

Knowledge-based management and the sustainability of firms

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Abstract :

Knowledge has been long considered a significant resource of business management. The organizations and firms can ensure their sustainable development only by effectively managing, harnessing and also creating their knowledge resources. Knowledge-based management theory developed by Nonaka explains and analyses the process of knowledge creation in a firm or an organization. The theory has been highly appreciated worldwide and proved to be an effective model for Asian countries. Many studies have shown the success application of this theory in Japanese firms and in firms of some other Asian countries. The success of those firms rooted from the ability to enable the spiral of knowledge creation, and by this flow, the firms can ensure its sustainable development. This paper's objective is to provide an insight into the link between knowledge-based management and the sustainable development of firms by analysing the success of some Japanese as well as Vietnamese companies. The paper found that, knowledge-based management is a good way for firms and organizations to enhance their positions in the competitive markets and to ensure their sustainable development in the future.

Keywords : Knowledge based management, Nonaka, sustainability, firms.

1. Introduction

Knowledge-based management theory developed by Nonaka is a relatively new theory, however, it has been highly appreciated worldwide and proved to be an effective model for Asian countries. The theory rooted from the culture of almost all Asian countries, where high-context culture dominates, and synthesizes Asian traditions with Western management theories. It seems that knowledge-based management is quite close to sustainable management, since knowledge is vital for any firm that strive for long-term development. If the firms can enable the spiral of knowledge creation, they

can ensure its long-term development. Although many studies have shown the success application of knowledge-based management theory in Asian firms, the link between knowledge-based management and the sustainable development of firms has yet to be studied. This paper, therefore, will analyse the success of some Japanese as well as Vietnamese companies to fill in this gap. The paper aims at addressing the following questions:

- What are the contributions of each component of knowledge creating firm to the firm sustainability?

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- How a knowledge creating firm can achieve sustainability?
- Is knowledge-based management a good way to achieve firm sustainability?

In the following section, the study will provide brief concepts of knowledge-based management theory and corporate sustainability. The third part then analyze the cases and the fourth part comes up with the conclusion.

2. Theoretical Framework

2.1. Knowledge-based management theory

Knowledge has become extremely important factor of resources of the modern knowledge-based economies, beside the traditional resources, namely land, capital and labor (Drucker, 1993). Firstly, knowledge management was realized in the form of investment on research and development (R&D) activities (Mansfield, 1968). Gradually, knowledge management theories have been developed, of which knowledge-based management theory, developed by Nonaka in 1990s, is a relatively new theory in the field of management. The theory provides an insight into the knowledge-creating process, specifically the process in which an organization creates and utilizes knowledge.

The theory found that knowledge is created and transformed from tacit knowledge to explicit knowledge through a SECI (Socialization, Externalization, Combination and Internalization) process (Nonaka, 1994; Nonaka and Takeuchi, 1995). SECI model explains the knowledge creation by “continuous process of conversion between subjective, tacit knowledge and objective, explicit knowledge” (Nonaka and Toyama, 2000a).

The SECI process can start at the Socialization stage, where tacit knowledge created and shared through day-to-day social interaction. Then at the Externalization stage, tacit knowledge becomes explicit in the form of concepts, images, models, written documents or other expressions, which are

created and exchanged within a group. Through the Combination stage, explicit knowledge in different forms is collected from many sources and combined, edited or even processed to become a more complex and systematic set of explicit knowledge. This complex and systematic form of tacit knowledge is then disseminated among the members of the organization. At this stage, it should be applied in practical situation so that it can be converted and internalized as embodied and tacit knowledge of individual. This last stage, therefore, has the name Internalization process. Knowledge then continues its spiral of knowledge creation by the conversion of tacit and explicit knowledge following other SECI process.

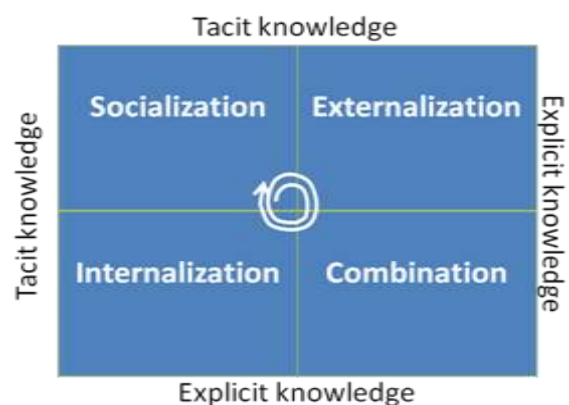


Figure 1 - SECI process (adapted from Nonaka et al., 2008)

In order to enable the SECI process in a firm, the firm should be a knowledge-creating entity (Nonaka et al., 2000b) or organization’s collective strengths should be utilized (Teece, 2007). Knowledge-creating entity/firm requires seven components, namely knowledge vision, driving objectives, dialogue, practice, ba, knowledge assets and environment/eco-system of knowledge (Nonaka and Toyama, 2005).

Knowledge vision and Driving objective

Knowledge vision and driving objectives give the directions for the knowledge creating process of the

organizations. Knowledge vision defined the kind of future that the firm imagines for itself or the overall goal of the firm in the long run (Nonaka et al, 2008). Driving objectives are the concrete concepts, goals or mission standards that help the firm to realize its vision.

Ba, dialogues and practices

As defined in Professor Nonaka's theory, "ba" is the point where dialectical dialogues and practices take place to implement the vision and the objective of the project (Nonaka et al, 2000a). Dialogues are the synthesis of thought and practices are the synthesis of action, which are conducted in "ba" to enable the SECI process of knowledge creation. "Ba" includes organizational structure of the organization itself and other shared-base and gatherings such as meetings, circulation of information, public-private relations and so on.

Knowledge assets

Knowledge assets include the knowledge already created, such as technologies, training material; and organizational capability to innovate, such as pattern, way of doing things, manuals of procedures. Knowledge assets are the outputs of a SECI process then are the inputs of further SECI-knowledge creating process.

Ecosystem of knowledge

The last component of the knowledge-creating entity is environment or ecosystem of knowledge, which is constituted of multilayered "ba" existing across organizational boundaries. In a knowledge-creating entity, ecosystem of knowledge plays an important role.

2.2. Corporate sustainability

The concept "sustainable development" has become popular over the last decades. As defined in United Nations 2005 World Summit Outcome Document,

Sustainable development has three "*interdependent and mutually reinforcing pillars*", which are economic development, social development and environmental protection (WHO, 2005). These three aspects of sustainable development should not be considered separately but should be studied as constituent parts forming sustainable development at their confluence (Adams, 2006).

Sustainable development is not only the concern of countries in the world but is also the main concern of firms (Welford, 2000). The definition of corporate/firm sustainability has the same dimensions, which are economic sustainability, environmental and social sustainability (Figure 2).

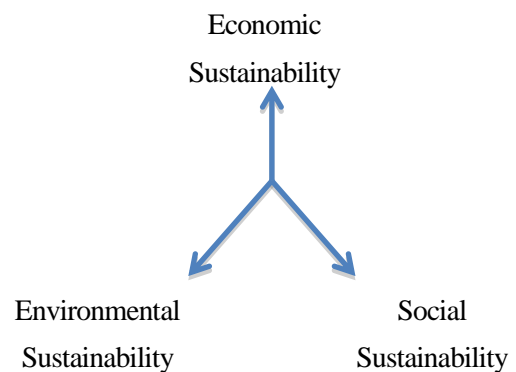


Figure 2. Three dimensions of corporate sustainability

(Adapted from Dyllick and Hokerts, 2002)

Dyllick and Hokerts, 2002 has pointed out that, in order to achieve sustainable development, the firm should integrate three dimensions of sustainability in a "triple-bottom line", which are inter-related and should be simultaneously satisfied. Sustainability also requires integrating short term and long-term aspects of development. The last requirement for firm sustainability is consuming the income, not the capital. The capital here is defined as not only economic capital but also natural and social capital.

3. Main findings

3.1. Vision, driving objectives and firm sustainability

As vision is the image in the future that the firm wants to create, it reflects the firm's value of truth, goodness and beauty. A good vision and driving objectives that can be shared between all employees will motivate and contribute to the firm's long-term development.

Eisai Co. Ltd is a Japanese mid-size pharmaceutical firm, which is innovative and globally competitive. Eisai's success was rooted from its philosophy and human-centered management.

The firm stated its mission as "Commitment to Innovation": the firm considered patients and their families as the most important participants in the health-care process, and the firm does its best for the benefits of these participants. Eisai, therefore, set its vision as a "human health care" (*hhc*) organization focusing on the patients and their families (Nonaka et al., 2008). Eisai's vision reflects its social obligation: do the best for the patients. All of the driving objectives of Eisai are set to realize the *hhc* vision rather than to increase sales, market share or profits. However, the results that Eisai received were higher market share and higher profits. All employees of Eisai understand and follow the vision of the company in their daily jobs. Innovations, therefore, are made for the final objective of satisfying customers-patients.

Sannam group, Vietnam was founded in 1994 with the core products such as food, drink, machinery and industrial equipment. Sannam has grown from a small company with 5 staff in 1994 to a group of more than 200 staffs working in 13 member companies in 2010. Sannam is a relatively young successful company in Vietnam. Its success is reflected in the unique products, technological development process and good business strategy.

Long term business strategy of Sannam is driven by the company's two philosophical principles, which are "Innovative in Business" and "Friendly in Life". These two principles are inter-related and combined to reach

the objective of the company to emphasize and encourage R&D innovation at every level of production to provide customers with green products that are friendly with nature and customers.

This vision of Sannam incorporates its corporate social responsibility, trying to achieve both social sustainability and environmental sustainability. One typical activity of Sannam is to encourage R&D innovations to find new kind of vegetables and dried foods for human consumption to provide consumers with reliably safe and clean vegetables and dried food. This activity has resulted in many kinds of new brands of Sannam, which quickly became popular in Vietnamese market. One evidence of the R&D innovation and friendly-in-life product is the development of the product Nuitan Apricot Liquor, which is made by fresh apricots, that are found to be rich in many useful vitamins and minerals (JICA, 2011).

Eisai's vision includes two important dimension of sustainable development, namely social sustainability and economic sustainability. Sannam's vision includes all dimensions of sustainability. These successful stories show that a good vision of a company should not focus on economic indicators such as market share, sales and profits but should look forward to a longer term of development – the value of the common good. Sales and profits, though not the goals, will be the results of the process to realize the firm's long-term vision.

3.2. Dialogue and Practice in "Ba"

Seven-eleven Japan set up its first store in 1974, under the license of The Southland Corporation from the USA. Although Seven-eleven was originated from the USA, Seven-eleven Japan Co., Ltd has to establish itself in Japanese market, which is quite different with the US market. Among the retail store companies in Japan, Seven-eleven has proved to be the most

successful one. In 2007, its profits-to-sales ratio was 32%, much higher than that of its competitors Lawson and Family Mart, which are 17% and 14%, respectively (JICA, 2009).

The success of Seven-eleven was rooted from its ability to enable the knowledge dialogue and practice in different forms of “ba”. The “ba” of Seven-eleven includes managers meetings, the business reforms meetings, the fields counselors meetings, field counselors visits to the stores, store-staffs meetings and especially, its point-of-sale (POS) information system.

Field counselors’ visits to store are important link between stores and headquarters. Each field counselor is assigned eight to ten stores and has to visit each store twice a week. The field counselors not only give the stores managerial guidance such as ordering, policies, sale campaigns, new products, but also introduce successful experiences of other stores, provide technical and other support to the store management.

POS is confirmed to be one important factor contributing to Seven-eleven’s success. This system can be considered a good “ba” of information gathering and sharing. The local staffs participate in this system by their daily observations of local customers behaviors, then build the hypothesis for the demand, trial-and-error analyze this demand. The information then collected to higher level and converted into new marketing ideas. This kind of “ba” enables the contribution of every employee as well as facilitates the spiral of knowledge creation in the company.

Gami group was established in 1993 in Vietnam, and now has been developing rapidly to become a business group operating in three main business sectors including trade, land and franchise. The Board of Directors of Gami group created many different forms of “ba”, where the knowledge creation process (SECI) takes place. These ba was under the forms of meetings,

picnics, conferences, learning courses, festivals and so on (JICA, 2011).

The learning forums are typical “ba” of Gami group. It is a place for all Gami group’s members to exchange their knowledge and professional experiences. This is a good “ba” for knowledge creation, where the SECI process is facilitated.

The meetings of the operating council of Gami group, which are organized every month, are also the successful ba of Gami group. At these meetings, all people of council will discuss and assess the business activities and then draw out experiences and to give solutions for the difficulties arisen. The participants of general conferences of the operating council include the leaders of Gami group, executive directors of subsidiary companies and the middle – managers. At the meetings, participants freely express their opinions related to the operation, schedules as well as strategy of Gami group.

Seven-eleven and Gami cases prove the importance of creating and energizing “ba” in any knowledge-creating entity. These “ba” ensure the participation of all the members of the organization into its operation and management, thus ensures the long-term development of the organization. Furthermore, “ba” is an enabling context for knowledge creation, thus facilitating good “ba” will help the organization accumulate more and more knowledge, which is vital for sustainable development as well.

3.3. Knowledge assets

In this section, we would like to analyze two successful cases of utilizing knowledge assets, which are YKK Corporation, Japan and Alphannam Group, Vietnam.

YKK is a world leading fastener company, with accounts for 45% of the world market share of fasteners in 2007 (Nonaka et al., 2008). The important reasons for YKK’s success are its ability to effectively

processing dynamic knowledge assets, namely the cumulative technologies, human resources of the Machinery and Engineering group and the practice of listening to the customers. YKK ensures high quality of all of its products because all of the production machines were produced by YKK itself. The cumulative technologies and innovations of YKK were achieved by superior human resources. They work and share their knowledge continuously in everyday job for further improvement of the products. All of the improvements made are for the benefits of the customers. All of the YKK's employees understand the philosophy "customer first" and continuously pursuit this philosophy in their work.

Alphanam Group was established in 1995 with initial ten staffs. After 17 years of development, Alphanam has become the leading provider in industrial manufacturing and installation, transportation construction and infrastructure development in Vietnam with 1,500 employees (JICA, 2011). Especially, Alphanam is the leading national paint provider in Vietnam.

Alphanam's success is originated from its ability to encourage knowledge assets creation within the corporation. The leaders of Alphanam pay great attention on the Research and Development (R&D) Department, with the task of searching ways to improve current products and services, researching and developing new products and services. The R&D policy gives the rights of free creativeness to every employee. Tacit knowledge and experience of employees, therefore, are effectively utilized to create new technologies and products. The leaders of the Corporation view that failed experiments are not failures but are the lessons for future innovations. With this kind of encouragement, Alphanam's employees have made number of technical innovations, which can be effectively applied in manufacturing, reducing manufacturing expenses and increasing labor

productivity.

Above two cases shows the experiences of firms to facilitate tacit knowledge sharing in the firms to enable further creation of dynamic knowledge assets. These knowledge assets will not only benefit the firms in the short term by reducing expenses and increasing labor productivity but also in the long run by accumulating technologies, building superior human resources for the future development.

4. Conclusion

As the Nonaka's theory argues, any knowledge creating entity should have seven components: knowledge vision, driving objectives, dialogues, practices, "ba", knowledge assets and ecosystem of knowledge. Each component plays important role in the success of knowledge-creating firms. The study has shown contribution of each component to the sustainable development of firms. Vision and driving objectives can lead the firm to long-term success only if they convey the social and/or environmental dimensions of sustainability besides the dimension of economic sustainability. "Ba", dialogue and practice ensure the participation of all the members of the organization into its knowledge creating process, thus ensures the long-term development of the organization. Furthermore, "ba" is an enabling context for knowledge creation, thus facilitating good "ba" will help the organization accumulate more and more knowledge assets, which are vital for sustainable development as well.

In conclusion, the analysis of this study shows that knowledge-based management is a good way, driving firms and organizations to sustainability. This confirmation leads to suggestions of further studies on the application of knowledge-based management in the context of Vietnam, since Nonaka's theory is still not thoroughly understood in Vietnam.

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