Title	CKS(Collective Knowledge Stations) - 進化するハニカムネットワーク型イノベーション・システム -
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Citation	
Issue Date	2009-03
Туре	Thesis or Dissertation
Text version	author
URL	http://hdl.handle.net/10119/8057
Rights	
Description	Supervisor:近藤修司 教授,知識科学研究科,修士



## CKS(Collective Knowledge Stations)

## —Evolving Innovation-System

## with Honeycomb-Network System —

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March 2009

**Keywords:** EMS (Electronics Manufacturing Service), OEM (Original Equipment manufacture), CKS (Collective Knowledge Stations), knowledge-creation conglomerate, "MONOZUKURI-TAIKOKU • NIPPON," system innovation, outsourcing, alliance, cascade chain link, value chain link, creation chain link, product innovation, process innovation, service innovation, Techno-Producer

Survival and development of a company or a country can be determined by whether it has brought innovation successfully into the right market in the right time frame. In other words, successful organizations and companies are the ones capable of responding to shifts in needs in the changing environment. Though Japan calls itself "MONOZUKURI-TAIKOKU·NIPPON", it is inevitable that it embraces different business management models. Models differ, as large companies have abundant human resources and divisions separated according to the operations whereas resources are limited and shared among operations in smaller companies. I have seen smaller companies bring back a previous existing method after learning the inefficiency of applying the Kanban method of Toyota or cellular manufacturing of Canon directly.

I believe constructing a system geared to realities makes it possible to enhance and to rejuvenate powerful industries of "MONOZUKURI-TAIKOKU · NIPPON" I have undertaken this study as to answer to this question, whether it is possible for smaller companies to establish an innovation system, apart from outsourcing, such as OEM, Original

Equipment Manufacturer, and EMS, Electronics Manufacturing, practiced by larger companies.

Recruiting MBAs and using MOT techniques have been reviewed and promoted in firms with financial abilities and substantial organization.

However, I believe MONOZUKURI-TAIKOKU can begin to rejuvenate itself successfully only when business models are established for smaller firms, which comprise 99.7% of Japanese businesses.

In this context, I have tried to establish a system, which I have named CKS, Collective Knowledge Stations, to replace existing EMS or OEM, and have reviewed the operation and results. The system, CKS, goes beyond the traditional forms of alliance, and operates as a giant coalition force, which balances no systems in large corporations. It can be established by collecting strengths and expertise of each knowledge-creating company. It is radically new in the sense that it has no hierarchical relationships.

CKS challenges existing systems the most in its quality assurance, which crosses borders between companies with widely acceptable standards, as the Euro does in EU, as well as with its operation system format, which is shared among all firms involved as if the CKS were a large organization.

I have, in this study, provided the background and development of CKS establishment, and have indicated the efficiency of CKS as a new innovation system, upon clarifying tits differences from existing EMS and OEM. Because CKS promotes a two-dimensional labor division, unlike existing horizontal or vertical division, I have also provided an explanation on the framework, sharing of responsibility, training and roles of producers and coordinators based on actual examples.

I proposed, in this study, the CKS is effective. I have summarized findings based on actual practice, where companies gathered and formed a knowledge-creation conglomerate by identifying of this CKS specialties and areas to be shared to operate a consistent "planning, development, quality assurance, manufacturing, distribution and service" pattern. I have also provided the solutions to system problems, which were successfully employed in the actual practice of this new business model.