outlets for expressing personal problems and dissatisfactions in their work life. The problem, as Mayo perceived it, was that managers thought the answers to industrial problems resided in technical efficiency, when actually the answer was a human and social one.

SOCIAL SYSTEM APPROACH

- Understanding the behaviour of groups & individuals.
- Features
  1. Social System, a system of cultural relationship
  2. Relationship exist between external and internal environment of the organisation.
  3. Formal Organisation - Cultural relationships of social groups working within the organisation.
  4. Co-operation necessary
  5. Efforts directed - harmony between goals of organisation & goals of groups.

ADVANTAGES.

- This approach is an ***important contribution*** in field of management.
- Organization is a ***social system***. Hence ***decisions*** should not be taken by ***considering*** one group, but ***all the groups are considered***.
- There are ***formal and informal*** organizations in management has to ***identify*** such ***informal*** *groups* and ***motivate them***.
- Both types of ***incentives i.e. financial and non financial*** are being ***prevailed*** to *satisfy* and ***encourage*** various ***groups working*** in an organization.

Decision Theory Approach in

Introduction:

Simple decisions usually need a simple decision-making process. But difficult decisions typically involve issues like these:

- *Uncertainty - Many facts may not be known.*
- *Complexity - You have to consider many interrelated factors.*
- *High-risk consequences - The impact of the decision may be significant.*
- *Alternatives - Each has its own set of uncertainties and consequences.*
- *Interpersonal issues - It can be difficult to predict how other people will react.*
- *With these difficulties in mind, the best way to make a complex decision is to use an effective process.*

The Six Steps in Decision Theory

1. Clearly define the problem at hand
2. List the possible alternatives
3. Identify the possible outcomes & criteria
4. List the payoff or profit of each combination of alternatives and outcomes
5. Select one of the mathematical decision theory models
6. Apply the model and make your decision


Thank
You!