

ORGANIZATIONAL LEARNING AND PERFORMANCE. A CONCEPTUAL MODEL

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ABSTRACT

Through this paper, our main objective is to propose a conceptual model that links the notions of organizational learning (as capability and as a process) and organizational performance. Our contribution consists in analyzing the literature on organizational learning and organizational performance and in proposing an integrated model, that comprises: organizational learning capability, the process of organizational learning, organizational performance, human capital (the value and uniqueness of human capital), management of the relationship between the process of organizational learning and performance. The result is a model that links organizational learning capability, the process of organizational learning and organizational performance. Our assumption is that the value of human capital, the uniqueness of human capital and management of the relationship between the process of organizational learning and performance are mediators in the relationship between the process of organizational learning and organizational performance. The paper represents a step in linking organizational learning and performance, by proposing a conceptual model, and it needs to be completed with further research in order to undertake an integrated measure of organizational learning and performance.

KEYWORDS: *human capital uniqueness, human capital value, organizational learning, organizational performance.*

JEL CLASSIFICATION: *D83, L25*

1. INTRODUCTION

The paper proposes a conceptual model that could be further used in order to analyze organizational learning (as capability and as a process) and performance. Among our objectives, which we intend to cover through this paper, are also to clarify the concepts of organizational learning capability and the process of organizational learning and to link organizational learning to organizational performance.

The relationship between organizational learning and performance is complex and controversial. The knowledge that is accumulated through organizational learning, resulting in superior knowledge bases, can be associated with high performances at organizational level (Curado, 2006, after Senge, 1990; Garvin, 1998). Although this can be considered the point of view that is generally accepted, we need to mention that the relationship between organizational learning and organizational performance is more complex, the former being able to lead to changes at performance level that are not necessarily positive (Crossan et al., 1995).

2. THE CONCEPT OF „ORGANIZATIONAL LEARNING”

Organizational learning is a concept for which many definitions have been given. Researchers have adopted different views on this concept, which cover a wide area of research. One of the first definitions given to organizational learning is that of Argyris and Schön (1978). They define

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organizational learning in terms of error detection and correction. Considering what we aim through this paper, we are interested in the following ways of defining organizational learning: „At its most basic definition, organizational learning is the development of new knowledge or insights that have the potential to influence behaviour” (Slater & Narver, 1994, in Bontis et al., 2002); „Learning is a process of change in cognition and behaviour, and it does not necessarily follow that those changes will directly enhance performance” (Crossan et al., 1995).

We add the following definition to the previous ones: organizational learning may be defined as „a change in cognition or a changes in behavior” (Argote, 2011, after Easterby-Smith et al., 2000). This perspective integrates what Fiol and Lyles (1985) have defined as being different – learning, at the cognitive level, and adaptation, at the behavioral level. Argote (2011) states that it is acknowledged by many researchers (for example, Fiol & Lyles, 1985) that organizational learning means changes at the level of an organization’s knowledge that occur „as a function of experience”. Taking into consideration that the context is a moderator between experience and the process of organizational learning or organizational learning’s outcomes (Argote, 2011), we can deduce that, after the same or similar experiences, different levels of learning can be achieved or learning might even not occur at all, according to the context within the organization.

Antonacopoulou (2006, after Argyris & Schön, 1978) highlights that one of the fundamental questions that have appeared in the literature is: do organizations learn? Antonacopoulou (2006) mentions that the answers to this question can be grouped in the following categories of answers: „yes”, „no”, „maybe”, a great number of authors adhering to the perspective according to which organizational learning is the product, the result of individuals’ learning. This perspective falls in the vision according to which we can not talk about organizational learning because organizations would be given anthropomorphic qualities (Kim, 1993; Antocacopoulou, 2006).

But, Tetrick and Da Silva (2003, in Curado, 2006) appreciate that individual learning is in essence a cognitive process, while organizational learning is generally a social process.

Considering the above ideas, if we look at the process of organizational learning as a process that is mainly social and not cognitive, it results that organizational learning can be regarded as a process in itself, although it is different from the process of learning at individual level; Kim’s vision (1993) does not seem to be anymore in contradiction with the idea of organizational learning.

According to the opinions that are expressed in the literature, it is accepted the fact that organizational learning appears at multiple levels: individual, group, organizational and inter-organizational (Sanchez, 2001; Holmquist, 2004; Ibarra et al., 2005; Boh et al., 2007 in Škerlavaj et al., 2010).

When we talk about organizational learning, a concept that is significant is organizational memory. Organizational memory can be defined as „the means by which knowledge from the past is brought to bear on present activities, thus resulting in higher or lower levels of organizational effectiveness”, after Stein (1995). The same researcher considers that „To the extent that organizational knowledge is consonant with the goals of the organization, organizational memory can be said to contribute to organizational effectiveness. At the other extreme, memory is a constraint that threatens the viability of the organization. Members of organizations must determine what to do with the knowledge they acquire in order to meet the incompatible need of flexibility and stability.” Organizational memory appears as a result of learning and it can also contribute to the efficiency and effectiveness of organizational learning.

3. ORGANIZATIONAL LEARNING CAPABILITY

Organizational learning can be measured as capability (considering some facilitating factors) or as a process. Organizational learning capability is defined as „organisational and managerial characteristics that facilitate the organisational learning process or allow an organisation to learn” (Chiva et al., 2007). Within the context of an organization there can exist several factors that either

facilitate or inhibit the organizational learning process. Considering the limited space of the paper, we are just going to refer to some contextual factors, either facilitating or inhibiting, without going into detail. The literature that treats the facilitating and inhibiting factors for organizational learning is fragmented, the researchers' approaches being diverse, sometimes incomplete or contradictory.

Fiol and Lyles (1985) have identified four contextual factors that influence organizational learning: corporate culture, strategy, organizational structure and the environment. Bapuji and Crossan (2004) have added organizational stage and resource position.

For the process of knowledge creation, a well known model in the literature is the SECI model (Nonaka, 1994; Nonaka & Takeuchi, 1995; Nonaka & Konno, 1998). Within the SECI model, the authors have introduced the concept of „Ba”, which means a space for the creation of knowledge. Ba can be a physical, virtual, mental space or any combination of the above. Ba is considered a shared space, that serves as a foundation for knowledge creation. Knowledge is incorporated in ba, more precisely in these shared spaces.

Argote (2011) has identified four contextual factors that are considered to have an impact on organizational learning, namely: the organization's orientation towards learning or performing (after Bunderson & Sutcliffe, 2003), the members' within the organization perception about the psychological safety (after Edmondson, 1999), if the members within an organization share a superordinate identity (after Kane et al., 2005) and the power relationships that exist within an organization (after Contu & Willmott, 2003).

A series of other factors can be identified in the literature, factors that can either facilitate or inhibit organizational learning: line managers can facilitate knowledge sharing in teams (MacNeil, 2003), support from the management and supportive learning strategies affect knowledge transfer (Stolee et al., 2009). Another factor is represented by human resource management – selective hiring, strategic training, employee participation in decision-making (Pérez López et al., 2006).

Regarding the barriers against learning (or learning's inhibiting factors), Smith and Elliott (2007) identify: the rigidity of beliefs and values (after Argyris & Schön, 1978; Miller, 1990), ineffective communication (after Barton, 1993; Argyris, 1999), centralized expertise and the disregard of other members (after Senge, 1990), lack of responsibility at corporate level (after Baier, 1986; Smith & Tombs, 1995).

The role that leaders have in the process of organizational learning is a subject that is treated with interest in the literature. Popper and Lipshitz (2000) mention three responsibilities that leaders have in the process of organizational learning: to make organizational learning as one of the organization's priorities, to build the foundations that are needed in order to transform individual learning into organizational learning and to make learning effective, through assuring the conditions that are needed (psychological and cultural conditions).

Based on different factors that influence organizational learning, research on measuring the organizational learning capability has been undertaken. Organizational learning capability is defined as being „organisational and managerial characteristics that facilitate the organisational learning process or allow an organisation to learn” (Chiva et al., 2007).

Jerez-Gómez et al. (2005) consider four dimensions for organizational learning capability: „managerial commitment”, „systems perspective”, „openness and experimentation” and „knowledge transfer and integration”.

Chiva et al. (2007) have undertaken a research through which the organizational learning capability is measured, taking into consideration five dimensions: experimentation, risk taking, interaction with the external environment, dialogue and participative decision making.

Gelard and Mirsalehi (2010) consider seven dimensions through which organizational learning capability is defined: „open environment and experimentation”, „risk taking”, „interaction with the external environment”, „distribution and sharing internal knowledge”, „participative decision making”, „ongoing training” and „system thinking”.

Through the instruments for measuring organizational learning that fall into the perspective that measures organizational learning capability, the aim is to determine whether an organization possesses certain characteristics that facilitate organizational learning.

4. THE PROCESS OF ORGANIZATIONAL LEARNING

Organizational learning is a process that is composed of a number of phases or processes. We are going to detail two perspectives on the processes of organizational learning: Huber (1991) and Crossan et al. (1999), perspectives that underlie many studies in the area of organizational learning. Huber (1991) considers organizational learning from the perspective of four constructs: knowledge acquisition, information distribution, information interpretation and organizational memory.

Huber (1991) highlights some aspects, with which we agree. The researcher appreciates that it is not a necessary condition that organizational learning is a conscious or an intentional process and that learning does not lead in all cases to an increase in the learner's effectiveness or potential effectiveness. Huber (1991) mentions, in connection with the previous idea, that learning may take place incorrectly or that it is possible to learn – in a correct way – something that is incorrect.

A third idea that is exposed by Huber (1991) is that learning may not lead to „observable changes in behavior”.

Considering the fact that we have adopted a point of view on organizational learning that combines the cognitive and behavioral perspective, learning being able to produce effects at any of the two levels, we agree with the idea proposed by Huber (1991). Thus, we appreciate that learning is not going to lead in every case to changes in behavior that are observable.

„Learning may result in new and significant insights and awareness that dictate no behavioral change” (Huber, 1991).

Hence the definition that Huber (1991) has offered for the concept of „organizational learning”: „An entity learns if, through its processing of information, the range of its potential behaviors is changed.” This definition is more from a behavioral perspective, as Huber (1991) states.

According to Huber (1991), information acquisition, distribution and interpretation depend on organizational memory.

Another perspective on the processes of organizational learning is that of Crossan et al. (1999).

Crossan et al. (1999) have adopted the following perspective regarding the processes of organizational learning: intuiting, interpreting, integrating and institutionalizing. The individual, group and organizational levels are linked through these four processes. Organizational learning is analyzed from the perspective of strategic renewal. One of the premises that underlies the research is that organizational learning implies „a tension between assimilating new learning (exploration) and using what has been learned (exploitation)” (Crossan et al., 1999).

Intuiting, which is mainly a subconscious process, involves „some sort of pattern recognition” (Crossan et al., 1999, after Behling & Eckel, 1991). Interpreting aims the conscious side of the organizational learning process. It is the process at the level at which individuals develop cognitive maps (Crossan et al., 1999, after Huff, 1990). Integrating is based on coherent action, at collective level (Crossan et al., 1999). Institutionalizing „sets organizational learning apart from individual or ad hoc group learning” (Crossan et al., 1999).

Correlating the four processes (intuiting, interpreting, integrating and institutionalizing) with the three levels (individual, group and organizational), the researchers consider that the four processes can appear at the following levels: intuiting at the individual level, interpreting at the individual and respectively the group level, integrating at the group and respectively at the level of the organization and institutionalizing at the level of the organization.

Another classification of organizational learning processes is that of Argote (2011): creation, retention and transfer of knowledge.

5. THE CONCEPT OF „ORGANIZATIONAL PERFORMANCE” AND LINKS WITH ORGANIZATIONAL LEARNING. MANAGING THE RELATIONSHIP BETWEEN ORGANIZATIONAL LEARNING AND PERFORMANCE

Organizational performance is a concept for which there have been given many definitions (Abu-Jarad et al., 2010). Abu-Jarad et al. (2010) present the definitions that have been given for the concept of „performance” in the vision of several researchers: „performance is equivalent to the famous 3Es (economy, efficiency, and effectiveness) of a certain program or activity” (after Javier, 2000); „organizational performance is the organization’s ability to attain its goals by using resources in an efficient and effective manner” (after Daft, 2000); organizational performance is „the ability of the organization to achieve its goals and objectives” (after Ricardo, 2001).

Performance can be assessed based on information obtained through primary resources or secondary resources. In general, performance can be measured taking into consideration two types of performance: financial performance and non-financial performance.

Kaplan and Norton (1993) have proposed a method „for capturing and organizing the results that an organization generates”, method which is called „balanced scorecard” (in Andreadis, 2009). According to the opinion expressed by Andreadis (2009), „The balanced scorecard is an innovative and holistic approach to organizational outcomes management.” Thus, through the balanced scorecard it is possible not only to measure performance, but to manage it. The balanced scorecard incorporates four perspectives: the financial perspective, the customer perspective, the internal processes perspective and the innovation and learning perspective.

Performance may be considered at least partially an effect of organizational learning.

In general, in studies that measure the process of organizational learning or organizational learning capability, a measure of performance is also included (for example, Bontis et al., 2002; Tippins & Sohi, 2003, López Sánchez et al., 2010; Bhatnagar, 2006; Jyothibabu et al, 2010).

The knowledge that is accumulated through organizational learning, resulting in superior knowledge bases, can be associated with high performances at organizational level (Curado, 2006, after Senge, 1990; Garvin, 1998). The relationship between organizational learning and organizational performance is complex.

A generally accepted assumption is that learning is beneficial and it can be influenced so that performance will be enhanced (Crossan et al., 1995), but we can not put an equal sign between learning and improvements in performance, because „Learning is a process of change in cognition and behaviour, and it does not necessarily follow that those changes will directly enhance performance” (Crossan et al., 1995). Another idea that we consider usefull to adress sustains that learning may negatively affect performance on short term, in the situation when employees and organizations use practices that they are familiar with, but when dealing with situations or operating modes that are unfamiliar or new.

The relationship between organizational learning and performance needs to be treated with caution, taking into consideration that some researchers state that learning does not necessarily lead to performance or may even have a negative impact on an organization’s performance (Crossan et al., 1995). Another aspect that we are interested in aims the possibility of managing the relationship between organizational learning and performance. We have previously stated that the relationship between organizational learning and performance is complex. Crossan et al. (1995) treats the relationship between organizational learning and performance extensively, highlighting its complexity.

Regarding the assumption that between organizational learning and performance is a positive and tight link, a consequence of this perception is the fact that organizations might „prematurely abandon projects that are not performing” (Crossan et al., 1995, after Inkpen & Crossan, 1995). We can thus infer that organizations need to be oriented on a long term basis and to be able to predict performance on long instead of short terms. If organizations do not manage to have a long term vision, that is oriented towards long term performance, it may come to what Crossan et al. (1995,

after Inkpen & Crossan, 1995) have mentioned, namely abandoning some projects, which, on a long term, could bring benefits to the organization.

Although the relationship between learning and performance is complex, Crossan et al. (1995) appreciate that it can be managed „in order to increase the probability of improved performance.” In this regard, an example offered by Crossan et al. (1995) consists in „recognizing that performance may deteriorate before it improves”.

Concluding, the relationship between organizational learning and performance is complex, but, through its management we can increase the probability of obtaining improvements in performance.

6. HUMAN CAPITAL. THE VALUE AND UNIQUENESS OF HUMAN CAPITAL

Another relationship that we are interested in is the one between organizational learning and human capital. A study of interest to us is the one undertaken by López-Cabrales et al. (2011), in which the relationship between human capital and organizational learning capability has been analyzed. For human capital, the authors took into consideration the value and uniqueness of human capital (after the work of Lepak & Snell, 1999; 2002). Lepak and Snell (1999) considered value and respectively uniqueness as characteristics of the human capital. Instruments for measuring the value and uniqueness of human capital have been developed by Lepak and Snell (2002). The value of human capital is „inherently dependent upon its potential to contribute to the competitive advantage or core competence of the firm” (Lepak & Snell, 1999). The value of human capital can be defined as „the ratio of strategic benefits to customers derived from skills relative to the costs incurred” (Lepak & Snell, 1999, after Snell et al. 1996). Regarding the uniqueness of human capital, it is appreciated the fact that „if an asset or skill cannot be duplicated or imitated by another firm, it provides a potential source of competitive advantage to the firm” (Lepak & Snell, 1999, after Barney, 1991).

López-Cabrales et al. (2011) consider that organizational learning capability would be conditioned by the type of employees that work in an organization, and, specifically, by the employees' knowledge and skills. López-Cabrales et al. (2011, after Collins & Smith, 2006) state that employees with knowledge that is valuable and unique „do more to promote the process of organizational learning.” The researchers conclude that the value and uniqueness of the knowledge and abilities that the employees within an organization possess are positively associated with organizational learning capability.

We agree with the previous idea and we add the fact that we can associate human capital with organizational learning capability also because of the fact that in the case when the human capital is developed and has knowledge and abilities that are complex and unique, there is a high probability that the employees are going to be aware of the importance of the process of organizational learning and to act accordingly, having a positive impact on organizational learning capability or facilitating the occurrence of the process of organizational learning.

However, between organizational learning and human capital the causality relationship might be inverse, organizational learning capability influencing human capital, according to López-Cabrales et al. (2011) conclusions.

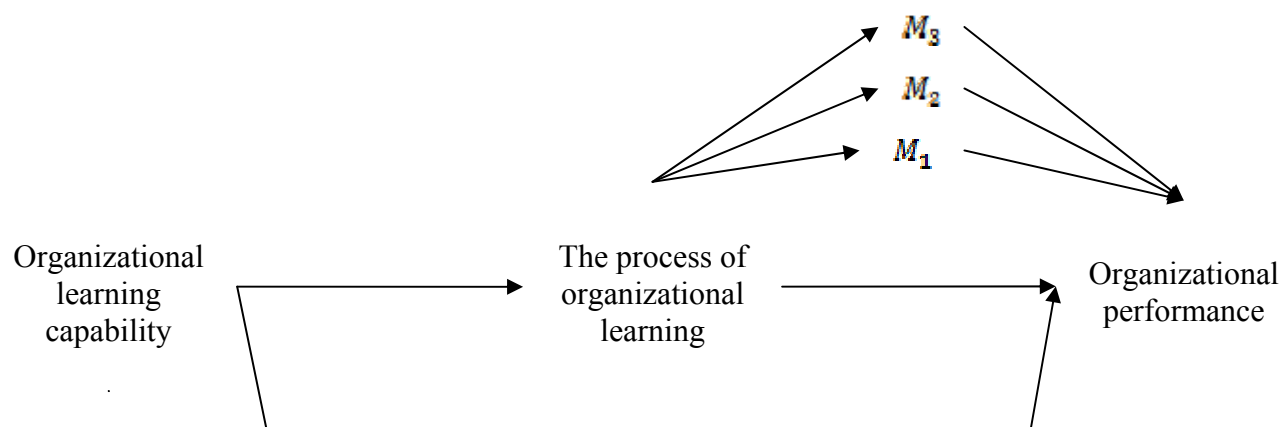
We need to make a remark on the proposed relationship between organizational learning capability and the value and respectively the uniqueness of human capital, identified by López-Cabrales et al. (2011). We argue that it would be more accurate to consider the causal relationship to be from organizational learning capability towards the process of organizational learning and then from the process of organizational learning towards the value and respectively the uniqueness of human capital. We base this on the idea that through the process of organizational learning new knowledge can be created or accumulated, which would lead to changes in the value and uniqueness of human capital.

Considering the above ideas, an area of research that can be developed consists in analyzing the relationship between the process of organizational learning and organizational performance and, within this relationship, testing the hypothesis according to which human capital (the value of human capital and respectively the uniqueness of human capital) would be mediators between the process of organizational learning and performance.

7. A PROPOSED CONCEPTUAL MODEL

Although researchers have previously analyzed organizational learning capability or the process of organizational learning in connection with performance, we aim to propose a model of research that has an integrative perspective. Through a literature survey, we have delimited the concepts that we are interested in and established some possible connections between them.

Considering the concepts that we have analyzed in this paper, the possible relationships between them and the need for further research, we propose the following conceptual model (figure 1).



M_1 = Management of the relationship between the process of organizational learning and organizational performance

M_2 = The value of human capital

M_3 = The uniqueness of human capital

Figure 1. Organizational learning and organizational performance. A proposed conceptual model

Organizational learning capability will inherently influence the occurrence of the organizational learning process. Also, organizational learning and performance could be associated. Thus, the main relationships that we are interested in are those between organizational learning capability and the process of organizational learning and, respectively, between the process of organizational learning and performance (and we can also consider the relationship between organizational learning capability and performance). We need to mention that performance can be only partially considered a result of organizational learning (for example, if we measure performance using the balanced scorecard, we can consider the innovation and learning perspective).

For measuring organizational learning capability there can be considered many models (for example, Jerez-Gómez et al., 2005; Chiva et al., 2007). We consider the model proposed by Chiva et al. (2007) to be synthetic and at the same time comprehensive. The dimensions considered by Chiva et al. (2007) are: experimentation, risk taking, interaction with the external environment, dialogue and participative decision making.

For measuring the process of organizational learning we can use different measures. Many studies in this area are based of the work of Huber (1991) and respectively Crossan et al. (1999). Examples of studies in this area are those undertaken by Bontis et al. (2002), Tippins and Sohi (2003) and López Sánchez et al. (2010). We could consider, for further research, any of the above mentioned

models. For example, López Sánchez et al. (2010), based on the work of Huber (1991), considers the following components for organizational learning: information acquisition, Information distribution, information interpretation and organizational memory.

We have stated previously that the value and respectively the uniqueness of the human capital is linked to organizational learning and that our assumption is that organizational learning capability influences the process of organizational learning and the latter influences the value and uniqueness of human capital. Thus, in the conceptual model our assumption is that the value of human capital and respectively the uniqueness of human capital are mediators between the process of organizational learning and performance. We also consider management of the relationship between organizational learning and performance to be a mediator between the process of organizational learning and performance.

8. CONCLUSIONS, RESEARCH LIMITS AND DIRECTIONS FOR FURTHER RESEARCH

Organizational learning is a concept that is treated extensively in the literature and also a concept over which there have been proposed many different perspectives. Through the conceptual model that we have proposed in this paper, we aim to test, through further research, hypotheses regarding the relationships between organizational learning capability, the process of organizational learning, organizational performance, the value of human capital, the uniqueness of human capital, management of the relationship between the process of organizational learning and performance. Thus, some of the relationships that we have considered have not been identified in the literature (for example, the relationship between the process of organizational learning and performance, mediated by the value of human capital, the uniqueness of human capital and management of the relationship between the process of organizational learning and performance). For this, we need to use either validated instruments or to build instruments (this detail varies according to the construct that we aim). As research limits, we can mention that, considering that this is a conceptual paper, the proposed model needs testing in order to see if it will be validated or not, which also constitutes in a direction for further research.

REFERENCES

- Abu-Jarad, I. Y., Yusof, N. A, & Nikbin, D. (2010). A Review Paper on Organizational Culture and Organizational Performance. *International Journal of Business and Social Science*, 1(3), 26-46.
- Andreadis, N. (2009). Learning and organizational effectiveness: A systems perspective. *Performance Improvement*, 48(1), 5-11. doi: 10.1002/pfi.20043
- Antonacopoulou, E. P. (2006). The Relationship between Individual and Organizational Learning: New Evidence from Managerial Learning Practices. *Management Learning*, 37(4), 455-473. doi: 10.1177/1350507606070220
- Argote, L. (2011). Organizational learning research: Past, present and future. *Management Learning*, 42(4), 439-446. doi: 10.1177/1350507611408217
- Argyris, C. & Schön, D. (1978). *Organizational learning: A theory of action perspective*, Reading, Mass: Addison Wesley.
- Bapuji, H., & Crossan, M. (2004). From questions to answers: reviewing organizational learning research. *Management Learning*, 35 Nr.(4), 397-417. doi: 10.1177/1350507604048270
- Bhatnagar, J. (2006). Measuring organizational learning capability in Indian managers and establishing firm performance linkage. An empirical analysis. *The Learning Organization*, 13(5), 416-433. doi: 10.1108/09696470610679965
- Bontis, N., Crossan, M. M., & Hlland, J. (2002). Managing an organizational learning system by aligning stocks and flows. *Journal of Management Studies*, 39(4), 437-469. doi: 10.1111/1467-6486.t01-1-00299

- Chiva, R., Alegre, J., & Lapedra, R. (2007). Measuring organisational learning capability among the workforce. *International Journal of Manpower*, 28(3/4), 224-242. doi: 10.1108/01437720710755227
- Crossan, M. M., Lane, H. W., & White, R. E. (1999). An organizational learning framework: from intuition to institution. *Academy of Management Review*, 24(3), 522-537. doi: 10.5465/AMR.1999.2202135
- Crossan, M. M., Lane, H. W., White, R. E., & Djurfeldt, L. (1995). Organizational learning: Dimensions for a theory. *The International Journal of Organizational Analysis*, 3(4), 337-360. doi: 10.1108/eb028835
- Curado, A. (2006). Organisational learning and organisational design. *The Learning Organization*, 13(1), 25-48. doi: 10.1108/09696470610639112
- Fiol, C. M., & Lyles, M. A. (1985). Organizational Learning. *Academy of Management Review*, 10(4), 803-813. doi: 10.5465/AMR.1985.4279103
- Gelard, P., & Mirsalehi, S. P. (2010). The Relation Between Organizational Learning Capability and Product Innovation Performance: An Empirical Test in Iranian Organizations. *Paper presented at European Conference on Innovation and Entrepreneurship*.
- Huber, G. P. (1991). Organizational Learning: The Contributing Processes and the Literatures. *Organization Science*, 20(1), 88-115. doi: 10.1287/orsc.2.1.88
- Jerez-Gómez, P., Céspedes-Lorente, J., & Valle-Cabrera, R. (2005). Organizational learning capability: a proposal of measurement. *Journal of Business Research*, 58, 715-725. doi: <http://dx.doi.org/10.1016/j.jbusres.2003.11.002>
- Jyothibabu, C., Farooq, A., & Pradhan, B. B. (2010). An integrated scale for measuring an organizational learning system. *The Learning Organization*, 17(4), 303-327. doi: 10.1108/09696471011043081
- Kim, D. H. (1993). The Link between Individual and Organizational Learning. *Sloan Management Review*, 35(1), 37-50.
- Lepak, D. P., & Snell, S. A. (1999). The human resource architecture: Toward a theory of human capital allocation and development. *Academy of Management. The Academy of Management Review*, 24(1), 31-48. doi: 10.5465/AMR.1999.1580439
- Lepak, D. P., & Snell, S. A. (2002). Examining the Human Resource Architecture: The Relationships Among Human Capital, Employment, and Human Resource Configurations. *Journal of Management*, 28(4), 517-543. doi: 10.1177/014920630202800403
- López Sánchez, J. A., Santos Vijande, M. L., & Trespalacios Gutiérrez, J. A. (2010). Organisational learning and value creation in business markets. *European Journal of Marketing*, 44(11/12), 1612-1641. doi: 10.1108/03090561011079819
- López-Cabrales, Á., Real, J. C., & Valle, R. (2011). Relationships between human resource management practices and organizational learning capability. The mediating role of human capital. *Personnel Review*, 40(3), 344-363. doi: 10.1108/00483481111118658
- MacNeil, C. M. (2003). Line managers: Facilitators of knowledge sharing in teams. *Employee Relations*, 25(3), 294-307. doi: 10.1108/01425450310475874
- Nonaka, I. (1994). A Dynamic Theory of Organizational Knowledge Creation. *Organization Science*, 5(1), 14-37. doi: 10.1287/orsc.5.1.14
- Nonaka, I., & Konno, N. (1998) The Concept of „Ba”: Building a Foundation for Knowledge Creation. *California Management Review*, 40(3), 40-54. doi: 10.2307/41165942
- Nonaka, I., & Takeuchi (1995). *The Knowledge Creating Company: How Japanese companies create the dynamics of innovation*. New York: Oxford University Press.
- Pérez López, S., Montes Peón, J. M., & Vazquez Ordás, C. J. (2006). Human Resource Management as a Determining Factor in Organizational Learning. *Management Learning*, 37(2), 215-239. doi: 10.1177/1350507606063443

- Popper, M., & Lipshitz, R. (2000). Installing mechanisms and instilling values: the role of leaders in organizational learning. *The Learning Organization*, 7(3), 135-144. doi: 10.1108/09696470010335854
- Škerlavaj, M., Dimovski, V., & Desouza, K. C. (2010). Patterns and structures of intra-organizational learning networks within a knowledge-intensive organization. *Journal of Information Technology*, 25(2), 189–204. doi: 10.1057/jit.2010.3
- Smith, D., & Elliott, D. (2007). Exploring the Barriers to Learning from Crisis: Organizational Learning and Crisis. *Management Learning*, 38(5), 519-538. doi: 10.1177/1350507607083205
- Stein, E. W. (1995). Organizational memory: Review of concepts and recommendations for management. *International Journal of Information Management*, 15(1), 17-32. doi: [http://dx.doi.org/10.1016/0268-4012\(94\)00003-C](http://dx.doi.org/10.1016/0268-4012(94)00003-C)
- Stolee, P., McAiney, C. A., Hillier, L. M., Harris, D., Hamilton, P., Kessler, L. et al. (2009). Sustained transfer of knowledge to practice in long-term care: Facilitators and barriers of a mental health learning initiative. *Gerontology & Geriatrics Education*, 30(1), 1-20. doi: 10.1080/02701960802690233
- Tippins, M. J., & Sohi, R. S. (2003). IT Competency and Firm Performance: Is Organizational learning a missing link?. *Strategic Management Journal*, 24(8), 745-761. doi: 10.1002/smj.337