KNOWLEDGE MANAGEMENT AND RISK STRATEGIES

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The Era of Knowledge Selection

1) The Current Situation of Employment and Work-Sharing in Japan

Japan's unemployment rate hit a record high of 5.5% in January 2003. With the economy being stagnant, work-sharing has been much discussed in recent years. Work-sharing is a scheme to retain the workforce by reducing the workload of each employee, and has already been introduced in European countries, such as Germany, the Netherlands, and France. The Ministry of Health, Labor and Welfare released a report on work-sharing in April 2001.¹ It classified four types of work-sharing: Emergency Measure Type, Diversified Working Patterns Type, Measure Aimed at Middle-Aged and Elderly Workers Type, and Job Creation Type.² Several electrical manufacturers and local governments have introduced work-sharing schemes, most of which are Emergency Type, to survive the severe economic recession.

¹Mitsui Knowledge Industry, Research Institute, commissioned by the then Ministry of Labor, "Survey Report on Work-Sharing," April 2001.

²Different types of work-sharing are classified according to their purposes. Emergency Measure Type is an emergency measure to retain trained employees. Diversified Working Patterns Type is to create more job opportunities, especially for older employees and women, by introducing diversified working patterns (i.e., shorter and more flexible working hours). Measure Aimed at Middle-Aged and Elderly Workers Type purports to secure jobs for older employees. Job Creation Type is work-sharing for general employees.

The problem with work-sharing is that management tends to consider work-sharing as a means of payroll reduction, while it is a way to secure jobs for employees. Therefore, management and unions often disagree when it comes to the ideal employment system, although they can manage to come to an agreement on a work-sharing scheme as an emergency measure. They simply have different views of the new society, where work-sharing is a mode of business.

Apart from the unemployment crisis caused by the lingering recession, there is another reason why work-sharing has been much debated in Japan. The change in the environment, caused by what is called “globalization”, made obsolete the conventional Japanese employment system, its ethics and values.

2) The Dawn of a New Era

What is the change in the environment surrounding Japan? Let us first examine it in the development of digital and network technologies, then in the change in the lifespan of knowledge.

The development of digital and network technology

The rapid developments in the IT industry have prompted the globalization of economies, overthrowing both the industrial structure and the traditional consumers’ view of “shopping”.

It is now possible to communicate easily with people in remote places as long as you are connected to networks. Also, the new distribution channel called “E-commerce” makes it possible to do business with customers from all over the world, even without having physical premises.

Furthermore, XML web service technology, which has recently been introduced, has facilitated communication between independent information processing services.³ With XML, it is possible for

³XML (extensible markup language) is a simple and universal format to publish and exchange structured documents and data. It is derived from SGML.

a company to provide only that part of the information processing service that they are strong at, and to use the IPS of other providers for the rest. Thus, companies can offer services highly sustained in total. Companies no longer need to provide all the information processing equipment necessary for their business.

All this has caused drastic changes in the business world. What used to be important factors in business transactions, such as geographic advantages, connections and local business conventions, are now outshone by the fundamental value in offers themselves. Companies will have to focus on differentiating their offers in terms of quality and value. The developments in the IT industry have brought about a paradigm shift in corporate competency: the focus has shifted from long-term, stable business relations to products and services that exactly satisfy customers' demands.

Shortened lifespan of knowledge

It takes various forms of knowledge, e.g., design engineering, processing technology, product design and production know-how, to deliver products and services. Knowledge, which forms the base of products and services, however, has been becoming increasingly short-lived in recent years.⁴ Before 1959, a piece of knowledge was profitable for 21.8 years; since 1990, it is only profitable for 3.2 years. This shows that knowledge is no longer so valuable as stock.

The decrease in the shelf life of knowledge, combined with the rapid developments in IT technologies, necessitates that products and services meet the customers' demands exactly. At the same time, these two phenomena are nullifying the value of knowledge as stock. Companies will have to carefully select the knowledge necessary to deliver products and services that meet precise customer demands. What is the consequence of this for the business world?

⁴National Institute of Science and Technology Policy, "Assessment of the Effects of R&D Policy on Economic Growth," June 1999, pp. 26, 28 and 30.

Knowledge selection is not an easy matter. Knowledge is a comprehensive word; patents and copyright, for example, may be called knowledge, but an employee's experience can also be called knowledge. Take a consulting firm, for example: aside from their expertise, "how to get through a sticky patch" or "how to get a customer interested" can also be deemed important knowledge, which only those who have gained it through experience have access to. This demonstrates the intangible and invisible nature of knowledge — hence, knowledge needs practitioners. Knowledge lies in the memory of the person who has practiced it. Unlike objects, knowledge cannot be passed on from A to B in a business deal. Knowledge management is intimately connected with personnel management, especially in its transfer. Therefore, facilitated knowledge selection and the shortened storage life of knowledge will gravely affect lifetime employment and seniority-based pay systems, which have been the symbol of the relationship between companies and employees in Japan.

In the struggle to rebuild the nation's devastated economy after World War II, Japan had only to realize knowledge transfer by copying the successful examples of business models in the USA and Europe. Furthermore, as the government adopted a complete industrial targeting policy, Japanese corporations were allowed to focus on enlarging their market shares and developing new technology. Luckily, the Japanese economy prospered, so there was always high demand for manpower. Also, an employee was able to mature in the same company that he joined after graduating from college, accumulating experience and knowledge. Therefore, the seniority-based pay system worked quite well in Japan. The shortening of the knowledge lifespan, however, undermines these premises. Unlike in the past, employees nowadays will not be able to train and gain new knowledge in their jobs and build up their careers throughout their entire working years in a single company. This is because though companies cannot afford to train all their employees by themselves any more, they still need to have employees with the necessary expertise to take advantage of business opportunities.

How to manage knowledge selection, including personnel management, will be the key to survival for companies, when corporate competency shifts from stable business contacts to the quality of their offers, and when the value of knowledge, which is the foundation of products and services, is becoming more and more short-lived.

As will be seen in Part 2, Chapter 4, work-sharing can be an effective way to operate knowledge selection smoothly. Work-sharing questions the conventional balance of responsibility between management and employees, as well as the value systems that have formed the employment system in Japan (such as lifetime employment), and heightens our awareness of “career lifespan”.

In the following chapters, we will focus on knowledge transfer, and discuss the effect of knowledge selection on companies and employees in an organization “that attempts to gain benefits from knowledge”. Knowledge transfer and the benefits from knowledge have previously been considered uncertain, and knowledge selection risk has not been given much attention. The shortening of knowledge value lifespan will change all that. It will also have a profound impact on companies’ employment policies and employees’ strategies for gaining knowledge. We will then discuss the social basis, such as work-sharing and the personnel supply derivative business, in order to deal with knowledge selection risk.

The structure of this book is as follows:

Part 1: The End of Knowledge Stock and the Emerging Knowledge Selection Risk.

In Part 1, the changing environment will be discussed, with the focus on knowledge.

In Chapters 1 and 2, we will delineate the definition of knowledge in various fields, and come to a comprehensive definition of knowledge. We will also demonstrate that in order to keep utilizing knowledge in a society, we need a system to train and maintain practitioners of knowledge, which will cost money and time to establish.

In Chapter 3, we will show that there is a lifespan for the value of knowledge, which has been shortening in recent years. It will

be discussed that this shortening of knowledge lifespan will force selection of knowledge on companies and employees, and that this selection will involve risk: the risk of not being able to gain new knowledge, or of not being able to gain the expected benefit even if that knowledge is successfully gained.

In Chapter 4, it will be discussed that when knowledge lifespan is shortening, companies will find it difficult to maintain a lifetime employment system and to support various costs pertaining to knowledge selection. Also, controlling knowledge selection risk will be crucial, since employees will have to select knowledge by themselves.

Part 2: How to Manage Knowledge Selection Risk.

In Part 2, the infrastructures necessary to manage knowledge selection risk and ways to adjust the exposure to risk by the entire society will be discussed.

In Chapter 1, we will point to problems that society will have to face as knowledge selection risk manifests itself.

From Chapters 2 to 5, we will introduce specific examples of how to induce knowledge to become visible, how to match-make knowledge demand, how to secure the time that knowledge transfer takes, and how to enhance the efficiency of knowledge transfer. On the basis of such ingredients, it is possible for us to depict the framework of knowledge selection society (Chapter 6), as shown in Figure 26.

In the Epilogue, we will present the summary.

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