THE IMPACT OF ORGANIZATIONAL CULTURE ON CREATIVITY AND INNOVATION

Ali Taha V., Sirková M., Ferencová M.*

Abstract: In a hyper-competitive business environment will survive and succeed only those enterprises that are able to come up with new ideas and/or unique products or applications. Creativity goes hand in hand with innovation; higher creativity leads to more innovation. Developing organizational culture that stimulates and promotes creativity and innovation is an imperative for organizations seeking a competitive advantage. The paper examines the relationship between culture (selected elements), creativity and innovation. Based on primary data obtained in a questionnaire survey conducted in Slovak organizations there were found associations between all the (pairs of) variables. The strongest association was measured between the atmosphere of psychological safety in the workplace and employees’ willingness to produce new ideas and between interpersonal relationships in the workplace and employees’ willingness to produce new ideas and between interpersonal relationships in the workplace and individual creativity.

Key words: organizational culture, creativity, innovation

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Introduction

Ability to be creative and continuously innovate has become critical success factor. Hence, “creativity and innovation should be acknowledged as a company’s core capability” (Cefis and Marsili, 2006; Matolcsy and Wyatt, 2008, in Tubagus, 2016). According Martins and Terblanche (2003) the creativity, innovation and inventiveness are crucial for the survival and success of today’s knowledge-based organization. It can also augment organization’s innovation capacities. Plsek (1997, in Pesut, 2013) identifies five factors that drive the need for creativity and innovation in organizations today: (1) superior long-term financial performance is associated with innovation; (2) customers are demanding innovation; (3) competitors are getting better at copying past innovations; (4) new technologies enable innovation; and (5) what used to work doesn’t anymore.

In order to succeed and “to remain externally adaptive” (Schein, 2004), businesses must create a culture that fosters creativity and promotes innovation. According Johansson (2004, in Tubagus, 2016) „innovation will be encouraged when culture

*Viktória Ali Taha, University of Prešov in Prešov, Faculty of Management, Michaela Sirková, University of Prešov in Prešov, Faculty of Management, Martina Ferencová, Pavol Jozef Šafárik University in Košice, Faculty of Public Administration

✉ Corresponding author: mferencov@gmail.com
✉ viktoria.ali-taha@unipo.sk; michaela.sirkova@unipo.sk
and way of thought collide together creating new ideas”. In explaining the relationship, between culture, creativity and innovation it is necessary to highlight some pitfalls. The first problem is the amount of definitions of culture and creativity. As stated Burkus (2014) both terms – creativity and culture have many connotations, which “makes them hard to fully understand and even harder to implement”.

The second problem is the confusion between the concepts creativity and innovation. Both terms (creativity and innovation) are sometimes used interchangeably, although they are not identical. West and Farr (1990, in Tubagus, 2016) explained the differences between the concepts as follows: “Creativity is closely related with the development of new useful ideas, while innovation is the successful development of new ideas. Therefore, creativity will be the beginning phase of an innovation”. McLean (2005) points out another problem that researchers may encounter. It is a confusion between the concepts organizational culture and organizational climate. The author points out that distinction between these two terms is important when examining the phenomenon of organizational creativity and innovation.

The “Triple Spiral” of Culture, Creativity and Innovation

Creative thinking is “a metacognitive process of generating novel and useful associations, attributes, elements, images, abstract relations or sets of operations that better solves a problem, produces a plan or results in an outcome, pattern, structure or product not clearly present before” (Pesut, 1985, in Pesut, 2013). However, although creativity is a matter of cognitive process at the individual level, it involves factors beyond individual level. Creativity has also social dimension, it is influenced by social context (Westwood and Low, 2003). That is why creativity should not be decontextualized (Lubard, 1999, in Westwood and Low, 2003). Westwood and Low (2003) examined the relationship between creativity and national culture, but similarly, there is also the link between creativity and organisational culture. Both national and organisational cultures represent layers of culture and – although they are different phenomena – they have a number of common features (values, norms, standards, symbols, heroes etc.). Some authors (for example Flamholtz and Randle, 2011) characterize organisational culture as a “personality” of the organization. One of the best known definitions of organisational culture is Schein’s definition according to which the organizational culture is “a pattern of shared basic assumptions that was learned by a group as it solved its problems of external adaptation and internal integration, that has worked well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think, and feel in relation to those problems” (Schein, 2004). Siehl and Martin (1981, in Patel, 2014) define organisational culture as “the social or normative glue that holds a company together”. Culture is also defined as a shared system of values, norms and symbols. They are manifested for example through communication (Vlăduțescu et al., 2015;
Kunz, 2012), as well as through approach to safety issues (Tabor, 2016). “The term culture conveys an entire image, an integrated set of dimensions/characteristics and the whole beyond the parts” (Louis, 1981, in Alvesson, 1987). Organizational culture encompasses a broad spectrum of elements/components: norms and standards; rules and ethical codes; (shared) values; beliefs and assumptions; rituals, rites, ceremonies and celebrations; language and jargon; symbols; (physical) artefacts; heroes; stories and myths; physical environment; rewards and recognition; power structures etc.

Organizational creativity means “the creation of a valuable, useful new product, service, idea, procedure, or process by individuals working together in a complex social system” (Woodman et al., 1993). World recognized author Teresa Amabile (1997) defines creativity as “the production of novel, appropriate ideas in any realm of human activity, from science, to the arts, to education, to business, to everyday life”. The author emphasizes that these ideas must be novel i.e. different from what's been done before and they must be appropriate to the problem or opportunity presented. Creativity is also defined as “a complex, cognitive process that involves finding and developing solutions to novel, ill-defined problems that will enhance the organization in the form of its products, services, processes, and procedures” (Mumford and Gustafson, 1988; Shalley and Gilson, 2004, in Waples and Friedrich, 2011). If the creativity is the creation of new ideas, innovation is the successful implementation of this novel, appropriate ideas (Amabile, 1997). “Creativity is the seed of all innovation, and people’s motivation to generate new ideas is influenced by psychological perception of innovation (creating ideas people) within the organization” (Amabile et al., 1996). Some authors perceive innovation as a kind of organizational change and in this respect it can be defined as “the process of designing changes in an organization or component of economic activity in order to create competitive advantage” (Flamholtz and Randle, 2011). The source of competitive advantage can be a product, service or process that distinguishes organisation from competitors. Organisational (social) environment and culture significantly affect creativity, more precisely creative behaviour of individuals and teams. “The development of the organization is directly dependent on the professional preparation and competence of the staff team” (Ślusarczyk and Herbuś, 2010). Amabile (1988, in Amabile et al., 1996) in her componental model of creativity and innovation in organizations determined three broad organizational factors that are related to creativity: (1) organizational motivation to innovate and organisational support for creativity and innovation, (2) resources – understood as everything that the organization has available to aid work targeted for innovation, e.g., sufficient time for producing novel work, the availability of training etc., (3) management practices. Woodman, Sawyer, and Griffin (1993, in Amabile et al., 1996) also identified dimensions/characteristics of work environments that are connected to creative behaviour in organizations. In addition to group characteristics such as norms, group cohesiveness, size, diversity, roles, tasks etc., there are
organizational characteristics which include organizational culture, resources, rewards, strategy, structure, and focus on technology. As reported Tushman and O’Reilly (1997, in Sadegh Sharifirad, 2012) organisational culture is in the core of innovation and “affects the extent to which creative solutions are encouraged, supported and implemented” (Martins and Terblanch, 2003). Both creativity and innovation are impacted by culture in many ways, whereas Martins and Terblanch (2003) present two basic ways:  
1) Through socialisation process in which individuals in organisation learn what is acceptable and desirable behaviour. According to shared (organisational) norms individuals make assumptions about how important in organization is creative and innovative behaviour.  
2) Through organisational values, assumptions and beliefs are reflected in structures, practices and procedures.  
Tellis et al. (2009) in their research (on 759 firms across 17 major economies of the world) found that among the factors examined (labour, capital, government, and culture as drivers of innovation) culture is the strongest driver of radical innovation across nations. In addition to national culture, authors consider corporate culture to be an important driver of innovation in firms across nations.

**Objective, Material and Methods**

This paper presents the partial results of a study that examined the determining factors on the creativity and innovation among a sample of 184 organizations in the Slovak Republic. The paper aims to analyse the relationship between cultural aspects and creativity (individual and team) and between creativity and innovation. Correlation analysis (detecting statistical relationship between two variables) has been used for hypotheses testing. Statistical software STATISTICA 12 has been used. The level of significance is 5%. Primary data was collected via questionnaire survey among managers or representatives of 184 organizations/companies of different sizes and from different sectors. In addition to initial identification items all questions were closed – in the form of statements using Likert (five-point response) scale on which respondents indicated the level of agreement or disagreement (from 1 – strongly agree to 5 – strongly disagree). Most of the surveyed organizations were medium-sized organizations (100-500 employees) (68%), followed by small organizations (24%) and large organizations (more than 500 employees) (8%). In addition to the size another important criterion is the sector of the economy, while a sample involves 11% organizations from primary sector, 36% from secondary sector and 53% from tertiary sector. The theoretical explanation of relationship between organisational culture, creativity and innovation enables us to formulate a set of hypotheses. When formulating hypotheses, we focused on the cultural and contextual factors that can enhance or constrain individual and team creativity. Following research questions guide the development of hypotheses:
1) Does employees' alignment (i.e. alignment of employees' personal values with organization's cultural values) affect their willingness to produce new ideas? According Richard Barrett (2010) “when we work in an organisation whose culture aligns with our personal values, we feel liberated”. Organisational set of (shared) values can unleash creativity. Basic elements of organisational culture which include shared values, assumptions and beliefs “become enacted in established forms of behaviours and activity and are reflected as structures, policy and practices” that “impact directly creativity in the workplace (Martins and Terblanche, 2003). Based on the above, we assumed that there is a correlation between the degree of employees' alignment with the values of the organization and a willingness to come up with new ideas:

H1: Higher degree of employees' identification with the values of the organization will be positively related to the willingness to produce new ideas.

2) Does the implementation of ideas in the form of innovation lead to a greater willingness of employees to produce new ideas? Amabile's componential model of creativity and innovation in organizations (1988 in Amabile et al., 1996), identifies dimensions of work environments that are related to creativity. Along with the resources and management practices it is also organizational motivation to innovate which is a basic orientation of the organization toward innovation, as well as supports for creativity and innovation throughout the organization (Amabile et al., 1996). We assume that if employees see that the results of their creative work is carried out (it is transformed to innovation), it reinforces their sense of purpose of the work and they are more likely to come up with more ideas. We hypothesize that higher implementation of employees' new ideas in the form of innovation will increase the employees' willingness to produce new ideas:

H2: Higher level of implementation of employees' new ideas in the form of innovation will be positively related to the willingness to produce new ideas.

3) Does the existence of an atmosphere of psychological safety (no worries come up with new ideas, suggestions, improvements etc.) impact on employees' willingness to produce new ideas? One of the factors/dimension influencing creativity is encouragement of creativity i.e. “encouragement of the generation and development of new ideas”. There are three levels of encouragement of creativity: organisational, supervisory and work group encouragement (Amabile et al., 1996). One of the aspects of organizational encouragement is “fair, supportive evaluation of new ideas” (Cummings, 1965; Kanter, 1983, in Amabile et al., 1996). “Psychological safety refers to individuals’ perceptions of the consequences of taking interpersonal risks in their work environment” (Edmondson, 1999, 2004; Kahn, 1990, in Carmeli et al., 2010). Psychological safety at work mean that people „have the confidence to speak up in the group without risking embarrassment, rejection by others or the depreciation
of self-image or status’ (Kahn, 1990, in Kessel et al., 2012). Assuming the relationship between existence of an atmosphere of psychological safety and employees' willingness to produce new ideas the following hypothesis was formulated:

\[ H_3: \text{There is relationship between existence of an atmosphere of psychological safety in the workplace and employees' willingness to produce new ideas.} \]

4) Does open team communication about new ideas contribute to the team creativity?
Communication is important part of creative process in a team. In fact, many of the techniques used to generation of new ideas (e.g. brainstorming, reverse brainstorming, Method Philips 66, Fishbone etc.) are based on communication. To communication as an important element in the creative process and innovation refers McLean (2005) who states that “way in which communication channels are nurtured or discouraged in organizations can be a potential source of support or an impediment to innovation and creativity”. Likewise, Kessel et al. (2012) highlight the importance of information exchange in the team. Authors found that there is significant relationship between knowledge sharing within the team and creativity. When examining the relationship between open team communication about new ideas and team creativity following hypothesis was formulated:

\[ H_4: \text{Higher level of open team communication about new ideas will be positively related to the team creativity.} \]

5) Do good interpersonal relationships in the workplace affect the individual creativity?
Social relationships and team context influence the creativity of individuals. Positive peer relationships along with participation, open communication, and trust appear as important aspects of climate that facilitates creativity (Hunter et al., 2007, in Carmeli et al., 2010). Moreover, it was found that “high-quality interpersonal relationships facilitate the development of psychological safety” (Carmeli et al., 2009, in Carmeli et al., 2010). Based on the on above mentioned arguments, we can propose a hypothesis as follows:

\[ H_5: \text{Better interpersonal relationships in the workplace will be positively related to the individual creativity.} \]

Results and Discussion
The correlation indicates that employees’ alignment (i.e. alignment of employees' personal values with organization's cultural values) is positively related (r = 0.356028, p < 0.05) to employees' willingness to come up with new ideas (Table 1). The value of the correlation coefficient indicates moderate correlation between variables. Results are presented in Table 1.
Table 1. Correlation analysis – H1

<table>
<thead>
<tr>
<th>Variable X &amp; variable Y</th>
<th>Marked correlations are significant at the p &lt; 0.05000</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
</tr>
<tr>
<td>X: employees' alignment with the values of the organization</td>
<td>1.722826</td>
</tr>
<tr>
<td>Y: employees' willingness to produce new ideas</td>
<td>2.347826</td>
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The correlation analysis revealed relationship between the implementation of employees' new ideas in the form of innovation and their willingness to produce new ideas (Table 2). A correlation coefficient of 0.266 is thought to represent a small association between variables.

Table 2. Correlation analysis – H2

<table>
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<tr>
<th>Variable X &amp; variable Y</th>
<th>Marked correlations are significant at the p &lt; 0.05000</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
</tr>
<tr>
<td>X: level of implement. of employees' new ideas in the form of innovation</td>
<td>3.690217</td>
</tr>
<tr>
<td>Y: employees' willingness to produce new ideas</td>
<td>2.347826</td>
</tr>
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</table>

Hypothesis H3 predicted a positive relationship between the existence of an atmosphere of psychological safety in the workplace and employees' willingness to produce new ideas. In the Table 3 we can observe that the correlation coefficient (r) is 0.618, which is interpreted as a large coefficient, i.e. atmosphere of psychological safety strongly affects employees' creativity.

Table 3. Correlation analysis – H3

<table>
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<tr>
<th>Variable X &amp; variable Y</th>
<th>Marked correlations are significant at the p &lt; 0.05000</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
</tr>
<tr>
<td>X: atmosphere of psychological safety</td>
<td>2.250000</td>
</tr>
<tr>
<td>Y: employees' willingness to produce new ideas</td>
<td>2.347826</td>
</tr>
</tbody>
</table>

The findings also support hypothesis H4, which posited that the level of open team communication about new ideas will positively affect the team creativity. The value of the correlation coefficient (r=0.320145) indicates moderate correlation between variables (Table 4). The results of correlation analysis indicate a relatively strong relationship (r=0.570395) between interpersonal relationships in the workplace and individual creativity (Table 5).
Our study has shown that there is a relationship between alignment of employees' personal values with organization's cultural values and employees' willingness to come up with new ideas. Despite the amount of research examining the relationship between organization culture and employee creativity, there is a significant lack of researches examining the values as a part of organizational culture. In this connection, Naranjo-Valencia et al. (2011) argue that „only a few studies have focused on the effect of culture on innovation and most of them have focused on some cultural characteristics not on archetypes of culture values“.

Our research also revealed that there is a relationship between the implementation of employees' new ideas in the form of innovation and their willingness to produce new ideas. Likewise, Baer (2012) based on the survey among 216 employees and their supervisors found that high motivation of employees to move their ideas forward to realization and/or their network skills can significantly improve their odds of implementing creative ideas. Results of his study also revealed that „a lack of implementation instrumentality and networking ability indeed significantly hampered the implementation of creative ideas”.

Our research also confirmed the relationship between the existence of an atmosphere of psychological safety in the workplace and employees' willingness to produce new ideas. Similarly, Ghosh (2015) (among other issues) examined the relationship between organizational creativity climate and creativity. His findings revealed that organizational creativity climate had positive significant impact on both individual employee creativity and workplace innovative orientation.

Finally, it has been found that the level of open team communication about new ideas will positively affect the team creativity and that there is correlation between interpersonal relationships in the workplace and individual creativity. Similar results also reached other authors, for example, Muñoz-Doyague and Nieto (2012) in their study carried out among employees of an automotive firm found that high-quality exchanges between the employee and their work group as well as to their immediate superior have a significant positive influence on their creative
behaviour. Our results underline the importance of the positive work environment with atmosphere of psychological safety, open team communication and good interpersonal relationships for achieving and strengthening the creative performance of employees. In this regard, organisations should pay more attention to creating a “healthy” organizational culture with good mutual relationships between the employees as well as between employees and their superiors. The necessity to create a psychologically safe environment (which is characterized by the absence of the fear of bringing out new ideas) should be taken into account in promoting creativity and innovation in organization.

Summary

Creativity does not necessarily mean innovation. There is creativity without innovation, but there is no innovation without creativity; creativity precedes innovation. Creativity means to bring new ideas; innovation means converting these ideas into a successful business. Regarding organisational (corporate/enterprise) culture, it is one of the most important factors affecting both creativity and innovation in organizations.

As a result, it can be concluded that all hypotheses are accepted. The results from hypotheses testing show that employees’ identification with the values of the organization positively influences the willingness to come up with new ideas, whereas the value of correlation coefficient $r$ indicates moderate strength of relationship. Employees’ willingness to come up with new ideas is also affected by the level of implementation of employees’ new ideas in the form of innovation (while the relationship between variables is relatively week). Finally, there is strong positive relationship between employees’ willingness to produce new ideas and atmosphere of psychological safety. It has also been found that open team communication about new ideas positively affect team creativity and good interpersonal relationships in the workplace positively affect creative performance of individuals. Muñoz-Doyague and Nieto (2011) argue that in spite the evident importance of employees’ creative contributions, there are not many researches on the factors influencing creativity in labour environments. In this context, this paper brings a new light on the relationship between organizational culture, creativity and innovation (particularly in Slovak business environment). The findings of our study could be helpful for entrepreneurs and managers. Conclusions can serve as a guideline for the implementation of the necessary measures to enhance creativity and boost innovation. As with other empirical studies, there are some limitations that need to be considered. One the major limitation of this work lies in its regional character. Another limitation is the size of the survey sample. The application of this research in bigger sample and in more countries may lead to different conclusions. Another limitation is absence of objective and unified tool measuring creativity (individual and team) in the organisation. Creative performance evaluation is based solely on the subjective views of respondents.
VEGA: Research possibilities to measure and assess the impact of human resource management practices on organizational performance

References


Wpływ Kultury Organizacyjnej na Kreatywność i Innowacje

W środowisku biznesowym przetrwają i odniosą sukces tylko te przedsiębiorstwa, które są w stanie kreować nowe produkty lub aplikacje. Rozwój kultury organizacyjnej, stymuluje kreatywność i innowacyjność; jest niezbędna dla organizacji starającej się o uzyskanie przewagi konkurencyjnej. Artykuł analizuje zależność pomiędzy wybranymi elementami kultury organizacyjnej a kreatywnością i innowacyjnością. W oparciu o dane uzyskane w badaniu ankietowym przeprowadzonym w firmach działających na Słowacji udało się wyodrębnić powiązania. Najsilniejsze z nich występuje pomiędzy atmosferą psychicznego bezpieczeństwa w miejscu pracy i otwartością na nowe pomysły oraz pozytywnymi relacjami interpersonalnymi w miejscu pracy, co pozwala na indywidualną kreatywność.

Słowa kluczowe: kultura organizacyjna, kreatywność, innowacja

組織文化對創造力和創新的影響

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