Research on Constructing Support System for Non-programmed Decision Making

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When everyone faces some problems, the person tries to discover some information that seems to serve to solve the problem. It is possible to divide the decision making processes into a programmed decision making and non-programmed decision making, according to the level of the understanding of decision-maker. The first programmed decision making solves the problem which structure is clearly understood, and what kind of resource is necessary, and what should be done for solving the problem. The second non-programmed decision making has no formal methodology to solve problem, has no precedent and requires a new approach.

The conventional decision support system only provide a solution for the fixed form. For the non-programmed decision making problems, however, it was difficult to support by the information system.

The purpose of this research is to find the essential factors and derive a system model the people on the site (Lower management) who has new un-structured problems and design a system model.

In this research, seven practical cases picked up, and they were analyzed from the following five view points; ①make objectives clear, ②community

formation, ③ knowledge externalization, ④ Data base management, ⑤ information selection and application. This analysis suggested the following essential points,①decrease the based information provider , ②link the performance with reward,③set up the special staff.

H.A.Simon. pointed out the following six processes. ①problem under standing, ②target identification, ③information gathering and analysis, ④ alternative plan, ⑤ estimation of result, ⑥ evaluation the result and selection, as the process which should pass at any level in the decision making. Those decision processes are, however, not sufficient to design for non-programmed decision support system, and research proposed finally the following nine processes. ①problem finding,②problem understanding, ③ defining objection, ④ information collection ⑤ information analysis and judgment , ⑥ alternative plan, ⑦ decision making, ⑧ execution, ⑨ evaluation of the result.

In order to support practice activities in those process, to corporate information for business objection, informal information, and learning assistance are to be supplied.