

## AN ANALYTICAL STUDY ON ORGANIZATIONAL CREATIVITY: IMPLICATIONS FOR MANAGEMENT

Sirková M., Ali Taha V., Ferencová M., Šafárik P.J.\*

**Abstract:** In dynamically and unpredictably changing environment becomes creativity a key factor of the success of businesses and organizations because it affects the development of innovation and ingenuity, and consequently the business success and profit. The paper analyses the creativity of employees at work. Primary data collection was conducted through questionnaire survey among employees (mostly managers) working in Prešov region. The research was conducted on a sample of 118 respondents from Prešov district in Slovakia. To evaluate the data and hypotheses was used statistical program STATISTIC using the Pearson correlation coefficient ( $r$ ).

**Key words:** creativity, creative approach, management, organization, workplace

### Introduction

Creativity is crucial factor of innovative capacity, competitiveness and increasing performance of businesses and organizations. The importance of creativity lies primarily in its close link to innovation as well as the fact that it is perceived as a determinant of socio-economic development of enterprises, cities, regions and countries (Ali Taha and Sirková, 2014). Creativity, understood as coming up with fresh ideas for changing products, services, and processes so as to better achieve the organization's goals, has been considered as a key to sustainable advantage (Amabile et al, 2005).

Creativity has helped to produce the most important innovations in human history and solve some of our most complex and compelling problems (Johnson, 2014). In simple terms, creativity is the “production of novel, appropriate ideas in any realm of human activity, from science, to the arts, to education, to business, to everyday life” states known and respected author in the field of creativity Theresa M. Amabile. These ideas must be novel i.e. different from what was made before, but they can't be only bizarre. The ideas must be appropriate to the problem or opportunity presented. Creativity is the first step in innovation (it means the successful implementation of those novel, appropriate ideas) which is essential for long-term organizational success (Amabile, 1997). According Gallagher and Gallagher creativity is a type of thinking that enables people to generate ideas, invent new ideas, improve old ideas, and recombine existing ideas in a novel fashion (Johnson, 2014).

---

\* **Ing. Michaela Sirková, PhD.**, University of Prešov in Prešov, Faculty of Management,  
**Ing. Viktória Ali Taha, PhD.**, University of Prešov in Prešov, Faculty of Management,  
**PhDr. PaedDr. Martina Ferencová, PhD., Pavol Jozef Šafárik**, University in Košice,  
Faculty of Public Administration

✉corresponding author: michaela.sirkova@unipo.sk

Jones (1972) defines creativity as a “combination of flexibility, originality and sensitivity to ideas which enable the thinker to break away from the usual sequence of thought, into different and productive sequences, the result of which gives satisfaction to himself and possibly others' ” (Brennan and Dooley, 2005).

Developing creativity is – according Houman Andersen and Kragh – about “exploring new possibilities and following what may often be vague ideas or hunches”. The main task of managers and employees is to fundamentally challenge existing ways of doing things within/across organizations (Houman Andersen and Kragh, 2013). Sternberg based on the investment theory states that creativity is a conflux of six distinct but interrelated resources: (1) intellectual abilities, (2) knowledge, (3) thinking styles, (4) personality, (5) motivation, and (6) environment (Sternberg, 2006).

### **Organizational creativity**

Current great emphasis on creativity in organizations is mainly attributable to the fact that it has impact on the innovation performance and success of companies. Many authors point to a link between creativity and innovation, for example, Baer states that “creativity can be viewed as the first stage of an innovation process” (Baer, 2012). Sundgren and Styhre argue that “innovation is at the bottom line, based on the firm’s ability to manage creativity” (Sundgren and Styhre, 2007), and Rosenfeld et al. claim that “creativity is the starting point for any innovation” whereas creativity is an individual and solitary process and innovation is a more inclusive process involving many people (Brennan and Dooley, 2005). Brennan and Dooley indicate that “ability to stimulate innovation is highly dependent upon the stock of potential ideas and problem solutions” (also called “seedlings of innovation”) that are products of the organization's creative processes (Brennan and Dooley, 2005). In order to promote innovation as an output of creativity, the organisation must itself be creative and imbibe a culture of innovativeness (Tej et al, 2013). Creativity is a term used in different organizational contexts – in the context of strategy, innovation, organizational development or leadership. Creativity and creative solutions are important especially in the (unusual) situations when experience or established routines do not work. In this context is creativity is perceived almost as a prerequisite to manage change and renewal (Reckhenrich et al, 2009).

Woodman (1993) defines organizational creativity as “the creation of a valuable, useful new product, service, idea, procedure, or process by individuals working together in a complex social system (Sundgren and Styhre, 2007). Author also states that it is collaborative psychosocial process that takes place in an organization and is affected by contextual and organizational factors (Blomberg, 2014). According Kao (1989) creativity within organisational context can be regarded as the sum of the following functions; the creative person, the creative task and the organisational context (culture) (Brennan and Dooley, 2005).

Dominant approaches treat creativity in a functionalist and instrumental manner. Thus, creativity is seen as something “that occurs or happens during certain conditions that can be arranged or managed” (Sundgren and Styhre, 2007).

Jacobs (1998) notes that organizational creativity is something more than a collection of creative individuals (Sundgren and Styhre, 2007). Thus, the mere presence of creative individuals in an organization does not guarantee organizational creativity, since it is the result of the whole spectrum of organizational factors. In addition to the individuals (their personalities and personal characteristics) plays an important role the environment (organizational factors) that can develop or dampen creativity. In this regard Amabile et al. pointed out that the extent to which people will produce creative (i.e. novel and useful) ideas depends not only on their individual characteristics, but also on the work environment that they perceive around them (Amabile et al, 2004). Herrmann and Felfe indicate that “encouraging climate and an inspiring personal relationship are important prerequisites for the emergence of creative ideas“(Herrmann and Felfe, 2014). On the contrary, Reinartz et al. (2001) specified some barriers to creativity and these are: intolerance of differences, overly rational thinking, inappropriate incentives and excessive bureaucracy (Brennan and Dooley, 2005).

New models of organizational creativity such a Mumford's model (2000) focused on creativity enhancement considers multiple interventions and takes into account multiple environmental levels: individual, group, organization and strategy (Tuori and Vilén, 2011).

Another important factor is – as reported Bharadwaj and Menon (2000) – an extent to which the organization use formal approaches and tools and provide resources to encourage meaningful novel behaviour within the organization (Sundgren and Styhre, 2007).

Regardless of whether organizational creativity has been studied from psychological or social psychological perspective, both usually highlight the managerial aspects, argue Styhre and Sundgren (2005) (Tuori and Vilén, 2011). It follows that a crucial role in supporting and enhancing organizational creativity play managers and leaders. Study made by Amabile et al. suggests that leaders who interact daily with subordinates may “direct at those subordinates, influence their daily perceptions, feelings, and performance, ultimately influencing the overall creativity of the work that they do” (Amabile et al, 2004). Very important is also the role of general leadership behaviour (i.e. leadership styles) as well as the meaning of more specific behaviour (i.e. creativity techniques) in stimulating creativity (Herrmann and Felfe, 2014). According to Powell, managers and leaders must adopt styles that are unique and based on conformity, perceptiveness and rapid decision-making (Powell, 2008).

Rosa et. al identified four management principles that (if are constantly applied) can engender creativity and innovation in organizations regardless of size, industry, and access to financial resources: (1) to manage organizations so that their knowledge base is more diverse than what would occur naturally, (2) to encourage

employees to embrace a collaborative and non-complacent attitude towards work and the organization, (3) to make it possible for organization members to engage in the quick testing of ideas and solutions as they emerge, (4) to reward employee and supervisor behaviours that support these principles and punish resistance to their implementation. If organizations (regardless size and resource support) will apply these principles, creativity and innovation can be harnessed (Rosa et al, 2008).

### **Creativity and management**

Creativity and management have been perceived historically as opposing concepts, but now are increasingly converging in new models of cultural policy and business management (Bilton, 2010). Anyway, nowadays nobody considers creativity and management as incompatible concepts as evidenced by the number of definitions and studies on creativity in management.

According Amabile and Khaire creativity has always been in the core of business, but until now it hasn't been at the top of the management agenda. Insufficient managers' attention to creativity could be caused by long-term (and incorrect) perception of creativity as unmanageable – “too elusive and intangible to pin down“. Another reason for creativity unmanageability could be a fact that it has been a long time seen as phenomenon embodied in a particular type of people (Amabile and Khaire, 2008).

Xu and Rickards define creative management as “the study and practice of management, drawing on the theories of creative processes and their application at individual, group, organizational and cultural levels”. Authors perceive creative management' in two senses: (1) in a formal sense - as a fifth stage in the practice of management, emerging from the historical theories and practices of management from earlier stages or (2) in a less formal sense which refers to a management style which will become associated with the emerging fifth stage of management (Xu and Rickards, 2007).

### **The survey**

#### *Research question and hypothesis*

We were interested in utilization rate and employees' possibilities/conditions of using creativity at work. Scope of the research investigation was wider, but in this paper we focus on some of the findings of the survey. We examined whether there is a correlation (relationship) between selected demographic characteristics of respondents and their creativity (respectively its use at work). We also investigated the existence of statistically significant differences between the various organizations in creating conditions (at workplace) for the development of creativity. Accordingly, the following (alternative) hypotheses were formulated:

H<sub>1</sub>: There is a linear relationship between employees' gender and creativity.

H<sub>2</sub>: There is a linear relationship between employees' age and their creativity.

H<sub>3</sub>: There is a linear relationship between employees' educational attainment and their creativity.

H<sub>4</sub>: There is a linear relationship between employees' creativity (utilization rate) and organization's/employer's support of creativity.

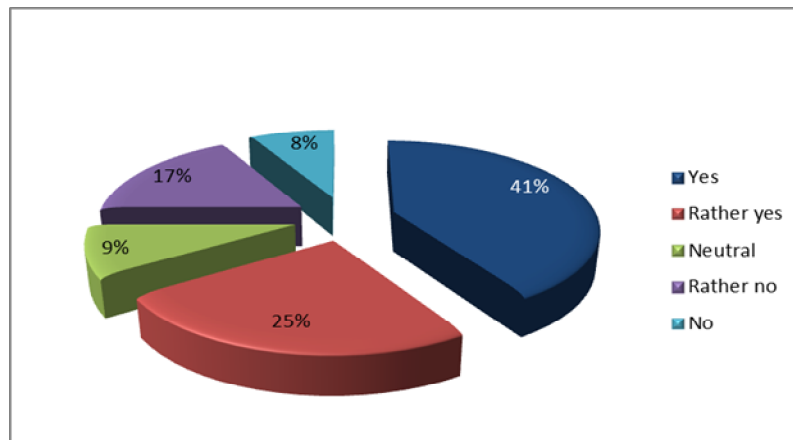
*Research sample and data collection*

In total, the research sample consists of 118 employees working on different fields, organizational levels and of different educational attainment. The respondents were primarily between 18 and 24 years of age, namely 39 respondents (33%). In terms of gender the greater part of the sample are women (64%), in terms of educational attainment the majority of respondents were employees with completed secondary education – 48 respondents (40%). Respondents reported their answers to each question on a five-point Likert scale (1 - yes, 2- rather yes, 3 -neutral (neither agree nor disagree), 4 -rather no, 5 -no).

*Results*

Research has shown that more than three quarters of respondents use creativity in the work for example in the implementation of projects and team events, when finding ways of increasing efficiency, making ideas related to product development and attracting new customers. Only 18% of respondents answered that they do not work creatively respectively their work does not require creativity.

Part of the survey was detection whether employees considered creativity important in the exercise of their profession/occupation. The results are shown in Figure 1.



**Figure 1. The importance of creativity in the work performance**

Results show that creativity is important for most respondents, since the vast majority of respondents answered the question in the affirmative – either by choice of answer “yes” (41%) or “rather yes” (25%). Conversely, 30 respondents (25%) do not considered creativity important in their work.

We also investigated whether the organization/employer provides employees at work sufficient space for the development of individual creativity (i.e. flexibility in solving problems, presentation of own ideas and opinions). Following figure (Figure 2) shows the results.

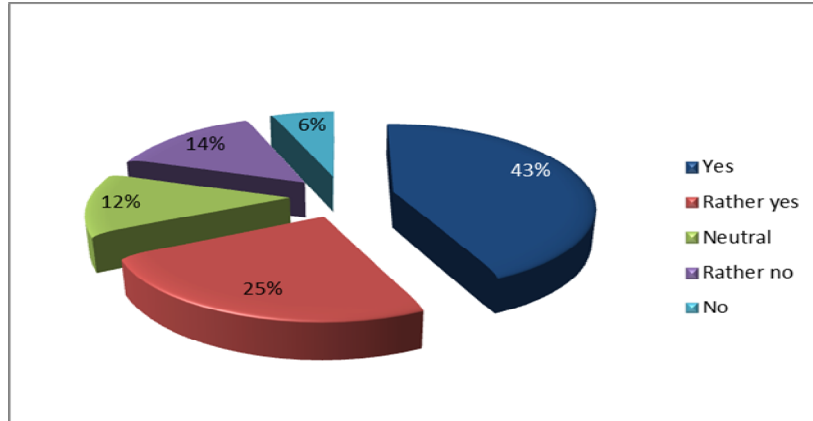


Figure 2. Space for development of creativity

Most of the respondents (68%) replied in the affirmative – 52 respondents selected "yes" (43%) and 29 answer "rather yes" (25%). Up to 20% of respondents do not in workspace/conditions for the development of their creativity (respondents who identified the "no" and "rather no").

The following section is devoted to the presentation of the results of hypotheses testing in which we investigated relationship between selected demographic characteristics – gender, age and educational attainment of respondents and their creativity (used at work). For hypothesis testing and measuring the strength of a linear association between two variables was used Pearson correlation coefficient  $r$  (at the level of significance  $\alpha = 0.05$ ) and statistical software STATISTICA. The results of hypotheses testing presented in Table 1.

Table 1. Correlation between socio-demographic characteristics of respondents and the use of creativity

Variable X & Variable Y	r(X,Y)	r <sup>2</sup>	T	P	N
Gender					
Question	0,035599	0,001267	0,38365	0,701938	118
Age					
Question	0,203559	0,041436	2,23929	<b>0,027044</b>	118
Education					
Question	-0,226405	0,051259	-2,50346	<b>0,013690</b>	118

Hypothesis  $H_1$  examined the relationship between employees' gender and their creativity. Between these two variables was detected no correlation (since  $p > 0.05$ ).

Regarding the hypothesis H<sub>1</sub>, we can conclude that there is *no linear association between the gender and creativity* and this hypothesis should be rejected.

The second hypothesis H<sub>2</sub> related to whether respondents' age and their use of creativity are correlated. Between these two variables for a pre-specified level of significance has been demonstrated correlation ( $p < 0.05$ ). The positive value of the correlation coefficient  $r$  indicates a *positive correlation between respondents' age and their use of creativity*, i. e. the older employee, the more use of creativity at work. Thus, we can retain this (alternative) hypothesis.

The third hypothesis (H<sub>3</sub>) anticipated the relationship between respondents' educational attainment and their use of creativity. Negative value of Pearson's correlation coefficient denotes *negative linear correlation between respondents' educational attainment and their use of creativity*. This means that employees with "higher" educational attainment use to a lesser extent creativity in their work.

The last hypothesis (H<sub>4</sub>) does not cover the socio-demographic characteristics of respondents, but the organizational conditions that promote creativity of employees. We expressed the assumption that there is a linear relationship between employees' creativity (utilization rate) and organization's/employer's support of creativity.

**Table 2. Correlation between organizational creativity support and the use of creativity by employees**

Variable X & Variable Y	r(X,Y)	r <sup>2</sup>	t	P	N
Question – creativity					
Question – organizational support of creativity	0,379764	0,144221	4,421423	<b>0,000022</b>	118

As shown in Table 2, the  $p$  value is less than 0.05 and thus there is *positive linear correlation between creativity (employees' use of creativity) and organizational support of creativity*. Our research has confirmed a reasonable expectation that the promotion of creativity of the organization (creation of favorable conditions) leads to higher creativity of employees.

### Summary

Research results indicated that most employees considered themselves to be creative and consider creativity as important in pursuing their profession. The employers provide their employees sufficient space for the creativity use and development at work and also give them a freedom when solving problems and presenting their own ideas.

On the basis of the research and analysis we attained to some following conclusions:

- there is a positive correlation between age and creativity, and thus, the older the employee the more creativity he/she uses in his/her work;



- there is a negative correlation between educational attainment and creativity which means that employees with higher education are less creative;
- the more creative employee is, the more valued and more supported is the creativity by the employer/organization;
- the more creative employee is, the more substantial he/she considers the use of creative methods and techniques to improve work performance;
- the more creative organization/employer is, the more the use of creative methods and techniques contributes to increased employees' job performance.

#### Acknowledgment

**This study was supported by the research grant KEGA of the Ministry of education of the Slovak Republic: 017PU-4/2013 „Networking of some elements of faculty structure” and the research grant KEGA of the Ministry of education of the Slovak Republic: 013UPJŠ-4/2013 „Organizational behavior – university textbook for compulsory subject of new study programme”.**

#### References

- Ali Taha V., Sirková M., 2014, *Tvorivé prístupy v kontexte sieťovania predmetov* [Creative approaches in the context of subjects networking], [In:] Tej, J. A M. Ferencová, (Eds.) „Sieťovanie vybraných prvkov fakultných štruktúr – interakcia teórie a praxe (elektronický zborník príspevkov z odborného workshopu), Fakulta Manažmentu Prešovskej Univerzity v Prešove, Prešov.
- Amabile T.M., 1997, *Motivating creativity in organizations*, „California Management Review“, 40(1).
- Amabile T.M., Schatzela E.A., Monetta G.B., Steven Kramer J., 2004, *Leader behaviors and the work environment for creativity: Perceived leader support*, „The Leadership Quarterly“, 15.
- Amabile T.M., Barsade S.G., Mueller J.S., Staw B.M., 2005, *Affect and Creativity at Work*, „Administrative Science Quarterly“, 50(3).
- Amabile T.M., Khaire M., 2008, *Creativity and the role of the leader*, „Harvard Business Review“, October.
- Baer M., 2012, *Putting creativity to work: the implementation of creative ideas in organizations*, „Academy of Management Journal“, 55(5).
- Bilton Ch., 2010, *Manageable creativity*, „International Journal of Cultural Policy“, 16(3).
- Blomberg A., 2014, *Organizational creativity diluted: a critical appraisal of discursive practices in academic research*, „Journal of Organizational Change Management“, 27(6).
- Brennan A., Dooley L., 2005, *Networked creativity: a structured management framework for stimulating innovation*, „Technovation“, 25(12).
- Herrmann D., Felfe J., 2014, *Effects of Leadership Style, Creativity Technique and Personal Initiative on Employee Creativity*, „British Journal of Management“, 25(2).
- Houman Andersen P., Kragh H., 2013, *Managing creativity in business market relationships*, „Industrial Marketing Management“, 42.



- Johnson A.P., 2014, *Creativity and intuition: excerpt from the book: Education Psychology: Theories of Learning and Human Development*, National Science Press: www.nsspress.com.
- Powell S., 2008, *The management and consumption of organisational creativity*, „Journal of Consumer Marketing“, 25(3).
- Reckhenrich J., Kupp M., Anderson J., 2009, *Understanding creativity: the manager as artist*, „Business Strategy Review“, 20(2).
- Rosa J.A., Qualls W.J., Fuentes C., 2008, *Involving mind, body, and friends: Management that engenders creativity*, „Journal of Business Research“, 61.
- Sternberg R. J., 2006, *The nature of creativity*, „Creativity Research Journal“, 18(1).
- Sundgren M., Styhre A., 2007, *Creativity and the fallacy of misplaced concreteness in new drug development. A white headian perspective*, „European Journal of Innovation Management“, 10(2).
- Tej J., Ali Taha V., Sirková M., 2013, *Insight into the use of creative management techniques and methods in regional context*, „Law, Economics and Management (LE&M)“, 3(1).
- Tuori A., Vilén T., 2011, *Subject Positions and Power Relations in Creative Organizations: Taking a Discursive View on Organizational Creativity*, „Creativity & Innovation Management“, 20(2).
- Xu F., Rickards T., 2007, *Creative Management: A Predicted Development from Research in to Creativity and Management*, „Creativity and Innovation Management“, 16(3).

## BADANIA ANALITYCZNE KREATYWNOŚCI ORGANIZACYJNEJ I KREATYWNEGO PODEJŚCIA DO PRACY: IMPLIKACJE DLA KREATYWNOŚCI ZARZĄDZANIA

**Streszczenie:** W dynamicznie i nieprzewidywalnie zmieniającym się środowisku kreatywność staje się kluczowym czynnikiem sukcesu przedsiębiorstw i organizacji, ponieważ ma wpływ na rozwój innowacyjności i pomysłowości, a w konsekwencji na sukces w biznesie i zysk. Niniejszy artykuł analizuje kreatywność pracowników w miejscu pracy. Zbieranie podstawowych danych zostało przeprowadzone w formie badania ankietowego wśród pracowników (głównie menedżerów) pracujących w regionie Preszów. Badania przeprowadzono na próbie 118 respondentów z powiatu Preszów na Słowacji. Do oceny danych i hipotezy użyto programu statystycznego STATISTICA wykorzystując współczynnik korelacji Pearsona ( $r$ ).

**Słowa kluczowe:** kreatywność, twórcze podejście, zarządzanie, organizacja, miejsce pracy

### 組織的創造力和創作手法的分析研究工作：影響創造力的管理

**摘要：**動態的和不可預知的環境變化的創造力正在成為企業和組織的成功關鍵因素，因為它影響的創新和創造力的發展，從而在業務和利潤的成功。本文探討的員工在工作場所的創造力。收集基礎數據通過調查普雷紹夫的地區工作的員工（主要是管理人員）之間進行。這項研究是對來自區普雷紹夫，斯洛伐克118受訪者樣本進行。來評價用於使用Pearson相關係數（ $r$ ）STATISTICA程序的數據，並假設。

**關鍵字：**創新，創新的方法，管理，組織，工作場所