

KNOWLEDGE CREATION AND GREEN ENTREPRENEURSHIP: A STUDY OF TWO VIETNAMESE GREEN FIRMS

Nguyen Ngoc Thang^{1*}, Truong Quang² and Nguyen Hong Son³

^{1,3} *University of Economics and Business
Vietnam National University, 144 Xuan Thuy, Hanoi, Vietnam*

² *Maastricht School of Management
P.O. Box 1203, 6201 BE Maastricht, the Netherlands*

*Corresponding author: thangnn@vnu.edu.vn

ABSTRACT

This paper aims to advance the understanding and practice of knowledge-based management in Vietnam by studying two Vietnamese agricultural companies. It provides illustrative examples of how knowledge-based management, pursuing a vision that fosters creativity and innovation by employees, could ultimately fulfil the profitability objective of the business and at the same time add value to the community's quality of life. Using the SECI model as the parameter for analysis, we found that knowledge creation processes were affected by a combination of leadership, teamwork and Ba, corporate culture, and human resource management. Our conclusion emphasises the need for future research to further examine the practice of knowledge-based management in cross-industry segments in Vietnam and in other countries with similar conditions.

Keywords: Knowledge creation, knowledge-based management, knowledge-creating companies, green entrepreneurship, Vietnam

INTRODUCTION

The success of a company in the 21st century will be determined by the extent to which it creates and utilises knowledge, which is considered to be the most important source of a firm's sustainable competitive advantage (Drucker, 1993; Barney, 1991; Nonaka & Takeuchi, 1995; Grant, 1996; Sveiby, 1997). However, this view still seems far from fully comprehending the process of knowledge creation and knowledge utilisation in organisations. According to Nonaka and Toyama (2002), knowledge creation occurs physically, mentally and/or virtually in interaction and/or in place, which is *Ba* in the Japanese meaning. Hence, an organisational context that favours knowledge creation and subsequent innovation encourages the interpersonal exchange of ideas and experiences and the questioning of established patterns.

However, the work of Nonaka and Toyama (2002) and Nonaka and Takeuchi (1995) is based on the Japanese context, mainly the Japanese technology industry, with a growing emphasis on knowledge creation and transfer in key case companies such as Toyota (Ichijo & Kohlbacher, 2008). Wiig (2004) and McKenzie (2003) have adopted Nonaka and Takeuchi's approaches for application in western contexts. Meanwhile, an increasing number of firms are pursuing knowledge management strategies in emerging countries. Szulanski (2000) suggests that employees, managers and organisations exist within a societal context that is influenced by the underlying society's values regarding knowledge creation and sharing. Thus, many obstacles exist regarding research knowledge management in these countries, which challenges researchers to adapt western and Japanese methods to distinctive or non-western contexts.

According to Hofstede (1980), all countries have something called "management," but its meaning differs from one country to another depending on cultural characteristics. The question is whether researchers, particularly from the West, are able to understand what happens in emerging countries given cultural, historical and economic differences. Management tools applied in developed country contexts to study knowledge sharing may not be applicable or viable when studying knowledge sharing in emerging country contexts. This issue has been partially addressed by the works of Sáenz, Aramburu and Blanco (2012), Suppiah and Sandhu (2011), Chawla and Joshi (2010), Buckley, Clegg and Tan (2006), and Michailova and Husted (2003). These studies explore the influence of the various organisational culture types on knowledge sharing behaviour in organisations in Colombia, Malaysia, India, China and Russia, respectively. Nevertheless, these efforts are still insufficient to describe the situation of emerging economies such as Vietnam, a new business entity in Asia.

The present research is part of an attempt to examine the dynamic process of knowledge creation, its utilisation, and its relation to green entrepreneurship in the Vietnamese context. Accordingly, the theory of knowledge creation through the SECI (Socialisation, Externalisation, Combination and Internalisation) process (Nonaka, 1991; Nonaka & Takeuchi, 1995) and *Ba* (Nonaka, Toyama, & Konno, 2000) was used.

For this research, the case study method is a suitable research strategy to empirically examine the phenomenon in context. The advantage of the case study method increases when the theoretical refinement of a concept, such as knowledge creation, is still in process (Yin, 1994), and it has potential to accurately control for all other factors that may influence knowledge creation and lack of data. The empirical evidence was collected by personal observation through on-site visits and interviews with executives, functional managers, engineers, and workers in both the headquarters and manufacturing plants of

Sannam Food Company (Sannamfood) and Trung Nguyen Coffee Company (Trung Nguyen).

LITERATURE REVIEW

The resource-based view defines a firm as a collection of resources, and it asserts that firms with superior resources will create competitive advantages (Barney, 1992). However, this view fails to explain the dynamism by which a firm continuously builds such resources through interactions with the environment. To achieve competitive sustainability, many companies are launching extensive knowledge management efforts (Gold, Malhotra, & Segars, 2001). However, Wiig (1999) suggests that knowledge management is broad, multi-dimensional and covers most aspects of enterprise activities.

The concept of knowledge is not new and has existed for ages. Various definitions of knowledge exist. According to Dalkir (2007), knowledge management is the deliberate and systematic coordination of an organisation's people, processes, technology, and organisational structure in order to create more value through innovation. Chong and Choi (2005) suggest eleven key components for successful knowledge management implementation, which consist of training, involvement, teamwork, empowerment, top management leadership and commitment, information systems infrastructure, performance measurement, culture, benchmarking, knowledge structure and elimination of organisational constraints. In conclusion, managing knowledge in organisations requires managing (a) knowledge infrastructure consisting of technology, structure, and culture together with knowledge process architecture of acquisition, conversion, application, and protection (Gold et al., 2001); and (b) several knowledge processes (e.g., socialisation, externalisation, combination, and internalisation) (Nonaka & Takeuchi, 1995).

As described by Nonaka and Takeuchi (1995), knowledge creation starts with "Socialisation," which is the process of converting new tacit knowledge through shared experiences in day-to-day social interactions (Nonaka, 1991). The tacit knowledge is made explicit so that it can be shared by others in order to become the basis of new knowledge such as concepts, images, and written documents. In the "Externalisation" stage, individuals use their discursive consciousness and try to rationalise and articulate the world that surrounds them. Explicit knowledge is collected from inside or outside the organisation and then combined, edited, or processed to form more complex and systematic explicit knowledge through the "Combination" process. The new explicit knowledge is then disseminated among the members of the organisation and converted into tacit knowledge by

individuals through the “Internalisation” process. In this stage, knowledge is applied and used in practical situations and becomes the basis for new routines.

Nonaka and Toyama (2002) state that knowledge is created through the synthesis of the contradictions between an organisation’s internal resources and the environment. Thus, a company can combine its internal resources as well as its adjustments to the environment to create new knowledge. To effectuate this combination, the top management plays a crucial role because leadership influences the organisational ability and approach to confronting knowledge related issues. According to Singh (2008), consulting and delegating leadership styles are positively related with knowledge management, whereas directive and supportive leadership styles are negatively associated with knowledge management practices. These differences indicate that human resource management plays an important role in knowledge creation.

The knowledge creation process requires *Ba* (Nonaka, 1991). *Ba* is a continuously created generative mechanism that explains the potentialities and tendencies that either hinder or stimulate knowledge creation activities (Lundvall & Borrás, 1999; Nonaka & von Krogh, 2009). In other words, *Ba* is a phenomenological time and space where knowledge, as ‘a stream of meaning,’ emerges (Bohm, 1996). New knowledge is created out of existing knowledge through the change of meanings and contexts. *Ba* might be working groups, project teams, informal circles, temporary meetings, virtual spaces such as e-mail groups or front-line contact with the customer (Nonaka & Konno, 1998; Watanuki and Kojima, 2007; Kivijarvi, 2008; Rafaeli, Hayat, & Ariel, 2009; Travaile & Hendriks, 2010). Participants of *Ba* contribute their own contexts, and through their interactions with others and the environment, the contexts of *Ba*, the participants, and the environment change (see Figure 2).

While leadership, human resource management and *Ba* play important roles in knowledge creation, culture is another key component that helps the organisation to share knowledge. Mobley and colleagues (2005) observe that each society is underpinned and defined by a distinctive culture and that culture provides guidance to behaviours of groups and individuals in the society. Hence, culture is embedded very deeply in the people of each nation. At the individual level, people are often reluctant to share knowledge, as it is a source of power and status. Therefore, culture plays a primary role in the likelihood that employees will be willing to work together and share their knowledge (Bollinger and Smith, 2001).

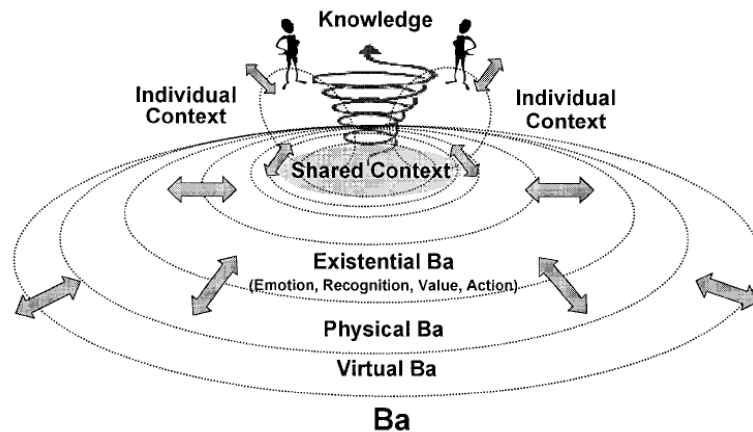


Figure 1. Conceptual representation of Ba

The above literature suggests that several common attributes make a knowledge management initiative a success, including leadership, human resource management, *Ba*, and culture. These components reflect both knowledge infrastructure and processes. In the present study, these components will be used for studying knowledge management in two Vietnamese companies.

RESEARCH METHODOLOGY

Research design

The study takes a case-based approach, using interviews and examining internal and external documents to codify and access knowledge. As Yin (1984) suggests, this approach is considered to be useful in gaining an in-depth, holistic understanding of the phenomenon studied. The case selection criteria required Vietnamese companies that were more likely to have been in the proactive stage of knowledge management, to have had its knowledge sharing practices available for access, and to have systematically linked knowledge sharing with practices to create competitive advantage, as suggested by Ambos and Schlegelmilch (2009) and Zhang (2008). In addition, case companies founded and owned by Vietnamese people were selected to minimise the influence of outside culture and to ensure that the cultural influences were of the prevailing Vietnamese culture. Based on the above criteria, Sannamfood Company and Trung Nguyen Coffee Company were chosen for the perceived relevance of the firms to the study objective.

The study began with preliminary onsite observations in January 2012 in order to gain a better understanding of the organisational structure and the culture in which it functions. The observations also provided us with the effect of the physical layout of the offices as a facilitator or *Ba* of unplanned and planned communication and on the prevailing cultures. At the same time, internal and external documents of these companies were collected to access knowledge management implementation.

Next, on-site interviews were conducted in February 2012 with the owners, CEOs and employees of these companies in order to view the research topic from the perspective of the interviewees and to understand how and why they came to have their particular perspective (King, 2004). An interview guide sheet that grouped topics/key questions was prepared and used as a framework to ensure some standardisation of topics addressed during the interviews (Welman and Kruger, 2001). This qualitative toolkit will help ensure that the topics are expounded upon, that the questions flow naturally, and that the team gains full insight into the knowledge based management model of the selected case companies. All interviews were recorded, and then transcribed and coded. All issues of potential relevance and interest were identified and classified to analyse the knowledge management implementation. A list of the questions in the interview guide sheet is included in Appendix.

Sannamfood Company

The first case company selected for study is Sannamfood, which produces apricot liquor and cultivates fresh forest vegetables. Sannamfood was founded in 1994, and its core products are foods and beverages. The company has grown through active research and development (R&D), with unique product lines, good business strategy and a sound technological development process. The company's strategy is built around a number of core elements: knowledge capital development, R&D, innovation, partnerships with suppliers, direct sales to key customers and pioneering the use of the Internet and e-commerce. Accordingly, Sannamfood has been investing to increase the quantity and quality of its main resources in an effort to build competitiveness in the organic foods and drinks sector. The focus of the company's business has been substantially influenced by the company owner's childhood in a rural area of Vietnam and his love of agricultural products, which many ordinary farmers did not know how to process or maintain post-harvest. His innovative approach also pays off handsomely by creating new equipment to process agricultural products and by selling to customers at the best prices possible through e-commerce.

Products and market: Nuitan apricot wine is produced with 100 percent pure fresh apricot, which is fermented and bottled at Nuitan, Ba Vi, Ha Tay Province. The underlying business philosophy of this product originated from its founder's

belief that drinking apricot liquor is not only good for health, but also represents a certain upholding of Vietnamese moral values. Nuitan mountain was where the first Vietnamese dynasty was proclaimed some 4,000 years ago. Thus, this location represents power and it is a holy symbol of the traditional glory of Vietnamese history, appealing to nationalism. Consumers can drink this wine with ice in the summer and with hot water in the winter and can also use it to make cocktails.

Knowledge integration and management: The knowledge creation process of Nuitan Apricot Liquor was divided into four phases of the SECI model as follows:

Table 1
The knowledge creation process of Nuitan Apricot Liquor

Stage	
Socialisation	Besides being the Chairman of Sannamfood, the owner of this company has been also a guest lecturer at some universities. One of his hobbies is to keep himself continuously updated by reading business books and daily newspapers. By chance, one day he found an interesting article on apricot liquor and was very surprised that the apricot product was expensive and the fruit sourced from Japan.
Externalisation	Knowing that apricot is very popular fruit throughout the world, he decided to invest in apricot product research. He formed a development team including himself, the company's researchers and some technical staff. They found that in the pulp and seeds of apricot, there are many kinds of vitamins, especially Vitamin A, Vitamin C, citric acid and other minerals. These vitamins and acids improve the osmotic balance between cells and blood, stimulate appetite and improve digestion.
Internalisation	After having successfully created the apricot liquor, the R&D team collaborated with other departments in Sannamfood to bottle, package and design the product and develop a marketing strategy to sell the apricot liquor locally and internationally. Nuitan apricot wine was first sold in Vietnam in 2009. The marketing department of Sannamfood introduced the product to visitors at the 2009 Vietnam foods and drinks exhibition in Hanoi, whilst also promoting the product in Nuitan restaurants chain.
Combination	The research team decided to further implement several experiments on growing, processing and fermenting apricot fruit right on their farm in Ba Vi. They analyzed apricot wines from China, Japan, Australia, the USA and France to determine the ingredients in use and assess different flavors. They even failed many fermented experiments, but after each failure, the lessons were carefully noted down and shared among the research team to improve the next experiment.

Table 2
The knowledge creation of Vegiefor vegetables

Stage	
Socialisation	<p>People used invite Chairman of Sannamfood to eat local products while he visited some remote areas in Hoa Binh, Lang Son, Phu Tho, Son La, Lao Cai and Tuyen Quang provinces for his business trips in the years 1998 and 2000. He was really interested in the local forest vegetables because it was very delicious with strange tastes. He was suddenly thinking that the vegetables might be sold to customers in the city for several reasons. Firstly, in order to survive and grow he needs to differentiate his products superior to his competitors. This was met with the first Sannam's philosophical principle - Innovative in Business. Secondly, the nature and clean vegetables are good for customers and society. It fits with the second Sannam's philosophical principle - Friendly in Life.</p>
Externalisation	<p>He took the vegetables to the lab of Sannamfood and analyzed the ingredients in the vegetables. They set up a research team including Chairman of Sannamfood, researchers and technical staff. As a result, they found that the vegetables have high quantities of nutrition compared with the existed vegetables in the supermarkets. In addition, they recognized that the forest vegetables are less affected by insects and diseases. It means that they do not need to spray pesticide when they cultivate and grow the vegetables. As such, Sannamfood will not only save money for growing the vegetables, but also provide natural and clean vegetables for customers and society. This is really a sustainable approach to agriculture production.</p>
Internalisation	<p>As a start, Vegiefor was cultivated in 20ha of Sannamfood farm in Ba Vi. However, the demand of Vegiefor was high, so Sannamfood has been cooperated with local famers in cultivation of Vegiefor. More specifically, Sannamfood invested in equipments, technical skills, and Vegiefor varieties to supply to farmers in the network. Vegiefor vegetables are harvesting, packing, and distributing by Sannamfood through Senmart - an online sales system. Famers concentrated only on cultivation of Vegiefor. Sannamfood and famers also signed the contract on profit allocation for this cooperation.</p>
Combination	<p>The Chairman of Sannamfood then organized and chaired a meeting, including key managers at Sannamfood, such as Research manager, Marketing manager, Sales manager, and Nuitan Restaurant manager, to share his new ideas and discuss about the opportunities to grow and sales forest vegetables to the markets. After the meeting, some technical teams were formed in order to find more forest vegetables. They went to many mountains provinces in search for new forest vegetables. When they collected new forest vegetables, they immediately sent it to lab of the company for ingredient analysis. Sannamfood first introduced its green vegetables at the Nuitan Restaurants of Sannamfood in Hanoi and were surprised with the positive feedback of the customers. At the end, they have chosen about 20 different kinds of forest vegetables to add to its product line to be market on the large scales.</p>

The second product of Sannamfood is Vegiefor, which is a brand series of special vegetables such as Vegie Bang, Vegie Sau Sau, Vegie Tiger Tonge and Vegie Elephants Ears. These vegetables are the result of many years of research, testing and analysis of their nutritional composition. The Vegiefor of Sannamfood has been officially certified fresh, safe and nutritious by the relevant authorities. The detailed knowledge creation of Vegiefor is divided into the four phases of the SECI model as follows:

The research results, the name of each vegetable, and the brand name Vegiefor later became the company's intellectual property. These vegetables are grown and directly packaged at the farm and factory of Sannamfood in Nuitan, Ba Vi District. Approximately 20 tons of Vegiefor are provided to the Nuitan Restaurants of Sannamfood and selected customers per month, and the demand for Vegiefor remains consistently higher than the capacity of the company's farm. The average price of Vegiefor is three times higher than that of high-grade vegetables on the Vietnamese market. Vegiefor is produced according to the hazard analysis and critical control points system, and it avoids middle agents by being delivered from the farm directly to the customer's home. Selling directly to customers helps Sannamfood better understand customer preferences and needs.

Trung Nguyen Coffee Company

The second case company studied is Trung Nguyen Coffee Company, which specialises in coffee cultivation and coffee processing. In 1996, the company was founded in Buon Me Thuot with its core products being coffee and instant coffee. Over time, the company has built a network of more than 1000 company-owned or franchised shops in a number of countries. From its beginning, Trung Nguyen has become the dominant producer of branded gourmet coffee in Vietnam because it has chosen the appropriate niche to serve. All beans for Trung Nguyen's world class production facilities come from contracted growers.

This creative and appropriate strategy has created Trung Nguyen's position as a dominant domestic producer with global aspirations. Trung Nguyen's branded coffees are already present in 43 countries, and the company has earned the nickname "the Starbucks of Asia" for its successful establishment of a chain of more than 1000 coffee shops, as well as a network of distributors throughout the world. Trung Nguyen blends its coffees to provide a range of tastes and caffeine levels as part of the Vietnamese coffee culture, which reflects a wide variety of brands and tastes.

Products and market: At the beginning of the 1990s, most Vietnamese coffee was of low quality and was sold at discounted prices overseas. The CEO of Trung Nguyen believed that high-quality Vietnamese gourmet coffees could be

produced and sold profitably. Accordingly, in the mid-1990s, he launched Trung Nguyen, a coffee manufacturer and cafe chain. In the home market, one of Trung Nguyen’s best known products is “Creative Coffee”, made from varieties of Arabica and Robusta, as well as Se, Chari, Excelsior and Catimor. Creative Coffee products include 5 different types, ranging from Creative 1 to Creative 5. The different types of Creative Coffee are produced according to the different consumer tastes.

Knowledge integration and management: The knowledge creation process of Creative Coffee was divided into the four phases of the SECI model as follows:

Table 3
The knowledge creation process of Creative Coffee

Stage	
Socialisation	At the beginning, the CEO of Trung Nguyen and his friends realized that the highland region of Vietnam is one of the world's best environments for coffee cultivation, combining the right altitudes, soils, natural drying conditions and temperatures. However, Vietnam coffee was of low quality and sold at low price in overseas markets.
Externalisation	The CEO of Trung Nguyen and his friends discussed these issues with their few staff. It was agreed that the best way was to learn from practical experience by referring to similar case studies on the Internet from other countries and foreign companies and take notes of new developments from the newspapers.
Internalisation	The first Trung Nguyen Coffee Shop was opened in Ho Chi Minh City in 1998. The combination of heritage, national culture and values, and modernity is at the heart of the brand, whether in the packaging or the styling of the coffee shops aiming at the emerging middle class as its customer base. At the same time, it formed a supply chain with farmers/growers to ensure the quantity and quality of coffee.
Combination	As the owner of a coffee-processing business, the CEO of Trung Nguyen and his friends could improve the quality of the products, but access to markets remained a key stopper for the company’s growth ambition as it did not own or control efficient distribution network. The answer was to set up a chain of coffee shops, modeled in part on Starbucks that would also sell coffee beans for home consumption with 5 different types of Creative Coffee.

The most specialised product of Trung Nguyen is Weasel Coffee, made from coffee berries that have passed through the digestive tract of a civet cat. Marketing this expensive delicacy, which is harvested only in Southeast Asia, helps identify Trung Nguyen with the Vietnamese coffee culture. Trung Nguyen

has also diversified into decaffeinated and instant coffee production with the G7 product.

ANALYSING THE COMPONENTS OF KNOWLEDGE CREATION

The following analysis brings together the various observations from the data collected and frames them in terms of the selected companies' knowledge infrastructure and processes for managing knowledge. We highlight the strong support of the companies' leaders in the areas of R&D, teamwork and *Ba*, organisational culture, and human resource management for knowledge management.

Support of Leaders for Research and Development (R&D)

The R&D principle is based on the belief that the direct experiences of Sannamfood employees provide them with valuable knowledge to innovate and solve problems. Although an R&D project does not pay for itself in the short term, this type of investment has established its competitiveness based on continuous innovation and high performing staff. At Sannamfood, the staff is motivated, innovative and relatively young. All employees are given opportunities to generate new ideas and participate in R&D projects. Sannamfood also recognises the importance of continual improvement. If a project fails, the effort is analysed to identify the reasons for the failure. To be an innovative company, Sannamfood emphasises the need for new ideas and to facilitate them efficiently and effectively.

At Trung Nguyen, the R&D policy encourages creativity. All employees have the right to freedom and creativity in developing products. Therefore, the tacit knowledge and experiences of employees are leveraged to create new coffee formulas and products. The Board of Directors views failed experiments not as failures, but rather as valuable lessons to be learned for future experiments and creativity.

The combination of state-of-the-art technology together with exotic oriental flavours is Trung Nguyen's secret formula. This secret formula involves the blending of rare medicinal herbs, special sources of energy from gemstones, and other special ingredients. In creating a new coffee concept, Trung Nguyen boasts that it does not regard coffee as a normal drink, but rather as a drink of energy to stimulate brainpower and to be a source of creativity for the drinkers.

Teamwork and *Ba*

In particular, the CEO of Sannamfood emphasises the importance of teamwork and aims to create a supportive working environment in his company, in which

employees learn from one another and work together as a team. In addition, Sannamfood encourages open communication, discussion, feedback, and information sharing at every level of the company. Sannamfood also develops in-house software and information systems to disseminate information via an internal electronic mailing system. The company encourages its staff to send e-mail to one another and to share new ideas and ways to solve problems and reduce costs. To facilitate these goals, the open office landscape and coffee corners bring staff into close contact with one another, developing collegiality and encouraging them to exchange and share information in areas such as food safety and production techniques. This supportive working environment can have great benefits: for example, when the farm manager discovered a new type of vegetable, he could easily discuss his ideas with everyone, even into the evening while they watched television together in the common room.

To promote its image worldwide, Trung Nguyen creates a Coffee Mecca for coffee lovers of the world to converge and immerse themselves in a unique coffee culture. Located in Buon Ma Thuot Province in Vietnam, the Coffee Mecca is an integrated complex of 20,000 square meters consisting of plantations, an R&D centre, a factory, a resort, a spa and a coffee museum. The complex is designed to have the appearance of highland villages of ethnic minority groups in the Central Highlands. Ideally, the complex will serve as the platform for Trung Nguyen's Coffee Philosophy, embodying its ideals, beliefs and ideologies. The museum displays more than 2,000 exhibits of tools used for farming and in the everyday lives of the Central Highlands people in the past. By creating this Coffee Mecca, Trung Nguyen has been creating new businesses through a shared culture context or *Ba* in the firm's relationships with customers that enable continuous creation of knowledge throughout the interaction between the organisation and the community in which it conducts business.

Corporate Culture

The founder of the company, Trung Nguyen understands that successful innovation requires a strong organisational culture and attempts to create a culture of innovation, risk taking, openness and friendliness. He intentionally organised a structure consisting of many small teams because he observed that team members were continually meeting face-to-face to coordinate their activities and to learn from one another, which encouraged them to experiment and to find new ways of solving problems. At Sannamfood, corporate culture is shaped and developed by the interaction of four factors: (1) the characteristics of people inside the company, (2) staff empowerment and autonomy, (3) company ethics, and (4) company structure.

Characteristics of people: At the company's inception, lacking space and seeking to keep operational costs down, all the staff were working in one small room. They shared desks, chairs, and computers and worked together to improve the company's performance. Even when Sannamfood moved into a large building, it designed its building so that staff are constantly meeting one another in the lobby, in the coffee corner and in the company canteen where everyone drinks and eats together. At the company's farm, the company's chairman, managers and almost all employees stay and work together. The freedom that the company allows for staff to pursue new ideas is a clear signal of the founders' desire to empower the staff to be innovative and creative in their search for new ideas. The company has also holds many social gatherings for employees such as open days and sight-seeing trips where staff are encouraged to share their ideas and experiences with one another.

Staff empowerment and autonomy: The core competences of the company depend on the skills and capabilities of its employees. To gain employee commitment, Sannamfood rewarded the manager of Sannamfood in Ba Vi with a house, created a job for another member of his family, and gave him increased autonomy to find and grow new types of vegetables. In addition, the company arranges accommodations for many employees who do not reside in the region, but who commute to work at BaVi Farm. While visiting the farm, we found that a large number of workers were attracted to work for Sannamfood because of its unique working environment.

Organisational ethics: The Company's cultural values derive from the personality and beliefs of the founders and top-management team (Boddy et al., 2010). The company's founder is a hard-working and creative person. His key values for Sannamfood are excellence, innovation, high quality, and high standards. He expects all employees to do everything they can to promote innovation and quality. Recognising that employees who innovate new R&D applications and products should be rewarded for their achievements, the company's founder gave them stock in the company, which effectively makes the company's employees its owners as well. Over time, Sannamfood has gained practical experience in building and maintaining a culture of innovation for producing and supplying fresh vegetables that are safe, healthy, and have high nutritional value.

Organisational structure: At Sannamfood, the company's structure promotes cultural values that foster integration and coordination. Several reasons why product development time can be kept short include the face-to-face contact between functional specialists and the company's flexibility that allows teams to be formed quickly to develop shared values and a common response to problems. To support this close interaction, almost all of Sannamfood's vegetables are

planted on the hills, harvested, packaged directly at the farm and delivered directly to the customer's home.

Trung Nguyen understands and honours five core values: brand desire, inspired creativity, national spirit, practicality, and sustainable development strategy. The company also pays due respect to its customers, society, and the environment. As the head of a leading coffee firm, the CEO of Trung Nguyen always makes it his responsibility to develop and disseminate the image of Vietnamese coffee, as well as the cultural and spiritual values of Vietnam. Over time, Trung Nguyen products have become more familiar and have gained recognition for their uniqueness from consumers all around the world.

The organisational structure of Trung Nguyen is simple, with few levels and very strong functional links that facilitate communication, quick action, and innovation. According to the Trung Nguyen CEO, if employees are given the opportunity to share ideas in the work process, to take initiative in their work and to create freely, they will enjoy their work and better perform their tasks. Therefore, the CEO has tried to build a friendly and open environment so that all employees will have a chance to contribute to the organisation's collective development.

Accordingly, Trung Nguyen regularly organises company dinners and holidays together to enhance the relationship between managers, staff, and workers. The company also holds many cultural activities for all its employees to foster employee commitment, responsibility, and creative competition. In addition, every year, the company organises the family festival, where the world's top coffee experts, industry leaders and scholars converge in Trung Nguyen's Coffee Village to hold talks about coffee. Dubbed the "Coffee Spirit", the event aims to share Trung Nguyen's vision for developing the global coffee industry, to express its commitment to work with its partners and advisors, and to generate support from the world's top coffee experts. These cultural activities help Trung Nguyen's business partners come together so that it is easier for them to learn and share information, knowledge and experiences. Such activities are an easy way to create a favourable "Ba" working environment so that when problems arise, they can be resolved collectively by all members involved.

Human Resource Management (HRM) Practices

Recruitment

Considering human resources as critical capital, Sannamfood recognises recruitment and employee selection as one of its most difficult and important decision areas. To attract and retain a competent and motivated workforce,

Sannamfood provides a competitive salary and compensation package to its employees. Accordingly, the company has succeeded in enticing many of the most qualified employees from industrial parks or cities to come work for Sannamfood. If, in the job interview, applicants indicate that they do not enjoy nature, agriculture, and living in the countryside, Sannamfood will not hire them. If, during their later job placement, employees do not fit either the position or the company, they will be free to leave the firm. In addition, the characteristics of the jobs at the farm and factory are very different compared with those in other companies. When employees finish their job at the factory, they may go to work at the farm. To fill gaps, the company must recruit employees with different skills and who are young enough to provide on-farm support when necessary. The company has 200 staff and permanent workers.

At Trung Nguyen, to be able to perform the work well and generate new ideas, employees must first grasp key basic knowledge. All employees are required to have key basic knowledge of their fields. Thus, the company now has a high quality workforce with more than 600 employees and 1000 franchises in 61 cities and provinces in Vietnam and international markets. With the recruitment policy of "respecting talents", Trung Nguyen was able to attract many top-notch experts and high performing employees in the coffee industry. In 2008, when Vietnam was affected by the world economic crisis, Trung Nguyen's leadership decided to strengthen their human resources by attracting the best people from other companies. In addition, Trung Nguyen also established one office in Singapore to recruit talent with strong management skills.

Training and career paths for employees

Training and development activities have not only provided employees the knowledge and skills they need for their present jobs, but also have the potential to support employees in moving up in the company. Therefore, Sannamfood considers training as an investment rather than a cost to its budget. To improve the skills and/or knowledge of employees, the company provides external courses in topics including accounting, taxation, and legal framework and quality standards. Sannamfood's top management believes that the increasingly rapid changes in technology, products, systems, and methods have had a significant impact on job requirements. Thus, employees recognise the need to continually upgrade their skills and to develop a learning attitude that permits them not only to adapt to change but also to perform work at a more complex level. In addition, the company provides internal courses in topics such as introduction, fruit cutting and training on other related techniques.

Considering its employees its most valuable asset, Trung Nguyen assigns employees to appropriate positions and offers them the training and development

programs necessary for professional development and optimal working conditions. It develops a training plan for the whole organisation and regularly conducts training courses in various forms for its managers and staff on a permanent basis, especially in-house trainings in selling skills and product knowledge.

Benefits, compensation, and employee relations

Benefits and compensation programs are utilised by top management to influence employee work attitudes and behaviour, which can ultimately lead to improving firm performance at Sannamfood. Sannamfood's total benefits and compensation package includes direct and indirect financial payments. Direct financial payments include basic and overtime salary increases, bonuses, and stock options, while indirect financial payments include medical and social insurance, housing and accommodations. Sannamfood encourages employees to contribute their new ideas and values to the organisation by rewarding them accordingly. In addition, the company also provides flexible working hours, shift differentials and flexible compensation payments. The top management is aware that modern business managers need to forge cooperative workplace cultures in which employees work together with management to solve problems, increase productivity and improve R&D. Therefore, well conceived and implemented employee relations activities are beneficial to both the company and its employees.

The Trung Nguyen coffee company always seeks ways to motivate employees to be creative because they recognise that human resources are an important factor to help the company create high-quality products through continuous innovation. The company has a policy of awarding teams and individuals who achieve excellent performance and initiatives to improve technology, which help the company to improve productivity and consequently reduce turnover. To promote employee creativity, the award policies of Trung Nguyen give diverse forms of awards both finance and non-finance, e.g., a reward with certificate of merit, which gives recognition to excellent employees on the internal network or in meetings.

Table 4
A comparison of findings of the two companies under study

	Sannamfood company	Trung Nguyen company
Products and markets	<ul style="list-style-type: none"> • Apricot wine, vegetables • Direct sale to the customer's home in Vietnam • Sales to international markets 	<ul style="list-style-type: none"> • Coffee products • 1000 franchises in 61 cities and provinces in Vietnam and international markets
Leadership	<ul style="list-style-type: none"> • Support for R&D • Provided opportunities to knowledge sharing • Recognises the importance of continual improvement 	<ul style="list-style-type: none"> • Support for R&D • Encouraged creativity • Create the new concept of coffee and the secret formula of products
Team work and <i>Ba</i>	<ul style="list-style-type: none"> • Emphasizes the importance of teamwork • Create a supportive working environment with open office landscape, coffee corners, and common room • Encourages open communication, discussion, feedback, and information sharing • Develops in-house software and information systems 	<ul style="list-style-type: none"> • Create a unique coffee culture • Building coffee museum with more than 2,000 exhibits used for farming and everyday lives • Building an integrated complex of 20,000 square meters consisted of plantations, R&D center, factory, resort, spa and coffee museum • Create a shared culture context and the interaction between Trung Nguyen and customers
Corporate culture	<ul style="list-style-type: none"> • Corporate culture is shaped by four factors: (1) the characteristics of people, (2) the staff empowerment and autonomy, (3) the ethics of the company, and (4) the structure of the company. • Create a culture of innovation • The company's chairman, managers and almost the employees stay and work together at the farm of the company. 	<ul style="list-style-type: none"> • Corporate culture is based on five core values: (1) rand desire, (2) inspired creativity, (3) national spirit, (4) practicality, and (5) sustainable development strategy • The company structure is simple with few levels and very strong functional links, which facilitate communication, quick action, and innovation. • Organizes the coffee festival annually and other events.

(continued)

Table 4 (continued)

	Sannamfood company	Trung Nguyen company
Human resource management	<ul style="list-style-type: none"> • 200 staffs and permanent workers • Sannamfood has HRM department • Company recruit youth candidates who like nature, agriculture, and living in countryside • Company considers training as an investment rather than a cost • Concentrate on skills and techniques training • A competitive salary and compensation package • Flexible working hours, shift differentials and flexible compensation payments 	<ul style="list-style-type: none"> • A high quality workforce with 600 employees • Trung Nguyen has HRM department • Attract many top-notch experts and high performing employees • Concentrate on management and selling skills and product knowledge • Create development program for employees • The diverse forms of awarding to employees • Award for excellent team performance

DISCUSSIONS

This study presents two Vietnamese success-story companies that are driven by their respective philosophies and knowledge-based management. A key factor in their success is their pursuit of meaning and value creation for the customers and society through a vision for green entrepreneurship and a knowledge creation process. Their pursuit involves meeting and providing value to the rapidly changing needs of customers and fulfilling corporate social responsibility. Both companies have chosen the agriculture sector for doing business because they understand that Vietnam is an agricultural country with the world's best environments for vegetable, apricot fruit, and coffee cultivation. These two companies are pioneers in green production and the green economy, which is still in its infancy in Vietnam.

The analysis of the two cases using the four major components of knowledge management shows that the CEO and senior management of the two Vietnamese case companies had similar views of the role of knowledge sharing in promoting innovation and profitability. They allocated resources, including time, infrastructure and systems, to the group/team level to encourage knowledge sharing. They also encouraged the use of employee feedback. The leaders were also able to understand the difference between tacit and explicit knowledge and recognised the implications of that difference for knowledge sharing, as well as

the need to create more *Ba* within the company as shown by Nonaka and Takeuchi (1995).

In relation to Western organisations, there was a focus on institutional solutions to the problems of knowledge creation and sharing at the beginning (Davenport & Prusak, 1998). However, the two case companies were more focused on knowledge sharing at the group/team level. The top management of these companies believed that the ability to convert tacit knowledge into innovation varied depending on the functions of each group/team. The study also shows that supporting technology was needed to facilitate the knowledge process and people with different backgrounds working together in knowledge-based processes. In fact, the two companies have smartly adapted state-of-the-art technology and scientific achievements from advanced agriculture in combination with local natural ingredients, such as medicinal herbals and a special source of energy from gemstones in the processing process, to make their products unique to markets.

At Sannamfood, corporate culture is identified by the interaction of the characteristics of employees, staff autonomy, company ethics, and company structure, while Trung Nguyen's culture is based on brand desire, inspired creativity, national spirit, practicality, and sustainable development strategy. Although the top management of the two case companies have different ideas about corporate culture, they agreed that corporate culture plays an important role in knowledge creation and management. For instance, both cases show that company structure and systems have facilitated ongoing knowledge sharing. The findings are consistent with those of Hutchinson and Quintas (2008), who identified the many layers and elements of culture which proved to be useful toward knowledge development and application.

Nonaka and Takeuchi (1995) suggest that producing explicit knowledge from tacit sources involves the use of documents, repositories and processes, which enhance the flow of tacit knowledge through leadership, *Ba*, and culture, as well as human resource management. This view is supported by the findings from field observations and interview results with the top managers of the two case companies. Regarding human resource management, Sannamfood stated that human resources are the company's most valuable asset, while Trung Nguyen decided to recruit talent with high technical and management skills from companies in crisis. Trung Nguyen also provided training for their staffs because they believed that continual knowledge development was necessary to compete. In addition, both case companies have policies for awarding good teams and individuals who have contributed to high company performance.

CONCLUSIONS

This paper has examined knowledge-based management at two agricultural companies in Vietnam. These two cases illustrate how knowledge-based management pursues a vision for the future based on ideals that consider the interpersonal relationships of people in society. The study results have practical implications for both management and research. To disseminate the knowledge-based management theory in Vietnam, several goals are suggested for management: (1) to promote knowledge and enhance awareness of the knowledge based management theory in Vietnam via dissemination of the theory and dialogue with policy makers, managers and entrepreneurs, (2) to establish and build capacity for a major group of researchers and lecturers to dedicate themselves to developing a training curriculum on knowledge based management theory in Vietnam, and (3) to establish trial models of the knowledge based management theory in some key private and state enterprises/organisations and to document the lessons learned for policy change implications.

Several questions remain to be explored by future research of knowledge-based management. First, future research should examine knowledge-based management of companies in different industry segments. Second, while we have studied two selected companies in Vietnam, future research should examine companies originating in other countries. Third, we have used a subjective selection of firms for our case studies. Thus, future research should choose a random sample of companies to study. Finally, future research should enhance studies by estimating the impact of knowledge-based management on firm performance using statistical methods.

REFERENCES

- Ambos, T., & Schlegelmilch, B. (2009). Managing knowledge in international consulting firms. *Journal of Knowledge Management*, 13(6), 491–509.
- Barney, J. B. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99–120.
- Boddy, C. R., Ladyshevsky, R., & Galvin, P. G. (2010). The influence of corporate psychopaths on corporate social responsibility and organizational commitment to employees. *Journal of Business Ethics* 97(1), 1–19.
- Bohm, D. (1996). *On dialogue*. London: Routledge.
- Bollinger, A. S., & Smith, R. D. (2001). Managing organizational knowledge as a strategic asset. *Journal of Knowledge Management*, 5(1), 8–18.
- Buckley, P. J., Clegg, J., & Tan, H. (2006). Cultural awareness in knowledge transfer to China: The role of guanxi and mianzi. *Journal of World Business*, 41, 275–88.
- Chawla, D., & Joshi, H. (2010). Knowledge management practices in Indian industries: A comparative study. *Journal of Knowledge Management*, 14(5), 708–725.

- Davenport, T.H., & Prusak, L. (1998). *Working knowledge: How organizations manage what they know*. Boston: Harvard Business Press.
- Drucker, P. (1993). *Post-capitalist society*. London: Butterworth Heinemann.
- Eisner, E.W. (2002). From episteme to phronesis to artistry in the study and improvement of teaching. *Teaching and Teacher Education, 18*, 375-385.
- Gold, A., Malhotra, A., & Segars, A. (2001). Knowledge management: An organizational capabilities perspective. *Journal of Management Information Systems, 18*(1), 185–214.
- Grant, R.M. (1996). Toward a knowledge-based theory of the firm. *Strategic Management Journal, 17*(Winter Special), 109–122.
- Hofstede, G. (1980). *Culture's consequences: International differences in work-related values*. California: Sage.
- Hutchinson, V., & Quintas, P. (2008). Do SMEs do knowledge management? Or simply manage what they know? *International Journal of Small Business, 26*(2), 131–154.
- Ichijo, K., & Kohlbacher, F. (2008). Tapping into tacit knowledge in emerging markets—the Toyota way. *Knowledge Management Research and Practice, 6*(3), 173–187.
- King, N. (2004). Using interviews in qualitative research. In C. Cassell, & G. Symon (Eds.), *Essential guide to qualitative methods in organizational research* (pp. 11–22). London: Sage Publication.
- Kivijarvi, H. (2008). Aligning knowledge and business strategies within an artificial ba context. In Abou-Zeid, E. (Ed.), *Knowledge management and business strategies: Theoretical frameworks and Empirical Research* (pp. 229–252). London: Information Science Reference Hershey.
- Lundvall, B., & Borrás, S. (1999). *The globalizing learning economy: Implications for innovation policy DG XII*. , Brussels: The European Commission.
- McKenzie, K. M. (2003). Leveraging organisational tacit knowledge: Delivering knowledge based consulting solutions through interpersonal knowledge exchange. *The International Journal of Knowledge, Culture and Change Management, 3*, 141–155.
- Michailova, S., & Husted, K. (2003). Knowledge-sharing hostility in Russian firms. *California Management Review, 45*(3), 59–77.
- Mobley, W.H., Wang, L., & Fang, K. (2005). Organizational culture: Measuring and developing it in your organization. *Harvard Business Review China*, March, 28–39.
- Nonaka, I., & Konno, N. (1998). The concept of 'Ba': Building a foundation for knowledge creation. *California Management Review, 40*(3), 40–54.
- Nonaka, I., & Takeuchi, H. (1995). *The knowledge-creating company*. New York: Oxford University Press.
- Nonaka, I., & Toyama, R. (2002). A firm as a dialectic being: toward the dynamic theory of the firm. *Industrial and Corporate Change, 11*, 995–1109.
- Nonaka, I., Toyama, R., & Hirata, T. (2008). *Managing flow*. New York: Palgrave Macmillan.
- Nonaka, I., Toyama, R., & Konno, N. (2000). SECI, Ba and leadership, a unified model of dynamic knowledge creation. *Long Range Planning, 33*, 1–31.

- Nonaka, I., & Von Krogh, G. (2009). Tacit knowledge and knowledge conversion: controversy and advancement in organizational knowledge creation theory. *Organization Science*, 20(3), 635–652.
- Nonaka, I. (1991). The knowledge-creating company. *Harvard Business Review*, 69(6), 96–104.
- Rafali, S., Hayat, T., & Ariel, Y. (2009). Knowledge building and motivations in Wikipedia: Participation as ‘ba’. In F. Ricardo (Ed.). *Cyber culture and new media* (pp. 51–68). Amsterdam: Rodopi.
- Sáenz, J., Aramburu, N., & Blanco, C. E. (2012). Knowledge sharing and innovation in Spanish and Colombian high-tech firms. *Journal of Knowledge Management*, 16(6), 919–933.
- Singh, S. K. (2008). Role of leadership in knowledge management – a study. *Journal of Knowledge Management*, 12(4), 3–15.
- Spender, J. C., & Grant, R. M. (1996). Knowledge and the firm: Overview. *Strategic Management Journal*, 17(Winter Special Issue), 5–9.
- Suppiah, V., & Sandhu, M. S. (2011). Organisational culture's influence on tacit knowledge-sharing behaviour. *Journal of Knowledge Management*, 15(3), 462–477.
- Sveiby, K. (1997). *The new organizational wealth*. San Francisco: Berrett-Koehler.
- Szulanski, G. (2000). The process of knowledge transfer: A diachronic analysis of stickiness. *Organisational Behaviour and Human Decision Processes*, 82(1), 9–27.
- Travaille, M., & Hendriks, P. (2010). What keeps science spiraling? Unraveling the critical success factors of knowledge creation in university research, *Higher Education* 59(4), 423–439.
- Watanuki, K., & Kojima, K. (2007). Knowledge acquisition and job training for advanced technical skills using immersive virtual environment. *Journal of Advanced Medical Design, Systems and Manufacturing*, 1(1), 48–57.
- Welman, C., & Kruger, S. J. (2001). *Research methodology for the business and administrative sciences*. Oxford: Oxford University Press.
- Wiig, K. (2004). *People-focused knowledge management: How effective is your organisation*. New York: Butterworth-Heinemann.
- Yin, R. (1994). *Case study research: Design and methods* (2nd ed.). London: Sage Publications.
- Zhang, S. J. (2008). *Research on knowledge transfer and knowledge integration mode of knowledge consulting service*. Unpublished doctoral dissertation, Jilin University, Changchun, China. Retrieved 20 October 2008, from <http://www.dissertationtopic.net/doc/1650540>

APPENDIX

A Qualitative Toolkits

Question 1: How did you start operations of the business? (year, why, initial products, current products)

Question 2: What kind of your establishment?

- | | |
|---|---|
| <input type="checkbox"/> Manufacturing | <input type="checkbox"/> Non-Manufacturing |
| <input type="checkbox"/> State-owned enterprise | <input type="checkbox"/> Private enterprise |

Question 3: What is the company's vision? How is the vision developed? How is it change over time?

Question 4: What are the company's core business and products? How have they been changed overtime?

Question 5: What are the company's major markets?

Question 6: What are the company's philosophy, values and culture that drives it operation? How are they transcended to people in and outside the company?

Question 7: What are the company's management principles? (*e.g. how are personnel managed?*)

Question 8: How was the management principles formulated and implemented (regarding every aspect of product development, market, technology, human resource development, corporate culture...?)

Question 9: To what extent do these principles contribute/affect the development of the organization? How and why?

Question 10: How is knowledge respected and used in improving the organization?

Question 11: What is the company's success story? Why?

Question 12: What is the company's failure story? Why?

Question 13: What are future prospects for your company?

Question 14: What recommendations should be made to promote knowledge based management model in Vietnam?