

The Evolution of Management Theory



Scientific Management theory

- Modern management began in the late 19th century.
 - Organizations were seeking ways to better satisfy customer needs.
 - Machinery was changing the way goods were produced.
 - Managers had to increase the efficiency of the worker-task mix.

Job specialization

- Adam Smith, 18th century economist, found firms manufactured pins in two ways:
 - Craft -- each worker did all steps.
 - Factory -- each worker specialized in one step.
- Smith found that the factory method had much higher productivity.
 - Each worker became very skilled at one, specific task.

• Breaking down the total job allowed for the division of labor.



Scientific Management

- Defined by Frederick Taylor, late 1800's.
- The systematic study of the relationships between people and tasks to redesign the work for higher efficiency.
 - Taylor sought to reduce the time a worker spent on each task by optimizing the way the task was done.

The 4 Principles

• Four Principles to increase efficiency:

1. *Study the way the job is performed* now & determine new ways to do it.

- Gather detailed, time and motion information.
- Try different methods to see which is best.

2. Codify the new method into rules.

Teach to all workers.

3. *Select workers whose skills match* the rules set in Step 2.

4. *Establish a fair level of performance* and pay for higher performance.

• Workers should benefit from higher output.

Problems of Scientific Management

- Managers often implemented only the increased output side of Taylor's plan.
 - They did not allow workers to share in increased output.
 - Specialized jobs became very boring, dull.
 - Workers ended up distrusting Scientific Management.
- Workers could purposely "under-perform"
- Management responded with increased use of machines.

The Gilbreths

- Frank and Lillian Gilbreth refined Taylor's methods.
 - Made many improvements to time and motion studies.
- Time and motion studies:
 - 1. Break down each action into components.
 - 2. *Find better ways* to perform it.
 - 3. *Reorganize each action* to be more efficient.
- Gilbreths also studied fatigue problems, lighting, heating and other worker issues.

Administrative Management

- Seeks to create an organization that leads to both efficiency and effectiveness.
- Max Weber developed the concept of **bureaucracy**.
 - A formal system of organization and administration to ensure effectiveness and efficiency.
 - Weber developed the Five principles shown in Figure 2.2.



Key points of Bureaucracy

Authority is the power to hold people accountable for their actions.

- Positions in the firm should be held based on *performance* not social contacts.
- *Position duties are clearly identified.* People should know what is expected of them.
- *Lines of authority* should be clearly identified. Workers know who reports to who.
- *Rules, Standard Operating Procedures (SOPs), & Norms* used to determine how the firm operates.
 - Sometimes, these lead to "red-tape" and other problems.

Fayol's Principles

• Henri Fayol, developed a set of 14 principles:

1. *Division of Labor:* allows for job specialization.

- Fayol noted firms can have too much specialization leading to poor quality and worker involvement.
- 2. *Authority and Responsibility:* Fayol included both formal and informal authority resulting from special expertise.
- 3. *Unity of Command:* Employees should have only one boss.
- 4. *Line of Authority:* a clear chain from top to bottom of the firm.
- 5. *Centralization:* the degree to which authority rests at the very top.

Fayol's Principles

- 6. *Unity of Direction:* One plan of action to guide the organization.
- 7. *Equity:* Treat all employees fairly in justice and respect.
- 8. *Order:* Each employee is put where they have the most value.
- 9. Initiative: Encourage innovation.
- 10. *Discipline:* obedient, applied, respectful employees needed.

Fayol's Principles

- 11. *Remuneration of Personnel:* The payment system contributes to success.
- 12. *Stability of Tenure:* Long-term employment is important.
- 13. *General interest over individual interest:* The organization takes precedence over the individual.
- 14. *Esprit de corps:* Share enthusiasm or devotion to the organization.

Behavioral Management

- Focuses on the way a manager should personally manage to motivate employees.
- Mary Parker Follett: an influential leader in early managerial theory.
 - Suggested workers help in analyzing their jobs for improvements.
 - The worker knows the best way to improve the job.
 - If workers have the knowledge of the task, then they should control the task.

The Hawthorne Studies • Study of worker efficiency at the Hawthorne Works of the Western Electric Co. during 1924-1932.

- Worker productivity was measured at various levels of light illumination.
- Researchers found that regardless of whether the light levels were raised or lowered, productivity rose.

• Actually, it appears that the workers enjoyed the attention they received as part of the study and were more productive.

Theory X and Y

- Douglas McGregor proposed the two different sets of worker assumptions.
 - *g Theory X:* Assumes the average worker is lazy, dislikes work and will do as little as possible.
 - Managers must closely supervise and control through reward and punishment.
 - *g Theory Y:* Assumes workers are not lazy, want to do a good job and the job itself will determine if the worker likes the work.
 - Managers should allow the worker great latitude, and create an organization to stimulate the worker.



Figure 2.3

Theory X

Employee is lazy

Managers must closely supervise

Create strict rules & defined rewards

Theory Y

Employee is not lazy

Must create work setting to build initiative

Provide authority to workers

Theory Z

- William Ouchi researched the cultural differences between Japan and USA.
 - USA culture emphasizes the individual, and managers tend to feel workers follow the Theory X model.
 - Japan culture expects worker committed to the organization first and thus behave differently than USA workers.

• Theory Z combines parts of both the USA and Japan structure.

Managers stress long-term employment, work-group, and organizational focus.

Management Science

- Uses rigorous quantitative techniques to maximize resources.
 - *Quantitative management:* utilizes linear programming, modeling, simulation systems.
 Operations management: techniques to analyze all aspects of the production system.
 - *Total Quality Management (TQM):* focuses on improved quality.
 - *Management Information Systems (MIS):* provides information about the organization.

Organization-Environment Theory

- Considers relationships inside and outside the organization.
 - The environment consists of forces, conditions, and influences outside the organization.

• Systems theory considers the impact of stages:

- Input: acquire external resources.
- *Conversion:* inputs are processed into goods and services.
- *Output:* finished goods are released into the environment.

Systems Considerations

- An open system interacts with the environment. A closed system is self-contained.
 - Closed systems often undergo entropy and lose the ability to control itself, and fails.
- *Synergy:* performance gains of the whole surpass the components.

Synergy is only possible in a coordinated system.



The Organization as an Open System Figure 2.4



Contingency Theory

• Assumes there is no one best way to manage.

- The environment impacts the organization and managers must be flexible to react to environmental changes.
- The way the organization is designed, control systems selected, depend on the environment.
- Technological environments change rapidly, so must managers.

Structures

- *Mechanistic:* Authority is centralized at the top. (Theory X)
 - Employees closely monitored and managed.Very efficient in a stable environment.
- Organic: Authority is decentralized throughout employees. (Theory Y)
 - Much looser control than mechanistic.
 - Managers can react quickly to changing environment.