

Two approaches for studying decision making process are known, normative and descriptive approach. Normative approach is pointed at the choice of a particular action with the objective to choose a process which leads to an optimal or at least satisfactory solution. Because of this a wide variety of optimisation algorithms, methods and technics is used in normative approach. On the other hand, descriptive approach makes it possible to study decision process itself, thus leading to a more adequate knowledge of it. By discovering its elements and processes, descriptive approach makes a great contribution to the analysis of decision making.

Many different interpretations of the decision process can be found but Simon's model (see Simon, 1960) is commonly used. According to Simon this process is made by sequence of three activities: intelligence, design, and choice. Intelligence involves the study of the nature of the problem. Information has to be gathered in order to identify it. In the design phase the problem is defined and alternative solutions are developed. In the last, choice phase, a comparison among the selected feasible solutions is made, and one of them is chosen.

The quality of decision making and efficiency of decision itself has become of great concern recently. It is believed that only an information of high quality is a guarantee for an efficient decision making. This holds both for turbulent as well as steady conditions.

As an essential resource of decision making, information is subject of intense research, held in two main directions. First group of studies searches for relevant properties of information and their impact on decision making. Among most commonly quoted are timeliness, reliability, and completeness of information. Studies of different aspects of information value is a part of research efforts in this study group.

Another group of researchers is trying to find the answer, what form and kind could make the use of information easier and enable a better utilisation of information content. A considerable number of studies in this group deals with the question, how the decision making quality could be influenced by the information forms and formats. In the eighties a number of research projects was undertaken, dealing with the impact of the information presentation on decision performance. Among the others, the following forms of presentation were most frequently used:

- text vs. tabular form
- aggregate vs. detail information
- numerical compared to graphical form
- black & white compared to colour.

As a result of this efforts an increased intensity of building some specific systems like: expert systems, management support systems, decision support systems, and similar. These systems can produce vast amounts of internal and external information, format and connect them in different ways and present them to users.