

Operations Management - Decision-Making

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Decision making essentially involves choosing a particular course of action, after considering the possible alternatives scientific decision-making rests upon organized principles of knowledge and depends largely upon the collection of empirical data and analysis of the data in a way that repeatable results will be obtained.

The association of management with the scientific method involves drawing objective conclusions from the facts. Facts come from the analysis of data, which must be gathered, compiled and digested into meaningful form, such as graphs and summary statistics.

Management as a science is characterized by

Organized principle of knowledge.

Use of empirical data.

Systematic analysis of data.

Repeatable results.

Operations decision range from simple judgments to complex analyses. Decision

incorporates basic knowledge, experience, and common sense. They enable to blend objectives and sub-objective data to arrive at a choice.

The appropriateness of a given type of analysis depends on

The significant or long lasting decisions,

The time availability and the cost of analysis, and

The degree of complexity of the decision.

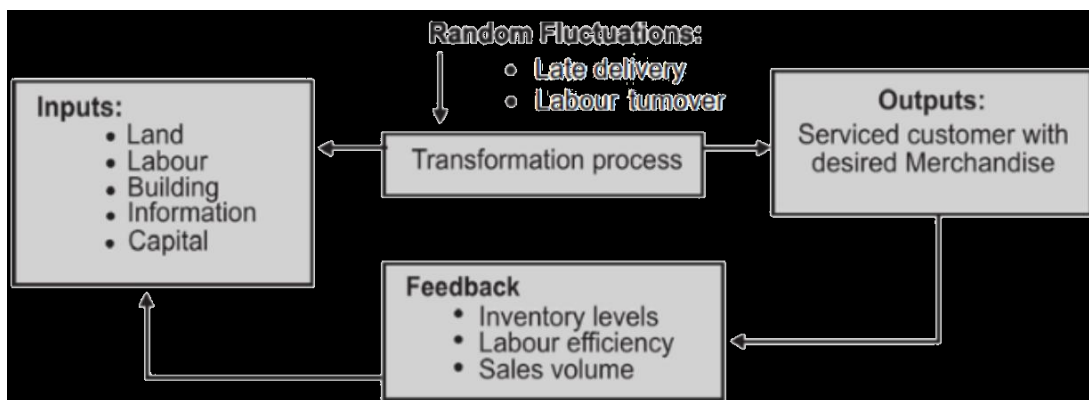
The significant or long lasting decisions deserve more considerations than routine ones. Plant investment, which is a long-range decision, may deserve more thorough analysis. The time availability and the cost of analysis also influence the amount of analysis. The degree of complexity of the decision increases when many variables are involved, variables are highly independent and the data describing the variables are uncertain.

In 1911 Frederick Taylor published his "The Principles of Scientific Management", in which he characterized scientific management as:

1. The development of a true science
2. The scientific selection of the worker
3. Their scientific education and development

4. Intimate friendly cooperation between management and the workers

Taylor is also credited for developing stopwatch time study, this combined with Frank and Lillian Gilbreth motion study gave way to time and motion study which is centered on the concepts of standard method and standard time.



Steps involved in decision making

- Defining the problem.
- Establish the decision criteria.
- Formulation of a model.
- Generating alternatives .
- Evaluation of the alternatives.
- Implementation and monitoring.



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