

MANAGEMENT DECISION MAKING BASIC MODELS AND PROCESSES

Managerial decision-making is a means of influencing the management object and its individual subsystems, a key element in shaping and implementing management relations in an organization; it serves as a basis for performing any management function. Understanding its nature is essential to ensure its adequacy. Consequently, the quality of managerial decisions can be seen as a collection of factors that meet specific consumer needs and guarantee the feasibility of implementation. Key processes that contribute to the high quality of managerial decisions are:

1. Apply scientific management methods in decision making;
2. Use forecasting, modeling, and economic justification techniques for each decision;
3. Structuring problems and constructing decision trees;
4. Ensure comparability of decision alternatives;
5. Provide decision diversity to address different scenarios;
6. Provide legal justification for decisions;
7. Automate data collection, processing, and decision making;
8. Establish and operate a system of accountability and motivation to promote effective decision making, along with a mechanism for decision implementation.

Before delving into the models commonly used by contemporary organizations, it's important to outline the three basic model types:

Physical model - examined through scaled-up or scaled-down representations of an object or system. The defining characteristic of a physical model is its semblance of a unified whole;

Analog Model - represents the object under study as an analog that behaves similarly to a real object but does not physically resemble it;

Mathematical Model - Also known as symbolic, this model uses symbols to represent the properties or characteristics of an object or event.

Management theory distinguishes three main models of decision making: the classical model, the behavioral model, and the irrational model.

The classical model is based on the concept of "rationality" in decision-making. It presupposes that the decision maker must be completely objective and logical, have a clear goal, and that all actions in the decision-making process are directed toward selecting the best alternative. Thus, the key

characteristics of the classical model include: the decision maker has a clear goal for the decision; the decision maker has complete information about the decision situation; the decision maker has complete information about all possible alternatives and the consequences of their implementation; the decision maker has a rational system for ordering preferences based on their importance; the goal of the decision maker is always to make a choice that maximizes the organization's performance. Therefore, the classical model assumes that the conditions for decision making must be sufficiently defined. With complete information, managers can choose the alternative that best meets the organization's needs. In practice, however, many constraining and subjective factors influence the decision-making process.

Behavioral model. Unlike the classical model, the behavioral model has the following key characteristics: the decision maker does not have complete information about the decision situation; the decision maker does not have complete information about all possible alternatives; the decision maker is unable or unwilling to foresee the consequences of implementing each possible alternative.

The irrational model assumes that decisions are made before alternatives are explored. The irrational model is most often used: a) to solve fundamentally new, unconventional decisions that are difficult to solve; b) to solve problems under time constraints; c) when a manager or group of managers has sufficient authority to enforce their decision.

In order for a management decision model to be effective, it is important to consider the following aspects: it should be based on reliable initial data; it should minimize information constraints; it should be widely applicable not only in theory but also in practice; it should have significant value, since an effective model will yield huge benefits from its use, and its efficiency should justify the cost of the decisions necessary to perform management functions. The process of making well-founded, objective decisions in extremely complex situations is achieved through a scientific approach to this process, the use of models and quantitative decision-making methods.