

STIMULATING STRATEGIC ORGANIZATIONAL PROCESSES: KNOWLEDGE CREATION AND ORGANIZATIONAL LEARNING

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Abstract. *Within this paper, we approach the basic concepts of knowledge management that we consider to have a great potential for organizational development. In the main part of the paper we present a literature analysis throughout which we demonstrate that knowledge dynamics and organizational learning may be developed into strategic capabilities of an organization and if they are efficiently managed they will bring organizational success. Within this section, we argue that organizational learning occurs when an organization synthesizes and institutionalizes the intellectual capital of employees, as the knowledge that they accumulate through learning, culture, knowledge systems, routines and skills. Throughout the second part of the paper we shall try to argue that organizational learning may be applied and stimulated mainly through the following knowledge processes: knowledge transfer and knowledge creation. Supporters of a knowledge-based vision of the organization point out that the two predominant goals of the organization are the generation and application of knowledge. The main goal of the paper is to validate our theory/hypothesis that an organization which has the ability to create knowledge continuously has the advantage of having developed a unique capability which is 'to be dynamic'. We bring relevant literature references that support this idea, and we also present research evidence. According to our research study, within Romanian SME's in the NE area, have been identified various factors which influence the development of knowledge processes within an organization. Among the identified factors we considered interesting to present the relevance of the following ideas: encouragement of knowledge creation, the company's policy for sustaining innovation and methods and sources of knowledge combination. Throughout this research have been identified some practices of business organizations in the North-East counties of Romania with respect to knowledge and learning processes. The investigation results showed a great interest of the organizations towards periodically reviewing the proposed objectives, towards correcting discrepancies between results and objectives and also towards the performing of analysis on competitors and market trends. In conclusion, we want to create a logic and supported link between knowledge creation and organizational learning and to offer some viable options in order to stimulate these processes and obtain organizational performance.*

Keywords: *explicit knowledge; intellectual capital; knowledge creation; organizational learning; tacit knowledge.*

The strategic nature of organizational learning process

The concepts of learning organization and knowledge management have activated debate and anxiety since their introduction. Their association, increasingly common today, maintains a close interdependence between them and still undefined contours. The inquiry is whether supporting a learning organization is the same thing with knowledge management at the organizational level. In the endeavor to answer this question it is necessary to address the concepts of organizational learning, learning organization and knowledge management (Loermans, 2002).

A bridge formed of a common purpose and common tools, namely learning and resource use or knowledge links knowledge management and organizational learning. In the current environment no

organization can develop if it doesn't learn; and today an illiterate person is no longer someone that does not know how to read or write but refers to the fact that he is unable to learn, to unlearn and to relearn. Maybe it's exaggerated the connection of individuals and organizations inability to learn to a *modern disability*. Learning is the only process through which can be enriched knowledge and thus increase the capacity of action (Senge, 1990).

Learning occurs when an organization synthesizes and institutionalizes the intellectual capital of employees, as the knowledge that they accumulate through learning, culture, knowledge systems, routines and skills, no matter they are conducted formal, informal or accidental (Marsick & Watkins, 1996). Formal learning takes place in classrooms and is coded and structured. Informal learning is self-imposed and directed by the individual towards a target, while accidental learning happens in the subconscious during an activity or task. Learning is separately configured for the individual level and organizational level. Individual learning depends on the characteristics and general abilities of a person and is subject to the social context, which the individual belongs to. With respect to organizational learning, we invoke Teare and Dealtry (1998) according to which organizational learning is that continuous process of generating and increasing individual and collective learning in order to improve organizational performance. In other words it is an activity focused on a particular objective and framed in a period of time and that will lead to the development of a set of existing skills or to win some very specific knowledge in a particular field.

Argyris and Schon (1978) accept that organizational learning is to attempt to change organizations into learning entities by advancing and inserting adapting in a cognizant, methodical and synergistic path keeping in mind the end goal to include all individuals from an organization. To encourage such a methodology is restrictive on the mission, structure, culture and methodologies of the association (Marsick & Watkins, 1999). On the other hand, it is for the most part considered that organizational learning happens unexpectedly and casually.

Learning can be internal and external, and to build and strengthen competitive advantage the organization must decide to what extent they use these learning options. For example R&D investment will generate internal learning while learning supplied by a collaborator or partner is classified as external learning.

Learning is divided into two categories namely: learning through exploitation and learning through exploration. Exploitation means the use of new knowledge about certain things that might later become known and exploring means the use and development of things that are already known. The balance between these ways of learning is crucial for the survival and prosperity of organizations.

Organizational learning and the learning organization are two concepts which meaning may be better identified and delimited when discussed together and if used together everything takes on a greater operational value. We justify thus presenting alternating paragraphs about some connection issues between these concepts.

Initially, the learning process has been studied and there have been discovered three levels or stages of evolution of learning in an organization: simple loop learning (single loop learning), double-loop learning (double loop learning) and triple loop learning (triple loop learning) (Argyris & Schon, 1978; Senge, 1990). We synthetically express the significance of the three levels. Simple loop learning occurs when individuals improve their current practices and work better. Double loop learning means reshaping of mental models in order to help employees learn to do new things. Triple loop learning, is that the individuals induce a transformation of the context or perspective on their intention to help them learn, evolve and produce the results you seek. In this respect, the learning organization is one in which learning is a key factor which turns continuously and facilitates individual and organizational learning processes for all its members. Within this organization, individual and organizational learning is valued and valued as the primary means of aces meet mission, culture, structure and processes (Marsick & Watkins, 1999).

If employees feel they are valued for what they are rewarded for the work they do within the organization they become motivated to learn and to improve not only the technical skills related to their work but also organizational and social communication skills. Employees learn directly and indirectly through the organizational culture to become responsible for their work. A learning organization encourages employees' development and progress to new areas where they can build a career and thus may be avoided departure / waiver of employees in the organization. The learning organization mistakes are easily forgiven and the focus is on exploration. Training activities on-the-job type by which employees successively changing places in order to broaden the expertise and discover their own potential, is also a practical feature of the learning organization (Barton, 1995).

Organizational learning and the learning organization were and in some cases still are two concepts that are often confused. Although both can be related to knowledge management (Roth, 2003; Rowley, 2000; Davenport, De Long, & Beers, 1998; Nonaka & Takeuchi, 1995), organizational learning is a tutorial and process-oriented (Easterby-Smith & Lyles, 2003), while the learning organization is an example of good practice. Organizational learning offers solutions to improve, while the learning organization prescribes a model of success. In Table 1 we present a selective chronology, for a period of 25 years of organizational learning approaches in the literature:

Table 1. Definitions of organizational learning (adapted after Bejinaru, 2014, p.103)

Author	Definition
Morgan and Ramirez (1983)	The process by which members of an organization are using learning to solve a common problem they face with.
Fiol and Lyles (1985)	The process of improving actions through better knowledge and understanding.
Levitt and March (1988)	The process of coding interfaces in the history of the organization's routines that guide behavior.
Senge (1990)	Continue testing experience and transform it into knowledge available throughout the organization and making it relevant to its mission.
March (1991); Simon (1991)	The organization that learns through the individuals who learn.
Huber (1991) Morgan (1997)	Organizational learning involves the acquisition, dissemination, interpretation and archiving of new knowledge.
Marchand et al. (2000)	Gradual process by which staff learn by experience and cooperation.

Analyzing each definition and then all together it can be seen that the definitions vary according to the characteristics of organizational learning it declares. A systematization of these characteristics leads to the most common features mentioned in relation to organizational learning, such as experiential learning, individual learning, knowledge transformation, behavior change, performance improvement.

Thus, organizational learning, according to the definitions considered, can be understood as a process by which members of an organization learn together, experiencing and the knowledge they process lead to improved performance through behavioral changes. If this combination of characteristics identified may serve as a definition of organizational learning, we repeat the process for the learning organization. Table 2 shows the selective main definitions of a learning organization:

Table 2. Definitions of a learning organization (adapted after Bejinaru, 2014, p.104)

Author	Definition
Senge (1990)	The learning organization uses personal performance, mental models, shared vision, team learning and systemic thinking, as disciplines of learning in order to develop and integrate organizational learning.
Garvin (1993)	A learning organization is an organization driven to create, acquire and transfer knowledge that changes significantly its behavior, reflecting new knowledge and understandings.
Mabey and Salaman (1995)	A learning organization applies flexibility, teamwork, continuous learning, personal development and employee engagement.
Pedler et al. (1997)	A learning organization is a tree of life created by members of the organization, where the image of energy and life is characteristic for growth and survival.
Murray (2002)	Learning organizations attract, disseminate and use knowledge of individuals, distributing them throughout the organization to achieve its strategic objectives.
Örtenblat (2002)	The learning organization is a service organization that integrates learning, learning structures, organizational learning and learning climate.
Yang et al. (2004)	Learning organizations are organizations that exhibit characteristics of lifelong learning and adaptive features.

Similarly we highlight the most common characteristics of a learning organization as observed in the definitions we examined: lifelong learning, teamwork and favorable climate for learning, adaptive behavior, collection, dissemination and knowledge transfer, employee engagement and creating a shared vision, reaching goals, strategic thinking, growth and performance.

Organizational learning takes as support individual learning being the result of this process interaction with organizational factors. Individual learning is defined as the process of building mental models which complexity increases with time and that organize individual experience around cognitive nucleus which make knowledge possible beyond direct experience. Mental models or thinking models (Brătianu & Murakawa, 2004) are conceptual representations by which we live and understand the systems that guide our actions in these systems. Mental models can be either descriptive, encoding declarative knowledge, expressed in the form of theories about the world or prescriptive, setting an action behavior. This second category of models include necessary knowledge to achieve a particular goal, plus information from the environment that we have about the world and on which is based most of our decisions and actions. Definitions of organizational learning in the table above relate to improving organizational performance, due to changing organizational conditions generated by individual learning. Organizational learning is thus connected with individual learning, and its mental representations.

Organizational learning is a process of changing the behavior of individuals, groups and organizations and may be combined with knowledge processes in order to achieve organizational performance. Through organizational learning procedures may be created and supported the native human characteristics to learn. The practices of organizational learning facilitate knowledge processes and offers the opportunity to focus on the emotional aspects that inspire, motivate and build up trust of employees. Through its mission organizational learning promotes the reason for employees to be in connection and care about what is happening in the organization and community.

Strategic organizational process

Throughout this topic of the paper we suggest, and try to demonstrate, that organizational learning may be applied and stimulated mainly through the following knowledge processes: knowledge transfer and knowledge creation. Supporters of a knowledge-based vision of the organization point out that the two predominant goals of the organization are the generation and application of knowledge. An

organization that has the ability to create knowledge continuously has the advantage of having developed a unique capability - 'to be dynamic'. The power to generate and apply new organizational knowledge is regarded as one of the main sources of competitive advantage of an organization. If knowledge is a source of competitive advantage, then, understanding and managing the dynamics of knowledge become vital for any organization activities. But at the same time, there is a risk of generating dynamic knowledge-competitive effects on the market. Thus the organization that wants to meet dynamically the changing external environment must be able to create knowledge in a more efficient and faster way than its competitors (Brătianu & Orzea, 2010, p.42).

Across time the importance of creating knowledge increased mainly due to its ever growing importance and thus in the literature there are many works devoted to the study of this process. Literature study led to the identification of three distinct phases in the process of knowledge management: before the 90s, early 90s and late 90s. In the first phase, before the 90 managers focus their attention on information and data processing, and the management of information systems.

Nonaka's contribution to the development of the theory of knowledge creation integrates the processes of knowledge creation (SECI) and the context (the concept of Ba seen as a space for knowledge creation) and stimulus conditions (leadership, organizational culture, learning processes). This theory emphasizes the importance of context knowledge and stimulating conditions in organizations.

The starting point of Nonaka's and Takeuchi's theory was the idea that organizations should create new knowledge in order to innovate and recreate their environment instead of processing information in order to merely adapt to changing environment. As Nonaka and Takeuchi (1995, p.8) put it: "By organizational knowledge creation we mean the capability of a company as a whole to create new knowledge, disseminate it throughout the organization, and embody it in products, services and systems..." One crucial point that differentiated Nonaka's and Takeuchi's theory from the management ideology of the time was the idea that only individuals created knowledge, and the organization should support creative individuals by providing those contexts to create knowledge (Nonaka and Takeuchi 1995). Hence, knowledge was recognized as tied to human element because humans in the organization identified, interpreted and used that knowledge. However, Nonaka and Takeuchi emphatically remarked that although knowledge creation started from the minds of the individuals, personal knowledge was generally of little value to an enterprise unless it was shared in the organization. This reflected the positivist roots upon which business and management studies were traditionally based (Hislop 2005).

As Myers (1996, p.2) put it, "For knowledge to provide a company with sustainable competitive advantage, such knowledge must be independent of any given individual. For this reason we can identify - and then manage - organizational knowledge only to the extent it has been captured by an organization's systems, processes, products, rules, and culture." (Virtanen, 2014).

Dalkir (2005) outlines that the two most commonly encountered objectives of knowledge management are innovation and reuse. *Innovation* is closely linked to the generation of new knowledge or new linkages between existing knowledge. *It is a popular misconception, however, to think that innovation occurs in isolation.* Actually, innovation rests firmly on a large body of accumulated experiences, both positive and negative, based on what has and has not worked in the past.

Creativity often involves lateral thinking such as seeing an analogy in a completely different context. Similarly, reuse is often mistakenly equated with dull, routine, and unproductive work. In fact, reuse forms the basis for organizational learning and should be viewed more as a dissemination of innovation. Thus we must acknowledge that the sources of innovation and knowledge reuse consist of either internal or external discoveries, or they may stem from business practices or from knowledge workers' competencies. More often, improvements will result from some combination of these types of sources.

The author (Dalkir, 2005) talks about an evolutionary framework in which new knowledge in the form of innovations eventually ends up becoming incorporated into organizational memory to form the

object of reuse so that the benefits of this new knowledge, know-how, can be spread throughout the organization.

This type of knowledge strategy provides the basic building blocks used to achieve this organizational learning and continuous improvement so as to not waste time repeating mistakes and so that everyone is aware of new and better ways of thinking and doing.

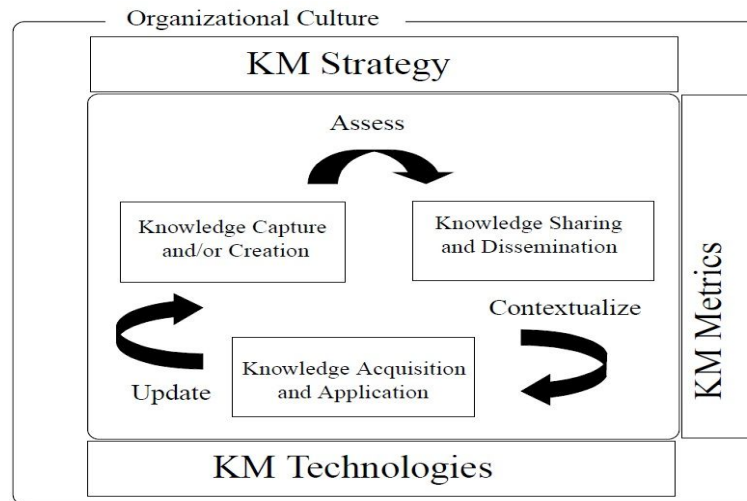


Figure 1. Knowledge management strategy and knowledge management metrics in an integrated knowledge management cycle (Dalkir, 2005)

This knowledge management strategy is also known as the 'Integrated KM Cycle' framework (see Figure 1) developed by Dalkir (2005) that consists of three main phases: 1. Knowledge Capture and/or Creation; 2. Knowledge Sharing and Dissemination; and 3. Knowledge Acquisition and Application. Though each phase has a precise role and must lead to specific 'outputs' this knowledge management strategy gives the opportunity of choice. Throughout the first phase must be acquired specific knowledge and there are two possible ways of doing this: either by capturing the necessary knowledge or by creating it. We may say that even these are totally different methods they will finally lead to obtaining the right and needed knowledge. While knowledge capture refers to the identification and codification of existing internal and/or external knowledge and know-how, knowledge creation is about the development of new knowledge and know-how, e.g. innovations (Dalkir, 2005). Throughout the second phase the gathered knowledge must be checked with respect to its relevance and distributed towards the most appropriate workers. Part of the knowledge each worker receives within this stage might become contextualized and further used within the organizations' processes. The same scenery is valid for the other option of knowledge creation. Any innovative ideas, any new knowledge must be checked and distributed to the workers who might use it accordingly. Part of this innovative knowledge, the useful one, might be contextualized in order to be further used. Whether it's obtained through capture or through creation the knowledge content developed in the second stage must be directed to the potential end-users (for their specific tasks) through sharing and dissemination, taking into consideration the means of delivery, timing, frequency, form and language. Within the third stage users will then try to understand the content, validate its usefulness and relevance, and make use of it through its application in their work (Dalkir, 2005). The more experience workers have in such tasks the better efficiency will be achieved in knowledge usage. After the third stage is complete the integrated knowledge management cycle implies that the organization must restart the updating process for the existing knowledge base and thus the cycle reloads each time some specific knowledge is needed. The cycle can help organizations consider the different phases through which knowledge and innovation flow and the attitudes needed for this flow to happen.

Analyzing the literature we can conclude that the generation of new knowledge is the core of knowledge management, since it is intrinsically linked to their competitive advantage. Therefore,

knowledge as intangible resources has proved to be a strategic one and knowledge creation a core competence of the organization. Knowledge is no longer seen as an objective and scientific entity, but as an integration of subjectivity and objectivity, able to reflect a part of the economic reality. Dynamic knowledge models proposed in the literature are trying to explain organizational knowledge creation from a broader perspective than that of tacit and explicit knowledge.

Approaches and evidences of strategic organizational processes

In order to be motivated to support learning processes managers must understand the opportunities that can be exploited when managing knowledge. In the literature, we can find out that learning and knowledge interact mostly throughout four processes called *knowledge dynamics*. There are four conversion processes that occur between tacit and explicit knowledge. The first process is socialization. Knowledge is gathered from tacit knowledge of another person. Learning occurs not by speech or training, but through observation and imitation. Socialization process is considered, by Nonaka, as the most important type in the knowledge transfer cycle because it involves the transmission and transformation of key knowledge generated at individual level (Polanyi, 1983). Externalization is transforming tacit knowledge into explicit knowledge through the use of metaphors and analogies or gestures and body language. Combination is the third process and is seen as a stage in which knowledge is mixed and new explicit knowledge are structured to integrate the body of explicit knowledge already present (Brătianu, 2010). The last process is the internalization, the newly perceived explicit knowledge will be transformed back into tacit knowledge. Internalization closes the cycle of knowledge creation and is an ongoing process that is based on social interaction (Brătianu & Bejinaru, 2014).

According to a previous research (Bejinaru, 2014) within Romanian SME's have been identified several factors which influence the development of knowledge processes within an organization. Among the described factors we considered interesting to present the relevance of the following ideas: encouragement of knowledge creation, the company's policy for sustaining innovation and methods and sources of knowledge combination.

Throughout this research have been identified some practices of business organizations in the North-East counties of Romania with respect to knowledge and learning processes. For example the analyzed organizations apply strategies of organizational learning throughout actions like knowledge transfer and knowledge combination. The investigation results showed a great interest of the organizations towards periodically reviewing the proposed objectives, towards correcting discrepancies between results and objectives and also towards the performing of analysis on competitors and market trends. Other statements contained in the questionnaire identified the extent to which the organization used *combination processes of knowledge*, namely: organizing debates, encouraging diversity of ideas, participation in decision making, interpersonal and interdepartmental communication encouraging. The high values recorded for items containing these ideas confirmed that in the minds of respondents they exist in a great extent in the organization in which they work. Considering the research methodology these reflect *knowledge combination* – actions. We appreciate that every evidence of positive results is worth to be analyzed and further transposed into a strategy.

With respect to *encouragement of knowledge creation* – there were identified several strategies which we present below. The message that emerges from putting together the answers of the items in the third (3) factor analysis is *to stimulate awareness and knowledge creation process*. In order of decreasing saturation coefficients, we see that the most important aspect that is related to knowledge creation is to stimulate the development of production methods and processes. If at first sight, in theory, it seems a problem that is currently addressed in business organizations, for this research is particularly important and relevant the fact that this item has such a high value for saturation coefficient - of 0.816. The following items with high values found in this factor are considering: whether the firm organizes group creativity sessions in order to generate new ideas and to solve complex problems (0.639); if the firm organizes training programs for managers (0.634); if the company encourages sharing their own experiences and not their monopoly (0.626). The high scores

obtained for these ideas show that the analyzed SMEs apply knowledge management strategies and factor no.3 reveals what strategies they apply for the encouragement of knowledge creation.

The same research (Bejinaru, 2014) shows that SMEs in the North-East region of Romania have a specific policy for sustaining innovation. One of the factors resulted in this research showed that the investigated firms support innovation initiatives. Identifying the perception of respondents in this case was based on the following ideas: to what extent the employees who want to promote new ideas and projects are supported logistically and financially by the firm; if the firm deals with obtaining intellectual property rights for new ideas and projects; or if within the firm there is a technology transfer center by which to be supported the innovative approaches. The appearance of innovation within an organization should be regarded as a result of a high level of creativity. A rigorous innovation program should guide the creative potential of employees and to make the best use of it for a final product. In close connection with the innovation aspect is that intellectual property should be part of any company's strategic actions.

Concluding remarks

Nowadays, perhaps more than ever it is necessary for learning to become the background of change. Organizations that fail to create and implement a culture of learning will not be able to adapt quickly enough, they will not meet evolving operating environment and will be certainly endangered to disappear from the market. This approach of management regards the integration of learning in the organizational system, process that refers to the orientation of the organization for learning and can open the way to significant competitive advantages (Brătianu & Bejinaru, 2014).

We consider to put forward the concluding aspects of the quantitative research and emphasize once again the importance of business environment evidences. The grouping of items that emerged from the exploratory factor analysis reveals that were correctly pointed concrete and important aspects of current activity of organizations in the North-East of Romania. Respondents' trend is clear and we can easily see the result in the course of factor analysis and rotation based on the matrix of factors.

Throughout the presentation of the research results we consider that we brought to light some practices of business organizations in the North-East counties of Romania with respect to knowledge and learning processes. To briefly review, the analyzed organizations apply strategies of organizational learning throughout actions like knowledge transfer and knowledge combination. In other words these actions that were identified reflect the companies' response to the imminent changes of the business environment as well as from inside the organization. The investigation results showed a great interest of the organizations towards periodically reviewing the proposed objectives, towards correcting discrepancies between results and objectives and also towards the performing of analysis on competitors and market trends.

In our view, both qualitative and quantitative research show that knowledge creation processes and organizational learning processes are both presented and applied in terms of their strategic dimension. In conclusion we say that we have created a logic and supported link between knowledge creation and organizational learning and have offered some viable options in order to stimulate these processes and obtain organizational performance.

References

- Argyris, C., and Schön, D. (1978). *Organizational learning: a theory of action perspective*. Readings: Addison-Wesley.
- Barton, L.D. (1995). *Wellsprings of knowledge: Building and sustaining the sources of innovation*. Boston: Harvard Business Scholl Press.
- Bejinaru, R. (2014). *Managementul cunoștințelor în organizații [Knowledge management in organizations]*. Bucharest: Didactică și Pedagogică Publishing House.

- Brătianu, C., and Orzea, I. (2010). Organizational knowledge creation. *Management, Marketing. Challenges for Knowledge Society*, 5(3), 41-62.
- Brătianu, C., and Murakawa, H. (2004). Strategic thinking. *Transactions of JWRI*, 33(1), 79-89.
- Brătianu, C., and Bejinaru, R. (2014). Evaluation of knowledge processes within the learning organization. Paper presented at the International Conference "Challenges, Performances and Tendencies in the Organization Management", Murighiol, Danube Delta, Romania, June 22-24, 2014.
- Dalkir, K. (2005). *Knowledge management in theory and practice*. Burlington: Elsevier Butterworth-Heinemann.
- Davenport, T., De Long, D., and Beers, M. (1998). Successful knowledge management projects. *Sloan Management Review*, 39(2), 43-57.
- Easterby-Smith, M., and Lyles, M. (Eds.) (2003). *The blackboard handbook of organizational learning and knowledge management*. Oxford: Blackwell Publishers.
- Hislop, D. (2005). *Knowledge Management in Organizations - A Critical Introduction*. Oxford: Oxford University Press.
- Levitt, B., and March, J.G. (1988). Organizational learning. *Annual Review of Sociology*, 14(1), 319-340.
- Loermans, J. (2002). Synergizing the learning organization and knowledge management. *Journal of Knowledge Management*, 6(3), 285-294.
- Marsick, V., and Watkins, K. (1996). Adult educators and the challenge of the Learning Organization. *Adult Learning*, 7(4), 18-20.
- Marsick, V., and Watkins, K. (1999). Looking at learning in the learning organization: A tool that can turn into a weapon. *The Learning Organization*, 6(5), 207-211.
- Morgan, G., and Ramirez, R. (1983). Action learning: a holographic metaphor for guiding change. *Human Relations*, 37(1), 1-28.
- Morgan, G. (1997). *Images of Organisations*. 2nd ed. Beverly Hills: Sage Publications.
- Nonaka, I., and Takeuchi, H. (1995). *The Knowledge Creating Company. How Japanese companies create the dynamics of innovation*. Oxford: Oxford University Press.
- Nonaka, I. (1994). *A dynamic theory of knowledge creation*. New York: Oxford University Press.
- Roth, J. (2003). Enabling knowledge creation: learning from an R&D organization. *Journal of Knowledge Management*, 7(1), 32-48.
- Rowley, R. (2000). From learning organization to knowledge entrepreneur. *Journal of Knowledge Management*, 4(1), 7-15.
- Senge, P.M. (1990). *The fifth discipline. The art and practice of the learning organization*. London: Random House.
- Spender, J.C. (1996). Making knowledge the Basis of a dynamic theory of the firm. *Strategic Management Journal*, 17(S2), 45-62.
- Teare, R., and Dealtry (1998) Building and sustaining a learning organization. *Learning organization*, 5(1), 47-60.
- Virtanen, I. (2014). How Tacit Is Tacit Knowledge? Polanyi's theory of knowledge and its application in the knowledge management theories. Academic Dissertation, Acta Universitatis Tampereensis 1947, Tampere University Press, Tampere 2014. Retrieved from <http://tampub.uta.fi/bitstream/handle/10024/95444/978-951-44-9493-2.pdf?sequence=1>.