

Title	システム・エンジニアリング業務におけるナレッジ・マネジメントの実践研究
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Citation	
Issue Date	2002-03
Type	Thesis or Dissertation
Text version	author
URL	<a href="http://hdl.handle.net/10119/366">http://hdl.handle.net/10119/366</a>
Rights	
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# Empirical Study on Knowledge Management Through the Implementation to a System Engineering Company.

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March 2002

**Keywords:** systems engineer, knowledge management, SECI model, knowledge enabler, knowledge creation, flow, stock, knowledge exchange system

This research tries to acquire useful information of knowledge management practice through the implementation to one company.

Nowadays, many books are published for knowledge management practice, and its importance is recognized widely. But there are also many voices that it is hard to understand how to carry out. The example of practice, which is shown in magazines remains in introduction of the practiced “result”, and in many cases, “how it should be carried out” is not offered. There are also many reports that one could not get considered results although Knowledge Management practices. Probably, there are many men of business who hesitate to practice knowledge management.

Then, through the implementation of knowledge management to the company to which a writer belongs, we tried to verify to see what is necessary for practices. Especially the company to which a writer belongs is the system integration vender, which performed mainly on systems-engineering business. Then, the purpose of this research was defined as follows.

- How is the knowledge management carried out? It verifies from the implementation to the systems-engineering company.

In this research, the technique of action research was taken. The writer was actually engaged in the knowledge management project inside the company and also researched with

“What is the knowledge in systems-engineering business?” “What is the factor to promote or prevent?” “How do we measure the knowledge management effect?” An investigation period was two years when the writer was on the master course.

Knowledge management practices were based on the SECI model in knowledge creation theory, and on the theoretical framework of the knowledge enabler. Especially we had examined about how the knowledge enabler, which is the important element of the knowledge creation, is realized in an organization.

We built the "knowledge exchange system" through many analyses in the company, creation of a knowledge map, a precedence case study, etc. It not only performs accumulation and practical use of knowledge in the company, but it contained the knowledge desk activity, and people's exchange. It aims both management of human systems, such as conversation and exchange, and management of IT systems, such as accumulation and practical knowledge.

Three months after the operation of "knowledge exchange system", we considered much. Consideration was divided into the theoretical connotation about the SECI model, and the practical connotation about activity of the project in knowledge management.

First, the concept of the SECI model and the knowledge enabler was considered from a viewpoint of a flow and a stock concept. As a result, the SECI model has separated into the process of a flow, and the process of a stock. It turns out that there are two kinds of management for knowledge creation, the management for making knowledge flow and the management for making knowledge stock. Moreover, we were able to show clearly the knowledge enabler is participating deeply. in which the process of the stock and flow in a new SECI model.

Next, we clarified the following thing from the operational result, which observed in the activity of the project over one year and a half. Knowledge Management project must have the USER who offers the opinion of the spot in a project, the ANALYZER who performs presentation of analysis and solution, the AUDITOR who performs justification of a concept, and the MANAGER who has strong leadership. We also considered the conditions for promoting project activities and clarified the state of the project, which each condition commit effectively. As a result of taking these things into consideration, we devised the life cycle of a knowledge management project and found the key for practicing a project well.

During this research, the data used for analysis, an analysis process, the contents of practice, and its result were all shown except for the trade secrets. This result will come to be the key for the project management and show the way to implement the SECI model to an organization. We want to offer the "knowledge", which is acquired from the result of this research, to the man of business who wants to make knowledge management project succeed.