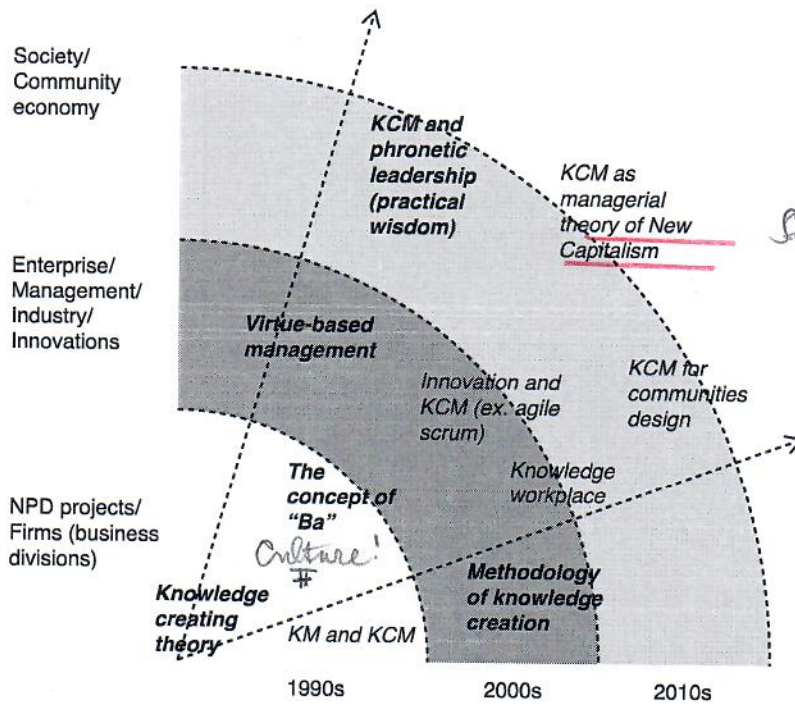


analysis – has come to the end of its tether. In fact, it has become quite difficult for us to reach the right answer, in today's uncertain and complex business environment. This is not surprising, because we are unable to predict unexpected consequences of circumstances from the past data on which the analysis is based. Another consideration is that we cannot develop an effective strategy against volatile and unexpected rivals, with a one-solution-fits-all approach. For the same reasons, design thinking, thinking based on hypothesis, and the prototyping approach is now gaining attention (Konno, 2009).

in many of the unexpected

step

KCM must supplant the existing industrial social model as the foundation of the new globally networked/holistic society and economy. It should be perceived as an ecosystem in which there are many players and therefore many relationships among customers, partners, workers and other competitive firms. The players and relationships must be treated fairly and equitably. KCM is now a model for such an era (see Figure 11.1.)



Social Organization

Figure 11.1 The 'Evolution' of KC theory and KCM
Source: The author.

Hayek: viewpoints on innovation and community

Hayek (Frederich A. Hayek) was one who introduced the notion of tacit knowledge to the study of economics. He used this concept, originally proposed by Michael Polanyi, to explain market characteristics. He also distinguished the two major types of knowledge as scientific/digital and subjective/analog. Hayek and M. Polanyi knew each other and although they eventually followed different paths, Polanyi influenced Hayek. Explicit knowledge is recognized by the brain and is logically based on general and scientific rules. Tacit knowledge is experienced through the body; it is emotional and subjectively associated with space, time and people. These two types of knowledge can be compared to digital and analogue; one recognized by the brain and the other by the body. True meaning occurs when these two forms of knowledge commingle and complement each other. The market should also be conceived as an ecosystem, an organic system, created by the complex interaction of tacit and explicit knowledge.

For Hayek, the market is comprised of individuals who discover the new knowledge. We can say it is based on 'ba' relationship. It means that people who throw themselves into the market, an ecosystem of knowledge, can develop the new economic values. Here people share, discover and create knowledge more actively and subjectively.

Hayek's theory is of course related to the innovation theory of Joseph A. Schumpeter. The group of scholars from the same Austrian institute, for instance, Israel M. Kirzner also believed the market process to be the discovery method of entrepreneurs. Entrepreneurs indeed discover the new knowledge, yet they face individual limits. Therefore, the systematic discovery process and the organized process of knowledge creation by firms, creating explicit knowledge from tacit knowledge, are important and necessary.

However, the process of knowledge discovery is divergent and indeterminate, too dynamic and not predictable. It is difficult to assume the goal since there are many uncertainties and possible outcomes. The effectiveness of market analysis based on past data (information) is also weak. It suffers additionally because the market is always influenced by subjective and non-rational motives. Economic experts cannot predict decisions, creations or choices of any individual player. The market is created by subjectivity and uncertainty. When we think of the market environment from this perspective, we cannot formulate a strategy. In the common discourse of economics, the well-planned competitive strategy is the driving idea, and it is based on the effective distribution of capital in a certain market brought about through free and open competition. If the economic authorities know and calculate all economic information, the market would be an effective system for creating wealth. Yet, it does not sound realistic. In the era in which we now find ourselves, matters based on data or facts (explicit knowledge) are not always realistic, valid or accessible to all. It is here that we can reposition

knowledge creation theory and offer the SECI model for societal knowledge discovery and as an innovation process.

Creating knowledge transforms all the participants; the individuals, groups, customers and organizations, on both the tacit and explicit level. It is an inter-subjective experience. Through that process, the quality and the quantity of knowledge grow and develop. There is no meaning in debating which is more useful, explicit or tacit knowledge. The dynamic process is important; how we elicit tacit knowledge, transform it to explicit knowledge and use it efficiently. There are four mutual interactions between explicit and tacit knowledge that comprise the SECI model. They are:

- (1) F
- (2) K
- (4) M
- (2) E

- Socialization: the process learning new tacit knowledge from existing tacit knowledge. It is a beginning of the discovery process of knowledge from the 'unknown'.
- Externalization: the process learning explicit knowledge from tacit knowledge. Sharing and interacting experiences with customers, partners and colleagues. It is the process of the newly created knowledge.
- Combination: the process learning new explicit knowledge from existing explicit knowledge. It is to systemize ideas into concepts, prototypes or business models, etc.
- Internalization: the process learning explicit knowledge from tacit knowledge. It means to test prototypical ideas again with customers and partners.

modellierung
Meta-Knowledge

It is possible to start from any point or process. However, we think that starting from socialization is the most effective.

The source of value lies in differences produced by knowledge creation or by innovation. A firm can survive only when it has the sensitivity to detect changes in an uncertain business environment, and to create and offer knowledge that achieves customer value based on an in-depth understanding (not just analysis) of the human and society.

To understand innovation as a discovery process from the perspective of the market and society it is best to think of the analogy of reverse engineering, in our case, reverse innovation. Grass roots innovation occurs from the demand side rather than the supply side. The SECI model outlines this process and the application or design complements the SECI model. Demand-side innovation ultimately seeks the common good.

The common good implies 'cooperation' and 'interdependency' not 'competition' among all players in the market and society. Therefore, KCM and management of ecological and green organizations share the common need for cooperation in order to survive, to be viable. This philosophical and operational approach stands in bold contrast to the prevailing business model based on competition and strategic management for advantage. During their long-term and in-depth research Nonaka and others realized

explorative vs
action

Unschicklich!
Erlernen!

and developed the concepts of virtue-based management. Not coincidentally, their work has produced an underlying business management precept known as phronesis, i.e., practical wisdom.

Management theory of 'ba'

It is unrealistic to conceive of the market as a structure solely created by competitors and rivals. The market consists of the whole environment in which the organization exists. What if we think this way? What if the market is conceived as an ecosystem created by groups of 'ba' where various knowledge is related. Firms also comprise part of the structure of that ecosystem. They create knowledge, a resource, while continually relating to other organizations, groups and individuals, and transform it, which adds to its economic value.

KCM differs from existing approaches of management style and strategy which believe that competitive strength and pursuing larger sales are the top priorities. Creating and nurturing knowledge needs 'ba'; the practical environment, where individuals from organizations can share their embodied knowledge, collect the various knowledge and transform it from the subjective to the objective. From such 'ba', co-emergence occurs while maintaining equilibrium among the social and economic factors.

The definition of 'ba' is a shared dynamic context and meaningful space. Originally, 'ba' was understood to be one of the important Japanese management parameters, but it was used mainly in the context of the working site of the organization, with the emphasis on positive points highlighting a tight and structured working place or the importance of the working field. 'Ba' in this paper, on the other hand, has a different point of view. 'Ba' offers a multi channel holistic approach to management. It is not a 'one way' linear model.

It is here where relationships and co-creation of knowledge exists and the I-and-you relationship of collaborative action and leadership emerges. 'Ba' comprises a couple of layers; physical stage (office space), social stage (care and trust), strategic stage (firm's strategy and organization), recognition stage (shared intelligent approach, thoughts) and the information system (environment stage).

'Ba' is place, not space. The concept of 'ba' is pretty old. In Japanese culture, it has been a bit abstract and relegated to specific places and situations. 'Place-ness' is about relationship with meanings, and contexts or inter-subjectivity. Physics and mathematics of the 19th and 20th century laid the foundation for the industrial production space. And Taylor's time studies supported the early mechanistic approach to western management. Hopefully, the incorporation or embodiment of the five dimensions of 'ba' will create the fundament for the structure and process of 21st century organizations.

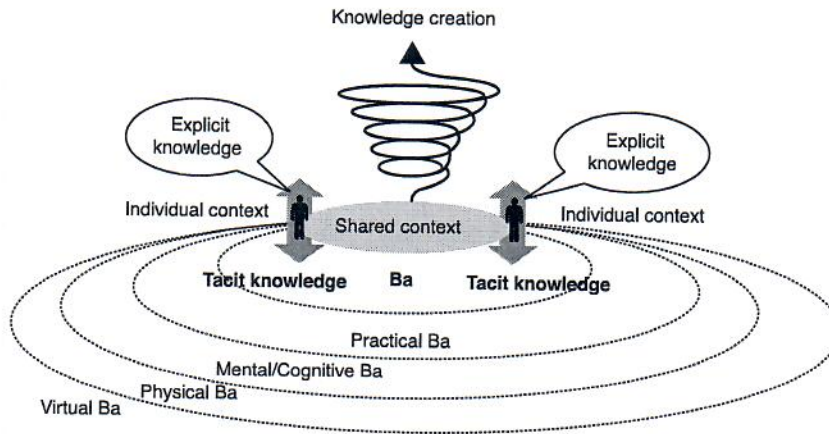


Figure 11.2 The concept of 'Ba'

Source: The author.

Sharing tacit knowledge and context is essential. The context is 'ba' itself. It is a dynamic context shared by knowledge workers, clients and all related persons. 'Ba' in the workplace constitutes more than just the physical space. It includes the whole system including office facility, atmosphere, IT network and shared culture in a designated space. Innovation, and therefore knowledge creation is integrally connected to the concept of 'ba'. Knowledge creation does not happen in a vacuum (see Figure 11.2).

As an intellectual construct, 'ba' has recently been cited in academic research discussing 'boundary object' (Star & Griesemer, 1989). Proponents claim that 'ba' exists in multiple situations and dimensions. 'Ba' is the interface between cultures, organizations, regions, communities and their general and local systems. 'Ba' facilitates open 'boundaries'.

A 'boundary object' refers to words and symbols (perhaps even items) existing in boundaries between different communities or systems. It functions as a bridge or interface between communities and can even create new communities. For example, two sections which have poor communication with each other, can connect and create a community by sharing boundary objects: the key words, concepts and symbols which both sides can commonly understand. 'Ba' can be understood as the place where boundary objects are created, inversely, 'ba' or a knowledge community, can be created by boundary objects. A Cartesian image might place Ba as the ordinate and boundary objects as the abscissa.

In order to change such limiting situations, it is essential that the borders be purposely crossed in order to allow for creative activity between actors on

other sides of the borders. It is necessary to have some sort of media, which exists between the actual and the symbolic objects as well as arrangements which facilitate creative and mutual activities that will naturally open the boundaries between systems, organizations and different circumstances.

Commonly shared objects/concepts are created in 'ba'. The design then creates visual, physical and abstract boundary objects as an effective application. Creating knowledge by using the box design is now a fairly common practice. Currently there are innovative trial spaces in some urban environments such as 'future centre living', 'Labo' and so on. These offer excellent examples of 'ba' and boundary objects that surface and facilitate connections between organizations and firms. The new knowledge created in such situations makes the knowledge of all the organizations involved stronger.

'Future centre' is the place ('ba'), where organizations like firms, government and autonomies cooperate with each other. They broadly gather various types of people, discover new ideas and solutions through dialogue and create new knowledge by interactive collaboration. It is composed of lecture space, learning space, meeting space and so on. It is precisely the 'boundary object'. 'Ba' between firms and organizations are connected, and therefore the new knowledge is created to make organization knowledge firmer.

People who create boundary objects tend to be multidisciplinary type actors, who belong to several communities, and leaders with broad and diverse viewpoints. The natural tendency, for an individual, group, organization or institution, is to erect a border to protect its security and to foster, nurture and develop its own specialized knowledge. Boundary objects and their creators break these walls.

The interest in 'ba' inevitably leads to that of workplace. Connections between different 'ba's can be created among individuals, organizations, firms, local areas and societies. They are able to grow to national levels and even on a global scale. In the future, firms and organizations will have to consider their management in the broader network for creating new relationships. A simple example is when an organization decides to change from the traditional business model to one of innovation and knowledge creation. Sections, teams, corporate structure and strategy, essentially the whole organizational system, must also change. In such a management situation or approach requires social capital, and social resource support such as that embodied in the concept of Ba (see the following note). Consequently, the design of boundary objects that cross system borders are a very important factor (see Figure 11.3).

The Knowledge Leadership Institute at Tama University had a study group for 'Architecture of "ba"'. According to their research, interviewed executive officers of leading corporations imagine 'ba' as five aspects shown in the following discussion (the Study group interviewed current and former executive officers and analyzed by text mining). It indicates that no one believes

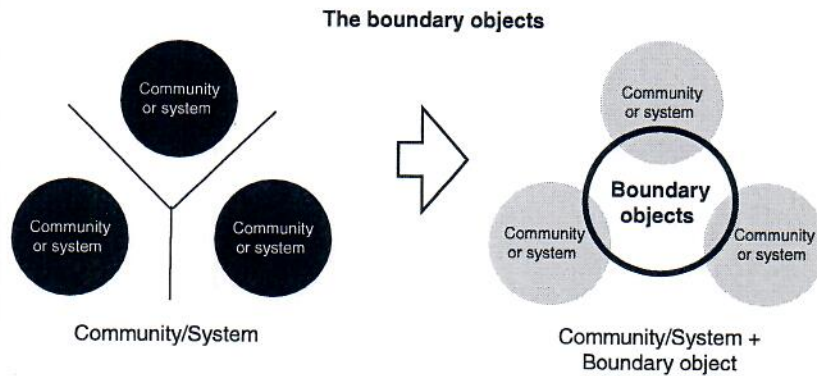


Figure 11.3 'Ba' as the boundary objects

Note: 'Ba' and the Concept of Organizations.

Source: The author.

that the office should be a conventional functional facility. They think that it should be a platform for stimulating and activating knowledge assets. The knowledge assets in an organization is invisible and waiting, as in 'Capital in Waiting' (Edvinsson, 2004).

- (1) ['Ba' = organization] as an =open relationship:
 - It promotes diversity (combination of diversified knowledge) and nurtures people's relationships.
 - Ex) Office environment where workers transact and interact while pursuing different functions and tasks, and create dialogue. Core office unifying functions. Space where workers can gather.
- (2) ['Ba' = organization] as the context for sharing values:
 - Communication with the outside is more developed. Individuals who share the firm's visions and social network connect with each other and create new values. Organizations act as the interface for the individual with corresponding societies or groups.
 - Ex) Organization or office as a part of the society, where clients and partners can communicate with workers.
- (3) ['Ba' = organization] as the business model platform: Top managers realize the organization = 'ba' as the business platform to embody their business model.
 - Ex) Office and IT environment reflecting the business model
- (4) ['Ba' = organization] as the information space:
 - Organization includes the information space. It develops while expanding the information system and the knowledge worker's power for creating new knowledge.

- Ex) All workers are connected by IT networks and are always able to create knowledge. The organization is supported by system sharing and by utilizing information.
- (5) ['Ba' = organization] as an organized system for knowledge:
- Conceptualizing organization as 'ba' underpins the navigation and operation of the firm. Developing an atmosphere and environment where knowledge workers can grow based on their companies' philosophy.
 - Ex) Organizations advance through cultural and flexible strategies which can vary depending on sections and projects, not simply on the firm's fixed structure. The organization's philosophy encourages and empowers workers to work more flexibly in each of their projects. Project management system/Intellectual management system.

Capla (2002), the physicist, recently wrote in 'The Hidden Connections' that knowledge management should possess a human and dynamic component, while focusing both on group knowledge and social factors (not fixed tangible assets or capital). He also pointed out that the global interest in innovation and new desires are buried, hidden and ensconced in such knowledge. There certainly is a hidden connection. We have to realize that our society and economy have been changed by these hidden and diverse connections such as the Rhizome idea proposed by Deleuze and Guattari.

From these observations and discussions, it is clear that as organizations and corporations come to realize that knowledge and knowledge creation is the most valuable resource and asset, then it will follow that the management of knowledge will adopt 'ba' as the most essential and important core component to this process.

Conclusion

It is now time to seriously consider KCM for the knowledge ecosystem and to do extensive research on the social dynamics of what I call the knowledge ecology. In other words, it is time for research on the interacting variables of an ecosystem of knowledge creation and to utilize this knowledge asset in enterprises and the society.

Through the application of this knowledge asset the mutual interests of people will emerge in Ba as a nexus of subsystems and shared context, a matrix of relationships.

From this perspective or viewpoint, the business model and organization should be viewed as the medium or conduit for creating and supporting the knowledge ecosystem.

Apple has been an excellent example of an applied 'knowledge ecosystem'. After Steve Jobs returned to Apple they were able to create a multifaceted

(bound up "knowledge")

of ecosystems of innovation

8 B

→ ecosystem of innovation
↳ of other projects!

T

8

8

8

platform through their iOS, iTunes, Apple Store and so on. Their primary focus was not just the actual device but to create and prepare a common base so that users and partners could find and share common values, interests, experiences and business opportunities that were fun for the creators and the consumer. This type of vision was lacking in Japanese firms as well as companies like Nokia who suffered from Apple's approach.

→

8

In hindsight, we can see that many Japanese companies and organizations missed the opportunity to innovate. The most fundamental problem is to change and enrich human experience. Some companies, however, have noticed the need for innovation and are moving forward.

in the way of A.

The most important point of the knowledge ecosystem is to recognize and acknowledge that the inner and outer changes of environments of organizations, which exists on the boundary, are always influencing each other, or the feedback loop. Now and then, a new variable will influence the system and have an impact yet the need for creating a richer and better natural and human world will be stronger. The competitive mentality of businesses has to change; the idea of management versus labour has to end. The revival and support of the communities and the knowledge ecosystem will benefit everyone.

probably

In order to achieve this sort of knowledge ecosystem, we need one more effort to orchestrate 'purposes' reflecting the perspectives of the individual. 'Purpose' will be the key word, especially when people strive to create new value among societies, organizations and customers. This differs from the traditional industrial market model where the focus was to sell products through a hierarchical system; basically, a push down approach or supply-side logic.

▷

The most salient feature of 'purpose engineering' or orchestration of purposes proposed by the author is to focus on human-like subjective matters of organizational members and participants as opposed to the organizational structure itself or its system.

Apple?

business

The author suggests that there are two different approaches to achieving an outcome or goal. The first is where a grand planner or group conceives and lists the steps or tasks that he/she or they believe will reach the goal; anonymous labour resources are aligned like cogs in a gear.

value of goal

i)

The other approach is to let all the participants, the actors, contribute their ideas to achieving the goal; their ideas reflect their motivations, that is, their purpose in achieving the goal. Labour and efficiency is maximized in this way. This orchestration of purposes is necessary when confronted by a large challenge or innovative problems.

Team at Belam

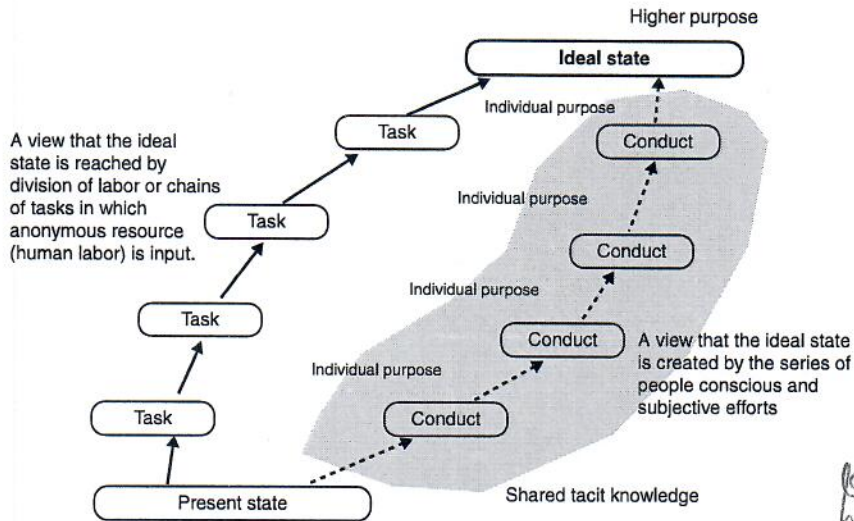
ij)

Based on this theory, outputs are the consequence of linked actions emanating from the will of the individuals. This is in contrast to automated and systematic functions. Moreover, the theory of purpose engineering is to make people happy, not to protect organizations.

of AI-approaches

?

Belam
Illustration
as example
but context...



Zweck vs Ziel

Die Baugruppe als Superintention vs was ist das!

Figure 11.4 Purpose engineering: two paths toward the ideal state
Source: The author.

'Purpose Engineering' orchestrates the 'purpose clusters' for the common good of the society, the enterprise purposes and the individuals. It is to make purposes the 'engines' of change (see Figure 11.4). Because organizations are human creations they should resemble human beings and their nature. Organizations will be reconceived from the perspective of the knowledge ecosystem. This system will create things through a collective or aggregation of desires and actions of the individuals. The basic idea is closer in philosophy to the study of human science than it is to management.

Netzwerke? How?!

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BA

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