HOW HUMAN RESOURCE MANAGEMENT PRACTICES FACILITATE THE KNOWLEDGE TRANSFER, KNOWLEDGE RETENTION, AND INNOVATION – COMPARISON OF TWO CASE STUDIES

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Abstract

This research intends to use competence-based theory and agency theory to explain the theoretical perspectives of knowledge building on board perspective of human resource management and innovation. We also focus on the specific HR practices functions such as training and incentive, in order to see the effects for knowledge transfer and knowledge retention.

Keywords: Knowledge transfer, knowledge retention, innovation, HRM practice

1. Introduction

It is now changing to an information society in a knowledge economy where knowledge management is essential. With increased mobility of information and the global workforce, knowledge and expertise can be transported instantaneously around the world, and any advantage gained by one company can be eliminated by competitive improvements overnight. The only comparative advantage a company will enjoy will be its process of innovation—combining market and technology know-how with the creative talents of knowledge workers to solve a constant stream of competitive problems—and its ability to derive value from information.

Knowledge is a stock of expertise, not a flow of information. Thus, knowledge relates to information in the way that assets related to income (Machlup, 1962). In Kogut & Zander's (1992) view, the central competitive dimension of what firms know how to do is to create and transfer knowledge efficiently within an organizational context. Knowledge transfer is a desired strategy in the replication and growth of the firm (whether in size or profits); imitation is a principal constraint (Winter, 1987). Knowledge retention is also necessary as to prevent the losing of the knowledge and mobility of the knowledge which is resist in the personnel. Knowledge retention is a process and practices developed for determining the best method for transferring valuable knowledge, and use of information technology to enable knowledge capture, sharing and reuse (DeLong & Davenport, 2003). We intended to view the knowledge from the board perspective of strategic human resource management (SHRM) on innovation ability which the organization wants to accomplish by using competence-based
theory and agency theory to explain the theoretical perspectives. In addition to narrow the view to focus on specific HR practices functions such as training program and incentive. In brief, the intent was to examine the combined effects of knowledge transfer and knowledge retention on innovation. We focus on the information and know-how knowledge which is already exists in an organization (micro underpinning) and emphasis on the effectiveness of the knowledge distribution and organizational memory.

This research begins to outlining the major reasons for exploring the knowledge transfer and knowledge retention in an organization using the competence-based theory and agency theory to identifies the result of innovation. In addition, we provide a case comparison in the learning process by making the knowledge transfer and knowledge retention in different department and different industry.

Resources and capabilities have been labeled distinctive competence (Selznick, 1957; Fiol, 1991). Drawing on a behavior psychology perspective, have addressed the linked between HRM practices and competitive advantage (Schuler & Jackson, 1987; Schuler & MacMillan, 1984). Research rooted in the “behavioral perspective” has shown how HR systems can foster and facilitate innovation and entrepreneurship through eliciting and reinforcing employee role behaviors, such as creativity and innovation, a long-term orientation, tolerance of ambiguity, and trust (Schuler & Jackson, 1987; Schuler & MacMillan, 1984).

This perspective has great contribution to the field of SHRM. There are four types of organization competence: managerial competencies, input-based competencies, transformational competencies, and output-based competencies (Lado et al., 1994). The managerial competencies focus on the company's strategy and the reaction to the environment. The input-based competencies focus on the organization's knowledge, skill and capability. The transformational competencies as the capabilities include innovation and entrepreneurship, organizational culture, and organization learning. Lado et al. (1992) describe this competencies as organizational capabilities required to advantageously convert inputs into outputs. The three important factors include in the transformational competencies are innovation, organizational learning, and promoting organizational culture (i.e. tactic rules, and values). Output-based competencies include all invisible strategic assets, reputation, product quality, and customer loyalty.

The transfer of knowledge is a topic that has received considerable attention. The successful transfer of technology results in the receiving unit implementing new techniques of production. Kogut & Zander (1992) propose that what firms do better than markets is the sharing and transfer of the knowledge of individuals and groups within an organization. This knowledge consists of information and of know-how in an organization. By hiring new workers is not equivalent to changing the skills of a firm. It is important for a firm that must understand knowledge as embedded in the organizing principles by which people cooperate within organizations. the firm.

These capabilities can be used and economically exploited in the marketplace. Transferred knowledge can reside in design, production, installation, sales and distribution, operation and maintenance, or management (Kogut & Zander, 1992).
2. Results and Discussion

Following an initial groundwork phase, we selected two companies, to be the focus of a comparative case study carried out in this research. These companies were selected primarily because of their diversity. East received strong recognition in the international and domestic markets after its company reorganization. Through decades of expansion and advances in technology, they developed a comprehensive research and development capability and substantial production scale which is now the largest in Asia. As for Nito, it started its business by joint venture with Ali groups and now has fully own by the group. As a leading and long-standing manufacturer Nito has noted for its advanced technology and best quality. Likewise, Ali group is one of the most prominent chemical companies in the world. This diversity across companies allow us to investigate whether similar approaches to the design and usage of knowledge management and HR practices are found in a wide array of contexts, from different organizational structure. With this approach, we also explore whether companies that adopted similar knowledge management system in different industries faced similar problems to do so.

These cases were also chosen because they offered the opportunity to make comparisons across departments within each company. We examine multiple departments within each company that are very similar except for how they use knowledge management. Thus, within each company, we investigate what difference across departments; explain in the features and consequences of knowledge management. Comparisons across departments within a company are interesting because many forces are held constant: we can compare departments in which the knowledge management system, the adaptability of knowledge management, and the HR practices regarding treatment of workers are similar. Further, we focus on two departments: manufacturing and research & development department within each company which share the same experience of in knowledge management system. We present a brief historical look at company. We interviewed a number of individuals who has been involved in each group and were able to report on the features and outcomes of the use knowledge management system.

3. The Cases

3.1 “East”

During the year of 1998 and 2001, East was under the company reorganization. Until the year of 2006, T Group became the East’s major shareholder. T Group is a world-renowned trading corporation group and the largest professional exporter in Taiwan with more than 3,700 staff worldwide. One of the major businesses in this group is E-commerce Business. Through its network in over 35 cities worldwide, T Group has built strong and lasting relationships that have allowed manufacturers and customers to prosper.

3.2 Implement of the Knowledge Management System

East is a manufacture company and most of their employees are not well-educated. Therefore, although East has invested a lot of money in the knowledge management system, they still have a lot of room to improve in enlarge the effectiveness of the system. The East relies on the technology and provides different internal and external lectures and training courses. As in
the knowledge sharing and knowledge transfer, human resource department has to develop a lot of training courses for different department in order to encourage to sharing and learning new things.

As for the knowledge transfer, East has encountered some problem when new employees in the company do not have the experience to solve the problems which they never encounter before. It needs a lot of the implicit knowledge and experience to solve the problem. "We still have problem in sharing the tacit knowledge, as it is difficult to put it into writing, therefore, we still rely on a lot of training courses or OJT in sharing the knowledge." (E2, human resource)

"We think Knowledge management has several dimensions and the implementation in our company has mainly focus on the training (especially OJT) and the technology." (E10, administration function). "We spend a lot of the money on budgeting the training courses in the beginning of every years, because we think it is important to train the new comers and to continuous improvement for our employees." (E8, administration function)

As for the HR department, they will give the incentive to the employees who had a grate performance during the external training courses. The performance after the training will also be monitored but do not have any incentive for that. This due to it is hard to measure. "We will send some of the employees to the external training programs to learn new stuff, and ask them to write a report and to give a presentation for them to share the with others in the company." (E10, administration function) "Most of the employees in the East have been working for the company for over 10 years, therefore, it is not easy to ask them to change the way of doing things at their work even if they learn new things" (E8, administration function)

In the year of 2003, East introduced the ERP system and the following year, it established E-commerce platform among supply chain and customers. The core competence of East is the R&D team which possesses independent product design ability and excellent process improvement knowledge. The independence in the product design and development ability allows them to be objective and thus ensure the quality of products and confidentiality of business. This is the key that keeps East ahead of the competition.

The East has managed to create a seamless interface with existing processes. This will result in communications that is reliable, accurate and most importantly, lowers business costs by minimizing interaction time thereby raising business efficiency in an international operation system. "Through e-commerce platform applications, we aim to enhance communications efficiency between East and its customers." (E3, sales & marketing) "We strive to continuously improve our customers' satisfaction in our products and services by better anticipating our customers' needs." (E4, sales & marketing) "Using the latest technology, we've managed to convert the traditional communication measures into modern format that utilize the least interaction cost, minimize time and thus advance business efficiency by establishing automatic processes and an international operation system." (E1, production)

East emphasizes and pays much attention to process improvement including not only introducing a great number of various precise automation production facilities, but also combining with technology improvements of the advanced, large-scale and highproduction efficiency automation equipment. The technology implication of the knowledge management system on quality control and customer service department has been a great success in the East. "We put a lot of money into the quality control system. We have strict quality management system and complete inspection apparatus and facilities." (E9, quality management)
In the year of 2005, East reinvested the profit and launched the Philippines mass production plan. They tried to transfer the knowledge to the Philippines plan, however, they failed. This is due to the culture difference between Taiwan and Philippines. “Taiwanese employees have more responsibility but Philippines employees are more of easy going and when they work, they go by heart not by instruction. Therefore, we learnt that it is not easy to transform the successful experience from one culture to different culture.” (E10, administration function)

3.3 “Nito”
As a leading and long-standing manufacturer, Nito has noted for its advanced technology and best quality. 1st Furnace has begun its operation since 1989 to produce the electronic-grade glass yarn, one of major raw materials for Printed Circuit Board, with annual output capacity of 10,000 MT. The 2nd Furnace has been built up with double capacity in end of 1996, and after continuous technology invention, the annual output capacity can achieve up to 30,000 MT. Glass yarn is made from various ores from the entire world.

3.4 Implement of the Knowledge Management System
Most of the employees in Nito are well-educated. However, they did not come with the high degree of the education when they enroll in the company. Nito provide the incentive for the employees to take the courses in the nearby university. The company tried to create a learning culture and pursued a learning organization. On the other hand, Nito also spend more than 10 years in investing the technology for create a databank for each department, updating and sharing in formations between employees.

“Our company’s policy is to give people chance, and encourage them to learn, we may hire people who graduated not from so call ” high-quality universities”, but we give them the opportunity to learn here and help them to grow in sharing the knowledge” (E3, human resource) “Our company spends a lot of time to develop our own sharing database for each department; the idea of doing the knowledge management in our company is mainly supported by top management because we have a lot of the managers who have MBA degree.” (N1, Top Management). “Everyone in each department can update the information everyday, the system has been implemented for 10 years, and you can image how much good stuff is in the system. (E4, information system) “The sharing system comes in handy when there is problems occur and in the situations for the employees who would like to track down what happen in the past and how to deal with the problem.” (E2, engineer) Nito’s organizational culture has encouraged the knowledge sharing behavior. Employees view the sharing of the knowledge as part of their job responsibility. They are also willing to learn in anyway and feel obligated in implement the new things that they learn on the job.

“Knowledge manage is a response to organizations’ need to intensify their creation and exploitation of knowledge.” (E1, top manager) “We spend 20 years in creating the sharing environment in different designed activities” (E3, human resource)

The creation of knowledge sharing environment and the well-structured knowledge management system also arouse other problems, for example, the control of the spread of the knowledge. As many employees start to have the access of the system and sharing, it might need spend some to clarify what are the useful information and what are the excess information in the sharing files. ‘Although, our knowledge management system has been a great success but I will worry that maybe it is too widely spread, we need to be more strictly on the
password policy... as for now, most of the control are in the department manager's hand, but we still have some cases that the confidential information is not sealed as the way it should be" (E1, top manger)

The innovations of the company are mostly seen in the management area. Managers tend to implement what they learn from the external professional institutions into the company. Also, the sharing knowledge management system provides the advantage in replying the customer's needs. "Since we have the knowledge management system, the time to give feedback to our customers is faster" (E2, engineer) "I used what I learned in the MBA courses and also when I was sent to the United States for learning organization methods, I tried to implement it in our company although, it was very hard in the beginning, but it turned out to be a great success" (E1, top manager)

4. Discussion

The data presented in this paper illustrate three knowledge management systems, each of which features a distinct set of HR practices and outcomes that fit together in a coherent logic and each of which is shaped by department and company's concerns and technology. The East exemplifies a very limited use of the knowledge management system. In this case, the innovation of the organization is not much due to the organizational culture and it is not something that the knowledge management system can do to promote. The varieties of the training course are provided to different employees in different department. As the East had just been cover from the reorganization, the firm's strategy and goal is still ambiguous. Therefore, it is difficult for them to provide it in the training courses. The turnover rate of the company is fairly low, partly it is due to the company is not located in the big city; therefore, it is hard for people to have other job opportunity once they quit. Increasing the incentive for the employees did encourage the knowledge sharing behavior due to the company require the employees to share the knowledge after they learn.

In the other contradiction case from East, Nito, it is a company which the implementation of the knowledge management system very well (not only the technology but also between employees and departments in an integrated way). Nito did rely on the different kind of the knowledge transfer systems and training courses (firm's culture and history, firm's strategy and goal, and advanced and cognitive skills) to enhance their innovation in the organization. The retention rate of the employees in Nito is very high and this is due to the company is well structured and the incentive for not only the R&D personnel but also for all the employees. The innovation of the management is widely used in Nito.

The two case companies in our research are both in the manufacturing industries, and they all have implemented the knowledge management system in the organization. However, due to the different organizational culture, and varied the incentive system for encourage the employees to have the sharing behavior. The knowledge management system works out differently for both companies. Therefore, it is indeed important for the incentive to include in the HR practice in order for the success of the knowledge management system. As for the retention of the knowledge, both companies have low turnover rate, but due to different reasons. East is due to the environment constrain, and Nito is because of the high compensation and nice welfare. It is also vary for the training courses which provided by both companies. Nito has more regular courses and also use the nearby
universities as a resource for training their employee. The training courses provided by East are more basic and mostly on job training. The one that provides the training on the regular basis creates the innovations for using it in the organization. In conclusion, the incentive and the training program do have impact on the knowledge transfer and knowledge retention in the organization. In addition, organizational culture serves as a very important variable in the knowledge sharing behavior.

5. Limitation

We limited our discussion to the competence-based theory and agency theory in explaining the relationship to innovation, rather than discussing all the other possible related theories such as transaction cost theory, or institutional theory. This study focus on the existing knowledge in an organization, it provide an opportunity for other researchers to include the creating knowledge in the future, the related subjects such as knowledge creation capability and the relationships between the existing knowledge and creating knowledge. There is an opportunity for the future research to include the impact of the information system in the research. As in this research, we mainly focus on the activities of the personnel for the knowledge transfer and knowledge retention. We tend to ignore the impact of information technology of the knowledge transfer and knowledge retention. Therefore, it is interesting to put information system and personnel together to see if the HRM practices will still have the same effect for the knowledge transfer and knowledge retention on the innovation.

6. Contribution

Drawing on the theoretical insights of the competence-based view and agency theory, in this study, the attempt is to show both how HR systems may contribute to sustained competitive advantage. This study intends to use the SHRM perspective of innovation ability to explore the relationship between knowledge transfer and knowledge retention. It compliments and extends the behavioral perspective of strategic HRM, which has emphasized observable and transferable role behavior of employees as the basis for creating competitive advantage.

By emphasizing the HR practice: training and incentive, it gives the organizations which want to transfer and retain the knowledge a brighten view of how to actually do it by implementing the HR practices. The combine effect of the knowledge transfer and knowledge retention is also discussed and examined. As Argote (1993) states that personnel mobility is typically viewed as an important mechanism for transferring tacit knowledge between individuals, teams, departments, subunits and forms to facilitate learning. By examine the relationship of knowledge transfer and knowledge retention give a more clear view of affect with innovation in an organization.
Reference


