

## **Forrester (1991): Policies, decisions and information sources for modeling**

Forrester is emphasizing the importance of stated conditions in the decision-making process. Decision-making is described as a process of three steps: 1. Indicating desired conditions which should become "true". 2. Observation of the development of actual conditions. 3. Generation of corrective action. Furthermore it is important, that distortion and delays are taken into account and that every kind of information is used (not only quantitative data). Especially mental data is an important resource in the policy making process.

### The feedback view of management and policy

- Management = Converting information into action; Manager as information converter
- Information as starting point of decision and action leads to new views of available information about a problem.
- Feedback loops as organizing structure → Determining change in systems.

### Nature of the decision process

- Decisions control all processes of change (also natural or physical processes).
- Levels as "inputs to the flow of decisions". → Decision as controlling flows of levels.
- Decision making is a continuous process (loop) → Conversion mechanism of information to control of flows.

### Policy

- Policies as decision-rules. → Transfer functions.
- Two levels of abstraction: 1. Unrealized intuitive action. 2. Awareness of the formal reasons for decisions.

### Steps detecting guiding policies

1. Distinguish policy and decision. 2. Use a proper structure which represents the problem. 3. Use feedback loops to remove need for high accuracy. 4. Use people's minds to get access to the most of the available information lies. 5. Formulate quantitative statement of a policy (number is better than no number → better basis for communication).

### Overt and implicit decisions

- Overt decisions: Conscious decisions by people as part of management and economic processes.
- Implicit decisions: Unavoidable result of the state of the system.
- Both are not handled differently in the system, but helps for understanding.

### Determining the form of a policy statement

- Choice of influences on decisions should depend on the "characteristics of the encompassing information-feedback system".
- Clear understanding how a decision influences state-direction (e.g. worse before better).
- Nonlinear relationships.

### Different sources of information

→ Basically three different kinds: Mental data, written data and numerical data.

Reliability of information

- Three categories of mental information: 1. Observations about structure and policy. 2. Expectations about system behavior. 3. Actual observed system behavior.
- No sharp distinction between structure and parameters in the social sciences.