Organizational Learning Mechanisms and Creative Climate: Insights from an Italian Fashion Design Company

Abstract

This paper investigates the relationship between different types of organizational learning mechanisms and creative climate. In the context of an action research study, this paper focuses on insights from a survey that was administered to all the employees of the Product Design and Development unit of the company. The results indicate that the three different types of organizational learning mechanisms considered in the study (cognitive, structural and procedural mechanisms) are associated with creative climate. The results generate new scientific knowledge about the understanding of the role of organizational learning mechanisms and provide specific recommendations for organizations that aim to enhance creative climate.

Keywords – organizational learning mechanisms, creativity, creative climate.

Introduction

Creativity is crucial for sustaining competitiveness (e.g. Epstein et al., 2013; Caniëls et al., 2014). The intensity of today's global economy requires an increased pace of creativity carried out in short time-cycles (Cirella and Shani, 2012; Sundgren and Styhre, 2003). To what extent creativity can be conceived as an organizational attribute is still under debate and, in particular, organizational scholars argue that analysing creativity at an individual level does not address either the nature or the complexity of creativity within organizations (Amabile, 1983). Most creative ideas within organizations are the outcome of exchange in a collective space, when interaction triggers ideas through collaboration, dialogue and debate (Catmull, 2008). Under the organizational creativity perspective (Woodman et al., 1993), creativity in organizations relies on a *creative climate* (Styhre and Sundgren, 2005).

Learning and creative climate are crucial for the establishment of mental models of creativity (Lozano, 2014) and creative climate can be enhanced by organizational learning mechanisms (Cirella and Shani, 2012). Moreover, the relationship between organizational learning mechanisms and creative climate seems relevant to innovation, considering that both learning and creative climate in organizations contributed to 58.5% of the explanation of the observed variances in the innovation construct (Ismail, 2005). As such, different types of organizational learning mechanisms (Popper and Lipshitz, 1998) need to be tested to investigate their potential impact on creative climate. Such new insights can also guide managerial actions around the design of organizational learning mechanisms (Mitki et al., 2008) to foster creativity.

The aim of this study is to investigate the relationship between different types of organizational learning mechanisms and creative climate. Despite the increased attention given to this focus and challenge (e.g. Catmull, 2008), scientific literature has yet to demonstrate the empirical link between organizational learning mechanisms and creative

climate. Building on literature relating to organizational learning mechanisms and creative climate, this study analyses the effect of different organizational learning mechanisms on creative climate and generates new scientific insights.

Literature review and hypotheses development

In this part, we will review the key features of creative climate, with a critical analysis of the most relevant frameworks. Next, we will review the key features of organizational learning mechanisms, defining what they are and examining the empirical research about the role of organizational learning mechanisms. Finally, we advance the study's research hypotheses.

Creative Climate: Key Features

Creativity, defined as the ability to generate novel ideas that are useful at a given moment, is considered to be the source of new and competitive ideas, through which an organization positions itself in its environment (van Woerkum et al., 2007). At the most basic level, creative climate refers to a climate that adds value and enhances creativity within an organization, where "climate" is an attribute of the organization and refers to a set of attitudes, feelings and types of behaviour that emerge on a daily and collective basis within the organizational environment (Ekvall, 1996). It follows that a climate that promotes organizational creativity (e.g. allowing a collective expression of different viewpoints) is defined as a creative climate, or climate for creativity (e.g. Amabile et al., 1996; Ekvall and Ryhammar, 1999). Empirical literature supports the relationship between climate and creativity (Goncalo and Duguid, 2012; Somech and Drach-Zahavy, 2013; Mathisen et al., 2004; Isaken and Lauer, 2002; Anderson and West, 1998; Amabile et al., 1996).

Organizational literature has developed relevant frameworks for capturing the creative climate. Ekvall (1996) developed one of the most widely used models for measuring creative climate, which includes different aspects and, specifically, *challenge* (caring about one's work and taking pride and ownership in what is done), *freedom* (to try new ways to get the work done), *idea support* (listening to each other and encouraging each other's ideas), *trust/openness* (feeling comfortable in discussing one's own ideas with others), *dynamism/liveliness* (e.g. the organization is an exciting place in which to work), *playfulness/humour* (e.g. joking in a good-natured way and enjoying the work), *debates* (discussing each other's ideas and ways of accomplishing activities within the organization), *conflicts* (constructively addressed and quickly resolved), *risk taking* (being able to take risks on new initiatives and put ideas into action) and ample *idea time* (to discuss, develop and initiate new ideas in the organization).

Creative climate seems to be the product of many encounters that mould a particularly rich experience inherited from a social environment (Goudsblom, 2001). In particular, the literature suggests that creative climate is embedded within the organizational work environment. The componential model of creativity and innovation in organizations (Amabile, 1988; Amabile et al., 1996; Amabile, 1997) is a seminal work that analyses the role of an organizational work environment in influencing creative behaviour (of both individuals and teams). The model identifies five environmental components that affect creativity: encouragement of creativity, autonomy or freedom, resources, pressures and organizational obstacles to creativity. Amabile et al. (1996) discuss the factors perceived as stimulants or obstacles to creativity in organizational work environments. Some components stimulate creativity (namely, encouragement from the organization and/or supervisors, workgroup support, adequate resources and challenging work), while others hinder it (namely, organizational obstacles and workload pressure). Based on the reciprocal similarities, the two

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works of Ekvall and Amabile seem mutually reinforcing (Moultrie and Young, 2009). In particular, the review of the literature in Moultrie and Young (2009) demonstrates that the different specific studies in the field seem to support the general findings on organizational creativity. In this relatively solid context, recent literature is addressing new perspectives (e.g. the creative leadership perspective, in Sternberg et al., 2004) for enhancing creativity in organizations. Between them, the organizational learning perspective seems promising, because some evidences suggest that the evolving nature of the work system has an impact on creativity (Burnside, 1990; Katz and Allen, 1985; Rubinstein and Woodman, 1984). For example, Van Woerkum and Aarts (2007) suggest that creativity within an organization can be promoted through planning and designing for new conceptual spaces and Napier and Nilsson (2006) suggest that, in some kind of firms, the development of new specific capabilities is required for the creative leap.

Organizational Learning Mechanisms: Key Features

The capacity to learn is crucial because, through the process of creating new knowledge from prior knowledge, behaviour may change, respond to the changing environment and enhance performance (Slater and Narver, 1995). An organization can establish mechanisms to help the members of the organization gather and apply knowledge-related resources effectively (Popper and Lipshitz, 2000 and 1998). Research shows that managers and leaders need to make some design choices about the nature of organizational learning mechanisms (Shani and Docherty, 2003). Popper and Lipshitz's work is the first attempt to give clarity to the nature of organizational learning mechanisms on a number of points. Indeed, they provided the first comprehensive definition of organizational learning mechanisms, defined as institutionalized arrangements that allow organizations to systematically collect, analyse, store, retrieve and use information that is relevant to the performance of the organization and its members

(Popper and Lipshitz, 2000 and 1998; Lipshitz et al., 1996). Following this definition, Shani and Docherty (2003 and 2008) advanced a comprehensive theoretical framework of organizational learning mechanisms. Building upon their conceptual classification, we can group organizational learning mechanisms into three broad categories, namely cognitive, structural and procedural mechanisms.

Cognitive mechanisms support learning, providing the language, concepts, symbols, theories, frameworks and values for thinking, reasoning and understanding learning issues that are consistent with the organization's strategy. Oliver and Jacobs (2007) refer to dialogue-intensive processes - as a means to share mental models and create a common language within teams to encourage learning.

Structural mechanisms concern the organizational, physical, technical and work system infrastructures that encourage learning. These mechanisms enable the collaboration and debate required for the collective learning of new practices to take place (Chaharbaghi and Cripps, 2007). In particular, structural mechanisms encourage virtual contact between members, stimulating the collective development of new insights or providing access to useful documents. In addition, the organization's physical structure may promote learning, by assisting spontaneous contact between members of different units and allowing knowledge to be exchanged. Literature highlights that structural mechanisms include a wide variety of different elements. For example, they include the entities that act as enablers in accessing information, such as colleagues, suitable organizational spaces, centres of competency, functions that support learning (i.e. coaches) and programmes. Furthermore, structural mechanisms include the flows of information within the company as well as those outside the organization's boundaries, for example with suppliers and clients.

Procedural mechanisms include the rules, routines, methods and tools that can be institutionalized within the organization to promote and support learning (Pavlovsky et al.,

2001). Scanning the literature, "democratic dialogues" (Gustavsen, 2001), work-based dialogue (Bjerlov and Docherty, 2006) and de-briefing procedures (Lipshitz et al., 2002) are examples of the methods that have been applied successfully, allowing participants to learn systematically from each other's experience through reflection and by encoding new knowledge in new procedures.

Organizational learning mechanisms play a critical role in organizations (Beer, 2011). The fundamental assumption about organizational learning mechanisms is that the capability to learn does not arise from the actions currently being carried out within the organization, but must be actively designed, by formulating and implementing specific organizational learning mechanisms. In particular, the literature suggests that organizational learning mechanisms seem to have positive tangible effects on organizational performance (Fredberg, 2011). For example, Obloj and Sengul (2012) underline that organizational learning mechanisms can positively influence the evolution of an incentive system within an organization and the division of value between its economic players. Oliver (2009) and Mitki et al. (1997) claim that organizational learning mechanisms can support continuous improvement, allowing the organization to collect, analyse, store, disseminate and use relevant information. Moreover, building on Shani and Docherty's (2003) classification of organizational learning mechanisms, Mitki et al. (2008) provide a practical example of the usefulness of organizational learning mechanisms in organizations: cognitive mechanisms promote a sense of urgency and set the overall goals; structural mechanisms have a huge impact on the coordination and the continuous promotion of learning; procedural mechanisms support the initiatives by introducing protocols and establishing methods. Finally, Chou and Wang (2003) demonstrate that the effect of organizational learning mechanisms is positively related to the creation of new knowledge. Our review of the literature suggests that limited studies to date

have examined the nature, critical role and interplay between organizational learning mechanisms and creative climate.

Organizational Learning Mechanisms and Creative Climate: The Development of Hypotheses

The above literature review highlights that the relationships between organizational learning mechanisms and creative climate is relevant and that new knowledge can be created about the antecedents of creative climate in terms of organizational learning mechanisms. In fact, they seem to have a relevant role in the challenge of creativity in organizations because organizational learning mechanisms include some perceptions, actions, and artefacts (implemented or existing) that are required for building a climate that employees can felt as creative (e.g. Van Woerkum and Aarts, 2007; Napier and Nilsson, 2006). In the following paragraphs, we advance three hypotheses together with a specific knowledge creation process to test their validity (in the next section).

Building upon the literature, we consider three types of organizational learning mechanisms, namely cognitive mechanisms, structural mechanisms and procedural mechanisms.

The cognitive mechanisms mainly refer to a shared understanding of strategy, vision and values of the organization, a common language and an emphasis on a culture of dialogue and learning (Mitki and Herstein, 2011). For example, a shared revision of the mission statement is a possible cognitive mechanism. In particular, literature suggests that creative climate can be enhanced by providing a clear and shared cognitive vision (Lund Stetler and Magnusson, 2015), promoting dialogue (Sundgren et al., 2005) and sharing strong common values (Holmquist, 2007) that are consistent examples of cognitive mechanisms. Antonacopoulou and Gabriel (2001) also argue that learning associated with organization-wide processes (e.g. a common language) can stimulate creativity. We assume that the reason for this relationship may be that values have the ability to guide creative efforts. This is coherent with the idea that

value-focused thinking is a factor closely connected to creative climate (Keeney, 1992). This seems to suggest that this type of organizational learning mechanisms is associated with creative climate. Our first hypothesis is:

Hypothesis 1: the cognitive mechanisms are positively related to creative climate.

The structural mechanisms refer to different types of structures and platforms that allow working together, sharing information, integrating knowledge, participating in organization-wide projects, encouraging learning and growth (Shani and Docherty, 2008). Creative climate is characterized by the presence of shared information and open communication (De Salvo, 1999), therefore different studies suggest that creativity in organization can be promoted adopting different structural mechanisms. For example, beneficial results are promoted by providing platform for collaboration and communication (Sonnenburg, 2004), such as intranet systems, blogs, and social media tools, and providing an appropriate physical and social work environment (Epstein et al., 2013), such as spaces and protected time for socialization and meetings, continuous improvement teams, and communication channels. In fact, different experiences of participation in decision making and teamwork seem related to creative climate (Cirella et al., 2014; Schadur et al., 1999). In line with previous studies (e.g. Caniëls et al., 2014; Kanter, 1988), we assume that structures for sharing information, physical spaces and resources, and availability of prompt support are associated with an emergent climate conducive to creativity. Indeed, we propose:

Hypothesis 2: the structural mechanisms are positively related to creative climate.

The procedural mechanisms are related to methods, routines and tools that promote and support learning, such as resource planning, review practices and evaluation criteria (Mitki and Herstein, 2011). We advance the idea that this type of organizational learning mechanisms is positively related to creative climate, as, indeed, few scholars have proposed that some procedural mechanisms can enhance creative climate, concerning in particular systematic planning activities (van Woerkum et al., 2007), collaborative routines (Napier and Nilsson, 2006), feedback and recognition (Epstein et al., 2013) and reward systems (Tidd et al., 1997). For example, these mechanisms include systematic and standard operating briefings (e.g. a 30 minute briefing of an employee to colleagues after the return from a fair visit to convey what he/she learned from the visitors), post-project review procedures, and specific assessment tools. We assume that procedural mechanisms are important ways to share knowledge in a systematic way and define processes and goals towards producing a specific creative output (Bennis and Biederman, 1997). Accordingly, our third hypothesis is:

Hypothesis 3: the procedural mechanisms are positively related to creative climate.

Methodology

Research process and protocol

This study was rooted in an action research process that adopted a truly collaborative orientation in order to achieve rigorous and significant results (Pasmore et al., 2008; Rapoport, 1970). In terms of protocol, the case selection was purposive, as the researchers specifically searched for an organization that was dealing with the challenge of creativity. The nature of and the ongoing challenges in the fashion design industry (e.g. the number of

projects/collections per year; the continuous creativity required) made such a choice of industry coherent with our research (Swan et al., 2010) within the context of creative industries (e.g. Moultrie and Young, 2009; Banks et al., 2002). We approached the company - one of the top five designers of premium silk products for high-end fashion labels and with over 100 years of history - and they agreed to work with us. Our early conversations with the CEO and his executive team led to the joint decision that an action research process, with in particular a collaborative orientation (Shani et al., 2008) and an insider/outsider team (Bartunek, 2008), was the best solution to act as the engine for a more rigorous and relevant research (e.g. Elerud-Tryde and Hooge, 2014). Our initial meetings with the CEO and senior management indicated that encouraging learning and enhancing creativity would address an area of major ongoing challenges and concern. The company targets the market segment for premium silk products - a niche in which a creative climate is a key success factor. In this context, we explored the role of organizational learning mechanisms and their effect on enhancing creative climate. The study was led by a joint research team, consisting of three company people and three academics. The joint research team explored different methodological alternatives for achieving the objectives of the research and, following consultations with the management, decided to prepare and carry out a survey – to gain a better insight into the issues and collect evidence of the links between the concepts (Forza, 2002). This is something that makes this research process unique, because, within an action research framework, the methods in play were quantitative, and the joint research team specifically contributed to the design and distribution of the questionnaire, and to analysing and interpreting the data that had been collected.

Procedure and sample

Data was collected using a survey sent to all the personnel of the "Product Design and Development" unit. In the Design unit, people work with a specific client on a collection. The questionnaire was sent by email, together with a covering note from the CEO, to all the personnel of the Design unit. The recipients were asked to print a hard copy of the questionnaire and complete it. Two academics from the joint research team were available all day at a specified office in the company, to answer questions, clarify doubts and collect the hard-copies of the questionnaire. After an e-mail reminder, an 80.8% response rate was achieved. This high response rate ensured that there were a number of responses for each different role, allowing for generalization at the design unit level. The final sample consisted of a total of 80 respondents.

Measures

The items were measured on a 6-point Likert scale. The survey questionnaire was reviewed during a number of successive joint research team meetings: the lexicon was refined and adapted to the specific context, and the items better defined so that they could be more easily understood and interpreted by the respondents. The survey questionnaire was pilot-tested on three organizational members in order to verify its adequacy. The items listed below were used for the purposes of this specific study.

Organizational Learning Mechanisms. The items included in the survey were chosen according to previous research (Mitki and Herstein, 2011; Shani and Docherty, 2008; Garvin et al., 2008; Mitki et al., 2007; Armstrong and Foley, 2003; Roth, 2002; Popper and Lipshitz, 2000), ensuring that the elements selected were reliable and building a new protocol based on these previous studies. For this study, 15 items are used to measure the three organizational learning mechanisms categories (cognitive, procedural and structural mechanisms) accordingly to the established theory (Mitki and Herstein, 2011; Shani and Docherty, 2008).

A confirmatory factor analysis discriminates the three organizational learning mechanisms (Table 1):

- cognitive mechanisms: five items are used to measure the cognitive mechanisms. These include clarity of the strategy, connection between strategy and everyday actions, coherency between strategy and training, and a culture that encourages learning and sharing of a common language. The alpha coefficient for this measure is .85.

- structural mechanisms: five items are used to measure structural mechanisms. These includes sharing information between colleagues, knowing who does what, participating in teamwork and in continuous improvement processes, having a clearly designated reference for support and encouragement. The alpha coefficient for this measure is .75.

- procedural mechanisms: five items are used to measure the procedural mechanisms. These includes the initial estimation and knowledge of resources and objectives, sharing the control and evaluation criteria, adopting midway reviews, post-project reviews and routines for a systematic use of company archives. The alpha coefficient for this measure is .82.

Creative Climate. The variables included in the survey were based on Ekvall's Creative Climate Questionnaire (1996) as one of the most generally agreeable models on creative climate (Moultrie and Young, 2009). The alpha coefficient for this measure is .79.

Control variables. The size of the work unit was not included as a control variable because it is similar for any collection. Measures of age, job title (role), previous experience at other companies, seniority within the company and employment contracts were initially included as control variables; however, since no relationship was found between them and other variables, these controls were then not included when testing the hypotheses.

Results

This section will focus on the analysis of the data related to the three hypotheses. Table 2 shows the mean, standard deviation and correlation between the organizational learning mechanisms and creative climate. Linear regression was used to analyse the data and our results are given in Table 3. The model with cognitive mechanisms and creative climate (R-squared = .219, Adj. R-squared = .207, p = .000) indicates a significant positive relationship (β = .468, t = 4.298, p < .001). The model with structural mechanisms and creative climate (R-squared = .467, Adj. R-squared = .458, p = .000) indicates a significant positive relationship (β = .683, t = 7.597, p < .001). The model with procedural mechanisms and creative climate (R-squared = .418, Adj. R-squared = .409, p = .000) indicates a significant positive relationship (β = .646, t = 7.085, p < .001).

Discussion

Our study found a confirmation to our three hypotheses, which demonstrated that the three types of organizational learning mechanisms are associated with creative climate. This finding

contributes to the development of new knowledge in different ways. It contributes towards a better understanding of creative climate, because it confirms that: (i) creativity is not (only) about "creative individuals", but is an organizational competence that can be improved upon or hindered by organizational learning mechanisms, and (ii) creativity is not a "romantic inspiration", but a process that is based on learning, which can be planned, institutionalized, formalized and designed with organizational learning mechanisms – coherently with the suggested notion of collective creativity-by-design (Cirella and Shani, 2012).

Based on the positively significant results, the organizational learning mechanisms approach seems highly valuable to study creative climate. Indeed, we found an empirical support for the argument that practices and actions aimed to learn are associated with more creative climate (Sundgren et al., 2005; Rasmussen, 2014). In particular, our contribution is related to the adoption of the three types of organizational learning mechanisms. This perspective seems particularly sensible, since the results of this study complement and extend initial results concerning the potential role of a learning orientation in the creative climate field (e.g. Barrett et al., 2012; Hong et al., 2014).

In particular, the relationship between cognitive mechanisms and creative climate underlines that a creative climate may be seen as a system of shared meanings and values held by members that distinguishes the organization from other organizations (Sundgren et al., 2005; Schein, 1985). In line with Sundgren et al. (2005), this result also suggests that dialogue-intense activities support value-focused thinking, that is a factor closely connected to creative climate (Keeney, 1992). Although the cognitive level includes less visible mechanisms, the organization should be able to concretely provide a consistent cognitive mind-set that includes general company style, common ways of doing things and shared values (Malnight, 2001).

The relationship between structural mechanisms and creative climate suggests the importance of structures in which creativity can evolve in processes whereby actors reciprocally and

continually influence each other (Ford, 2002 and 1996). Therefore, relevant structural mechanisms include mechanisms that act as enablers to access information and integrate knowledge (Enberg, 2006; Gustavsen, 2001), such as sharing information between colleagues, knowing who does what, participating in continuous improvement, and having a clearly designated reference for support and encouragement, e.g. the presence of a coach (Swart and Harcup, 2013). Moreover, structural mechanisms are also a platform for debate, that is opposing ideas in a productive manner, and debate is commonly associated with creative climate, as many different points of view can be exchanged, understood and appreciated (Isaksen and Ekvall, 2010).

The relationship between procedural mechanisms and creative climate is consistent with the idea that organizations can develop and use routines and methods to strengthen their creativity (Napier et al., 2006). The combined routines and methods that occur within a group of people as they work to achieve a specific creative outcome seem to support creativity (Napier et al., 2006). The knowledge generated with procedural mechanisms can allow an organization to codify experiences in order to support creativity (Nelson and Winter, 1982).

The holistic nature of the different types of organizational learning mechanisms can set the stage for the development of creativity within organizations, involving skills, knowledge, routines, structures and processes, norms and values (Sundgren et al., 2005). In this sense, creative climate is the outcome of various knowledge processes that use each different type of organizational learning mechanisms (Catmull, 2008).

As a final point of discussion, the present study was embedded in an action research process, following, in particular, a collaborative orientation (Shani et al., 2012), in line with recent collaborative studies in this field (e.g. Elerud-Tryde and Hooge, 2014). As such, the research process was designed, carried out and managed in a collaborative manner. The process meets the research requirements of rigorous, relevant and reflective science (Pasmore et al., 2008).

In terms of rigor, the process was data-driven and co-evaluated. It was data-driven because it involved developing research tools (our survey) designed to support a data-driven analysis and because, in the process, the raw data was compiled to provide an accurate interpretation of the data, such that a holistic understanding of the phenomena under study could be generated. It was co-evaluated because of the collaborative interpretation of the data used to determine our findings. Looking at the reflective aspect, the process was based on past research/theory, recognizing and building upon the work of others. In particular, (i) data was collected and clustered according to the research needs highlighted by extant literature, (ii) an in-depth literature review was carried out, combining and analysing the literature on organizational learning mechanisms and creative climate, and (iii) specific reflection processes were put in place so that the creation of meaning and sense making could take place, generating specific management implications and identifying actions for improvement within the company. Lastly, the process led to significant findings, because the goals and design were co-determined so as to be conceived and aligned with the aspects that leaders and other stakeholders care the most about. The active, systematic, and continuous, participation of the organizational members resulted in an of high-quality learning in the organization (Hernes and Irgens, 2013; Ben-Horin Naot et al., 2004; Raelin, 1999).

Conclusions

This paper investigated the relationship between the different types of organizational learning mechanisms and creative climate. In doing so, the study can be valuable to practitioners and scholars. The main implication involves the role of the organizational learning mechanisms, in that they constitute a tool that companies can take into consideration when designing organizational learning mechanisms within the organization for enhancing creative climate.

Indeed, the three types tested in this study can be a guiding format when designing a tapestry of organizational learning mechanisms and integrating them, helping "not to forget" any possible contribution to develop learning mechanisms for enhancing creative climate. This represents a specific management-related implication for companies that aim to develop creativity as a support to their competitive advantage.

The complexity of the relationships suggest that there is also need for further research, in order to highlight the specific role of these relationships. In our study, there is a limitation concerning the actual case subject of our research; future studies might focus on other kinds of companies in terms of size and how change is oriented, or relating to other countries or industries, in order to test the contextual conditions under which a creative climate can be developed by the organizational learning mechanisms. Future studies might explore the role of the context in determining what specific organizational learning mechanisms play a stronger or lesser role in their relationship with creative climate. Another area of limitations and future research regards the particular model that was tested, which could be extended in different possible directions. A first direction can take into account, over and above organizational learning mechanisms, other predictors of creative climate found in previous studies (e.g. Ekvall, 1997), in order to compare the variance explained by "traditional" predictors of creative climate with the variance explained by organizational learning mechanisms. A second direction of development for the proposed model could explore other organizational creativity dimensions, such as the number of new patents generated by the company, or the level of creativity involved in new products, as assessed by a panel of experts (e.g. Girotra et al., 2010). Accordingly, a third direction for further development of the model could explore the entire "value chain" of organizational creativity, testing not only the impact of organizational learning mechanisms on creative climate, but also verifying the impact of creative climate on organizational performance (e.g. Zampetakis et al., 2014; Çokpekin and

Knudsen, 2012). Lastly, a fourth direction can look at the development of a measurement scale for organizational learning mechanisms, to test the reliability and validity of the scale of the present study, and so provide future research on organizational learning mechanisms with a robust measurement basis.

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Table 1. Items about Organizational Learning Mechanisms

Cognitive Mechanisms
Clarity of strategy
Connection strategy-activities
Coherence strategy-training
Learning encouragement culture
Sharing of common language
Structural Mechanisms
Information between colleagues
Knowledge of who does what
Participation in teamwork
Continuous improvement
Reference for having support
Procedural Mechanisms
Knowledge of resources and objectives
Knowledge of controlling criteria
Midway reviews
Post-project reviews
Routines about use of archives

Table 2. Organizational Learning Mechanisms and Creative Climate: Descriptive Statistics and Correlation Coefficients

	M	SD	1	2	3	4
1 Cognitive Mechanisms	3.016	.927	-			
2 Structural Mechanisms	3.357	.903	.571**	-		
3 Procedural Mechanisms	3.400	1.062	.357**	.645**	-	
4 Creative Climate	3.694	.777	.468**	.683**	.646**	-

**p<.01

Table 3. Regressions Results

	R-squared	Adj. R-squared	Significance	Predictor	Beta
Regression 1	.219	.207	.000	Cognitive Mechanisms	.468**
Regression 2	.467	.458	.000	Structural Mechanisms	.683**
Regression 3	.418	.409	.000	Procedural Mechanisms	.646**

**p<.001