DOI: 10.20472/IAC.2015.015.067

ALEXANDRA LUCIANA GUȚĂ

Doctoral School of Economics and Business Administration, Faculty of Economics and Business Administration, „Alexandru Ioan Cuza" University of Iaşi, România

AN ANALYSIS OF FACTORS THAT INFLUENCE ORGANIZATIONAL LEARNING: THE CASE OF HIGHER EDUCATION INSTITUTIONS

Abstract:

This paper makes reference to different factors that can influence organizational learning. Our focus is on making considerations on the factors influencing organizational learning, in the specific case of higher education institutions. Our personal considerations are transposed in highlighting the particularities on this subject, in the case of higher education institutions, regarded as entities of their own, and are based on a review of the literature treating the factors that influence organizational learning. Our aim is to undertake a thorough analysis on these factors, in universities. The approach is a theoretical one – the paper combines a literature review on the factors that can influence organizational learning in general, and our own considerations on these factors, in higher education institutions. For undertaking the research, we have considered the case of Romanian higher education institutions, in general.

Keywords:

organizational learning, higher education institutions, influencing factors

JEL Classification: D83

1 Introduction

Organizational learning is a complex concept, to which several definitions, and implicitly meanings, have been given in the literature.

Organizational learning is considered to be a source of sustainable competitive advantage (de Geus, 1988 in Škerlavaj, Dimovski and Desouza, 2010) and also an impulse, a driver for performace at corporate level (Stata, 1989; Sorenson, 2003; Tucker, Nembhard and Edmondson, 2007 in Škerlavaj, Dimovski and Desouza, 2010).

Considering an economy that is characterized through uncertainty, it is appreciated that „the only sure source of lasting competitive advantage is knowledge" (Bijlsma-Frankema, Rosendaal and Taminiau, 2006, p. 291, after Nonaka, 1994).

From the multitude of definitions that we have identified in the literature, we have selected two definitions that reflect, in whole or in part, our perspective on organizational learning and that we consider to be useful for this paper:

„At its most basic definition, organizational learning is the development of new knowledge or insights that have the potential to influence behaviour". (Slater and Narver, 1995, in Bontis, Crossan and Hulland, 2002, p. 439)

„Learning is a process of change in cognition and behavior, and it does not necessarily follow that those changes will directly enhance performance." (Crossan et al., 1995, p. 353). From this definition we are interested in the second part, which emphasizes the relationship that can exist between organizational learning and performance, highlighting that the changes related to learning will not necessarily lead to the improvements in performance.

Initially, organizational learning has been defined considering a process through which errors were detected and corrected.

Argyris and Schön (1978) have defined organizational learning in terms of error detection and correction.

Organizational learning can be considered in terms of organizational learning capability, the process of organizational learning and even in terms of learning results. Considering the subject that is under discussion in this paper, we are interested in the first two approaches. Also, organizational learning is a process that occurs at the individual, group, organizational and inter-organizational levels (according to Sanchez, 2001; Holmquist, 2004; Ibarra, Kilduff and Tsai, 2005; Boh, Slaughter and Espinosa, 2007, in Škerlavaj, Dimovski and Desouza, 2010). Thus, organizational learning is a process that takes place at multiple levels. For this paper we refer to organizational learning considering the individual, group or team and organizational levels.

As a process, organizational learning is comprised of several components, constructs or processes and there are multiple classifications in the literature. We refer to some classifications that are useful for understanding the concept of „organizational learning".

Thus, Huber (1991) has associated the following constructs to organizational learning: *knowledge acquisition, information distribution, information interpretation* and *organizational memory.*

Crossan, Lane and White (1999) adopted a perspective on organizational learning that considers four processes: *intuiting, interpreting, integrating* and *institutionalizing,* integrating the individual, group and organizational levels along a continuum. We are not going to detail these perspectives, taking into consideration that they exceed the interest points of the present paper.

Another perspective on the processes of organizational learning can be found in Argote (1999; 2011), according to which organizational learning is composed of the processes: creating knowledge, retaining knowledge and transferring knowledge.

Organizational learning capability is basically given by the presence of some facilitating factors for the process of organizational learning. Chiva, Alegre and Lapiedra (2007, p. 226, after Goh and Richards, 1997) understand, through organizational learning capability, „organisational and managerial characteristics or factors that facilitate the organisational learning process or allow an organisation to learn".

In this paper, our focus is on part of the facilitating/inhibiting factors of organizational learning – more specifically, of the occurence of the organizational learning process – identified in the literature.

Our focus is on higher education institutions, therefore the factors that can influence organizational learning will be adressed in a general way, after which we will draw some particularities, that may exist in the case of universities. We consider the organizational learning process as necessary for universities, in order for these institutions to have sustainable competitive advantage, to innovate and to have improved performance.

Higher education institutions, as entities in themselves, might present some particular aspects regarding the factors that can influence the process of organizational learning, compared to other types of organizations. We are interested in a particularization, in the case of universities, of the influencing factors for organizational learning that we are approaching, in the potential manner in which the influencing factors of organizational learning might manifest – whether the factors are facilitators and to what extent, or if they would rather be inhibitors for the process of organizational learning.

2 Factors that influence organizational learning. General approach and particularization on the case of higher education institutions

The literature dealing with the factors that influence organizational learning – regardless of whether facilitating or inhibiting organizational learning is taken into account – is fragmented and the researchers have various approaches. The approaches from different studies can differ, and, furthermore, it can not even be said that these approaches would be complementary. Up to the present time, we have not identified an integrative perspective on the factors that can influence organizational learning. However, a systematization of the influencing factors can be observed, if we refer to studies in which ways to measure organizational learning capability have been proposed, in which dimensions, components of organizational learning capability have been proposed, developed, starting from different factors that influence organizational learning. Studies in which ways to measure organizational learning capability were undertaken, for example, by Goh and Richards (1997), Jerez-Gómez, Céspedes-Lorente and Valle-Cabrera (2005), Chiva, Alegre and Lapiedra (2007), Gelard and Mirsalehi (2010) or Camps, Alegre and Torres (2011).

2.1 Organizational culture and other factors (strategy, structure, environment, resource position and organizational stage of development)

Culture, strategy, structure and *environment* have been identified as factors that influence organizational learning (Fiol and Lyles, 1985; Bapuji and Crossan, 2004, after Fiol and Lyles, 1985). To these four factors, the following two can be added, according to Bapuji and Crossan (2004): *resource position* and *organizational stage of development.*

Among the most important aspects that aim *strategy* is „providing a boundary to decision making and a context for the perception and interpretation of the environment" (Fiol and Lyles, 1985, p. 805, after Chandler, 1962; Cyert and March, 1963; Daft and Weick, 1984). In the matter of *strategy,* Fiol and Lyles (1985) consider that it is a factor that could affect the probability for the occurence of learning, and they refer in particular to strategies that would allow flexibility.

The structure is a complex notion. Fiol and Lyles (1985) analyze this factor and highlight that „organizations can be designed to encourage learning and reflective action-taking, but this generally means moving away from mechanistic structures" (Fiol and Lyles, 1985, after Morgan and Ramirez, 1983). It is considered that decentralized structures facilitate assimilating new associations and new patterns, since the demand of information is being reduced, and thus the individuals' cognitive workload would also be reduced (Fiol and Lyles, 1985, after Galbraith, 1973). Learning can also be influenced through the composition and the management of groups/teams (Bapuji and Crossan, 2004). Also, „formal procedures for learning, cross-functional communication and stability of team membership" is a factor that leads to better learning in organizations, compared to other organizations (Bapuji and Crossan, 2004, p. 407, after Pisano, Bohmer and Edmondson, 2001).

The environment determines the access that an organization has to knowledge-related resources, such as talent or collaborating partners, thus influencing organizational learning (Bapuji and Crossan, 2004, after Powell, Koputt and SmithDoerr, 1996; DeCarolis and Deeds, 1999).

It is considered that in the cases when „either the internal or external environment is too complex and dynamic for the organization to handle, an overload may occur, and learning will not take place" (Fil and Lyles, 1985, after Lawrence and Dyer, 1983). If there is too much stability within an organization, this can also be dysfunctional, but if there is too much turbulence and too much change, these lead to difficulties (Fiol and Lyles, 1985, after March and Olsen, 1975).

The organizational stage of development is another aspect that influences organizational learning, according to Bapuji and Crossan (2004), based on studies from the literature. Some companies, for example those in the field of bio-technology, depend, in the early stage of their development, on other companies to learn, while as they matured they concentrated on internalizing the learning (Bapuji and Crossan, 2004, after Oliver, 2001). Bapuji and Crossan (2004) also mention that in the literature it has been identified that the influence that the evolutionary stage of the organization has on learning can be managed, provided that organizations have systems and procedures that are adequate for the development stage in which the organizations are.

Resource position can also influence organizational learning. Bapuji and Crossan (2004) raise a question regarding the relationship between resource abundance and learning, more precisely if

resource abundance facilitates, or, on the contrary, blocks learning, their question being based on examples identified in the literature.

We are particularly interested in the factor *„culture"* (we need to mention that we refer to organizational culture), a factor whose major influence on organizational learning can not be disputed.

The culture within an organization „consists of the shared beliefs, the ideologies, and the norms that influence organizational action-taking" (Fiol and Lyles, 1985, after Mitroff and Kilmann, 1976; Beyer, 1981; Pfeffer, 1981).

Regarding organizational culture, Rebelo and Gomes (2011) mention that, in general, it is considered in the literature as a facilitating factor for organizational learning or „even an essential condition for organizational learning to occur" (Rebelo and Gomes, 2011, p. 173, after Campbell and Cairns, 1994; Hill, 1996; Marquardt, 1996; Pedler, Burgoyne and Boydell, 1997; Ahmed, Loh and Zairi, 1999; Baetz, 2003; Maccoby, 2003; Marsick and Watkins, 2003; Conner and Clawson, 2004).

We consider useful the following clarification. Rebelo and Gomes (2011) make the observation that, in the case of organizations that have a crystallized culture, in which the space for learning, for innovation is limited, changes in the matter of the organizational culture are difficult to undertake. Organizational culture becomes, in this case, a resistance factor or even a factor that leads to blockages in developing changes at organizational level, changes that would involve learning (Rebelo and Gomes, 2011, after Schein, 1992; Hodgkinson, 2000; Salaman, 2001) (the expression used in Rebelo and Gomes, 2011, p. 176, is „organizational change programs").

Rebelo and Gomes (2011, p. 176, after Salaman, 2001, based on van de Ven, 1986) state that the more an organization is older, of larger size and has had successes, „the higher the probability of having a set of systems and structures that inhibit learning and innovation". The researchers' conclusion is that the „age" of an organization might delay or prevent the transformation of an organizational culture into a learning oriented culture.

As we have mentioned previously, we focus on particularities of the factors influencing organizational learning in higher education institutions. Regarding the factors that we have considered until this point, it is necessary to take into consideration some aspects that are specific to universities. We need to mention that, for addressing particularities that exist in the case of universities, we have considered Romanian universities, in general.

Universities are generally characterized by rigid organizational cultures and structures. Thus we can consider that the structure and the culture – and, directly connected to them, strategy – are going to be strong facilitators or inhibitors for the process of organizational learning. Organizational learning can be inhibited in the case when values that induce the fear of making mistakes to the members in universities are promoted (Brătianu, 2007b, p. 384, mentions that an organizational culture that is based on values that are oriented towards fear and punishment and where „there is a mismatch between corporate interests and individual core values" may have adverse results; however, we are here interested in the first part of this idea), which can inhibit experimenting. Experimenting is an essential element for the process of organizational learning and, at the same time, one of the dimensions of organizational learning capability, proposed by Chiva, Alegre and Lapiedra (2007).

Besides, Smith and Elliott (2007) identify, based on other studies from the literature, that the rigidity of core beliefs, values and assumptions constitute in a barrier to learning (Smith and Elliott, 2007, after Turner, 1976, 1978; Argyris and Schön, 1978; Kets de Vries and Miller, 1984; Pauchant and Mitroff, 1988, 1992; Miller, 1990). Although Smith and Elliott (2007) refer to a series of barriers in the case of learning from crisis, we consider that the values, beliefs and assumptions that exist at the level of an organization will have an impact on the process of organizational learning in general, regardless of whether we discuss about learning that is generated from a crisis event or if we refer to learning for improving the way of doing things in an organization, for improving the performance that an organization may wish to obtain and so on. The researchers refer to values, beliefs and assumptions about how things are supposed to be, but, once more, we can treat these aspects in a general way. Further, we will consider a general approach regarding the relationship between *values, beliefs*, on the one hand, and *organizational learning*, on the other hand, in the case of higher education institutions.

At the level of universities, values, and, correlated with them, beliefs, can have a significant impact, considering the fact that universities have rigid organizational structures and a system of beliefs and values that hardly change over time. It follows that, most probably, the effect in the sense of facilitating or inhibiting organizational learning will be substantial, depending on the analyzed entities' specific beliefs and values.

If the system of values is well rooted but it contains elements that are favorable for learning, then it (the system) can constitute in a facilitator with a strong impact on organizational learning. In contrast, in the situation in which the values are formulated in a manner that can lead to inhibiting the trying of new solutions, of creativity, of experimenting, also including certain aspects in this regard, then the values will constitute in an inhibitor with a significant impact on organizational learning, in the case of universities. At the level of universities, the values, as an element of the organizational culture, are also treated by Brătianu (2007b), as will be detailed below.

Starting from Rebelo and Gomes's (2011) remarks, that we have previously treated, we can extract the idea that, in the case of higher education institutions, the *dimension* and *age* of the organization and, correlated with them, the organizational culture, might not necessarily facilitate learning, or, we believe, might even act as inhibitors for the process of organizational learning. At the level of universities it is possible that the the aspect of *culture* – which is linked to *age* and *dimension* – to manifest stronger than in the case of other organizations, because most universities are institutions of considerable ages, with tradition and with an organizational culture that is well crystallized.

Brătianu (2007b) has a different perspective on organizational learning in universities. More precisely, the author has an approach from the perspective of the learning organization, taking into consideration a series of integrators; the author considers it is necessary the presence of at least one integrator, in order to move from individual learning to team learning and to organizational learning. Through the term „integrator" we can understand *„a powerful field of forces capable of combining two or more elements into a new entity, based on interdependence and synergy. These elements may have a physical or virtual nature, and they must posses the capacity of interacting in a controlled way"* (Brătianu, 2007a, p. 110).

Senge (1990; 2006, p. 3) defines learning organizations in the following manner: „organizations where people continually expand their capacity to create the results they truly desire, where new

and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning how to learn together."

According to Brătianu (2007b, p. 375), a university „can become a learning organization if and only if there is at least a strong integrator to assure the transition from individual learning to team and organizational learning." Thus, although Brătianu (2007b) focuses on learning organizations (and on intellectual capital), we can consider that the integrators to which the researcher refers to can also be taken into consideration in relation with organizational learning.

Brătianu (2007b) has considered especially universities from former socialist countries.

Brătianu (2007b) considers that, in the case of universities, organizational culture is an integrator, and even a powerful one. It is considered that „it acts especially on the individual intelligence and individual core values, generating the spirit of excellence" (Brătianu, 2007b, p. 384). This integrator can however lead to unfavorable results, in the case when the values are built on the basis of fear and sanctions and there is a mismatch between the interests of the organization and the individual values of the employees in that organization, according to Brătianu (2007b). Brătianu (2007b) also identifies other integrators: the IT systems, management, leadership, vision and mission statement of an organization.

We can see the importance of the organizational culture in the case of universities, in order to transform these organizations into learning organizations.

2.2 Managers (middle managers, first line managers). Leaders. Support from the management team

Bijlsma-Frankema, Rosendaal and Taminiau (2006, after Nonaka and Takeuchi, 1995) mention a series of factors through which the process of knowledge creation can be enabled, facilitated. One of these factors is particularly relevant for the present paper, namely *middle managers*. It is considered that middle managers play an important role in turning intentions that exist at organizational level into concrete goals and concepts. Another task of managers is to „design a conceptual framework that enables employees to make sense of their tacit knowledge and exchange knowledge within the team" (Bijlsma-Frankema, Rosendaal and Taminiau, 2006, p. 294). We can link this to another perspective, that of Brătianu (2007b), who considers *management* as being one of the integrators that can assure a transition from learning at individual level to learning at team level and organizational learning, and thus that can lead to transforming an organization into a learning organization.

Brătianu's study (2007b) takes universities into consideration, as a particular type of organization.

Given the previous details, we can consider that, in the case of higher education institutions, middle managers, and even the universities' management in general, can hardly be considered to be facilitators for knowledge creation (in the case of middle managers), respectively integrators for the development of a university with the scope to become a learning organization (in the case of management).

At the level of universities/faculties/departments in faculties, management, as Brătianu (2007b) stated, refering to Romanian universities, has been transformed into administration. Brătianu

(2007b) mentions that management, as an integrator, acts by transforming individual knowledge into organizational knowledge and individual intelligence into organizational intelligence.

It can be appreciated that limiting management to purely administrative activities will not facilitate neither knowledge creation at organizational level, as a process of organizational learning, nor the development of a university so that it can become, in time, a learning organization.

Not only middle managers, but also first line managers have an important role in facilitating or inhibiting the process of organizational learning. *First line managers* could facilitate knowledge sharing in teams (see MacNeil, 2003).

We consider that, in the case of universities, first line managers could poorly represent a facilitator for organizational learning, considering the fact that they either are rarely found in higher education institutions, or that there are only few situations in which they have a role that could be considered active for shaping a process of organizational learning.

The leader is another essential factor in facilitating the process of organizational learning. Edmondson (2002, p. 5, after Levitt and March, 1988) highlights that „traditions and beliefs about the appropriateness of the status quo inhibit learning and change".

The leader has the mission to shape and consolidate the process of learning, through fostering a psychological climate that is safe and through setting objectives (Edmondson, 2002). Otherwise, the risks would be too high for engaging in a learning process. We need to mention that Edmondson (2002) refers to collective learning, thus learning in teams.

Leadership is included among the integrators that can be taken into consideration for the development of an organization in order to become a learning organization (see Brătianu, 2007b) and we are going to consider it necessary for the organizational learning process. But, in the case of universities, leadership is a concept that is almost non-existent (or even non-existent), which can lead to diminishing the chances for the occurence, in a systematic, effective, and efficient way or with clearly defined objectives, of the organizational learning process.

Another factor, that we can correlate with the factors detailed above, is *management support,* which has impact on knowledge transfer in organizations (Stolee et al., 2009).

By correlating the *support from the management team* factor with what we have detailed for middle managers, first line managers (and even leaders), we can appreciate that this factor constitutes in a weak facilitator for the process of organizational learning, this being another specific feature in the case of higher education institutions.

Brătianu (2007b, p. 375) makes reference to the learning paradox in the case of universities: „*although a university is an organization based on learning processes, it is not necessarily a learning organization*".

Thus, the factor represented by management support can present particularities in the case of universities.

2.3 Power relations within the organization. Member status

Another factor that we take into consideration for particularization in the case of universities is represented by *power relations* (Contu and Willmott, 2003; Argote, 2011, after Contu and

Willmott, 2003). This factor can be correlated with the factor *member status* (identified in Lucas and Kline, 2008).

In order to consider some particularities of these factors in the case of higher education institutions, we will first take into consideration a general approach of them, also including other factors identified in the literature.

Argote (2011) identified four contextual factors that can have an impact on organizational learning. Organizational learning is affected by *whether an organization is learning or performing oriented* (after Bunderson and Sutcliffe, 2003), by *the members' within an organization perception towards psychological safety* (after Edmondson, 1999), by *whether the members share a superordinate identity* (after Kane, Argote and Levine, 2005) and by *the power relationships existent within an organization* (after Contu and Willmott, 2003).

We need to mention that these factors will influence, in a first phase, learning in groups or teams, as will be detailed below, but in the end and in essence they will have an impact on organizational learning, either in the sense of facilitating it, or in the sense of inhibiting it, considering the relevance of these factors on learning at team level, a level that is required in order for learning at organizational level to take place.

Considering the fact that learning at team/group level is one of the levels of organizational learning, and also a level that is necessary for the occurence of organizational learning, we appreciate that these factors will reflect in the end upon organizational learning. We appreciate this as being true for all the factors that have an influence, in the first place, on learning at team/group level, for example.

We are also interested in the factor *member status* (identified in Lucas and Kline, 2008), which is considered to be a factor that has influence on learning at group level (see Lucas and Kline, 2008). We consider that member status can be correlated with power relations. Power relations have influence on team learning (see Edmondson, 2002) and, respectively, on situated learning, in the case of communities of practice (see Contu and Willmott, 2003).

The factor learning or performing orientation refers to learning in teams (see Bunderson and Sutcliffe, 2003), also the members' perception on safety from a psychological point of view refers to learning in teams (see Edmondson, 1999; 2002).

In the matter of learning or performing orientation, we need to mention that Bunderson and Sutcliffe (2003) undertake a research focused on team learning orientation but take into consideration aspects regarding performance. Bunderson and Sutcliffe (2003) highlight that team learning orientation can encourage adaptive behaviours, and that these behaviours lead to improvements in performance. However, the authors also highlight that teams might compromise performances, in the situation when the focus on learning is exaggerated, especially when teams have had well performances.

Team psychological safety is „a shared belief that the team is safe for interpersonal risk taking" (Edmondson, 1999, p. 354).

In the situation when the „team members' social context promotes new ideas, encourages development of new competencies, and rewards creativity", *the psychological climate for learning* is a positive one (Mehta et al., 2009, p. 1028, after Bunderson and Sutcliffe, 2002). When

referring to these aspects, teams and their members are taken into consideration. When individuals benefit from a psychological climate that is conducive to learning, work is perceived as stimulating, their colleagues are perceived as being supportive and work improvements are perceived as rewarding (Mehta et al., 2009, after McCauley, 2001). Both the individuals and the organization are more receptive to learning.

Also, Edmondson (1999; 2002) makes reference to psychological safety in teams. Thus, when we refer to safety from a psychological point of view, we mainly take into consideration learning in teams, a level of learning which is necesary for organizational learning to take place.

For explaining the factor consisting of *sharing a superordinate social identity* (Kane, Argote and Levine, 2005), we need to relate to the concept of „social identity". According to Kane, Argote and Levine (2005, p. 57, after Tajfel and Turner, 1979, 1986), the social identity theory implies that „individuals gain social identity, a part of their personal identity, from the groups to which they belong. Social identity can be defined as a sense of belonging to a social aggregate." *Superordinate identity* is considered to reduce „own group favoritism by bringing outgroup members under the umbrella of a higher-level, shared social identity" (Kane, Argote and Levine, 2005, p. 58). It is considered that sharing a superordinate identity has an impact on knowledge transfer across groups (Kane, Argote and Levine, 2005), more precisely, through rotation of members. Kane, Argote and Levine (2005) also consider knowledge quality, as a factor that affects knowledge transfer between groups, when personnel rotation is applied. Kane, Argote and Levine (2005) have undertaken a research considering the factors „sharing a superordinate identity" and „knowledge quality", and highlighted their effects on knowledge transfer across groups.

Regarding knowledge quality, Kane, Argote and Levine (2005) refer to „the relative quality of the knowledge a rotating member possesses compared to a group's existing knowledge" (Kane, Argote and Levine, 2005, p. 58), more precisely to a superior routine (the authors refer to production routines) compared to the current routine of a group.

Kane, Argote and Levine (2005) have concluded that, when a new member and the group in which the new member entered both shared a superordinate social identity, knowledge was more likely to transfer from the member to the group. Also, the researchers have concluded, based on their study, that knowledge was more likely to transfer from the new member to the group when that member possessed a superior rather than an inferior routine. When both social identity and knowledge quality are considered, Kane, Argote and Levine (2005) found that, in the case when the groups shared a superordinate identity with the member that rotated into the group, they adopted the member's routine when the routine was superior to the group's routine, but did not adopt the member's routine when the routine was inferior to the group's routine. The researchers also found that, in the cases when groups did not share a superordinate identity with the new member, they rarely adopted the new member's routine, even when that member's knowledge was superior. However, Kane, Argote and Levine (2005) mentioned that further research is needed to see if their results would be generalizable.

Edmondson (2002) considers that power relationships and the manner in which these relationships are managed by team leaders are also included between the factors that influence learning (the author refers to teams and learning in teams).

Contu and Willmott (2003, p. 284) consider, however, that ideas such as the fact that „learning practices are shaped, enabled, and constrained within relations of power, are dimly recognized or discarded". The researchers refer to situated learning (situated learning theory – learning is located in everyday practices, according to Lave and Wenger, 1991, in Contu and Willmott, 2003). The emphasis is on communities of practice. However, we are interested in Edmondson's (2002) perspective, that refers to team learning.

Member status is a factor that influences group learning (Lucas and Kline, 2008). It is considered that members who have a higher status will be more influential than members who have a lower status (Lucas and Kline, 2008, after Levine and Moreland, 1990), from which it follows that the members who have a higher status can shape learning within the group, through a strong social influence that they have on other members of the group.

Regarding the previous idea, we need to mention that we appreciate that the term „team" would be more suitable than the term used by Lucas and Kline (2008), namely the term of „group".

Brătianu (2007a, b) has made a distinction between groups and teams, starting from the idea that work is linear in groups while in teams it is nonlinear. Linearity in groups is given by the fact that groups share the same goal but not the same responsibility. Nonlinearity in teams results from sharing the same goal and the same responsibility in teams. Given the fact that, in groups, the same goal is shared but not the same responsibility, this can lead to *interdependence* and a *linear behaviour* in groups. In teams, considering the fact that both the goal and the responsibility are shared, this can lead to *interdependence* and to *synergy*, which means a *nonlinear behaviour* (Brătianu, 2007 a, b). However, Brătianu (2007a, b) mentions that synergy is not guaranteed.

However, we can see that, in the case of the factors that we have approached above, either the term of „teams" or the term of „groups" is used. This could happen because of a confusion that exists between the two terms or because attention is not paid to the differences that exist between the two terms.

For higher education institutions, we will take into consideration a particularization of the factors *power relations within an organization* (Edmondson, 2002; Contu and Willmott, 2003) and *member status* (Lucas and Kline, 2008).

From the factor *power relations within an organization* point of view, and considering learning at team level, knowledge transfer between team members, we can say that, in the case when those with higher ranks are going to impose their own perspectives, then the transfer is going to take place in only one direction, from those with higher ranks towards those with inferior ranks. This can lead to diminishing the potential for learning at team level. We can link this aspect with the factor *member status.* Members who have a higher status will be more influential than those who have a lower status (Lucas and Kline, 2008, after Levine and Moreland, 1990); in consequence, they can shape learning within the group through the strong social influence that they have on other members of the group, an aspect that we consider to be true also in the case of universities.

Additionaly, from the power relations point of view, we consider that, if teachers or researchers with less experience and in the early stages of their careers feel the pressure to comply with the imperatives of their higher grades colleagues, individual learning could be inhibited.

2.4 Trust

Another factor that should be a facilitator with a strong and positive impact on organizational learning in the case of universities is *trust.*

Edmondson (1999, in Lucas and Kline, 2008) adresses the factor „trust" from the following two perspectives: *trust in competence* and *trust in intentions.* In this perspective, trust is treated as an influencing factor on learning, and particularly on learning at group level.

A point of view that we consider to present similarities with the previous one is the one offered by Zhou, Siu and Wang (2010). The researchers adress trust from a *cognitive perspective* and from an *affective, emotional perspective.* The two types of trust – *cognition-based trust* and *affect-based trust* – facilitate the interpersonal transfer of knowledge, thus the focus is on knowledge transfer in particular and not on organizational learning.

However, Zhou, Siu and Wang (2010) have differentiated knowledge into tacit and explicit knowledge, and, according to their results, cognition-based trust does not have a significant effect on the transfer of knowledge in the case when the knowledge is explicit.

Explicit knowledge is knowledge that „can be expressed in words and numbers" (Nonaka and Konno, 1998, p. 42) and can be transmitted in a systematic and formal language (Nonaka and Konno, 1998; Brătianu and Orzea, 2008, after Tiwana, 1999). Tacit knowledge is personal and context-specific, it is stored in people's minds (Brătianu and Orzea, 2008) or in the routines of an organization (Oxley et al., 2008, after Howitt, 1996). The tacit nature causes this knowledge to be hard to express (see Brătianu and Orzea, 2008). Tacit knowledge is hard to formalize, to communicate or to share with other people (Nonaka and Konno, 1998). „Subjective insights, intuitions, and hunches" are included in the category of tacit knowledge (Nonaka and Konno, 1998, p. 42).

Cognition-based trust involves trust in somebody's qualities, skills and knowledge regarding the solving of specific problems in an organization. Affect-based trust refers to a person's trust in another person, in respect of the latter person's honesty and benevolence and also the harmless character of the person who is trusted (Zhou, Siu and Wang, 2010, after Mayer, Davis and Schoorman, 1995).

Regarding the content, the meaning, we can consider that Edmondson's (1999, in Lucas and Kline, 2008) and Zhou, Siu and Wang's (2010) points of view present similarities. Cognition-based trust can be considered similar to trust in competence and affect-based trust can be linked with trust in intentions.

Refering to the research and teaching activities, we appreciate that, at university level, employees' trust in their colleagues should be present in most cases, for several reasons. Human resources are highly qualified, taking into consideration that teaching/research positions are filled based on an objective selection process, in which specific criteria (the candidates' achievements in research; written and practical tests; interviews and so on) are taken into account, hence the trust in competence – or, according to the second classification, cognition-based trust – should be a strong facilitating factor for learning or for knowledge transfer in particular.

Also, we can appreciate, regarding trust in intentions – or, according to the second classification, affect-based trust – that it is a strong facilitator for learning or for knowledge transfer in particular.

In general, a considerable extent of those who work – in research and/ or teaching – in universities have studied in the same institution, thus professional relationships between the persons who have different grades (professors, associate professors, lecturers, assistants, researchers of various grades, research assistants) are long term relations, that have been built over time, which can constitute in an aspect with a positive impact on affect-based trust/trust in intentions.

2.5 Human resource management

Human resource management is another factor that can be a facilitator for organizational learning. Herein, we take into consideration human resources practices such as selective hiring, strategic training and employees' participation in decision processes, all these having an influence on organizational learning in a positive way (Pérez López, Montes Péon and Vazquez Ordás, 2006). The authors have also considered contingent compensation, but the hypothesis that it would influence learning in a positive way was not supported.

We have to make a remark regarding this factor. The literature supports the idea that human resource management is a factor that can facilitate organizational learning (hence, we can infer that it could be associated to organizational learning capability), but, there has also been determined (see López-Cabrales, Real and Valle, 2011) the fact that human resource management practices have been considered independently of the organizational learning capability, also establishing a correlation between different practices (selection, appraisals and rewards) and organizational learning capability. The researchers also considered developmental practices, but the hypothesis regarding the relationship between these practices and organizational learning capability was not verified.

In the case of universities, we can identify some particularities for the *human resource management* factor. In the case of universities, this factor might have a lower impact on organizational learning, compared to other types of organizations. This might happen because the role of the human resources department is reduced compared to other types of organizations (for example, professors within faculties examine candidates in selection processes). Thus, the impact of this factor on organizational learning is likely to be lower than in the case of companies, for example.

We consider that adding new activities, in the responsibility of the human resource department, would be necessary and opportune. Criteria aimed at acquiring knowledge, attitudes towards working in teams, creativity and so on could be included within activities such as selection, appraisal, rewarding. If criteria like these would be taken into consideration, human capital may develop, which could have an impact on organizational learning (also see López-Cabrales, Real and Valle, 2011). We believe that these aspects can be considered both in general and in the case of universities, as a particular type of organization.

2.6 Organizational learning capability and its dimensions

Starting from various factors that influence organizational learning, studies that targeted a measurement of organizational learning capability have been undertaken.

Organizational learning capability is defined as being „organisational and managerial characteristics or factors that facilitate the organisational learning process or allow an organisation to learn" (Chiva, Alegre and Lapiedra, 2007, p. 226, after Goh and Richards, 1997).

Chiva, Alegre and Lapiedra (2007) have undertaken a research through which the researchers measured organizational learning capability, considering five dimensions: *experimentation, risk taking, interaction with the external environment, dialogue, participative decision making.*

Experimentation represents „the degree to which new ideas and suggestions are attended to and dealt with sympathetically" (Chiva, Alegre and Lapiedra, 2007, p. 226). Experimentation is the dimension that is the most supported one in the literature that treats organizational learning (Chiva, Alegre and Lapiedra, 2007). If we take into consideration that one of the sources that can commonly generate learning processes is given by experiences, the statement is plausible. The same researchers (Chiva, Alegre and Lapiedra, 2007, after Nevis, DiBella and Gould, 1995) understand – through experimentation – trying *new ideas, curiosity towards mechanisms by which different things work, changes made in work processes*. Experimentation also involves searching for *innovative solutions.*

Risk taking involves tolerance towards uncertainty, ambiguity, errors (Chiva, Alegre and Lapiedra, 2007).

Interaction with the external environment is defined by the purpose, the scope of an organization's relationships with the external environment. It is appreciated that the relationships and the connections between an organization and its environment have a high significance, because organizations try to evolve simultaneously with an environment that is changing. The environment is seen as „the prime mover behind organisational learning" (Chiva, Alegre and Lapiedra, 2007, p. 228, after Hedberg, 1981).

Dialogue represents „a sustained collective inquiry into the processes, assumptions, and certainties that make up everyday experience" (Chiva, Alegre and Lapiedra, 2007, p. 228, after Isaacs, 1993). The role of the dialogue in the organizational learning process is justified if we take into consideration an argument of Nevis, DiBella and Gould (1995, in Chiva, Alegre and Lapiedra, 2007), namely that learning depends on the daily and spontaneously interactions that take place between people.

Participative decision making involves „the level of influence employees have in the decision-making process" (Chiva, Alegre and Lapiedra, 2007, p. 228, after Cotton et al., 1988). By adopting decisions in a participative way, motivational effects are obtained, such as „increased employee involvement, job satisfaction and organisational commitment" (Chiva, Alegre and Lapiedra, 2007, p. 228, after Scott-Ladd and Chan, 2004). Chiva, Alegre and Lapiedra (2007, p. 228, after Nevis, DiBella and Gould, 1995; Goh and Richards, 1997; Pedler, Burgoyne and Boydell, 1997, Bapuji and Crossan, 2004; Scott-Ladd and Chan, 2004) mention that participative decision making is „one of the aspects that can facilitate learning."

We also identify other studies in which different dimensions of organizational learning capability have been considered.

Gelard and Mirsalehi (2010, p. 229) include the following seven dimensions, through which they characterize organizational learning capability: „open environment and experimentation, risk

taking, interaction with the external environment, distribution and sharing of internal knowledge, system thinking, ongoing training and participative decision making".

Jerez-Gómez, Céspedes-Lorente and Valle-Cabrera (2005) have in view another perspective on organizational learning capability, considering other dimensions, in a research undertaken on organizations that operate in the chemical industry. Four dimensions have been considered for organizational learning capability: *managerial commitment, systems perspective, openness and experimentation, knowledge transfer and integration.*

On the other hand, instruments for measuring the process of organizational learning have also been developed (see, for example, Bontis, Crossan and Hulland, 2002, Tippins and Sohi, 2003 or López Sánchez, Santos Vijande and Trespalacios Gutiérrez, 2010). In general, the instruments that measure the process of organizational learning are developed based on the perspectives proposed either by Huber (1991), or by Crossan, Lane and White (1999). Thus, in the research conducted by Bontis, Crossan and Hulland (2002), five theoretical constructs have been considered for organizational learning: three stocks of learning – at individual, group and organization level, and two flows of learning – feed-forward and feed-back. The researchers also took business performance into consideration. Tippins and Sohi (2003) have taken into consideration, for organizational learning, the following: information acquisition, information dissemination, shared interpretation, declarative memory and procedural memory; the researchers have also considered other constructs, such as IT competency or firm performance. López Sánchez, Santos Vijande and Trespalacios Gutiérrez (2010) have considered organizational learning through the following: information acquisition, information distribution, information interpretation, organizational memory; business performance and other constructs/variables have been taken into consideration in López Sánchez, Santos Vijande and Trespalacios Gutiérrez's (2010) research.

In order to identify specific features, particularities in the case of universities, we are going to relate to the dimensions identified in Chiva, Alegre and Lapiedra (2007). We appreciate that the dimensions from Chiva, Alegre and Lapiedra's (2007) research are at the same time representative for organizational learning capability and expressed, measured in a synthetic way.

We have observed specific features, particularities regarding three of the five dimensions proposed by Chiva, Alegre and Lapiedra (2007) for measuring organizational learning capability.

Experimentation, as a facilitating factor for organizational learning, should be very common in universities. Regarding experimentation, we should consider to correlate it with power relationships. Another connection that needs to be taken into account is with the system of values that exists in a higher education institution.

In the case of universities, *risk taking* is going to be a facilitating factor for organizational learning to the extent that the environment in which the employees work is a conducive environment, an environment that stimulates risk taking, by tolerating and even capitalizing the errors that may occur. In order for the environment in which the employees work to be conducive to taking risks, we can refer, in a secondary plan, to being aware of the importance that taking risks has in the learning process.

Interaction with the external environment can be a facilitating factor for organizational learning, thereby improving organizational learning capability in the case of universities, to the extent that

universities and their management team are aware of the necessity and even oportunity of the responsiveness to the external environment and act accordingly, also carrying out learning processes.

As a conclusion, when we want to find out the situation in the case of universities, we can correlate these dimensions with the factor „organizational culture".

3 Conclusions

In conclusion, we appreciate that in the literature there is a certain lack of consistency in treating the influencing factors of organizational learning. However, we need to take into consideration the fact that organizational learning is a broad concept.

Nevertheless, regarding the factors that influence organizational learning, we can synthesize several significant factors.

Organizational culture is one of the factors that can be considered to have a major impact on the process of organizational learning (see Fiol and Lyles, 1985; Bapuji and Crossan, 2004, after Fiol and Lyles, 1985; Brătianu, 2007b; Rebelo and Gomes, 2011). The dimension and age of an organization can be linked with organizational culture (see Rebelo and Gomes, 2011), thus, we can consider that eventually they would influence organizational learning.

An organizational culture that is oriented towards learning, a culture that promotes learning, that valorizes it, will facilitate experimentation, risk taking (the first two dimensions from the model for measuring organizational learning capability from Chiva, Alegre and Lapiedra's research, 2007). Links could also be established with interaction with the external environment, in the case of the organizations in which organizational culture is oriented towards interaction and information exchange with the external environment.

Managers (middle managers, first line managers) and *leaders* are other factors that are relevant in the matter of influencing the organizational learning process. Middle managers play a significant role in turning intentions that exist at organizational level into concrete goals and concepts (see Bijlsma-Frankema, Rosendaal and Taminiau, 2006). Regarding first line managers, it is appreciated that they could facilitate knowledge sharing in teams (MacNeil, 2003). Leaders have the mission to shape and consolidate the learning process, through fostering a psychological climate that is safe and through setting objectives (Edmondson, 2002). *Management support* (Stolee et al., 2009) has impact on knowledge transfer.

We can correlate the factors *managers* and *leaders* with *dialogue* and *participative decision making* from Chiva, Alegre and Lapiedra's (2007) model and also with *interaction with the external environment.*

Other factors that influence organizational learning, for which we have considered the presentation of some aspects in the case of universities, are power relations (factor identified in Edmondson 2002; Contu and Willmott, 2003; Argote, 2011, after Contu and Willmott, 2003), member status (factor identified in Lucas and Kline, 2008) and trust (Edmondson, 1999, in Lucas and Kline, 2008; Zhou, Siu and Wang, 2010).

Human resource management is a factor that can facilitate organizational learning through trainings or participation of employees in decision making, for example (Pérez López, Montes Péon and Vazquez Ordás, 2006).

Starting from different aspects that influence learning, the notion of organizational learning capability has been developed.

Hence, in this paper we have presented factors that can influence individual learning, learning at group/team level or organizational learning, regardless of whether the factors directly influence organizational learning or they influence, in a first phase, learning in teams/groups or interpersonal transfer of knowledge, for example. We can appreciate that also the factors that have a direct influence on, for example, group/team level learning, are eventually going to have an influence on organizational learning, considering the fact that learning in teams/groups is significant and that it is one of the levels of organizational learning, the latter being a process that takes place at multiple levels.

At the same time, we wanted to see what particularities could exist in the case of higher education institutions in Romania, regarding the factors that we have considered and also regarding the way they manifest, either in the sense of facilitating or of inhibiting organizational learning in these institutions.

In the specific case of higher education institutions, the occurence of organizational learning and the factors that can either facilitate, or inhibit the process of organizational learning require interpretation by constantly taking into account the fact that universities present some particularities in terms of structure, strategy, culture, or regarding their management, leadership, compared to other organizations. We appreciate that, when considering the influencing factors of organizational learning in the case of universities, it is useful to take into consideration some particularities.

Depending on the particularities that exist in the case of higher education institutions, some factors may manifest their influence on the organizational learning process more prominent, compared with the situations in other types of organizations, while other factors may have a weaker influence.

At the same time, some of the factors may manifest either in the sense of facilitating organizational learning, or in the sense of inhibiting it, depending on the conditions, on the context that exists in each higher education institution.

Another conclusion is that both in the case of universities, as in other types of organizations, being aware of the existence of some facilitating and, respectively, inhibiting factors for the process of organizational learning and acting towards diminishing the presence or even eliminating the inhibiting factors and, respectively, stimulating the presence and action of the facilitating factors gains relevance.

Finally, we can take into account the operationalization of the factors that influence organizational learning. Operationalizing the influencing factors of organizational learning, as long as they can be considered to be facilitating factors, can be materialized in what is called organizational learning capability. Organizational learning capability has been measured with tools that have

been developed in several studies (see, for example, Jerez-Gómez, Céspedes-Lorente and Valle-Cabrera, 2005; Chiva, Alegre and Lapiedra, 2007; Gelard and Mirsalehi, 2010).

Thereby, we appreciate the fact that the relationship between the influencing factors and the occurence of organizational learning can be quantified, the quantification being possible based on organizational learning capability, the process of organizational learning and the correlations that exist between these constructs or between the components of each construct. We appreciate, however, that this cuantification also has some limitations, considering the fact that, for developing measurement instruments (scales) for organizational learning capability and for the process of organizational learning, the specifics of the activity in different business fields should be considered, therefore being more difficult to elaborate scales that could be validated regardless of the context, thus measurement scales that would be general in nature.

The limitations of this paper are given by the fact that the approach is a theoretical one – aimed at analyzing the factors that influence organizational learning in general, combined with personal reflections regarding the influence of those factors in the particular case of higher education institutions. Also, we have related to Romanian universities. Further empirical studies are needed, in order to have a more accurate shaping regarding the issue of the influencing factors of organizational learning in higher education institutions, but also of measuring organizational learning capability and correlating it with the organizational learning process.

Acknowledgement

This work was cofinanced from the European Social Fund through Sectoral Operational Programme Human Resources Development 2007-2013, project number POSDRU/159/1.5/S/142115 „Performance and excellence in doctoral and postdoctoral research in Romanian economics science domain”

References

ARGOTE, L. (1999) *Organizational Learning: Creating, Retaining and Transferring Knowledge.* Norwell, Massachusetts: Kluwer Academic Publishers, 1999.

ARGOTE, L. (2011) Organizational learning research: Past, present and future. *Management Learning*. 2011, Vol. 42, No. 4, p. 439-446.

ARGYRIS, C. and SCHÖN, D. A. (1978) *Organizational learning: A theory of action perspective*. Reading, Mass.: Addison Wesley, 1978.

BAPUJI, H. and CROSSAN, M. (2004) From questions to answers: reviewing organizational learning research. *Management Learning*. 2004, Vol. 35, No. 4, p. 397-417.

BIJLSMA-FRANKEMA, K.; ROSENDAAL, B. and TAMINIAU, Y. (2006) Acting on frictions: learning blocks and flows in knowledge intensive organizations. *Journal of European Industrial Training.* 2006, Vol. 30, No. 4, p. 291-309.

BONTIS, N.; CROSSAN, M. M. and HULLAND, J. (2002) Managing an organizational learning system by aligning stocks and flows. *Journal of Management Studies*. 2002, Vol. 39, No. 4, p. 437-469.

BRĂTIANU, C. (2007a) An integrated perspective on the organizational intellectual capital. *Review of Management and Economic Engineering*. 2007, Vol. 6, No. 5, p. 107-112.

BRĂTIANU, C. (2007b) The Learning Paradox and The University. *Journal of Applied Quantitative Methods.* 2007, Vol. 2, No. 4, p. 375-386.

BRĂTIANU, C. and ORZEA, I. (2008) Strategies for Implementing Knowledge Management in Romanian Companies. *Review of General Management*. 2008, Vol. 4, No. 2, p. 122-137.

BUNDERSON J. S. and SUTCLIFFE K. M. (2003) Management team learning orientation and business unit performance. *Journal of Applied Psychology.* 2003, Vol. 88, No. 3, p. 552–560.

CAMPS, J.; ALEGRE, J. and TORRES, F. (2011) Towards a methodology to assess organizational learning capability. A study among faculty members. *International Journal of Manpower*. 2011, Vol. 32, No. 5/6, p. 687-703.

CHIVA, R.; ALEGRE, J. and LAPIEDRA, R. (2007) Measuring organisational learning capability among the workforce. *International Journal of Manpower*. 2007, Vol. 28, No. 3/4, p. 224-242.

CONTU, A. and WILLMOTT, H. (2003) Re-embedding situatedness: The importance of power relationships in learning theory. *Organization Science.* 2003, Vol. 14, No. 3, p. 283–296.

CROSSAN, M. M.; LANE, H. W. and WHITE, R. E. (1999) An organizational learning framework: from intuition to institution. *Academy of Management Review*. 1999, Vol. 24, No. 3, p. 522-537.

CROSSAN, M. M.; LANE, H. W.; WHITE, R. E. and DJURFELDT, L. (1995) Organizational learning: Dimensions for a theory. *The International Journal of Organizational Analysis*. 1995, Vol. 3, No. 4, p. 337-360.

EDMONDSON, A. (1999) Psychological safety and learning behavior in work teams. *Administrative Science Quarterly*. 1999, Vol. 44, No. 2, p. 350-383.

EDMONDSON, A. C. (2002) Managing the risk of learning: Psychological safety in work teams, 2002. [Online], Available: https://www.researchgate.net/publication/228017697_Managing_the_Risk_of_Learning_Psychological_Safety_in_Work_Teams.

FIOL, C. M. and LYLES, M. A. (1985) Organizational Learning. *Academy of Management Review*. 1985, Vol. 10, No. 4, p. 803-813.

GELARD, P. and MIRSALEHI, S. P. (2010) The Relation Between Organizational Learning Capability and Product Innovation Performance: An Empirical Test in Iranian Organizations. *Academic Conference International Limited,* European Conference on Innovation and Entrepreneurship, p. 229-XIII. 2010.

GOH, S. and RICHARDS, G. (1997) Benchmarking the Learning Capability of Organizations. *European Management Journal*. 1997, Vol. 15, No. 5, p. 575-583.

HUBER, G. P. (1991) Organizational Learning: The Contributing Processes and the Literatures. *Organization Science*. 1991, Vol. 20, No. 1, p. 88-115.

JEREZ-GÓMEZ, P.; CÉSPEDES-LORENTE, J. and VALLE-CABRERA, R. (2005) Organizational learning capability: a proposal of measurement. *Journal of Business Research*. 2005, Vol. 58, No. 6, p. 715-725.

KANE, A. A.; ARGOTE, L. and LEVINE J. M. (2005) Knowledge transfer between groups via personal rotation: Effects of social identity and knowledge quality. *Organizational Behavior and Human Decision Processes.* 2005, Vol. 96, No. 1, p. 56-71.

LUCAS, C. and KLINE, T. (2008) Understanding the influence of organizational culture and group dynamics on organizational change and learning. *The Learning Organization*. 2008, Vol. 15, No. 3, p. 277-287.

ĽOPEZ SÁNCHEZ, J. A.; SANTOS VIJANDE, M. L. and TRESPALACIOS GUTIÉRREZ, J. A. (2010) Organisational learning and value creation in business markets. *European Journal of Marketing*. 2010, Vol. 44, No. 11/12, p. 1612-1641.

ĽOPEZ-CABRALES, Á.; REAL, J. C. and VALLE, R. (2011) Relationships between human resource management practices and organizational learning capability. The mediating role of human capital. *Personnel Review*. 2011, Vol. 40, No. 3, p. 344-363.

MACNEIL, C. M. (2003) Line managers: Facilitators of knowledge sharing in teams. *Employee Relations*. 2003, Vol. 25, No. 3, p. 294-307.

MEHTA, A.; FEILD, H.; ARMENAKIS, A. and MEHTA, N. (2009) Team Goal Orientation and Team Performance: The Mediating Role of Team Planning. *Journal of Management*. 2009, Vol. 35, No. 4, p. 1026-1046.

NONAKA, I. and KONNO, N. (1998) The Concept of „Ba": Building a Foundation for Knowledge Creation. *California Management Review.* 1998, Vol. 40, No. 3, p. 40-54.

OXLEY, L.; WALKER, P.; THORNS, D. and WANG, H. (2008) The knowledge economy/society: the latest example of "Measurement without theory"?. *The Journal of Philosophical Economics*. 2008, Vol. 2, No. 1, p. 20-54.

PÉREZ LÓPEZ, S.; MONTES PEÓN, J. M. and VAZQUEZ ORDÁS, C. J. (2006) Human Resource Management as a Determining Factor in Organizational Learning. *Management Learning*. 2006, Vol. 37, No. 2, p. 215-239.

REBELO, T. M. and GOMES, A. D. (2011) Conditioning factors of an organizational learning culture. *Journal of Workplace Learning*. 2011, Vol. 23, No. 3, p. 173-194.

SENGE, P. M. (1990) The Fifth Discipline: The Art and Practice of the Learning organization, Currency Doubleday, 1990.

SENGE, P. M. (2006) The Fifth Discipline: The Art & Practice of the Learning organization, Doubleday, 2006.

ŠKERLAVAJ, M.; DIMOVSKI, V. and DESOUZA, K. C. (2010) Patterns and structures of intra-organizational learning networks within a knowledge-intensive organization. *Journal of Information Technology*. 2010, Vol. 25, No. 2, p. 189–204.

SMITH, D. and ELLIOTT, D. (2007) Exploring the Barriers to Learning from Crisis: Organizational Learning and Crisis. *Management Learning*. 2007, Vol. 38, No. 5, p. 519-538.

STOLEE, P.; MCAINEY, C. A.; HILLIER, L. M.; HARRIS, D.; HAMILTON, P.; KESSLER, L.; MADSEN, V. and LE CLAIR, J. K. (2009) Sustained transfer of knowledge to practice in long-term care: Facilitators and barriers of a mental health learning initiative. *Gerontology & Geriatrics Education*. 2009, Vol. 30, No. 1, p. 1-20.

TIPPINS, M. J. and SOHI, R. S. (2003) IT Competency and Firm Performance: Is Organizational learning a missing link?. *Strategic Management Journal*. 2003, Vol. 24, No. 8, p. 745-761.

ZHOU, S.; SIU, F. and WANG, M. (2010) Effects of social tie content on knowledge transfer. *Journal of Knowledge Management*. 2010, Vol. 14, No. 3, p. 449-463.