The Conceptual Study of Knowledge Adoption based on Resource and Institutionalization Theory for Organizational Knowledge Creation Applied to Knowledge Management Systems

Sun, Jong-Hak[*] · Yoon, Jung-Hyeon[**]

<요 약>

　The purpose of this study are as follows : First, This study conceptually provide an insight of reasons that organizations seek to create, acquire, store and distribute knowledge at the level of an organization and of process how they can transform or evolve to knowledge based organizations. Second, this study confirms examine　what theories can be used to knowledge management, how such theories can be useful to analyse knowledge management and provide a theoretical foundation for knowledge management research.

　Applied to the theories of knowledge based and resource based view and institutional theory, the essence of knowledge management confirms that the organization finds job-related knowledge and know-how retained by individual of organizational members systematically and shares common knowledge within the organization and explains knowledge creation, multi-dimensional knowledge transition and share in all dimension of individual, group, and organization.

　As a result of comparative analysis of theory of organizational knowledge creation theory, In knowledge management, building of knowledge-creative culture, transitional process of explicit knowledge and tacit knowledge, knowledge creation and knowledge operation are important. In the basis on these study results, we discussed how the organizational knowledge creation theory can be used to manage knowledge in the organization, and also proposed hypotheses based on some arguments against the universal acceptance of the theory.

　Key Words : Knowledge adoption, Resource theory, Institution theory,　Knowledge creation, Knowledge management systems

Ⅰ. Introduction

Knowledge management is defined as a systematic and organizationally specified process for acquiring, organizing, and communicating both tacit and explicit knowledge of employees so that other employees may use of it to be more effective and productive in their work.(Alavi and Leidner, 2001; Hur & Chon, 2007; Chang-Jung Kim, 2012). They also refer to "knowledge management systems" as a class of information systems applied to managing organizational knowledge. More specifically, knowledge management systems are considered IT-based systems developed to support and enhance the organizational processes of knowledge creation, storage/retrieval, transfer, and application. According to this knowledge-based view of the firm , knowledge in an organization is the most critical, strategic resource to create competitive advantages(Kang Min Su et al., 2015). For example, Sangho Yun and Gyowan Choo(2014), proclaims that knowledge is the most important of an organization's resources for innovation capabilities and new product development on the business performance. Knowledge management, therefore, is to recognize internalized knowledge within individuals as a crucial intellectual property, and then to exploit it in making decisions, rather than to simply process data or information. Expanding this concept of knowledge management, Kang Min Su et al.(2015) suggests that knowledge management

is a strategic organizational activity, including processes, culture, and roles, that create intellectual property and improve its capability to maximize customer values. Viewed from a knowledge-based view of the firm, a firm is recognized as a systematic organization to create knowledge and to utilize the created knowledge through sharing activity. Moreover, Ki ho-ik and Park Young-kyu(2012) views an organization as a knowledge system. Individuals, teams, and departments generate or create knowledge, in the process of exchanging opinions, making decisions, and executing their objectives in the organization. Therefore, to change the organization as knowledge-creating organization, an organization facilitate employees to acquire knowledge existed within individuals in the organization and then to promote them to share the acquired knowledge among other employees, because while new is developed by individuals, organizations play a critical role in articulating and amplifying that (Yoo Hyo-Sook et al., 2013; Chang-Jung, Kim, 2012). In such a process, information systems such as knowledge management systems can play a role in moderating activities related to knowledge between an organization and employees(Ahn Kwan-Young and Park Roh-Gook, 2016).

While intensive attention and focus with diverse perspectives in previous literature with has been paid to investigate knowledge management, and illustrate knowledge formed within an organization and issuers of knowledge management, there is a scarcity of

adequate theory to explain the effects of managing knowledge on organizational outcomes.

With organizations' interest of knowledge management, many organizations have implemented knowledge management initiatives and technologies to leverage their knowledge resources. Like previous literature, this study found it necessary to approach this complex and multidimensional phenomena, Research and development on knowledge management system have built upon a variety of conceptual and theoretical basis in different but related fields. Therefore, The purpose of this study are as follows : First, This study conceptually provide an insight of reasons that organizations seek to create, acquire, store and distribute knowledge at the level of an organization and of process how they can transform or evolve to knowledge based organizations. Second, this study confirms examine   what theories can be used to knowledge management, how such theories can be useful to analyse knowledge management and provide a theoretical foundation for knowledge management research.

II. Theoretical Background

1. Theory of Knowledge based and Resource based View

The knowledge-based view of the firm was developed as an extension of the resource-based theory of the firm and is the essence of the resource-based perspective (Alavi & Leidner, 2001; Sang ho Yun and Gyowna Choo, 2014; Conner & Prahalad, 1996). Resource-based is defined as the resources and capabilities possessed by competing firms that may differ, and these differences may be long lasting (Barney, 1991). This perspective argues that a firm must be observed as a set of extensive resources. Barney (1991), for example, suggests that the original source of sustainable competitive advantages is the rare, valuable, un-imitable, and un-substitutable resource and the organization's capability that utilizes such resource as a strategic approach to compete in the market. Therefore, by optimizing the fit between resources and its manageable capability, a firm can maximize its value and develop the firm-specific resource infrastructure that the firm needs to sustain its competitive advantages (Sang ho Yun and Gyowna Choo, 2014). Since changes in knowledge resource can significantly influence on firms' long-term performance (Conner & Prahalad, 1996), and a firm can sustain core competencies in relatively long-term by making it almost impossible for competitors to easily imitate the resource and capability to manage (Grant, 1996), the importance of knowledge resource among resources that a firm possesses is especially emphasized. The resource-based view of knowledge management suggests that firms can and do differentiate themselves on the basis of their knowledge management resource (Ki Ho-ik and Park young-kyu, 2012; Chuang, 2004).

Therefore, the resource-based view that emphasizes knowledge as core competencies and long-lasting cumulative resource provides a useful insight in investigating why firms pursue knowledge management for their corporate strategy.

2. Theory of Institutionalization

Institutional theory indicates that organizations develop rationalized practices and procedures to respond their environment, and it is believed to be part of a stream of research that examines relationships between organizations and their environments (Greenaway & Chan, 2005). Organizations have to comply with demands of environment as a form of accepting social norms and beliefs, to ensure themselves of the resources they need for their survival (Schmid, 2004). Organizations' activity, work process, structure, and rules that can be defined as outcomes of efforts to improve organizational efficacy and to achieve organizational goals, are institutionalized in themselves to increase their legitimacy and possibility of survival by satisfying external norms and cultural expectations(Cho Young-Hyun and Lee Kyung-Geun, 2007). Institutional theorists insist that institutionalized instances, activity or events in organizations are accepted by their members as taken-for-granted values, which serve as rules in inducing work procedure and guiding making decisions (DiMaggio and Powell, 1983). Therefore, when

organizations change their formal structure of organization in responding uncertain, turbulent, and instable environments, "rationalized myths" play a critical role to progress such changes. Organizations require their members to commit to "rationalized myths," in coupled with improvement of organizational effectiveness, and their commitment, in turn, is reflected into formal structure of organizations. By doing so, organization enhances the organizations' stability and provides security and confidence for their members, while legitimatizing clear roles and authority in the organization. Hence, by conforming organizational behaviors and structures to rationalized myths, organization can acquire not only legitimacy from external environment, but also necessary resources from it.

3. Theory of Organizational Knowledge Creation

Organizational knowledge creation theory was originally introduced in 1994 as Dynamic theory of organizational knowledge creation by Nonaka, one of the most important pioneers in knowledge management. The theory categorizes knowledge into two types: tacit and explicit knowledge. Tacit knowledge has no format and no systematic method to embody. Tacit knowledge belongs to each individual such as an employee's working experience with the company or personal relationship with his or her customers. Explicit knowledge can be formally represented in a

systematic way such as business and technical help documents. To benefit the organization, tacit knowledge, which is embedded in individuals, must be transformed to explicit knowledge, which can then be shared and used by employees in the organization. In the organization, knowledge 'become' or 'expands' through a four stage conversion process(Nonaka et al., 2006). Knowledge creation is a spiraling process of interactions between tacit and explicit knowledge (Nonaka and Konno, 1998). This study is designed to propose hypotheses based on Nonaka & Konno's spiraling process, in coupled with Glisby and Holden's research (2003). The knowledge creation model is illustrated in <Figure 1>.

Despite the universal acceptance of Nonaka's organizational knowledge creation theory, Glisby and Holden (2003) argue that tacit knowledge embedded in each employee's mind may not be easily transferable to a non-Japanese context. This argument attempts to validate the universality of the Nonaka's knowledge creation model. In addition, Alavi and Leidner (2001) in their intensive review paper mentioned and proposed this seemingly cultural boundary to be one of the future paths or research areas of the organizational knowledge creation theory. Glisby and Holden point out the General Motors case study. In 1998, GM poorly adapted cross cultural knowledge management, in particular Japanese automotive production system, resulting in a loss of 2 billion dollars a week, the most expensive mismanagement in history. Glisby and Holden propose that the problem is the Japanese cultural constraint inherently embedded in Nonaka's knowledge creation model. Glisby and Holden (2003) also questions
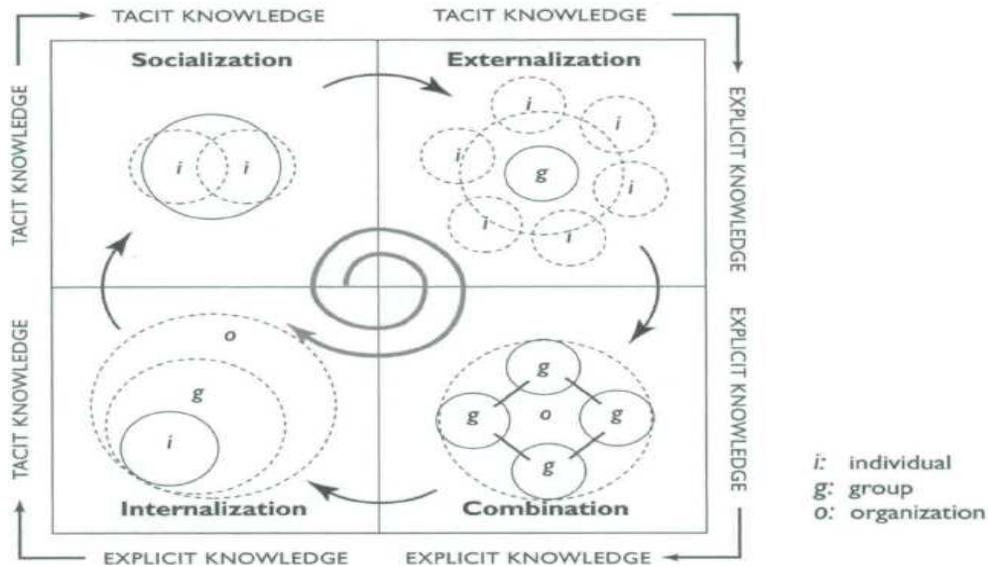
<Figure 1> Nonaka's Knowledge Creation Model

further whether Nonaka's knowledge creation model is a uniquely Japanese phenomenon. Next section in this paper will briefly propose hypotheses for each mode of the Nonaka's knowledge creation model. These hypotheses are encouraged for future empirical researches. Then, each mode will be discussed in terms of practical organizational adaptation, toward the concept of each mode in Nonaka's knowledge creation model.

Ⅲ. Research Propositions

It is recently accepted that any organization that dynamically deals with a changing environment ought not only to process information efficiently but also create information and knowledge (Kang Min Su et al., 2015). Furthermore, it is utterly agreed among scholars that information and knowledge are different, and the latter is the factor that will differentiate an organization from the others. Knowledge is viewed virtually as the only resource of the organization to sustain real competitive advantage (Sang Ho Yun and Gyowan Choo, 2014). Thus, the process to create knowledge has received a considerable attention from both scholars and industrial practitioners. The following sections will discuss how the knowledge based view and institutional theory can be used to adopt knowledge and how the organizational knowledge creation theory can be used to manage knowledge in the organization, and

also discuss the proposed propositions based on some arguments against the universal acceptance of the theory.

1. The Adoption of Knowledge Management

Among critical processes related to knowledge performed by firms, creation and sharing knowledge between organizational members is especially important of firms (Chang-Jung Kim, 2012; Ahn Kwan-Young and Park Roh-Gook, 2016), since it is impossible to accomplish the fundamental objectives of knowledge management without creation of knowledge Indeed, the source of competitive advantages in knowledge-based society is the firm's capability to create new knowledge. Advancing further, if the newly created knowledge is not shared between members in the organization, the valuable knowledge to the organization will disappear when the individual who possesses knowledge leaves the organization, and the organization cannot enjoy improving competitive advantages through the increase of knowledge resource as added-value and core competencies.

Based on review of literature related to knowledge-based and resource based theory, it is reasonably expect that an organization will probably facilitate its members to involve actively in the process of knowledge management, when an organization recognizes its capability of creating, sharing, transferring, combining, and applying knowledge to make

decisions or solve uncertainty as a core source of sustaining its competitive advantages. Therefore, assuming that there is a positive relationship between introduction of knowledge management and organizational recognition of knowledge this study suggest a proposition as follows;

> Proposition 1: The stronger does an organization recognize knowledge as a critical resource in sustaining competitive advantages, the more is the organization likely to involve with knowledge management.

Since organizations conform to procedure, practice, and conduct that are required by institutionalized environments based on external norms and beliefs in order to survive as continuity in a social system, rather only to pursue myopic-profit nor efficient execution of tasks. Indeed, suggesting conformation to existing practices and regulations to secure stability and legitimacy, institutional theorists argue that organizational survival may depend more on conforming to the norms of external groups and less on succeeding as efficient producers of goods and services (DiMaggio & Powell, 1983).

> Proposition 2: The more an organization tends to conform to legitimacy of it, the more the organization is likely to involve with knowledge management.

On the other hand, institutional theory provides an alternative research perspective (Orlikowski & Barley, 2001), especially when to research conflicts among normative pressures such as efficiency. Oliver (1991) proposes that organizations can react to such institutional pressures with strategic responses, which vary with respect to level of organization's resistance to those pressures. Although institutionalized normative myths can be interpreted as irrational or inefficient to the views of inside members, they can make the organization look more attractive and rational entity, and help formulate favorable image shown to external society by providing plausible façade (Nystrom & Starbuck, 1984). For example, organizations are attempting to adopt social phenomena and learn how to process them in organizations, primarily because of responses to external pressures or "institutional" forces (Kamoche, 2006; Greenaway & Chan, 2005).

Institutional pressure can take place when organizations recognize that it is difficult to improve organizational effectiveness, and to even survive without institutionalization of demands from internal/external members or shake-holders. When compared to competitors' strategic response to specific phenomena, and observing that those competitors achieve somewhat progress by institutionalizing it, an organization that has not yet adopt such phenomena may suffer from being behind of competitors. Because of non-adoption, if an organization is afraid of either loss of legitimacy and social approval/support, lack of competitive advantages, or producing worse

business performance than competitors, the organization probably attempts to introduce and then to institutionalize the specific phenomena in the organization, regardless of the actual efficacy resulting from the phenomena. From this notion, it is reasonable to assume that firms might introduce knowledge management to respond to such institutional pressure, while to increase competitive advantages through knowledge management. Institutional and competitive pressures exert strong influences in organizations, the organization is more likely to make efforts to conform to institutional pressure. Therefore, this study proposes a proposition as follows;

> Proposition 3: The higher an organization feels pressure from competition, the more the organization is involved with knowledge management.

2. The Knowledge Creation in Organization

According to organizational knowledge creation theory, first, each employee who already possesses tacit knowledge implicitly acquires some more knowledge or experience in the organization. Socialization mode enables sharing tacit knowledge embedded in these employees. When people discuss or exchange ideas whether or not they are work-related topics and whether or not formally or informally, tacit knowledge is shared. Notice that employees at this mode can share their

tacit knowledge both intentionally or unintentionally through their conversation. Also note that an individual may be willing to first discuss their experience or ideas with other members in the group they all belong. As a group member, they may have to interact with other members of other groups in the organization, the interaction yielding more widespread of tacit knowledge. Still, the key to acquire tacit knowledge is experience (Nonaka, 1994). If employees have no common experience at some level, the exchanging ideas would be somehow useless because those employees have no shared cognitive ability how to extract the essence and quality out of the very tacit knowledge.

However, given the assumption behind the socialization mode that employees must be willing to share their tacit knowledge as mentioned above, Glisby and Holden (2003) argue that employees have to be willing to share their knowledge both internally and externally such as with suppliers, customers and stakeholders. Cho young-Hyun and Lee Kyung-Geun(2007) also refer to Chemyon (social face) that the most striking features of Korean organizations is the sensitivity of mutual obligation networks and the high level of interdependence between people on knowledge management activities. As a result, this committed and intensive socialization decisively facilitates the exchange of knowledge and information among all parties. This commitment and high loyalty are tightly integrated in Korean culture, the unique feature the West-based organizations rarely

have as each individual does not always share willingly and unfortunately needs incentives such as financial rewards to do so even at this initial step in knowledge management.

Proposition 4: Organizational culture indirectly determines the amount of effort required to share tacit knowledge.

The purpose of externalization mode is to enable transforming implicit knowledge to explicit knowledge that all employees can understand. Tacit knowledge from employees will be largely accumulated, transformed into a same formal format of explicit knowledge and become a better resource for groups and organization. Some standards or systematic formats to facilitate this transformation are importantly beneficial. For example, information systems such as database systems and communication boards (Alavi and Leidner 2001) that will integrate each individual's inputs into few formats of database so that it will be posted explicitly and will be shared and accessed later conveniently.

Externalization mode requires a continuing commitment from employees as they agree to more formally input their tacit knowledge to the organization as a whole. In other words, employees at this point must forcefully cooperate among one another to become larger groups to provide useful knowledge to advance the organization. This step is challenging as employees must be willing to provide for the other members of the groups their personal insight toward their work techniques, or their

very own knowledge of their customers. Note that advanced knowledge from professionals ought to be formatted into an explicit form that is easily understandable for most employees in the organization (Nonaka and Konno 1998). Management in the organization must emphasize the importance of this mode and establish some control mechanisms or some incentives for the employees.

As with socialization mode, Glisby and Holden (2003) again argue that there is cultural constraint embedded in this externalization mode. They first argue that tacit knowledge has much more context than to be formalized to explicit knowledge. Tacit knowledge is intertwined with many personal beliefs and commitment to the extent that if tacit knowledge is changed to a new format, much of the knowledge would be lost. In other words, given the nature of the tacit knowledge, some virtues of the tacit knowledge would be lost during the transformation to explicit knowledge. In non-Japanese organizations, as in socialization mode tacit knowledge is gradually and slowly shared among employees, and then among groups toward the organization as a whole, the lightly shared tacit knowledge loses a considerable amount of its merit. Glisby and Holden (2003) stress further that while the western mind prefers explicit knowledge, the Japanese mind is basically familiar with tacit knowledge.

One strong organizational culture in Japanese context is that employees believe in the notion that the group is greater than the sum; this

belief produces harmony which in turn enables interactions among many parties comfortably. Consequently the willingness from employees to commit in the conversion of the tacit to explicit knowledge could be done conveniently. In some cases analysis on the effects of organizational characteristics on knowledge activities and knowledge sharing performance (Cho Young-Hyun and Lee Kyung-Geun, 2007; Ki Ho-ik and Park Young-Kyu, 2012).

   Proposition 5: Accumulated and forcefully shared knowledge in an organization, which has strong culture in communication and harmony, is more beneficial than tacit knowledge that is simple converted to explicit knowledge in an organization, which does not have such strong culture, because of the loss of merit in the tacit knowledge during the conversion process.

   Combination mode focuses on combining scattered explicit knowledge into more complex systematic groups of explicit knowledge. To detect and accumulate those scattered explicit knowledge implies that there are many sources of explicit knowledge available for this mode. Integration of explicit knowledge from both inside and outside of the organization yields greater usefulness of the total explicit knowledge for the organization. Strategic use of combined explicit knowledge can gain competitive advantage for the organization. Examples of internal explicit knowledge are from each group's deliverables in the

organization. Examples of external explicit knowledge are those documents made publicly accessible and gatherable such as statistics data, stock exchange data, and public policy. In this combination mode, all parties such as management and technical staff are strongly encouraged to cooperate in order to create useful pools of explicit knowledge. Management at all levels must participate to guide how to combine the scattered explicit knowledge. As Nonaka (1994) emphasized that the practical benefit of this dynamic knowledge conversion process between tacit and explicit knowledge greatly lies at this externalization mode.

   Information systems such as data mining systems with powerful information learning, combining and classifying techniques and groupware in network environments including the Internet (Alavi and Leidner 2001) can be very powerful tool to again facilitate combining process and thus producing strategic knowledge. Therefore, in practice, not only can general technology such as telephone or remote virtual conferences such as micro blog be useful, but also advanced information systems will be evidently necessary and very beneficial to the combination mode(Kang Min Su et al., 2015).

   Proposition 6: Information technolgy systems are most effective and beneficial in knowledge management in the combination mode.

   Glisby and Holden (2003) argue that the

combination mode is beneficial greatly and mostly with the structure of Japanese-based organizations that, as mentioned in the socialization mode diffusively tied with the Japanese cultural management practices, supports encouragingly sharing tacit knowledge. Japanese organizations mostly have no clear-cut division, thus no interdepartmental issues and less communication layers issue. In contrast, the organizational structure of the West, which focuses on precise authorities and layers, does not do so well in acquiring and sharing knowledge without a great amount of effort.

The effect of such difference is that: first, the explicit knowledge scattered throughout in employees in the western organizations would be difficult to combine because the number of participators are limited. Consider one traditional decision management practice in Japanese style called 'Ringi', the approach circulates theoretically all important information or knowledge regarding decision making and enthusiastically seeks responses from all level of employees. By considering employees' values, this practice values the employees and would make certain that no employee is left out of the decision process. The practice ensures also that all knowledge from all employees would be included and combined.

Second, the combined explicit knowledge becomes limitedly accessible as opposed to supposedly accessible by all employees in the organization. Because in the Western organizations, mostly only managers are responsible for managing important information

and knowledge; therefore, other employees have no authority to access the knowledge unless given permission. Also, in the Western organizations, the core is the managerial level. In Japanese organizations the core is the worker level. Since worker class employees are important, they can access knowledge of the organization more freely.

Proposition 7: The precise authority layer in knowledge management negatively affects seeking and combining explicit knowledge.

The purpose of the internalization mode is to convert explicit knowledge back to tacit knowledge. In particular, employees in the organization ought to learn to advance themselves by identifying relevance explicit knowledge made available in the organization from combination mode and embodying it back as new adjusted and gained tacit knowledge. In practice, working in team environment, learning-by-doing, training, and exercises allow each employee to access and experience the knowledge in the organization better (Chang-Jung Kim, 2012). At this mode, there is no information system to actually help convert explicit knowledge to tacit knowledge for employees, except that those employees ought to perceive that new knowledge through learning or training will be beneficial to them. It is undoubtedly related to cognitive ability and self motivation.

Glisby and Holden (2003) argue that the logic behind the internalization mode is much related to Japanese culture. In Japanese

organizations, employees are always and seriously expected to show willingness to learn and improve themselves otherwise those employees who lack such willingness would be socially deemed as a liability. In addition, as mentioned the structure of the Japanese organization, that is somehow blurred yet effective in term of assigning responsibilities to employees, is influential here. Unlike the Western employees who have fixed position and responsibilities and tend to reject the tasks mismatching their dignity, the Japanese employees also respond positively toward the rotation of employees throughout the organization. The Japanese employees have realized through rotation, they have more opportunities to explore and absorb new knowledge, to improve their skills and to ultimately sustain their socioeconomic status in the organization.

Ultimately, the newly created tacit knowledge, also considered new experience that will enable employees to form a new set of their very own ideas and experiences and will lead to a new spiral circle of the knowledge creation model; the process and practice that helps the organization manage its knowledge. Note that in practice, the more people from all departments, especially senior management participate in the transformation between tacit and explicit knowledge, the faster and larger Nonaka's knowledge creation model becomes (Nonaka 1994).

Proposition 8: The willingness and commitment to knowledge of individuals is positively associated with the internalization mode in organizations.

Ⅳ. Analysis and Discussion

1. Limitations of Knowledge Creation Model

Based on the discussion and all of the proposed hypotheses, it is reasonable to state that organizational culture is crucial in knowledge management in any organization. Therefore, Glisby and Holden's arguments (2003) should be concerned to validate whether the same Nonaka's knowledge creation model should be universally accepted without any conditions for all organizations. The arguments do not attempt to discard the value of the organizational knowledge creation theory, but to add one more key concern about the cultural constraints to the theory. The culture effects toward the theory are strongly encouraged to be studied by future researchers for both Information Systems and management researchers. Hopefully, we may have a better model adapted from the Nonaka's knowledge creation model, or we may have to rethink how to design the knowledge conversion model for each style of management and even for different organizational cultures to avoid the difficulty of adaptation of general models such as Nonaka's knowledge creation.

In the previous perspective discussion, Nonaka's the organizational knowledge creation

theory is one of the most widely accepted and influential theory among knowledge management theorists. One of the contributions of the theory is evidently the Nonaka's knowledge creation model that is purposefully theorized to explain systematically how the organization can define and exploit knowledge. Despite the contribution of the theory, the management still has difficulty to follow and apply the Nonaka's knowledge creation model for organizations. Perhaps in order to help solve the issues and to advance the knowledge management, a new perspective is necessary.

2. The New Perspective for Knowledge Management

This paper analysis the philosophy of Henri Bergson as a new perspective for knowledge management. Since there are always issues or limitations to apply management theory to management field, it is fair to turn to a new perspective such as philosophy. Although there are not as many Bergsonian researchers as there are Nonaka's supporters, the Bergson's thinking is not any less valuable to knowledge management than currently existing theories. In short, the cross-field study between knowledge management and philosophy deserves more attention from IS researchers. However, this paper will discuss only several views of Bergson of which we and some researchers (Styhre, 2003; 2004) find intriguing and applicable for knowledge management in organization.

In much of knowledge management literature, tacit and explicit knowledge have been used universally. However, researchers sometimes use two types of knowledge without fully realizing that there may be deeper implication behind them. In fact, knowledge itself is even more difficult to explicitly define. Bergson states that (Marrati, 2006): "We cannot know what knowledge is about unless we replace intelligence in the general movement of life. Only in doing so will we able to grasp simultaneously how the frames of knowledge have been constructed and how it is possible to enlarge or go beyond them." In Bergson's view, human exists because human constantly experiences changes throughout the dimension of time or duration in his own term (Marrati, 2006). In contrast, objects, which will not change in any kind of forms, will not experience time. At this point, it may imply that a piece of knowledge that most researchers call tacit knowledge will change constantly as human changes in time. On the other hand, the other piece of knowledge accepted as explicit knowledge, by most definitions, will not change itself because it does not interact with time. Human fails to recognize the grand power of time dimension toward knowledge. Bergson's notion (Marrati, 2006) "time is the invention of the new, or is nothing at all" is the perfect statement in point.

There are implications of the power of time. It suggests that considering time, tacit knowledge always changes, and as a result, human minds always constantly realize new

knowledge. To business organizations, it implies that the immeasurable whole tacit knowledge through out time is in fact greater than the amount of the tacit knowledge that is defined and employed by the management in organization. Therefore, no matter how enthusiastic the management is to obtain the tacit knowledge among employees, it should be cautious that unless communication among all parties is frequently constant, there will be not much benefit from the attempt as such knowledge will always grow, be renewed and sometimes improved. At this point, it is reasonable to compare the relationship between time and tacit knowledge to the socialization mode of Nonaka's knowledge creation model that communication is undeniably a key factor. As mentioned, socialization mode functions well if employees are willing to participate. In addition, the communication should occur frequently and regularly as seen in the success in knowledge management in Japan organizations due to Japanese strong culture in social contact.

Similarly, the concept of time dimension could be applied toward organizational usage of so called explicit knowledge. In Bergson's view, an amount of knowledge that is made explicit may be considered merely objects, because there is no change from the effect of time. Thus, the process to make knowledge explicit is crucial to determine whether the result knowledge will be actually valuable. For practical examples, if the explicit knowledge only stays the same without any update in the knowledge management computer system, it is

unworthy for such a grand idea of knowledge management system.

V. Conclusion

To Bergson, knowledge is fluid and always in human being. To focus on the interaction among people is to help improve communicate and consequently help grow the knowledge in an institution. It is fair to say that the knowledge embedded in employees and the communication among them may be more important than an attempt to extract the very tacit knowledge in employees and define or store the knowledge explicitly. Therefore, the organization may be able to utilize and realize the real benefits from the knowledge through employees' communication rather than a system that store explicitly extracted knowledge. Interestingly, this inference may apply to the previous discussion of Nonaka's theory. First, the culture like Korean's or organizational culture in terms of communication and socialization is quite important to determine the success of the knowledge management in the organization. Second, to Bergson, it does not deal with any kind of IT systems, but it may imply that people are more valuable to sustain knowledge since knowledge always changes.

However, all the above discussion about the implication will be slightly beneficial if after all it may be not appropriate to define knowledge as tacit and explicit knowledge. Styhre (2004) points out that "tacit and explicit

knowledge are not discrete categories, but always coexist in one another". Specifically, Bergson's view implies that there is much more substance embedded in human's mind to be merely categorized as explicit and especially tacit knowledge. Styhre also mentions "to Bergson, knowledge cannot be separated into explicit and tacit knowledge, but remains an assemblage consisting of various cognitive capacities". Marrati (2006) even mentions that "in the universe, as a whole, everything is related, no matter how distant the relation might be". Bergson views the classification of knowledge as tacit and explicit as the problem of representation, not the problem of nature of the knowledge. Knowledge is always encapsulated in human's mind and ready to be recalled and used.

To apply to organization, it may be reasonable to say that at times, the employee's abilities to solve problems may be achievable through both intelligence and intuition, or sometimes more through intuition. The management should encourage improvement for employees' abilities rather than require them to participate in a system that requires an effort to submerge into intuition and acquire the knowledge that may not yield the real knowledge that is used to solve the problem. The reason is that intuition and intelligence work in an opposite direction and that it is not always useful to try to analyze situation systematically. However, this does not suggest that explicit knowledge should be abandoned, but in contrast it is fair to maintain its notion. In practice, explicit knowledge will always be

useful if the management knows how to define it and does not overvalue it. In conclusion, the philosophy of Bergson should help the organization realize that people are always the valuable place to attain knowledge and improving employees mean improving knowledge in the organization.

Knowledge management in organizations is as challenging to both researchers and practitioners. knowledge management deserves more attention from both management and information systems community, because from our discussion and proposed hypotheses above, knowledge management has invariably been involved in both fields. The implication from any analysis from both fields will be beneficial to advance the repository of knowledge of knowledge management itself. There are many theories applied to view knowledge management in different images such as Resource-based and Knowledge-based of the firm, Institutionalization theory, Organizational knowledge creation theory, and Bergson's perspective. Each theory yields different benefit for knowledge management advancement.

We believe that this paper may contribute to both practitioners in terms of perspectives in real management, and to researchers to encourage more studies with more theoretical lens than currently done. In addition, empirical studies are encouraged to follow up for the proposed hypotheses.

References

1. Ahn, Kwan-Young, Park, Roh-Gook, (2016), "The effect of small and medium enterprises CEO's leadership on knowledge management", *Asia-Pacific Journal of Business Ventuing and Enterpreneurship*, Vol. 11(1), 29-38.

2. Alavi, M. and Leidner, D.E., (2001), "Review: Knowledge Management and Knowledge Management Systems: Conceptual Foundations and Research Issues", *MIS Quarterly*, 25, 107-136.

3. Barney, J., (1991), "Firm Resources and Sustained Competitive Advantage", *Journal of Management*, Vol. 17, 99.

4. Chang-Jung Kim, (2012), "Comparative study for knowledge and learning organization", *Korean Business Review*, Vol. 5(2), 53-71,

5. Cho Young-Hyun and Lee Kyung_Geun, (2007), "The effects of Chemyoon(social face) sensitivity and weness on knowledge management activities", *Journal of Korean Industrial Economic Association*, Vol. 20(4), 1689-1715.

6. Chuang, S., (2004), "A resource-based perspective on knowledge management capability and competitive advantage: an empirical investigation", *Expert Systems with Applications*, Vol. 27, 459-465.

7. Clwmes, B.W. and Douglast, T.J., (2005), "Understanding strategic response to institutional pressures", J*ournal of Business Research*, Vol. 58, 1205-1213.

8. Conner, K.R. and Prahalad, C.K., (1996), "A Resource-based Theory of the Firm: Knowledge Versus Opportunism", *Organization Science*, Vol. 7, 477-501.

9. Dimimaggio, P.J. and Powel, W.W.,(1983), "The Iron Cage Revisited: Institutional Isomorphism and Collective Rationality in Organizational Fields", *American Sociological Review,* Vol, 48, 147-160.

10. Garavelli, C., Gorgoglione, M. and Scozzi, B., (2004), "Knowledge management strategy and organization: a perspective of analysis", *Knowledge and Process Management*, Vol. 11, 273-282.

11. Glisby Martin and Holden Nigel, (2003), "Contextual Constraints in Knowledge Management Theory: The Cultural Embeddedness of Nonaka's Knowledge-creating Company", *Knowledge and Process Management*, Vol. 10,(1), 29-36.

12. Grant, R.M., (1996), "Toward a Knowledge-Based Theory of the Firm", *Strategic Management Journal*, Vol. 17, 109-122.

13. Greenaway, K.E. and Chan, Y.E., (2005), "Theoretical Explanations for Firms' Information Privacy Behaviors", *Journal of the Association for Information Systems*, Vol. 6, 171-189.

14. Hur, M. S. and Chon, M. J., (2007), "Knowledge Management Systems", Hankyung Press.

15. Kamoche, K. and Harvey, M. (2006), "Knowledge diffusion in the African context: An institutional theory perspective", *Thunderbird International*

Business Review, Vol. 48, 157-181.

16. Kang Min Su, Arum Park, Kyoung Jun Lee, (2015), "Case study on the enterprise microblog usage: focusing on knowledge management strategy", *Journal of Intelligent Information Systems,* Vol. 21(1), 47-63.

17. Ki ho-ik and Park Young-kyu(2012), "Analysis on the effects of organizational characteristics on knowledge management activities and knowledge management performance", *The e-business studies,* Vol. 13(5), 77-98.

18. Marrati, Paola, (2006), "Time, Life, Concepts: The Newness of Bergson", *Project MUSE,* MLN 120 (2005): 1099-1111.

19. Nonaka Ikujiro, (1994), "A Dynamic Theory of Organizational Knowledge Creation", *Organization Science,* Vol. 5,(1), 1994.

20. Nonaka, I. and Takeuchi. H., (1995), "Theory of Organizational Knowledge Creation", *Knowledge-Creating Company,* 56-94.

21. Nonaka, I. and Konno, N., (1998), "The Concept of 'Ba': Building A Foundation For Knowledge Creation", *California Management Review,* Vol. 40(3).

22. Nonaka, I. , Vonkrogh, G. and Voelpel. S., (2006), "Organizational Knowledge Creation Theory: Evolutionary Pathsand Future Advances", *Organization Studies,* Vol. 27, 1179-1208.

23. Nystrom, P.C. and Starbuck, W.H., (1984), "Organizational Facades", *Academy of Management Proceedings,* 182-185.

24. Oliver, C., (1991), "Strategic Responses to Institutional Processes", *Academy of Management Review,* Vol. 16, 145.

25. Orlikowski, W.J. and Barley, S.R., (2001), "Technology and Institutions: what can Research on Information Technology and Research on Organizations Learn from each Other?", *MIS Quarterly,* Vol. 25, 145-165.

26. Sang Yun, Gyowan Choo, (2014), "An empirical study of the impact of the technology innovation capabilities and patent-related activities from the knowledge management and new product development on the business performance", *Journal of Korean Industrial Economic Association,* Vol. 27(4), 1653-1683.

27. Schmid, H., (2004), "Organization-Environment Relationships: Theory for Management Practice in Human Service Organizations", *Administration in Social Work,* Vol. 28, 97-113.

28. Styhre, Alexander, (2004), "Rethinking Knowledge: A Bergsonian Critique of the Notion of Tacit Knowledge", *British Journal of Management,* Vol. 15, 177-188.

29. Suzanne Guerlac, (2005), "Thinking in time: Henri Bergson (an interdisciplinary conference)", *Project MUSE,* MLN 120 (2005): 1091-1098.

30. Yoo Hyo-Sook, Choi Hyuk-Ra, Kim Seon-Myung, (2013), "Factors influencing the performance of knowledge management systems: Focused on individual characteristics and task-technology fit", *Journal of Korean Contents Association,* Vol. 13(1), 376-389.

요 약

지식 원천 이론과 제도적 이론 관점에서 조직의 지식 수용과 창출에 관한 개념적 연구

선종학[*]·윤종현[**]

본 연구는 지식원천 이론과 제도적 이론관점에서 조직의 지식 수용과정과 창출활동을 분석 설명하고자 하였다. 연구목적으로는 첫째, 지식경영과 지식경영활동에 적용되어지고 있는 다수의 이론들의 본질을 선행연구를 중심으로 살펴보고, 둘째, 지식경영에 적용된 이론들의 차이점과 공통점을 분석하여, 효과적인 지식경영을 위한 제언을 제공하는 것이다. 연구결과, 지식경영활동의 자원과 제도를 중심으로 본 지식 수용이론과 조직의 지식창조활동과 관련된 이론들을 중심으로 지식경영 활동의 본질을 확인한 결과, 지식수용 활동은 구성원 개인들이 보유하고 있는 업무관련 지식이나 노하우를 체계적으로 발굴하여 조직 내부의 보편적 차원의 지식으로 공유하고 적극 활용하여 조직 전체의 경쟁력 향상 도모가, 지식창출 활동은 조직 내 개인, 집단, 조직 등 모든 차원에서 지식 창출을 위한 학습, 다차원적 지식이전과 공유를 위한 창조적 문화 활성화과정의 중요성을 이론으로 살펴보았다. 또한, 지식 창출 이론의 비교 분석의 결과, 우리는 보편적으로 받아들여지고 있는 조직의 지식 창출이론에 대하여 몇몇 인자에 기초하여 조직의 지식을 관리하는 데 제안 할 수 있는 가설과 방법을 논의 하였다.

핵심주제어: 지식수용, 원천 이론, 제도적 이론, 지식창출, 지식경영시스템

─────────────
[*] 웨버주립대학교 경영학부 강사(제1저자), jonghaksun@weber.edu
[**] 신라대학교 경영학부 교수(교신저자), yoonjh@silla.ac.kr