

INFORMAL SYSTEMS THINKING IN THE FORM OF OPERATIONS RESEARCH

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Abstract:

The concept of informal systems thinking is important because there is a lack of education in systems thinking / systems theory, there is a lot of unavoidable narrow specializations, and hence a lack of consideration of holism. Informal systems thinking takes place when the concepts of holism, interdependence, emergence, synergy, complexity, depth of investigation, thinking, decision-making, and action, networking, interdisciplinarity, transdisciplinarity by interdisciplinary cooperation, openness, hierarchy of complexity are used, but no formal language of systems theory shows up. Successful decision makers in business and government concluded that their decision analysis training together with practical experience help their informal decision-making.

The keynote paper deals with the prescriptive orientation to decision-making: instead of regarding people as perfect rational individuals, we developed a frame procedure for multi-criteria decision-making to complement intuition and to master interdisciplinary cooperation on formal and informal principles. We discuss *how decision makers can integrate analytic results into their informal thinking*, without disrupting it, and *how training in formal decision analysis can support informal decisions*. This paper introduces *how informal systems thinking was incorporated in solving several real-life complex problems* with contemporary operations research methods, presented by practical applications on the micro level (information system's development, creditworthiness assessment, environmentally oriented business decision-making, process benchmarking, choice of investments) and on the macro level (measuring the globalization of national economies), as well.

This session opens the arena for the contributions to the issue of informal systems thinking concerning *business excellence, project management, organizational science and operations research, management science*.

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