

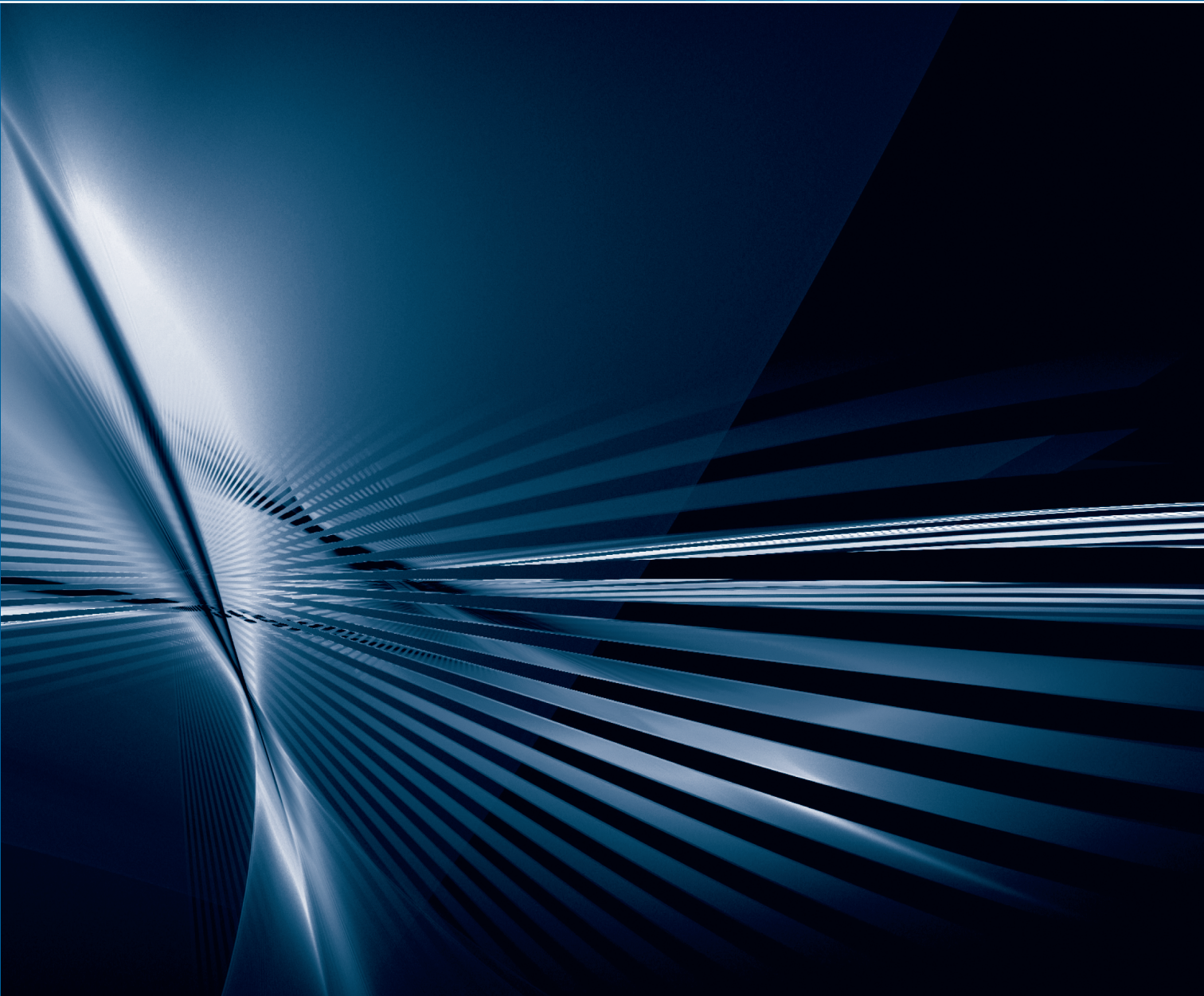
ORGANIZACIJA

Journal of Management, Informatics and Human Resources

Volume 50, Number 1, February 2017

ISSN 1318-5454

Poštnina plačana pri pošti 4102 Kranj



Revija za management, informatiko in kadre

ORGANIZACIJA

Organizacija is an interdisciplinary peer reviewed journal that seeks both theoretically and practically oriented research papers from the area of organizational science, business information systems and human resources management. Topics will be drawn from, but are not limited to, the following areas:

- organizational theory, development and restructuring of organizations;
- new and innovative organizational structures and approaches;
- managerial aspects of quality management;
- organizational behavior;
- human resources management;
- development, restructuring and management of information systems;
- interorganizational systems, electronic commerce;
- decision making, decision support.

In particular, we seek papers which cover state-of-art developments in organizational theory and practice, and present new insights that improve our understanding in the subject area of the journal

Organizacija je interdisciplinarna znanstvena revija, ki objavlja prispevke s področja organizacije, informatike in kadrovskega managementa. Primeri tematskih sklopov, ki jih pokriva revija, so:

- teoretične osnove organizacijskega razvoja ter spreminjanja organizacijskih struktur in procesov
- novi organizacijski pristopi ter njihova uporaba
- organizacijski ukrepi za doseganje večje produktivnosti, ekonomičnosti in rentabilnosti poslovanja in proizvodnje
- management kakovosti
- kadrovanje in izobraževanje kadrov pri prestrukturiranju podjetij
- stimulativnost nagrajevanja v spremenjenih lastninskih razmerah
- prestrukturiranje organizacijskih in informacijskih sistemov
- načrtovanje, razvoj in uporaba informacijske tehnologije in informacijskih sistemov
- medorganizacijski sistemi, elektronsko poslovanje
- odločanje, podpora odločanju, direktorski informacijski sistemi

Vsebina ni omejena na navedene tematske sklope. Še posebej želimo objavljati prispevke, ki obravnavajo nove in aktualne teme in dosežke razvoja na predmetnem področju revije, ter njihovo uvajanje in uporabo v organizacijski praksi.

Contents 1/2017

GENERAL RESEARCH	3	Damjan MALETIČ, Matjaž MALETIČ, Basim AL-NAJJAR, Katerina GOTZAMANI, Maria GIANNI, T. Bartosz KALINOWSKI, Boštjan GOMIŠČEK	Contingency Factors Influencing Implementation of Physical Asset Management Practices
	17	Gašper JORDAN, Gozdana MIGLIČ, Ivan TODORVIČ, Miha MARIČ	Psychological Empowerment, Job Satisfaction and Organizational Commitment Among Lecturers in Higher Education: Comparison of Six CEE Countries
	33	Polona ŠPRAJC, Marko URH, Janja JEREČIĆ, Dragan TRIVAN, Eva JEREČIĆ	Reasons for Plagiarism in Higher Education
	47	Maja ROŽMAN, Sonja TREVEN, Vesna ČANČER, Marijan ČINGULA	Burnout of Older and Younger Employees – The Case of Slovenia
	63	Rok PINTAR, Jorge Tiago MARTINS, Mojca BERNIK	Analysis of Expatriation Process in a Slovenian Company

Editorial office: University of Maribor, Faculty of Organizational Science, Založba Moderna Organizacija, Kidriceva 55a, 4000 Kranj, Slovenia, Telephone: +386-4-2374295, E-mail: organizacija@fov.uni-mb.si, URL: <http://organizacija.fov.uni-mb.si>. Organizacija is co-sponsored by the Slovenian Research Agency.

Published quarterly. Full text of articles are available at <http://www.degruyter.com/view/j/orga> and <http://organizacija.fov.uni-mb.si>.

Papers for publication in Organizacija can be submitted via journal website at <http://organizacija.fov.uni-mb.si>. Before submission authors should consult. Guidelines available at <http://www.degruyter.com/view/j/orga>. You can contact the editorial via e-mail: organizacija@fov.uni-mb.si or joze.zupancic@fov.uni-mb.si.

Articles are currently abstracted/indexed in: Cabell's Directory, CEJSH (The Central European Journal of Social Sciences and Humanities), Celdes, CNPIEC, Die Elektronische Zeitschriftenbibliothek, DOAJ, EBSCO - TOC Premier, EBSCO Discovery Service, ECONIS, Ergonomics Abstracts, ERIH PLUS, Google Scholar, Inspec, International Abstracts in Operations Research, J-Gate, Microsoft Academic Search, Naviga (Softweco), Primo Central (ExLibris), ProQuest - Advanced Polymers Abstracts, ProQuest - Aluminium Industry Abstracts, ProQuest - Ceramic Abstracts/World Ceramics Abstracts, ProQuest - Composites Industry Abstracts, ProQuest - Computer and Information Systems Abstracts, ProQuest - Corrosion Abstracts, ProQuest - Electronics and Communications Abstracts, ProQuest - Engineered Materials Abstracts, ProQuest - Mechanical & Transportation Engineering Abstracts, ProQuest - METADEX (Metals Abstracts), ProQuest - Sociological Abstracts, ProQuest - Solid State and Superconductivity Abstracts, Research Papers in Economics (RePEc), SCOPUS (in the process of registration), Summon (Serials Solutions/ProQuest), TDOne (TDNet), TEMA Technik und Management, WorldCat (OCLC)

EDITOR / UREDNIK

Jože Zupančič
University of Maribor, Faculty of
Organizational Sciences, Slovenia

CO-EDITORS / SOUREDNIKI

Petr Doucek
Prague University of Economics,
Faculty of Informatics and Statistics,
Czech Republic

Sasha M. Dekleva
DePaul University, School of
Accountancy and MIS, Chichago, USA

**EDITORIAL BOARD /
UREDNIŠKI ODBOR REVIJE**

Hossein Arsham,
University of Baltimore, USA

Franc Čuš,
University of Maribor, Slovenia

Vlado Dimovski,
University of Ljubljana, Slovenia

Daniel C. Ganster,
Colorado State University, USA

Jože Gričar,
University of Maribor, Slovenia

Werner Jammernegg,
Viena University of Economics and
Business Administration, Austria

Marius Alexander Janson,
University of Missouri-St. Louis, USA

Stefan Klein,
University of Münster, Germany

Aleksandar Marković,
University of Belgrade, Serbia

Hermann Maurer,
Technical University Graz, Austria

Matjaž Mulej,
University of Maribor, Slovenia

Valentinas Navickas,
Kaunas University of Technology,
Lithuania

Ota Novotny,
University of Economics, Prague,
Czech Republic

Milan Pagon,
Independent University, Bangladesh
(IUB), Dhaka, Bangladesh

Björn Paape,
RWTH-Technical University Aachen,
Germany

Dušan Petrač,
NASA, Jet Propulsion Laboratory,
California Institute of Technology, USA

Hans Puxbaum,
Vienna University of Technology,
Austria

Vladislav Rajkovič,
University of Maribor, Slovenia

Gábor Reketttye,
University of Pécs, Hungary

Henk G. Sol,
Faculty of Economics and Business,
University of Groningen, Netherlands

Eugene Semenkina, Siberian State
Aerospace University, Krasnoyarsk,
Russian Federation

Velimir Srića,
University of Zagreb, Croatia

Paula Swatman,
University of Tasmania, Australia

Brian Timney,
The University of Western Ontario,
Canada

Maurice Yolles,
Liverpool John Moores University, UK

Douglas R. Vogel,
Harbin Institute of Technology-HIT,
School of Management, China

Gerhard Wilhelm Weber,
Middle East Technical University,
Turkey

Stanisław Wrycza,
University of Gdańsk, Poland

Yvonne Ziegler,
Frankfurt University of Applied
Sciences, Germany

Hans-Dieter Zimmermann,
FSH St. Gallen University of Applied
Sciences, Switzerland

DOI: 10.1515/orga-2017-0003

Contingency Factors Influencing Implementation of Physical Asset Management Practices

Damjan Maletič¹, Matjaž Maletič¹, Basim Al-Najjar², Katerina Gotzamani³,
Maria Gianni³, T. Bartosz Kalinowski⁴, Boštjan Gomišček⁵

¹ Faculty of Organizational Sciences, University of Maribor, Slovenia
damjan.maletic@fov.uni-mb.si, matjaz.maletic@fov.uni-mb.si

² School of Engineering, Linnaeus University, Sweden
basim.al-najjar@lnu.se

³ Department of Business Administration, University of Macedonia, Greece
kgotza@uom.edu.gr, giannima@uom.edu.gr

⁴ Faculty of Management, University of Lodz, Poland
tbkalinowski@uni.lodz.pl

⁵ Faculty of Business, University of Wollongong in Dubai, UAE
BostjanGomiscek@uowdubai.ac.ae

Purpose: The purpose of this empirical study is to examine the role of two contingency factors, i.e. uncertainty and competitiveness in relation to physical asset management (PAM) practices as well as to maintenance key performance indicators. The research is based on a premise that PAM, which was defined by risk management practices, performance assessment practices, life cycle management practices, and policy & strategy practices, has become an indispensable element of strategic thinking of asset owners as well as maintenance and asset managers. The purpose of this study is to advance the understanding of how organizations that face high or low level of uncertainty and competitiveness respond in terms of PAM deployment.

Methodology/Approach: This study employed a data set based on a large-scale survey among organizations in six European countries (i.e. Slovenia, Poland, Greece, Sweden, Turkey and Slovakia). Data were collected from 138 organizations located in the above-mentioned countries to conduct the study.

Findings: The results show that organizations that are faced with high level of uncertainty and competitiveness are more engaged in the deployment of PAM practices. Moreover, results show that when organizations are facing high levels of competitiveness they are using KPIs to a greater extent than organizations under low levels of competitiveness.

Originality/value: From a theoretical perspective, this study contributes to the contingency theory by providing empirical evidence whether a context-dependent approach to PAM is needed. The findings also provide insights for managers on how to respond to the competitive pressure as well as how to customize PAM practices in order to adapt to the changes in dynamic organizational environment.

Keywords: *Physical asset management, maintenance, uncertainty, competitiveness, maintenance key performance indicators, empirical study*

1 Introduction

In today's increasingly complex interrelated industries, success depends on offering higher customer value or operating with lower costs (Porter, 1985). One important way in which competitive performance could be achieved is through effective management of physical assets (Schuman & Brent, 2005). In the present business environment, physical asset management (PAM) is becoming a key challenge for business organisations and has acquired more importance as a management function than ever before (Emmanouilidis & Komonen, 2013). The recent publication of ISO 55000 standards for asset management encouraged the interest on this topic even more. In the context of manufacturing and process industry PAM has been evolving in order to help asset and maintenance managers to exploit full potential of the companies and effectively reach their business goals.

One of the main tasks of PAM is to guarantee that the changing business requirements and physical assets match together in an optimal way, taking into account all life cycle aspects of equipment (Emmanouilidis & Komonen, 2013). However, there is growing debate over the difference between asset and maintenance management. Many researchers argue that PAM is more profound than maintenance management (Amadi-Echendu et al., 2007). Traditionally, maintenance, with its multifaceted activities, resources, measurement, and management, has been important to manufacturing organizations. However, in recent years, the need to manage different aspects of maintenance more effectively has increased the importance of the role of maintenance in organizations (Simões, Gomes, & Yasin, 2011). In any industrial practice, the basic effort is to reduce costs and increase profit (Pacaiova, Glatz, & Kacvinsky, 2012). As outlined by Al-Najjar (2002), the role of maintenance with respect to production is to maintain the quality of all the essential elements that contribute to the production process to keep the product quality and delivery on time at a competitive price.

The main challenge facing operating and production organizations is the necessity to maintain, and often increase, operational effectiveness, revenue and customer satisfaction, while simultaneously reducing capital, operating and support costs (Mitchell, 2002). As such, one should say that PAM could be considered as maintenance management, which has a strategic role in the organization and goes well beyond the responsibility of traditional maintenance management. An important aspect of PAM is to strike the right balance between performance, cost and risk in pursuing the enterprise goals. In other words, it supports managing investments, capacity and production in a more efficient, better quality-assured, safer and more competitive way (Emmanouilidis & Komonen, 2013). Thus, it is no longer sufficient to consider PAM as traditional asset maintenance, but rather as a holistic approach to the

management of assets, taking into account elements such as strategy, risk measurement, safety, environment and human factors (Frolov et al., 2010).

Although there is a great body of literature covering various aspects of PAM (e.g. Emmanouilidis & Komonen, 2013; Komonen, Kortelainen, & Rääkkönen, 2012; Amadi-Echendu et al., 2007; Schuman & Brent, 2005; Ratnayake, 2013; Ratnayake & Markeset, 2012), there is a lack of empirical studies that have explored the PAM practices. As such, PAM as a discipline and business process is yet being at its early stage within the scientific debate and solutions to support its adoption in different industrial contexts are still under definition (Roda & Macchi, 2016). We aim to fill this research gap by demonstrating the effect of contingency factors (i.e. uncertainty and competitiveness) on PAM practices.

Furthermore, asset performance measurement is essential in order to achieve desired business objectives within the domain of PAM. From industrial and asset life-cycle perspectives, what to measure and what not, is a challenge (Parida, 2016), especially due to dynamic business environment and complex technical assets and systems. However, literature on asset performance measurement has been evolving in scientific research (Attwater et al., 2014). Since there has been no studies that would have explored how organizations respond in competitive environment, with respect to asset performance measurement, this study contributes to the literature by exploring the role of contingency factors on the use of maintenance and asset measures.

The paper is organized as follows. In Section 2, the theoretical background is provided. Section 3 is devoted to presentation of research methods. The research analysis and results are presented in Section 4, followed by the discussion in Section 5 and conclusions in Section 6.

2 Literature review

2.1 Physical asset management

Before discussing the literature review on the role of PAM in organization, it is necessary to define the maintenance and asset management. The scope of maintenance in a manufacturing environment is illustrated by its various definitions. The British Standards Institute defines maintenance as "A combination of all technical and associated administrative activities required to keep equipment, installations and other physical assets in the desired operating condition or restore them to this condition" (BSI, 1984). Over the time, maintenance has developed across a wider range, and thus maintenance management has been defined.

In European Standards considering maintenance (EN 13306:2010), maintenance management is defined as all activities of the management that determine the mainte-

nance objectives or priorities, strategies, and responsibilities and implement them by means such as maintenance planning, maintenance control and supervision, and several improvement methods including economical aspects in the organization.

Further, Wireman (1998) has, in his book “Developing Performance Indicators for Managing Maintenance”, defined maintenance management as, “The management of all assets owned by a company, based on maximizing the return on investment in the asset”. Another approach can be found in Crespo Marquez and Gupta (2006). The authors presented a holistic framework for managing the maintenance function.

They suggest that maintenance management must be aligned with actions at three levels of business activities (i.e. strategic, tactical and operational). More recently, PAM comes to the forefront. It goes well beyond the scope of maintenance management. The PAM deals with the whole life cycle of the asset, from its design to its final disposal. According to Mitchell (2002), asset management is “A comprehensive, fully integrated strategy process and culture directed at gaining greatest lifetime effectiveness, value, profitability and return from production and manufacturing equipment assets”. Moreover, European Federation of National Maintenance Societies (EFNMS, 2009) has preferred a simple definition “The optimal life cycle management of physical assets to sustainably achieve the

stated business objectives”.

In any asset intensive industry, effective management of physical assets is crucial. Changing business environment has increased the strategic importance of PAM in companies that have significant investments in physical assets (Komonen et al., 2012). Without proper management of physical assets serious health, safety, environment, and financial consequences can occur (Ratnayake & Markset, 2012). It is widely acknowledged that profitability increases by improving availability and preventing loss of production and loss of human or capital resources (Duijm, Fiévez, Gerbec, Hauptmanns, & Konstandinidou, 2008).

This means that ineffective asset and maintenance management could be attributable to issues such as lost profit due to missing production during planned and unplanned stoppages, loss of customers, reputation and consequently loss of market share because of maintenance-related factors resulting in delivery delay and poor quality (Al-Najjar, 2007; Maletič, Maletič, Al-Najjar, & Gomišček, 2014). To improve performance and gain competitive advantage, the PAM process should therefore include activities covering entire life cycle of an asset (Maletič, 2015). In this respect, the life cycle phases are considered as presented in Figure 1.

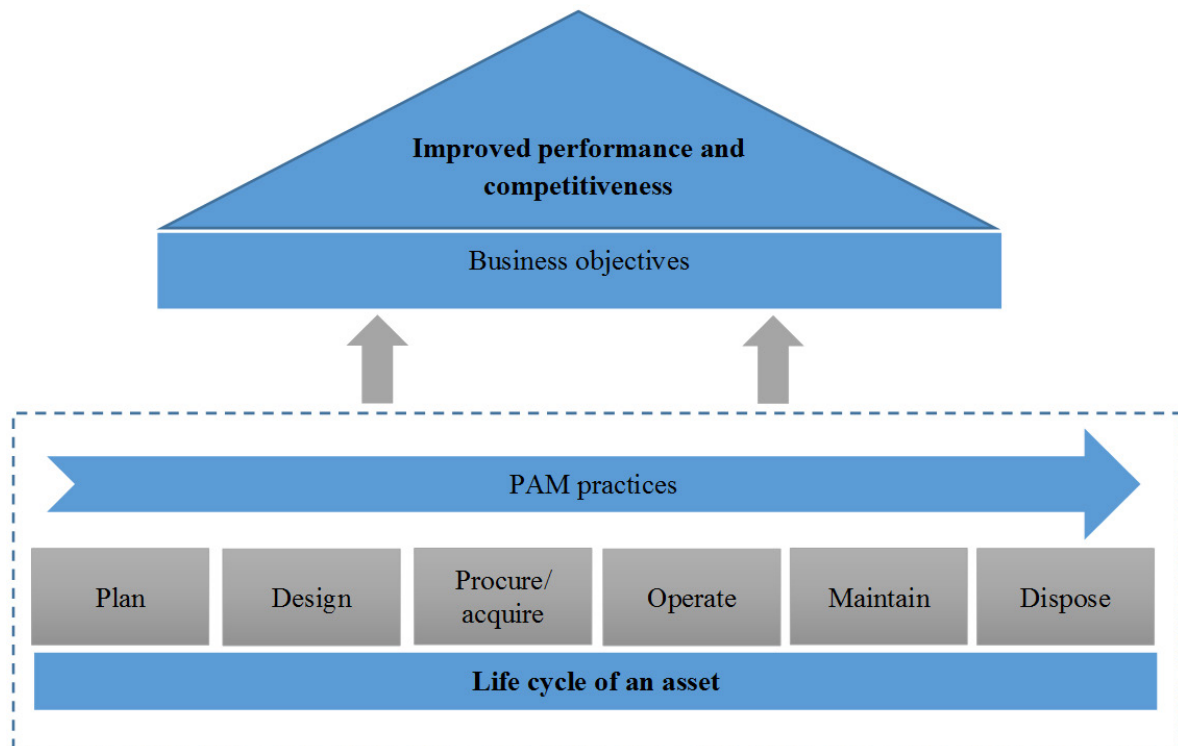


Figure 1: Asset life cycle phases

2.2 Asset performance measurement

From the operation's perspective, a performance measurement can be defined as the process of quantifying the efficiency and effectiveness of an action (Neely, 1994). Like other manufacturing functions, performance measurement is important in managing the maintenance and asset function (Muchiri, Pintelon, Gelders, & Martin 2011). According to Parida (2016), proactive asset performance management maintains assets at minimum costs at reduced inventory, outsourcing with reduced downtime, risk and reliability improvement.

Furthermore, author argues that asset performance measurement should consider the asset life cycle and whole life value from the owner and operator's perspective to achieve the operational readiness of the assets. It is worth mentioning that with the introduction of ISO 55000 standard, the asset performance measurement has been gaining importance. As such, it can be argued that performance measurement is vital for asset management in terms of balancing the costs, opportunities and risk against the desired performance of assets, to achieve the organizational objectives (ISO 55000, 2014). However, literature (e.g. Attwater et al., 2014) revealed that there is still little research done on performance measurement systems for asset management holistically and systematically.

2.3 Contingency theory and factors

Several authors suggests in the literature that organizational practices are formulated in the light of perceived environmental conditions and internal capabilities (Sila, 2007). Contingency theory assumes that organizations attain effectiveness by fitting the characteristics of the organization to contingencies that reflect the situation of the organization (Donaldson, 2001). Different contingency and institutional variables have been identified in the literature as factors that influence the customization of the organizational practices as well as the relationship between these practices and performance implications (e.g. Sila, 2007; Zhang, Linderman, & Schroeder, 2012).

The stability of the competitive environment in the past decades has been replaced by increasing uncertainty. Product life cycles are becoming shorter, customers are changing their preferences faster, and competition has become increasingly fiercer (Dreyer & Grønhaug, 2004). Further, competitive environment is also one of the key characteristics of the strategic management discipline that has emphasis on organization's performance (Jansen, Van Den Bosch, & Volberda, 2006). Accordingly, competitive environments have been associated with intensive pressures for higher efficiency and lower prices (Matusik & Hill 1998).

3 Methods

3.1 Sample and data collection

The data used in this study was obtained from a research project conducted by a team of international researchers in the field of maintenance and asset management (Maletič et al., 2016; Maletič, 2015). This research utilizes a questionnaire survey, which corresponds to the primary source as a way of data collection method (Kumar, 2005). The target survey population consisted of international e-mail lists of managers across a wide range of functions. In total, 138 usable responses were collected during the given time window in 2014 and 2105. The questionnaire was responded by organizations that were located in Slovenia, Poland, Greece, Sweden, Turkey and Slovakia, in portion of 31.9%, 34.1%, 16.7%, 6.5%, 5.8% and 5.1%, respectively. Primarily, the rationale for the selection of the particular countries was based on the sampling strategy to obtain a good spread of countries by geographic, economic, political and social criteria.

In terms of organizational size (following the guidelines of the Statistical Office of the Republic of Slovenia), profile of the organizations is provided in Table 1.

Based on Slovenian Standard Industrial Classification Codes (SIC), Table 2 shows the industry structure of the organisations under investigation. As shown in Table 2,

Table 1: Sample distribution by size of the organizations

Size	Share (%)
0–5	12.2
6–50	17.4
51–250	31.3
251–500	21.7
over 500	12.2
Data not available	5.2
Total	100

most respondents (39.3%) indicate that their organizations were active in the ‘manufacturing’ industry.

3.2 Measures

We undertook an intensive review of the literature to identify measures for PAM practices. The instrument developed in this study consists of two major parts. The first part comprises four constructs measuring PAM practices, and the second part comprises two constructs measuring uncertainty and competitiveness. A 5-point Likert scale was used to capture the extent to which organizations are deploying PAM practices as well as to assess the level of uncertainty and competitiveness.

The four constructs for measuring PAM are the following: risk management, performance assessment, life cycle management, and policy & strategy. Items for measuring these constructs were derived from past studies on PAM (e.g. EFNMS - EAMC, 2012; Emmanouilidis & Komonen, 2013, Maletič, 2015; Maletič et al., 2016). Items related to uncertainty and competitiveness were developed based on prior empirical studies in the field of quality management (e.g. Zhang et al., 2012; Jansen, Van Den Bosch, & Volberda, 2006). The list of all items is presented in Appendix A.

Additionally, several key performance indicators (KPIs) were used in this study as well. The KPIs were identified based on maintenance and asset performance measurement literature (e.g. Parida, Kumar, Galar, & Stenström, 2015; Muchiri et al. 2011; Maletič et al., 2012). A 5-point Likert scale was used to assess how much emphasis is placed on each of the KPIs. A review of the past research on asset performance measurement literature in-

dicates that many different KPIs exist for measuring maintenance and asset performance in organizations. Despite the importance of performance measurement within the PAM (Parida, 2016), the aim of this study is not a comprehensive research of asset performance measurement, but rather the investigation of the impact of contingency factors on the use of KPIs in organizations. As such, for the purpose of this study, we built a construct for exploring the use of KPIs in organizations based on few most commonly used KPIs in maintenance and asset management field (Simões, Gomes, & Yasin, 2016).

4 Results

4.1 Scale validity and reliability

The scales for PAM practices were subjected to validity and reliability tests. The construct validity was assessed merely using exploratory factor analysis (EFA) based on oblique rotation (Direct Oblimin). The scale reliability was tested by calculating its Cronbach’s alpha. Additionally, we performed corrected item-total correlations (CITCs) in order to strengthen validity and reliability results.

The factor loadings and corresponding CITCs are shown in Appendix A. The results show four factors with eigenvalues greater than one, accounting for 66.9% of the variance (K-M-O statistic 0.937; Bartlett statistic 2819.395; significance 0.000). According to Field (2005), data are suitable for factor analysis (i.e. K-M-O > 0.5; Bartlett test of sphericity is significant). The first factor shows the variables having a common underlying dimen-

Table 2: Sample distribution by industry type

Industry (standard industrial classification)	Share (%)
Agriculture, Forestry and Fishing	1.7
Mining and Quarrying	6
Manufacturing	39.3
Electricity, Gas, Steam and Air Conditioning Supply	2.6
Water Supply, Sewerage, Waste Management and Remediation Activities	0.9
Construction	6.8
Wholesale and Retail Trade, Repair of Motor Vehicles and Motorcycles	16.2
Transportation and Storage	5.1
Accommodation and Food Service Activities	0.9
Information and Communication	3.4
Financial and Insurance Activities	0.9
Other	16.2
Total	100

sion of “risk management”. The second factor named “performance assessment”, includes the variables relating to measurement and improvement of PAM. The third factor, “life cycle management” captures the common underlying theme of managing entire life cycle of physical assets. The fourth factor is named “policy & strategy”, includes variables related to the organization’s activities that exemplify asset management policy and strategy formulation.

4.2 Descriptive statistics

The results presented in Table 3 include means, standard deviations, and bivariate correlations for all composite variables in this research. As it can be seen from Table 3 the highest mean value corresponds to the life cycle management (mean 3.72, s.d. 0.81), while the lowest value corresponds to the performance assessment (mean 3.43, s.d. 0.87). Table 3 presents the results of the correlation coefficients. One can see that all correlation coefficients are statistically significant and range from 0.644 to 0.887 ($p < 0.01$).

4.3 Difference of means (t-test)

T-test was used to examine whether a significant difference exists related to PAM practices’ implementation between

the two groups for each corresponding construct: low level and high level of uncertainty and competitiveness (Table 4). A score of 4 and above was treated as a high, and a score of 3 or below was treated as a low level group.

The results show that there are significant differences between the mean values of the PAM concerning the low and high levels of uncertainty and competitiveness ($t = -2.014$, $p < 0.05$, $t = -2.109$, $p < 0.05$, respectively).

4.4 Contingency factors and key performance indicators

The results presented in Table 5 illustrate the descriptive statistics and summary of t-tests results for the KPIs. The independent t-tests were performed within two groups: (1) low and high levels of uncertainty; (2) low and high levels of competitiveness. The results indicate that in the case of uncertainty much emphasis (i.e. mean above 4) is placed on measuring maintenance costs (mean = 4.03, SD = 1.113), while the lowest mean value corresponds to the quality rate, particularly in the environment of the low level of uncertainty (mean = 3.25, SD = 1.05). Regarding the competitiveness results indicate that when organizations are faced with high levels of competitiveness maintenance costs are the most important KPI (mean = 4.10, SD = 0.924), while less emphasis is put on measuring the

Table 3: Means, standard deviations and correlations

	Mean	SD	(1)	(2)	(3)	(4)	(5)
(1) Physical asset Management	3.57	.73					
(2) Risk Management	3,60	.86	.887**				
(3) Performance assessment	3.43	.87	.862**	.659**			
(4) Life cycle management	3.72	.81	.862**	.701**	.658**		
(5) Policy & strategy	3.54	.82	.868**	.698**	.663**	.644**	-

** Correlation is significant at the 0.01 level (2-tailed)

Table 4: Summary of the results of the t-test

Construct	Group	Mean	Std. Deviation	Std. Error	t
Uncertainty					
Physical asset management	Low level (N=37)	3.36	0.737	0.121	-2.014*
	High level (N=101)	3.64	0.717	0.071	
Competitiveness					
Physical asset management	Low level (N=35)	3.35	0.782	0.132	-2.109*
	High level (N=103)	3.64	0.700	0.069	

* $P < 0.05$

quality rate (mean = 2.91, SD = 1.380) and on measuring the number of HSSE (mean = 2.91, SD = 1.401).

In order to empirically assess whether there are significant differences between means of key performance indicators, we performed several independent t-tests. A p-value of ≤ 0.05 was considered statistically significant, with effects sizes calculated by a Cohen's d effect size. Cohen (1988, p. 25) hesitantly defined effect sizes as "small, d = 0.2," "medium, d = 0.5," and "large, d = 0.8", stating that

"there is a certain risk inherent in offering conventional operational definitions for those terms used in power analysis in as diverse field of inquiry as behavioural science".

An independent samples t-test indicated a significant difference between the low and high levels of uncertainty concerning the maintenance costs ($t = -2.228$, $p < 0.05$). Regarding the competitiveness significant difference was found in the case of overall equipment effectiveness (OEE) ($t = -2.108$, $p < 0.05$), availability of assets ($t = -2.831$, $p <$

Table 5: Differences between low level and high level of contingency in terms of key performance indicators (KPI)

KPI	Contingency	N	mean	Std. Deviation	Std. Error	t	Cohen's d Effect Size
Overall Equipment Effectiveness (OEE)	Uncertainty						
	Low level	37	3.65	0.949	0.156	-0.470	0.09
	High level	80	3.75	1.142	0.128		
	Competitiveness						
	Low level	35	3.40	1.218	0.206	-2.108*	0.40
	High level	82	3.85	0.995	0.110		
Availability of assets	Uncertainty						
	Low level	37	3.32	1.029	0.169	-0.763	0.15
	High level	80	3.50	1.396	0.156		
	Competitiveness						
	Low level	35	2.94	1.349	0.228	-2.831**	0.56
	High level	82	3.66	1.209	0.134		
Maintenance costs	Uncertainty						
	Low level	36	3.53	1.108	0.185	-2.228*	0.45
	High level	80	4.03	1.113	0.124		
	Competitiveness						
	Low level	34	3.32	1.387	0.238	-2.991**	0.66
	High level	82	4.10	0.924	0.102		
Quality rate	Uncertainty						
	Low level	36	3.25	1.105	0.184	-0.491	0.11
	High level	80	3.38	1.335	0.149		
	Competitiveness						
	Low level	35	2.91	1.380	0.233	-2.411*	0.48
	High level	81	3.52	1.174	0.130		
Number of HSSE (Health, safety, security and environment) complaints	Uncertainty						
	Low level	37	3.30	1.175	0.193	-1.052	0.21
	High level	79	3.58	1.438	0.162		
	Competitiveness						
	Low level	35	2.91	1.401	0.237	-3.114**	0.62
	High level	81	3.74	1.273	0.141		

N = sample size; M = mean; SD = Standard Deviation; SE = Standard Error of the Mean, *P < 0.05, **P < 0.01

0.01), maintenance costs ($t = 2.991, p < 0.01$), quality rate ($t = -2.411, p < 0.05$) and number of HSSE ($t = -3.114, p < 0.01$).

5 Discussion

This paper contributes to the literature on contingency theory by developing a better understanding of contingency factors (i.e. uncertainty and competitiveness) regarding the deploying of PAM practices. The results of t-test show that when organizations are faced with high levels of uncertainty they are putting more effort in introducing different PAM practices. Additionally, the results of this study indicate that high levels of competitiveness seem to stimulate the organizations to deploy PAM to a greater extent than organizations that are faced with low levels of competitiveness. As such, these findings contribute to the discussion in the literature concerning the role of contextual factors such as uncertainty (Zhang et al., 2012) and competitiveness (Jansen et al., 2006).

The main theoretical implication of this study is the development of an empirically based and testable framework of PAM practices, which integrates the literature exploring PAM practices (e.g. EFNMS – EAMC, 2012). We used exploratory factor analysis, corrected item-total correlations and reliability estimation using Cronbach's alpha to confirm whether the scales have a factor structure that depicts the theoretical dimensionality of their setting. Our results indicated that PAM comprises of four constructs, namely risk management, performance assessment, life cycle management and policy & strategy.

Our findings underpin previous studies (e.g. Emanouilidis & Komonen, 2013) that have examined the role of PAM practices in industrial sectors. Further, our study supports the view of researchers who argue that holistic views of PAM reflect the general movement in engineering circles to emphasize the importance of PAM and to focus on the bigger picture of life cycle asset assessment, including strategy, risk measurement, safety and environment and human factors (Amadi-Echendu et al., 2007).

Further, this study also contributes to the maintenance and asset performance measurement literature. Recent studies (e.g. Parida et al., 2015) emphasize that the asset managers and owners need to measure and know the relationship between the outputs of asset and maintenance process in terms of its total contribution to the business goal. This means that measurement is fundamental to achieve higher performance, to achieve improvement and business success (Parida, 2016). The findings of this study offer empirical support for the above statements. When facing high levels of competitiveness, the results show that organizations are using KPIs to a greater extent than organizations under low levels of competitiveness. Moreover, KPIs are considered as essential element of asset performance measurement and management, which can support the as-

set owners and operators to achieve sustainable asset productivity with a good return on investment (Parida, 2016). In this regard, our study underscores previous studies (e.g. Parida et al., 2015) suggesting that performance assessment ultimately enhances competitive advantage. In contrast to the competitiveness, our study did not reveal any significant dependence between uncertainty and the majority of the KPIs used in this study. It appears that when organization are faced with high level of uncertainty the emphasis on measuring KPIs is not as strong as when organizations are striving to sustain competitive advantage.

From the managerial perspective, the study emphasizes the need to recognize different dimensions of PAM practices. In addition, important information for managers is also to perceive how organizations responded to different environmental conditions (i.e. uncertainty and competitiveness). The increasing turbulent business environment means that organizations are constantly faced with either uncertain and/or competitive environments. From a practical point of view, organizations that want to sustain competitive advantage are recommended to adopt PAM practices. Our study further highlights the need for managers to emphasize the use of KPIs, especially in highly competitive business environments.

6 Conclusion

This study contributes to the PAM literature by developing the framework of PAM practices. The empirical analysis evokes a number of important findings. First, our study contributes to the literature by empirically validating the PAM construct. Our study is one of the first to define the construct for measuring PAM. Second, our study presents a step toward uncovering the role of contingency factors in deploying asset management practices as well as the use of KPIs in the field of maintenance and asset management. Building on insights from contingency theory, the findings suggest that contingency perspective is a valuable approach to enrich our understanding of asset management practices implementation as well as asset performance measurement. Third, our study contributes to the literature by suggesting that competitive intensity stimulates organizations to put more effort on PAM. In this regard, PAM can be conceived as an effective approach to gain competitive advantage. Furthermore, based on the results of this study one can argue that competitiveness as a contingency factor can foster the use of KPIs. The latter is especially important to monitor the PAM performance as well as to support the continuous improvement of the PAM system. Identified PAM dimensions alongside with contingency perspective are illustrated in Figure 2.

Although this study contributes to both academia and practice, we acknowledge several limitations that open up avenues for further research. First, future studies should seek additional contingency factors. Therefore, more key

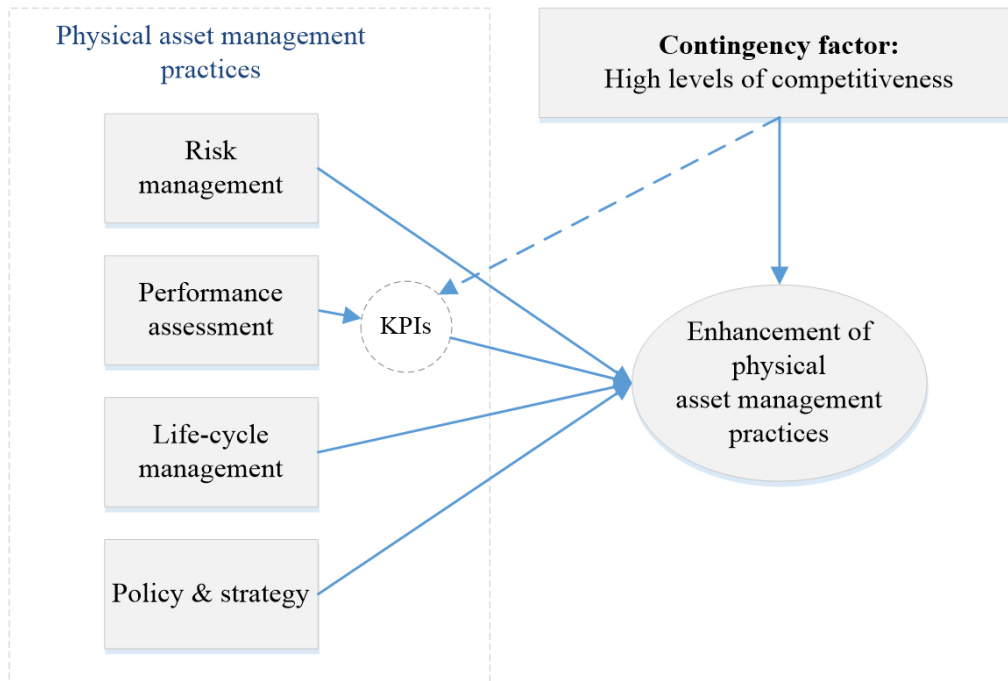


Figure 2. Summary of the study findings

contingency variables need to be identified in the asset management discipline. Second, our construct did not explore the relationship between PAM practices and performance outcome. As such, future studies could focus on the relationship between PAM practices and organizational performance as well. Third, our study did not cover all aspect of asset performance measurement. In this regard, we recommend that future studies should consider more comprehensive set of KPIs and test if different contingency factors encourage their use. Finally, although performance monitoring of assets is well recognized in the literature, performance measurement of the PAM systems is not yet well explored in terms of industrial practice as well as academic research (Attwater et al., 2014). Future studies should therefore focus on this topic as well.

Literature

- Al-Najjar, B. (2002). Company's business and competitiveness enhancement: A model of integrated vibration-based maintenance impact on company's effectiveness. In Proceedings of COMADEM 2002: 15th International Congress on Condition Monitoring and Diagnostic Engineering Management. Paper presented at Condition monitoring and diagnostic engineering management (COMADEM 2002), Sep.2-4, 2002 Birmingham, UK (pp. 238-248).
- Al-Najjar, B. (2007). The lack of maintenance and not

maintenance which costs: A model to describe and quantify the impact of vibration-based maintenance on company's business. *International Journal of Production Economics*, 107(1), 260–273, <http://dx.doi.org/10.1016/j.ijpe.2006.09.005>

- Amadi-Echendu, J. E., Willett, R. J., Brown, K. A., Lee, J., Mathew, J., Vyas, N., & Yang, B.-S. (2007). What is engineering asset management? In Proceedings 2nd World Congress on Engineering Asset Management and the 4th International Conference on Condition Monitoring, pp. 116–129.
- Attwater, A., Wang, J. Q., Parlikad, A., & Russel, P. (2014). Measuring the performance of asset management systems. In *Asset Management Conference 2014* (pp. 1-6). IET.
- BSI (1984). *Glossary of maintenance terms in Terotechnology*. British Standard Institution (BSI), London; BS 3811.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Crespo Marquez, A., & Gupta, J. N. D., (2006). Contemporary maintenance management: process, framework and supporting pillars. *Omega*, 34(3), 313–326. <http://dx.doi.org/10.1016/j.omega.2004.11.003>
- Donaldson, L. (2001). *The Contingency Theory of Organization*. Sage, Thousand Oaks.
- Dreyer, B., & Grønhaug, K. (2004). Uncertainty, flexibility, and sustained competitive advantage. *Journal*

- of business research, 57(5), 484-494, [http://dx.doi.org/10.1016/S0148-2963\(02\)00315-6](http://dx.doi.org/10.1016/S0148-2963(02)00315-6)
- Duijm, J. N., Fiévez, C., Gerbec, M., Hauptmanns, U., & Konstandinidou, M. (2008). Management of health, safety and environment in process industry. *Safety Science*, 46(6), 908–290, <http://dx.doi.org/10.1016/j.ssci.2007.11.003>
- EFNMS (2009). A Definition of Asset Management. Minutes of the meeting. European Federation of National Maintenance Societies. Trondheim. Norway
- EFNMS-EAMC (2012). How organizations manage their physical assets in practice, EFNMS Asset Management Survey (EFNMS). Retrieved from <http://www.hms-gr.eu/t/files/EAMCSurvey2011ReportFinal02122012.pdf>
- Emmanouilidis, C., & Komonen, K. (2013). Physical asset management practices in industry: comparisons between Greece and other EU countries. In V. Prabhu, M. Taisch, D. Kiritsis (Eds.), *Advances in production management systems. Sustainable production and service supply chains, IFIP advances in information and communication technology* (pp. 509–516). New York, Springer, http://dx.doi.org/10.1007/978-3-642-41263-9_63
- EN 13306:2010. (2010). *Maintenance Terminology. European Standard*. CEN (European Committee for Standardization), Brussels.
- Field, A. (2005). *Discovering Statistics Using SPSS (Introducing Statistical Methods series)*. London: Sage Publications Ltd; Second Edition.
- Frolov, V., Ma, L., Sun, Y., & Bandara, W. (2010). Identifying Core Functions of Asset Management. In Amadi-Echendu, J.E.; Brown, K.; Willett, R.; Mathew, J. (Eds.), *Definitions, Concepts and Scope of Engineering Asset Management*, London & New York, Springer London, 1sted., Vol. 1, pp. 19–31, http://dx.doi.org/10.1007/978-1-84996-178-3_2
- ISO 55000 (2014). Asset management - Overview, principles and terminology
- Jansen, J. J. P., Van Den Bosch, F. A. J., & Volberda, H. W. (2006). Exploratory Innovation, Exploitative Innovation, and Performance: Effects of Organizational Antecedents and Environmental Moderators. *Management Science*, 52(11), 1661–1674, <http://dx.doi.org/10.1287/mnsc.1060.0576>
- Komonen, K., Kortelainen, H., & Rääkkönen, M. (2012). Corporate Asset Management for Industrial Companies: An Integrated Business-Driven Approach. In: Van der Lei, T., Herder, P. & Wijnia, Y. (Eds.), *Asset Management: State of the Art in Europe from a Life Cycle Perspective* (pp. 47-63). Springer Science, Business Media B. V, http://dx.doi.org/10.1007/978-94-007-2724-3_4
- Kumar, R. (2005). *Research Methodology: A Step-by-Step Guide for Beginners* (2nd ed.), London: Sage Publications Ltd.
- Maletič, D. (2015). *Interaction between Quality Management, Production and Maintenance Performance*, PhD thesis, Faculty of Organizational Sciences, University of Maribor, Kranj.
- Maletič, D., Maletič, M., & Gomišček, B. (2012). The relationship between continuous improvement and maintenance performance. *Journal of Quality in Maintenance Engineering*, 18(1), 30 – 41, <http://dx.doi.org/10.1108/13552511211226175>
- Maletič, D., Maletič, M., Al-Najjar, B., & Gomišček, B. (2014). The role of maintenance in improving company's competitiveness and profitability: A case study in a textile company. *Journal of Manufacturing Technology Management*, 25(4), 441–456, <http://dx.doi.org/10.1108/JMTM-04-2013-0033>
- Maletič, D., Maletič, M., Al-Najjar, B., Gotzamani, K., Gianni, M., Kalinowski, T. B., Pačaiová, H., Nagyová, A. & Gomišček, B. (2016). The role of contingency factors in physical asset management: An empirical examination. In: *Euromaintenance 2016 proceedings: Paper presented at Euromaintenance 2016* (pp. 93-99).
- Matusik, S. F., & Hill, C. W. (1998). The utilization of contingent work, knowledge creation, and competitive advantage. *Academy of management review*, 23(4), 680-697.
- Mitchell, J.S. (2002). *Physical Asset Management Handbook*, 3rd ed., Clarion Technical Publishers, Houston, TX.
- Muchiri, P., Pintelon, L., Gelders, L., & Martin, H. (2011). Development of maintenance function performance measurement framework and indicators. *International Journal of Production Economics*, 131(1), 295 – 302, <http://dx.doi.org/10.1016/j.ijpe.2010.04.039>
- Neely, A.D. (1994). *Performance Measurement System Design – Third Phase Draft of the Fourth Section of the Performance Measurement System Design Workbook*. Centre for Business Performance, Judge Institute of Management Studies, Cambridge, MA.
- Pacaiova, H., Glatz, J., & Kacvinsky, S. (2012). Positive and negative aspect in application of maintenance management philosophy. *Journal of Applied Engineering Science*, 10(2): 99-105, <http://dx.doi.org/10.5937/jaes10-2131>
- Parida, A. (2016). Asset performance measurement and management: Bridging the gap between failure and success. In: *Euromaintenance 2016 proceedings: Paper presented at Euromaintenance 2016* (pp. 109-116)
- Parida, A., Kumar, U., Galar, D., & Stenström, C. (2015). Performance measurement and management for maintenance: a literature review. *Journal of Quality in Maintenance Engineering*, 21(1), 2 – 33, <http://dx.doi.org/10.1108/QJME-10-2013-0067>
- Porter, M. (1985). *Competitive Advantage: Creating and Sustaining Superior Performance*. Free Press, New York.

- Ratnayake, R. M. C. (2013). Sustainable Asset Performance: The Role of PAS 55 1&2 and Human Factors. *International Journal of Sustainable Engineering*, 6(3), no.1, 198-211, <http://dx.doi.org/10.1080/19397038.2012.756074>
- Ratnayake, R. M. C., & Markeset, T. (2012). Asset Integrity Management for Sustainable Industrial Operations: Measuring the Performance. *International Journal of Sustainable Engineering*, 5(2), 145–158, <http://dx.doi.org/10.1080/19397038.2011.581391>
- Roda, I., & Macchi, M. (2016). Studying the funding principles for integrating Asset Management in Operations: an empirical research in production companies. In: *3rd IFAC Workshop on Advanced Maintenance Engineering, Services and Technology AMEST 2016* — Biarritz, France, 19—21 October 2016. IFAC-PapersOnLine, 49(28), 1-6, <http://dx.doi.org/10.1016/j.ifacol.2016.11.001>
- Schuman, C. A., & Brent, A. C. (2005). Asset life cycle management: towards improving physical asset performance in the process industry. *International Journal of Operations & Production Management*, 25(6), 566 – 579, <http://dx.doi.org/10.1108/01443570510599728>
- Sila, I. (2007). Examining the effects of contextual factors on TQM and performance through the lens of organizational theories: an empirical study. *Journal of Operations Management*, 25(1), 83-109, <http://dx.doi.org/10.1016/j.jom.2006.02.003>
- Simões, J. M., Gomes, C. F., & Yasin, M. M. (2011). A literature review of maintenance performance measurement: a conceptual framework and directions for future research. *Journal of Quality in Maintenance Engineering*, 17(2), 116-37, <http://dx.doi.org/10.1108/13552511111134565>
- Simões, J. M., Gomes, C. F., & Yasin, M. M. (2016). Changing role of maintenance in business organisations: measurement versus strategic orientation. *International Journal of Production Research*, 54(11), 3329-3346, <http://dx.doi.org/10.1080/00207543.2015.1106611>
- Wireman, T. (1998). *Developing Performance Indicators for Managing Maintenance*. New York: Industrial Press.
- Zhang, D, Linderman, K., & Schroeder, R. G. (2012). The moderating role of contextual factors on quality management practices. *Journal of Operations Management*, 30(1-2), 12-23, <http://dx.doi.org/10.1016/j.jom.2011.05.001>

Damjan Maletič is an Assistant Professor at the Faculty of Organizational Sciences, University of Maribor. His research activities are mainly devoted to the fields of physical asset management, maintenance and quality management. Currently one main area of his research has focused on studying the relationship between phys-

ical asset management practices and organizational performance. He holds a bachelor's degree in Wood Science and Technology (University of Ljubljana) and Organization (University of Maribor).

Matjaž Maletič is an Assistant Professor at the Faculty of Organizational Sciences, University of Maribor. His main research interests focus on understanding the phenomenon of organizational ambidexterity, especially from the perspective of the exploitation-exploration paradigm, corporate sustainability, quality management, and organizational performance. He obtained his PhD degree in Quality Management from the University of Maribor, Faculty of Organizational Sciences.

Basim Al-Najjar is a Professor of Terotechnology at the Linnaeus University, founder/CEO of E-maintenance Sweden AB and Head of the Centre: Cost-effective Industrial Asset Management (CeIAM). He obtained his PhD in Production Management, Lund University, Sweden. His specialties fit also in Industrial Engineering, Maintenance Technology and System Engineering. He is a member of the Scientific board/Swedish Maintenance Society, European Research Network on Strategic Engineering Asset Management, ISEAM (International Society of Engineering Asset management) and IFRIM (International Foundation on research in Maintenance). In a number of international journals, he is on the Editorial board as well as a reviewer for many additional international journals and conferences. He has developed the concept Total Quality Maintenance (TQMmain) and three new measuring instruments and recently an additional new DSS called Smart e-Maintenance Decision Support System (Smart eMDSS).

Katerina Gotzamani is a Professor in the Department of Business Administration in the University of Macedonia, Greece. She holds a PhD in Quality Management from the University of Macedonia, Greece. Her previous degrees are M.Sc. in Operations Research & Information Systems from the London School of Economics and B.Sc. in Mathematics from the Aristotle University of Thessaloniki, Greece. She is teaching courses in Total Quality Management, Supply Chain Management and Operations Management. Her research interests include total quality management, quality management in the public sector, quality management in e-commerce, management systems standards, operations research methodologies integrated in service quality management, logistics and supply chain management. She has participated in a number of conferences and seminars and she has published more than 40 articles.

Maria Gianni is a PhD candidate in the Department of Business Administration in the University of Macedonia, Greece. She holds a M.Sc. in Management of Production Systems from the Aristotle University of Thessaloniki, Greece. She received her undergraduate degree in Chemical Engineering from the Aristotle University of Thessaloniki, Greece. Her current research interests include integrated management systems, management systems standards, quality management, environmental management and sustainability.

T. Bartosz Kalinowski is an Assistant Professor at the Faculty of Management at the University of Lodz with over 10 years of experience in teaching and research. His current research interests focus on process maturity and its relation with organisational performance.

Head of Knowbase – Centre for Excellence in Research at the Faculty of Management. Lecturer in the field of quality management, process management and organizational improvement on MBA programs, postgraduate studies, full and part time studies. Experienced project manager responsible for supervising over 20 business, research and educational projects.

Boštjan Gomišček, PhD is a professor at Faculty of Business, University of Wollongong in Dubai, UAE. He is predominantly engaged in the following research fields: quality management, sustainable quality management and maintenance management. He has published several research papers in international journals and presented his research work at numerous national and international conferences.

Vpliv kontingenčnih dejavnikov na izvajanje dejavnosti obvladovanja fizičnih sredstev

Namen: Namen pričujoče empirične raziskave je preučiti vlogo dveh kontingenčnih dejavnikov, t.i. negotovosti in konkurenčnost v povezavi z obvladovanjem fizičnih sredstev (physical asset management - PAM), kakor tudi v povezavi s ključnimi kazalniki učinkovitosti in uspešnosti vzdrževanja. Raziskava temelji na predpostavki, da dejavnosti obvladovanja fizičnih sredstev, ki so opredeljene z dimenzijami kot so obvladovanje tveganj, ocenjevanje učinkovitosti in uspešnosti, obvladovanje življenjskega cikla ter politika in strategija, so postali nepogrešljiv del strateškega razmišljanja lastnikov fizičnih sredstev, kakor tudi managerjev s področja vzdrževanja in PAM. Namen raziskave je poglobiti razumevanje odzivanja organizacij na visoko ali nizko stopnjo negotovosti in konkurenčnosti z vidika implementacije PAM.

Metodologija/pristop: Podatki v članku temeljijo na izvedeni anketni raziskavi med organizacijami iz šestih evropskih držav (Slovenija, Poljska, Grčija, Švedska, Turčija in Slovaška). Podatki so bili zbrani iz 138 organizacij, ki se nahajajo v omenjenih državah.

Ugotovitve: Rezultati kažejo, da organizacije, ki se soočajo z visoko stopnjo negotovosti in konkurenčnost se bolj uspešni pri vključevanju dejavnosti PAM v organizacijo. Nadalje, rezultati kažejo, da če se organizacije soočajo z visoko stopnjo konkurenčnosti uporabljajo ključne kazalnike učinkovitosti in uspešnosti vzdrževanja ter PAM v večji meri kot organizacije podvržene nizki stopnji konkurenčnosti.

Izvirnost/pomembnost prispevka: S teoretičnega vidika, pričujoča raziskava prispeva k kontingenčni teoriji z zagotovitvijo empiričnih dokazov, ki prikazujejo ali je potreben kontekstno odvisen pristop k PAM. Rezultati raziskave tudi nudijo spoznanje managerjem o tem kako se odzvati na pritisk konkurence in katere so dejavnosti PAM, ki organizaciji omogočajo, da se prilagodi na spremembe v dinamičnem poslovnem okolju.

Ključne besede: *Obvladovanje fizičnih sredstev, vzdrževanje, negotovost, konkurenčnost, ključni kazalniki vzdrževanja, empirična študija*

APPENDIX A: Measurement scales

The value in parenthesis for each retained item indicates the standardized factor loadings and CITC.

Risk Management

Respondents were asked to indicate how much emphasis is placed on each of the following activities where 1 means totally disagree and 5 means totally agree.

RM1: We embed risk into all activities which could affect assets performance (0.947; 0.785)

RM2: We analyse IT-system, business system, human resources, competence, etc. and address risk (0.799; 0.755)

RM3: We analyse operation, production, quality and logistic process and address risk (0.792; 0.764)

RM4: We perform risk assessment in order to minimize business losses (0.767; 0.815)

RM5: Risk management is an integrated part of asset management strategy (0.756; 0.782)

RM6: We analyse equipment failure causes and effects to address risk (0.657; 0.748)

Performance Assessment

Respondents were asked to indicate how much emphasis is placed on each of the following activities where 1 means totally disagree and 5 means totally agree.

PA1: We exploit asset history to enhance asset knowledge (0.848; 0.761)

PA2: We regularly review overall effectiveness of asset management activities (0.830; 0.833)

PA3: We undertake benchmarking to support asset management activities (0.813; 0.784)

PA4: We monitor key performance indicators (KPIs) to verify the achievement of organization's asset management goals (0.812; 0.800)

PA5: We proactively pursue continuous improvement of asset management activities (0.721; 0.745)

PA6: Company collects and analyses data related to asset management activities (0.681; 0.661)

PA7: We regularly review overall efficiency of asset management activities (0.673; 0.791)

PA8: We exploit information systems to support asset management activities (ERP, CMMS, AMS, or similar ones) (0.584; 0.580)

PA9: We monitor condition of critical assets (0.567; 0.745)

Life cycle Management

Respondents were asked to indicate how much emphasis is placed on each of the following activities where 1 means totally disagree and 5 means totally agree.

LM1: We continuously modernise our assets in accordance with our renewing/revision plans (0.874; 0.732)

LM2: We continuously rationalise our assets to reduce production cost (0.866; 0.686)

LM3: We assure quality of our assets during the whole life cycle phases (0.582; 0.675)

LM4: We assure execution of maintenance processes within all assets' life cycle phases (0.581; 0.741)

LM5: We execute disposal of assets in accordance with the asset management plan (0.573; 0.670)

Policy & Strategy

Respondents were asked to indicate how much emphasis is placed on each of the following activities where 1 means totally disagree and 5 means totally agree.

PS1: We execute asset management strategy (0.624; 0.653)

PS2: We undertake analyses of asset management policy to determine future production capacity (0.468; 0.652)

PS3: We apply asset management policy (0.822; 0.570)

PS4: We develop asset management objectives (0.463; 0.732)

The value in parenthesis for each retained item indicates the standardized factor loadings.

Uncertainty

Respondents were asked to indicate their level of agreement with the following statements on a scale from 1 to 5, where 1 means totally disagree and 5 means totally agree.

UN1: Demand for our organization's products and services is unstable and difficult to predict (0.980)

UN2: Our organization must frequently improve its products and practices to keep up with competitors (0.802)

UN3: Products/services quickly become obsolete in our industry (0.786)

Competitiveness

Respondents were asked to indicate their level of agreement with the following statements on a scale from 1 to 5, where 1 means totally disagree and 5 means totally agree.

CO1: Organization is faced with high competitive pressures in global markets (0.773)

CO2: Competition in our local markets is intense (0.766)

CO3: Our local markets are characterized by a strong price competition (0.761)

DOI: 10.1515/orga-2017-0004

Psychological Empowerment, Job Satisfaction and Organizational Commitment Among Lecturers in Higher Education: Comparison of Six CEE Countries

Gašper Jordan¹, Gozdana Miglič², Ivan Todorović³, Miha Marič²

¹ Independent researcher
gasper.jordan77@gmail.com

² Faculty of Organizational Sciences, University of Maribor, Slovenia
Kidričeva Cesta 55a, 4000 Kranj, Slovenia
gozdana.miglic@fov.uni-mb.si, miha.maric@fov.uni-mb.si

³ Faculty of Organizational Sciences, University of Belgrade, Serbia
Jove Ilića 154, 11000 Belgrade, Serbia
ivan.todorovic@fon.bg.ac.rs

Background and Purpose: Organizations should implement new findings from the field of human resource management. If an organization wants to have successful and effective employees, they should be satisfied with all aspects of work and at the same time they should be feel commitment towards an organization. To have a full insight in employees, organizations have to take care of psychological side of employees, which manifests in psychological empowerment.

Design/Methodology/Approach: The survey was conducted among 409 university lecturers in Austria, Croatia, Czech Republic, Germany, Serbia, and Slovenia. The investigated constructs of psychological empowerment, job satisfaction and organisational commitment were compared. Spreitzer's PEQ was used for the assessment of the psychological empowerment, Spector's JSS for job satisfaction, and Allen's and Meyer's OCQ for the assessment of organisational commitment.

Results: The research showed that the highest level of psychological empowerment can be found among university lecturers from Serbia and the lowest from Germany. Job satisfaction level is the highest in Austria and the lowest in Slovenia. Affective organisational commitment is the highest in Slovenia and the lowest in Germany. Continuance organisational commitment scored the highest in Croatia and the lowest in Czech Republic. Additionally, the outcomes show the highest level of normative organisational commitment in Czech Republic and the lowest in Austria. Only affective organisational commitment was not found as statistically significant.

Conclusion: Knowledge of psychological empowerment, job satisfaction and organizational commitment can be helpful for leaders, because with this knowledge they can manage, develop and motivate employees properly.

Keywords: *psychological empowerment, organizational commitment, job satisfaction, higher education, HRM*

1 Introduction

In the 21st century, teachers are scientific workers and independent educational professionals (Tschannen-Moran, 2009). Higher education lecturers are driving force of higher education institutions (Aslan, Shaikat, Ahmed, Shah & Mahfar, 2014) and their work is very stressful (Saner & Eyüpoğlu, 2012b). Their work is influenced by many factors; among them are psychological empowerment, job satisfaction and organizational commitment. According to Lee and Nie (2014) we should pay more attention to teachers' psychological empowerment, because it has a big influence on their professional development and psychological well-being. Psychological empowerment raises individual's convictions about their own effectiveness. Lecturer's job satisfaction is also of great importance, because it plays an important role in satisfaction of students, higher education institution's effectiveness (Lourdes Machado, Soares, Brites, Ferreira & Gouveia, 2011) and has a big influence on quality of lecturers' work (Karabiyik & Korumaz, 2014). Lecturers work in complex environment, because they have a great variety of duties, such as teaching, helping students and researching, which can affect their level of job satisfaction (Yılmaz, Çelebi & Çakmak, 2014). Organizational commitment is a relationship between individual and organization (Fanggida, Rolland, Suryana & Efendi, 2016). Satisfied and committed employees are crucial for higher institution's success (Saner & Eyupoglu, 2012a).

2 Literature Review

This paragraph will provide the review of the scientific literature and previous research related to the psychological empowerment, organizational commitment and job satisfaction.

2.1 Psychological empowerment

Empowerment is a process of strengthening individuals' feelings of their own effectiveness among other members of an organization (Conger & Kanungo, 1988). Considering the advancement of science and technology together with the increase of global competition, empowerment is recognized to be crucial for the companies' effectiveness (Ergeneli, Ari & Metin, 2007). Empowerment is one of the key factors of organization's success (Jose & Mampilly, 2014). Empowerment can be defined as individual's internal (Shapira-Lishchinsky & Tsemach, 2014) or external process of feeling empowered (Shapira-Lishchinsky & Tsemach, 2014; Thomas & Velthouse, 1990). It is also considered as act of empowering others (Menon, 2001). Empowerment has been defined in several different perspectives: process approach, structural approach, and

psychological approach (Leach, Wall & Jackson 2003; Mathieu, Gilson & Ruddy 2006; Menon 2001; Spreitzer 1995b; Uner & Turan, 2010; Quiñones, Van den Broeck & De Witte, 2013). Advocates of the process approach define empowerment as the relationships between structural antecedents and resulting psychological states (Lee & Wei, 2011; Mathieu, Gilson & Ruddy, 2006). Advocates of the structural approach see empowerment as a set of management practices and managers' behaviours that include the delegation of authority and responsibility to the employees (Lee & Wei, 2011; Mathieu, Gilson & Ruddy, 2006; Özaralli, 2003).

Advocates of the psychological approach contemplate empowerment as the psychological state of subordinates resulting from empowering practices at work (Lee & Wei, 2011; Mathieu, Gilson & Ruddy, 2006; Mishra & Spreitzer, 1998; Spreitzer, 1995b; Spreitzer, 1995a).

Psychological empowerment is a new approach of motivating and has gained great attention from managers (Edalatian Shahriari, Maleki, Koolivand & Meyvand, 2013); for this reasons, there are numerous definitions of this construct (Shapira-Lishchinsky & Tsemach, 2014). Conger, Kanungo and Menon (2000) defined psychological empowerment as a motivation and as a process of individuals' perception of their own effectiveness in comparison to the other members in organization, together with a help of formal and informal procedures and techniques for encouraging effectiveness. Psychological empowerment can be defined as an active motivational orientation with regard to individual's work role and individual's feeling of being in control at work (Boudrias, Morin & Lajoie, 2014).

Psychological approach contemplate empowerment as the psychological state of subordinates resulting from empowering practices at work and it is defined as four-dimensional construct of employees' perceptions (Kirkman & Rosen, 1999; Mishra & Spreitzer, 1998; Spreitzer, 1995b; Zhang, Song, Tsui & Fu, 2014): meaning (sense of meaningfulness that their work is important); competence (competence to perform their tasks well); self-determination (freedom to choose how they carry out their tasks) and impact (belief that their work has an impact on the effectiveness of the larger system). The concept of psychological empowerment plays an important role in behavioural, emotional and cognitive constructs, such as job satisfaction and organizational citizenship behaviour (Wang, 2015).

Meaning is defined as the value employees assign to their job according to their beliefs and standards, together with the fit between the organization's requirements of a task or work goal and personal values or ideas (Spreitzer, 1995b; Quinn & Spreitzer, 1997). Employees who perceive their work as important will likely have greater sense of commitment and will participate in the organization's events more often plus they will be more focused on their work tasks; otherwise, the employees will be apathetic

ic and less willing to be involved in organization's events (Thomas & Velthouse, 1990). When employees perceive that their job requirements are meaningful, they will spend more effort on understanding problems from multiple perspectives and searching for different solutions using information from numerous sources (Gilson & Shalley 2004; Zhang & Bartol, 2010). Employees perceive meaning of work as intrinsic concern for specific job (Amenumey & Lockwood, 2008) and they believe that is one of three critical psychological states of intrinsic motivation (Hackman & Oldham, 1975). In teaching, meaning refers to professional relations, respect and comprehension from other lecturers, which are given based on their knowledge and capabilities (Shapira-Lishchinsky & Tsemach, 2014). Three main assignments of lecturers are teaching, researching and helping students (Lawrence, Ott & Bell, 2012; Veletianos & Kimmons, 2013; Kelli, Adamsoo, Mets, Jonsson & Pisuke, 2013), but every lecturer develops their unique style of doing them (Hirsto, Lampinen & Syrjäkäri, 2013).

Competence is defined as the employee's beliefs in their capability to successfully accomplish their tasks (Spreitzer, 1995a; Quiñones, Van den Broeck & De Witte, 2013). Employees' perceive themselves as competent, when they are confident about their abilities to complete their all job tasks with success (Quinn & Spreitzer, 1997). It refers to the individual's perception of the required abilities to cope with different work situations (Spreitzer, 2008). Competence derives from the concept of self-efficacy (Bandura, 1977) and greater is individuals' perception of self-efficacy, more committed they will be able to accomplish given tasks and they will be more effective (Goodale, Koerner & Roney, 1997; Taylor, 2013). Those individuals would be more initiative, persistence, and would show greater effort to deal with difficult situations (Bandura, 1977). In teaching, competence refers to ability of lecturers of their own capabilities to develop adequate teaching plan in to help students (Shapira-Lishchinsky & Tsemach, 2014). Their perception of self-efficacy is a key factor for reaching academic goals (El-Sayed, El-Zeiny & Adeyemo, 2014).

Self-determination is defined as employee's sense of autonomy to make their own decision regarding job tasks, without feeling constant supervision (Spreitzer, 1995b). Employees who feel high sense of self-determination will be more flexible, creative, initiative, persistent and will have more self-control (Thomas & Velthouse, 1990). Furthermore, they will respond better in stressful situations if they will feel high sense of self-determination (Goodale, Koerner & Roney, 1997). In teaching, self-determination refers to sense of autonomy at work (e.g. teaching plan, selection of study material) together with involvement in decision making concerning their work (e.g. financial plan, schedule) (Shapira-Lishchinsky & Tsemach, 2014).

Impact is defined as level of employee's influence they have over the outcomes in the organization (Spreitzer, 1995b), working unit and ability to attract others to listen

to their ideas (Quinn in Spreitzer, 1997). Self-determination is control over individual's behaviour, while impact is control over individual's working environment (Thomas & Velthouse, 1990). In teaching, impact refers to individual's ability to sense possibilities of influencing events in the organization (Shapira-Lishchinsky & Tsemach, 2014). Employees, who feel low sense of impact, are less persistent in reaching set goals (Taylor, 2013).

Seibert, Wang and Courtright (2011) showed that psychological empowerment consists of all four dimensions. Employees who are empowered will not wait passively for instructions yet they will actively change and affect their work environment, leading to greater efficiency (Sigler & Pearson, 2000). Empowered employees believe that they are important and influential in the organization, and that feel greater sense of commitment (Kark, Shamir & Chen, 2003). Numerous researchers have shown that employees who feel empowered are more loyal to the organization (Avolio, Zhu, Koh & Bhatia, 2004; Liden, Wayne & Sparrowe, 2000). Psychological empowerment has a positive effect on employees' self-efficacy and the result of this is that employees believe they can play an important part in adding to organization's productivity (Martin & Bush, 2006). Psychological empowerment is not a fixed personality attribute, since it consists of cognitions that are shaped by the work environment (Stander & Rothmann, 2010).

2.2 Organizational commitment

Researchers have been investigating the relationship between employees and their employing organization for decades (Stinglhamber et al., 2015), since they are aware of importance of employees, who are driving force of every organization (Jordan, Miglič & Marič, 2016). Organizational commitment of employees is one of the most important organizational behavioural issues faced by most organizations, for the reason that employees are not as committed as they were before (Lo, Ramayah & De Run, 2010).

Commitment is a strong psychological and social attachment to something or somebody (Tyree Jr., 1996). Organizational commitment is defined as an individual's identification and involvement with a specific organization (Kalantarkousheh, Sharghi, Soleimani & Ramezani, 2014). It is reflection of individual's psychological state, which refers to the employees' organization and defines a relationship between the employee and the organization (Boštjančič, 2010). Individuals, who are more psychologically attached to the organization, will be more productive and satisfied (Hunter & Thatcher, 2007). Allen and Meyer (1990a) firstly formed two basic types of organizational commitment, but later they added the third one and formed the three-component model, which includes affective organizational commitment, normative organizational com-

mitment and continuance organizational commitment (Allen & Meyer, 1990b).

Affective commitment is defined as attachment based on emotions or desire (Meyer & Allen, 1991). The majority of the literature has explored affective commitment (Eisenberger et al., 2010; Liden, Wayne & Sparrowe, 2000; Riketta, 2002; Rhoades & Eisenberger, 2002), while normative and continuance commitment received less attention (Gutierrez, Candela & Carver, 2012). Affective commitment refers to employees' emotional attachment to the organization, identification with the organization and involvement in the organization (Allen & Meyer, 1993). Revealed positive outcomes of affective commitment have been increased job involvement, attendance, performance, job satisfaction, low rates of attrition and decreased intent to leave (Mathieu & Zajac, 1990; Meyer, Allen & Smith, 1993; Meyer, Stanley, Herscovitch & Topolnytsky, 2002). Employees with a strong affective commitment have a desire to maintain their work role and are going to put more effort into their work (Choi, Tran & Park, 2015; Luchak & Gellatly, 2007).

Normative commitment is defined as attachment based on perceived obligation (Meyer & Allen, 1991), a sense of loyalty or duty (Allen & Meyer, 1993; Meyer & Parfyonova, 2010). Employees with a strong continuance commitment continue working in their organization because they need to (McCallum, Forret & Wolff, 2014; Nakra, 2014; Ravangard, Sajjadnia & Ansarizade, 2013).

Continuance commitment is defined as attachment based on perceived cost (Meyer & Allen, 1991; Allen & Meyer, 1993) and refers to an employee's intention to leave or wish to remain a part of the organization and depends on their recognition of the availability of alternatives if they want to leave the organization (Namasivayam & Zhao, 2007). Highly continuance committed employees will differ in behavioural and potentially cognitive outcomes at work for the reason that they may feel trapped in the job and will produce only the minimum necessary to keep the job (Gutierrez, Candela & Carver, 2012).

2.3 Job satisfaction

Job satisfaction has a long-standing tradition in organizational research (Nguyen & Borteyrou, 2016) and due to that fact we can find numerous definitions (Westover & Taylor, 2010; Gözükar & Çolakoğlu, 2016). Understanding job satisfaction is of great importance for two reasons: personally for employees and for managers, because it affects employees' productivity (Keles, 2015). Job satisfaction is defined as individual's affective reaction or a cognitive attitude toward job; it is an extent to which individuals like or dislike their job (Ivancevich & Matteson, 2002; Spector, 1997).

Individuals who have high level job satisfaction generally have positive attitude towards their work; if they have

low level job satisfaction, they generally have negative attitude towards their work (Robbins & Judge, 2015). If we want to understand the complexity of job satisfaction as a concept, we have to understand the relationship between individual and an organization, because work itself produces feelings which cause a satisfaction or dissatisfaction, (Spector, 1997). This perspective can help organizations to retain their employees (Saari & Judge, 2004; Westlund & Hannon, 2008).

Job satisfaction can result from organizational climate (Mincu, 2015) together with individual's perception and evaluation of a job, which is influenced by the individual's unique circumstances such as needs, values and expectations (Sempane, Rieger & Roodt, 2002). If employees are dissatisfied and they see chance for work in other organization, they will leave organization without sense of guilt (Martins & Coetzer, 2007).

Employees' job satisfaction is an indicator of organisational effectiveness, which is influenced by organisational and dispositional factors (Rothmann & Coetzer, 2002). Majority of managers are aware of importance of job satisfaction, because they know that satisfied employee is also a productive employee (Saari & Judge, 2004). For optimal effectiveness the whole individual's potential is needed; this is the reason why is job satisfaction so important (Rothmann & Coetzer, 2002).

Job satisfaction is a main concept in organizational psychology, and research on its determinants and outcomes is significant for the development of appropriate human resources management practices (Hauff, Richter & Tressin, 2015). Employees' job satisfaction affects their performance and commitment. The assessment of the employee's work conditions is reflected in the attitudes, which are the unit of measurement of job satisfaction (Hajdukova & Klementova, 2015). It is an individual's emotional attitude towards work and work environment. During the investigation of job satisfaction, it is necessary to distinguish whether a person is completely satisfied at work, or is satisfied only by several factors, the extent to which various aspects of the work are important to him/her and to recognize if it is only current state of satisfaction or dissatisfaction (Gok, Karatuna & Karaca, 2015).

Job satisfaction is influenced by personal and organizational factors, which cause emotional reaction which affects organizational commitment (Mowday, Steers & Porter, 1979). Job satisfaction is interrelated with emotions and because of that it affects organization as a whole: productivity (Humphrey, Nahrgang & Morgeson, 2007; Morrison, 2008), job performance (Riketta, 2008), fluctuation and absenteeism (Spector, 2008). Motivated employees are a key factor to organization's success and it is of great importance to understand what motivates them; with this knowledge, we get committed employees (Schein, 1996).

Employees' job satisfaction also affects the health of their personal relationships outside of work environment

(Chen, Brown, Bowers & Chang, 2015) together with their self-evaluation (Wu & Griffin, 2012). Understanding job satisfaction is important for understanding if employment contributes to an individual's overall quality of life (Park, Seo, Park, Bettini & Smith, 2016). Job satisfaction is a specific job attitude relating to the reaction an individual has to either their work as a whole or specific facets of the job (Judge & Kammeyer-Mueller, 2012). Compatibility of employees' values and beliefs with those of the organization can result in increased job satisfaction (Kim, 2012).

2.4 National culture in chosen CEE countries

National culture is a collective mental programme which differentiates the members of one group of people from another (Hofstede, 1980) and varies depending on social environment in which they are acquired (Hofstede, Hofstede & Minkov, 2010). National culture is a collective phenomenon, because it is at least partly shared with people who live or lived within the same social environment where it was learned. It six dimensions are: power distance, collectivism versus individualism, femininity versus masculinity, uncertainty avoidance, long term orientation versus short term normative orientation, and indulgence versus restraint (Hofstede, Hofstede & Minkov, 2010).

The power distance represents the degree of an acceptance unequally distributed power, even though the fundamental issue is how a society handles inequalities among individuals. The individualism is defined as a preference for a loosely social framework in which individuals are expected to take care of only themselves and their close relatives. On the contrary, collectivism represents a preference for a tightly social framework in which individuals can expect their close members to look after them in exchange for undoubtable loyalty. The masculinity represents a preference in society for achievement, heroism, assertiveness and material rewards for success, where a society is very competitive. On the contrary, the femininity

represents a preference for cooperation, modesty, caring for the weak and quality of life, where a society is more oriented towards consensus. The uncertainty avoidance is defined as the degree to which the members of a society feel uncomfortable with uncertainty and ambiguity. The long term orientation versus can be named also as pragmatic orientation short term normative orientation. In the academic environment, monumentalism versus flexhumility is sometimes also used. Indulgence represents relatively free gratification of basic and natural human drives in society related to enjoying life and having fun. On the contrary, restraint stands for a society that suppresses gratification of needs, regulated by strict social norms.

Hofstede's dimensions of national culture scores for each country are shown in Table 1; if the score is lower than 50, it means the culture score is relatively low on the scale, and if the score is over 50, it is relatively high. The countries scores differentiate extremely for each dimension. In our study, all dimensions are represented with a country with low score or high score, excluding uncertainty avoidance. Based on studied literature and previous research, we propose our research questions:

RQ1: *Does lecturer's psychological empowerment differ by country?*

RQ2: *Does lecturer's job satisfaction differ by country?*

RQ3: *Does lecturer's affective organizational commitment differ by country?*

RQ4: *Does lecturer's continuance organizational commitment differ by country?*

RQ5: *Does lecturer's normative organizational commitment differ by country?*

Table 1: Comparison of six chosen CEE countries by Hofstede's dimensions of national culture

	PDI	IDV	MAS	UAI	LTO	IND
Slovenia	71	27	19	88	49	48
Croatia	73	33	40	80	58	33
Serbia	86	25	43	92	52	28
Austria	11	55	79	70	60	63
Germany	35	67	66	65	83	40
Czech Republic	57	58	57	74	70	29

Note. PDI (Power Distance Index), IDV (Individualism versus Collectivism), MAS (Masculinity versus Femininity), UAI (Uncertainty Avoidance Index), LTO (Long Term Orientation versus Short Term Normative Orientation), IND (Indulgence versus Restraint) (Hofstede, Hofstede & Minkov, 2010).

3 Research methodology

3.1 Participants

The participants in the research were lecturers from Austria, Croatia, Czech Republic, Germany, and Slovenia. The full set of questionnaires was completed by a total of 409 lecturers, of whom 195 (47.7%) were men and 214 (52.3%) were women. Out of 409 respondents, 84 (20.5%) come from Slovenia, 107 (26.2%) from Croatia, 71 (17.4%) from Serbia, 34 (8.3%) from Austria, 39 (9.5%) from Czech Republic, and 74 (18.1%) from Germany. They work at social science 227 (55.5%) or natural sciences 182 (44.5%) institutions. The average age of respondents was 41.3 years and in average they work for 14.6 years.

Out of 409 respondents, 227 (55.5%) were professors and 182 (44.5%) were other pedagogical workers. According to academic rank, respondents were: 54 (13.2%) full professors, 71 (17.4%) associate professors, 102 (24.9%) assistant professors, 21 (5.1%) senior lecturers, 18 (4.4%) lecturers, 11 (2.7%) language instructors, 3 (0.7%) senior research fellows, 27 (6.6%) research fellows, 36 (8.8%) teaching assistants with PhD and 66 (16.1%) assistants.

3.2 Instruments

Psychological Empowerment Questionnaire (PEQ) was used for measuring psychological empowerment developed by Spreitzer (1995b). The 12-item scale is composed of 4 dimensions: competence (e.g., "I am confident about my ability to do my job"), self-determination (e.g., "I have significant autonomy in determining how I do my job"), meaning (e.g., "My job activities are personally meaningful to me") and impact (e.g., "I have significant influence over what happens in my department"). The response scale was a seven-point Likert scale ranging from 1 (completely disagree) to 7 (completely agree). The higher scores indicate the perception of being more psychologically empowered. Evidence of the internal consistency of the psychological empowerment has been reported in numerous studies (Faulkner & Laschinger 2008; Seibert, Silver & Randolph, 2004; Spreitzer 1995b). The coefficient of reliability (Cronbach's alpha) was .88, respectively.

Organizational Commitment Questionnaire (OCQ) was used for measuring organizational commitment developed by Allen and Meyer (1990b). The 24-item scale is composed of 3 dimensions: affective organizational commitment (e.g., "I would be very happy to spend the rest of my career with this organization"), normative organizational commitment (e.g., "I think that people these days move from company to company too often") and continuance organizational commitment (e.g., "It would be very hard for me to leave my organization right now, even if I wanted to"). The higher scores indicate the perception of

being more committed to the organization. The three-component model of organisational commitment has been tested extensively in different settings; differences between results in North America and others countries are small, what indicates possibility of generalization of the model (Meyer, Stanley, Herscovitch & Topolnytsky, 2002). The coefficient of reliability (Cronbach's alpha) was .80 for affective organizational commitment, .73 for continuance organizational commitment, and .58 for normative organizational commitment.

Job Satisfaction Survey (JSS) was used for measuring job satisfaction developed by Spector (1997). The 36-item scale is composed of 9 dimensions: pay (e.g., "I feel I am being paid a fair amount for the work I do"), promotion (e.g., "There is really too little chance for promotion on my job"), supervision (e.g., "My supervisor is quite competent in doing his/her job"), fringe benefits (e.g., "I am not satisfied with the benefits I receive"), contingent rewards (e.g., "When I do a good job, I receive the recognition for it that I should receive"), operating procedures (e.g., "Many of our rules and procedures make doing a good job difficult"), co-workers (e.g., "I like the people I work with"), nature of work (e.g., "I sometimes feel my job is meaningless") and communication (e.g., "Communications seem good within this organization"). The questionnaire was used in more than fifty studies in different context and industries (Job Satisfaction Survey, 2011). The coefficient of reliability (Cronbach's alpha) was .81, respectively.

3.3 Data collection

Empirical research on psychological empowerment, organizational commitment and job satisfaction of lecturers in six CEE countries was performed by survey method. To obtain data, we prepared and used two separate survey questionnaires – one in Slovene and other one in English. We designed online questionnaire, which were sent to lecturers via e-mail in spring 2016. After conducting online research, primary data was controlled and edited. For processing and analysing data, we used IBM SPSS Statistics 24.

4 Results

In our research, we studied differences in psychological empowerment, job satisfaction and organizational commitment of lecturers from six CEE countries.

RQ1: Does lecturer's psychological empowerment differ by country?

Table 2 shows the number of respondents, means, standard deviations and statistically significant differences (bolded) for psychological empowerment. According to mean, the

Table 2: Means, standard deviations, and analysis of variance (ANOVA) for psychological empowerment

Country	n	M	SD	Mean differences					
				1	2	3	4	5	6
Slovenia	84	5.63	.70	-	-	-	-	-	-
Croatia	107	5.39	.93	.25 (.249)	-	-	-	-	-
Serbia	71	5.72	.69	.08 (.984)	.33 (.071)	-	-	-	-
Austria	34	5.45	.91	.19 (.877)	.07 (.999)	.27 (.654)	-	-	-
Germany	74	5.18	.58	.47 (.000)*	.21 (.403)	0.55 (.000)*	.28 (.574)	-	-
Czech Republic	39	5.51	.77	.13 (.938)	.12 (.966)	.21 (.714)	.06 (1.00)	.34 (.175)	-

Note. * $p < .05$, $n = 409$.

Table 3: Means, standard deviations, and analysis of variance (ANOVA) for job satisfaction

Country	n	M	SD	Mean differences					
				1	2	3	4	5	6
Slovenia	84	3.93	.63	-	-	-	-	-	-
Croatia	107	4.19	.55	.26 (.034)*	-	-	-	-	-
Serbia	71	4.31	.51	.39 (.001)*	.13 (.628)	-	-	-	-
Austria	34	4.33	.61	.40 (.025)*	5.00 (0.84)	.01 (1.00)	-	-	-
Germany	74	4.14	.37	.22 (.092)	.14 (.842)	.17 (.207)	.18 (.582)	-	-
Czech Republic	39	4.23	.54	.30 (.089)	.04 (.999)	.09 (.957)	.10 (.973)	.08 (.959)	-

Note. * $p < .05$, $n = 409$.

most psychologically empowered are lecturers in Serbia, 5.72, while the least psychologically empowered are lecturers in Germany, 5.18. A Kolmogorov – Smirnov test was used to test for normality and assumption of normality was violated, $p = .000$. Leven's test for homogeneity of variances was found to be violated $F(5, 403) = 4.98$, $p = .000$; due to that fact we had to conduct Welch's analysis of variance. Analysis of variance showed differences of lecturer's psychological empowerment by country, $F(5, 147) = 6.79$, $p = .000$, $\eta_p^2 = .056$. Post hoc analysis using Games – Howell's post hoc test indicated significant differences of lecturer's psychological empowerment between Slovenia and Germany ($p = .000$), and Germany and Serbia ($p = .000$).

RQ2: Does lecturer's job satisfaction differ by country?

Table 3 shows the number of respondents, means, standard deviations and statistically significant differences (bolded) for job satisfaction. According to mean, the most satisfied lecturers are in Austria, 4.33, while the least satisfied are

lecturers in Slovenia, 3.93. A Kolmogorov – Smirnov test was used to test for normality and assumption of normality was violated, $p = .000$. Leven's test for homogeneity of variances was found to be violated $F(5, 403) = 4.37$, $p = .000$; due to that fact we had to conduct Welch's analysis of variance. Analysis of variance showed differences of lecturer's job satisfaction by country, $F(5, 146) = 4.18$, $p = .000$, $\eta_p^2 = .060$. Post hoc analysis using Games – Howell's post hoc test indicated significant differences of lecturer's job satisfaction between Slovenia and Croatia ($p = .034$), Slovenia and Serbia ($p = .001$), and Slovenia and Austria ($p = .025$).

RQ3: Does lecturer's affective organizational commitment differ by country?

Table 4 shows the number of respondents, means and standard deviations for affective organizational commitment. According to mean, the highest level of affective commitment is perceived by lecturers in Slovenia, 4.48, while

the lowest level of affective commitment is perceived by lectures in Germany, 4.16. A Kolmogorov – Smirnov test was used to test for normality and assumption of normality was violated, $p = .000$. Leven's test for homogeneity of variances was found to be violated $F(5, 403) = 7.95$, $p = .000$; due to that fact we had to conduct Welch's analysis of variance. Analysis of variance showed no statistically significant differences of lecturer's affective organizational commitment by country, $F(5, 145) = 1.77$, $p = .123$, $\eta_p^2 = .012$.

RQ4: Does lecturer's continuance organizational commitment differ by country?

Table 5 shows the number of respondents, means, standard deviations and statistically significant differences (bolded) for continuance organizational commitment. According to mean, the highest level of continuance commitment is perceived by lecturers in Croatia, 4.52, while the lowest level of continuance commitment is perceived by lectures in Czech Republic, 3.83. A Kolmogorov – Smirnov test was used to test for normality and assumption of normality was violated, $p = .002$. Leven's test for homogeneity of variances was found to be violated $F(5, 403) = 5.14$, $p = .000$; due to that fact we had to conduct Welch's analysis of vari-

ance. Analysis of variance showed differences of lecturer's continuance organizational commitment by country, $F(5, 147) = 3.23$, $p = .009$, $\eta_p^2 = .041$. Post hoc analysis using Games – Howell's post hoc test indicated significant differences of lecturer's psychological continuance organizational commitment between Slovenia and Czech Republic ($p = .043$), and Croatia and Czech Republic ($p = .011$).

RQ5: Does lecturer's normative organizational commitment differ by country?

Table 6 shows the number of respondents, means, standard deviations and statistically significant differences (bolded) for normative organizational commitment. According to mean, the highest level of normative commitment is perceived by lecturers in Czech Republic, 4.04, while the lowest level of normative commitment is perceived by lectures in Austria, 3.43. A Kolmogorov – Smirnov test was used to test for normality and assumption of normality was violated, $p = .000$. Leven's test for homogeneity of variances was found to be violated $F(5, 403) = 2.43$, $p = .035$; due to that fact we had to conduct Welch's analysis of variance. Analysis of variance showed differences of lecturer's normative organizational commitment by country, $F(5, 148) = 2.46$, $p = .036$, $\eta_p^2 = .031$. Post hoc analysis using Games

Table 4: Means and standard deviations for affective organizational commitment

Country	<i>n</i>	<i>M</i>	<i>SD</i>
Slovenia	84	4.48	.94
Croatia	107	4.40	1.08
Serbia	71	4.41	1.16
Austria	34	4.33	1.19
Germany	74	4.16	.66
Czech Republic	39	4.46	1.13

Note. $N = 409$.

Table 5: Means, standard deviations, and analysis of variance (ANOVA) for continuance organizational commitment

Country	<i>n</i>	<i>M</i>	<i>SD</i>	Mean differences					
				1	2	3	4	5	6
Slovenia	84	4.40	.88	-	-	-	-	-	-
Croatia	107	4.52	1.13	.12 (.963)	-	-	-	-	-
Serbia	71	4.24	1.05	.16 (.911)	.28 (.545)	-	-	-	-
Austria	34	4.33	.99	.07 (.999)	.19 (.932)	.09 (.998)	-	-	-
Germany	74	4.17	.68	.25 (.364)	.36 (.083)	.09 (.992)	.17 (.938)	-	-
Czech Republic	39	3.83	1.04	.58 (.043)*	.70 (.011)*	.42 (.354)	.50 (.290)	.343 (.484)	-

Note. * $p < .05$, $n = 409$.

Table 6: Means, standard deviations, and differences analysis of variance (ANOVA) for normative organizational commitment

Country	n	M	SD	Mean differences					
				1	2	3	4	5	6
Slovenia	84	3.78	.83	-	-	-	-	-	-
Croatia	107	3.71	.79	.07 (.992)	-	-	-	-	-
Serbia	71	3.81	.76	.04 (1.00)	.11 (.945)	-	-	-	-
Austria	34	3.43	.78	.35 (.267)	.28 (.457)	.37 (.170)	-	-	-
Germany	74	3.74	.59	.03 (1.00)	.04 (.999)	.07 (.990)	.32 (.300)	-	-
Czech Republic	39	4.04	.76	.27 (.497)	.33 (.196)	.23 (.662)	.62 (.013)*	.30 (.288)	-

Note. * $p < .05$, $n = 409$.

– Howell's post hoc test indicated significant differences of lecturer's normative organizational commitment between Austria and Czech Republic ($p = .013$).

5 Discussion

Our study has shown that lecturers in all six CEE countries feel psychologically empowered, because all scores are well over the scale midpoint. Statistically significant differences in psychological empowerment were found between Slovenia and Germany, and Serbia and Germany. It is of great importance for managers to have employees with high level of psychological empowerment, because it shows that they see themselves as competent to do their work, they have impact on actions in their work environment, they perceive themselves as effective and they see their work as important. Psychologically empowered employees will be more satisfied with their job (Seibert, Wang & Courtright, 2011) and they will be more committed to their organization (Chang, Shih & Lin, 2010).

Results have shown that lecturers are satisfied with their job, because all score are well over the scale midpoint. Statistically significant differences in job satisfaction were found between Slovenia and Croatia, Slovenia and Serbia, and Slovenia and Austria. Knowing the level of job satisfaction is important for managers, because it is associated with a number of desirable organizational outcomes such as high productivity, low absenteeism, low turnover rates (Yang & Wang, 2013), mental and physical health (Shahmohammadi, 2015), for what strives any organization. Employees with the highest level of job satisfaction are most likely to recognise organisational values and goals, and will remain with the organisation longer (Ahmad & Oranye, 2010; Lourdes Machado et al., 2011). Managers should focus on employees' job satisfaction, because otherwise they will leave organization together with the knowledge (Alniaçik, Alniaçik, Erat & Akçin, 2013; Tnay, Othman, Siong & Lim, 2013); on the other hand,

their performance on professional level will be worsen (Şirin, 2009). Employees will be satisfied, when they will perform their job with enthusiasm and will be praised for work done (Avram, Ionescu & Mincu, 2015). Organizations' effectiveness depends on employees' job satisfaction (Bitmiş & Ergeneli, 2013), although it has to be pointed out, that perception of job satisfaction is a subjective perception which can differ from individual to individual, so it can vary (Belias, Koustelios, Vairaktarakis & Sdrolias, 2015).

According to the results in our study, the highest score was found for affective organizational commitment, but it was not found as statistically significant. The scores for all countries were above the scale midpoint, what suggest that employees feel desire to be in their organization. Positive outcomes of employees' affective commitment are greater effectiveness, bigger desire for work, readiness for extra work (Choi, Tran & Park, 2015; Luchak & Gellatly, 2007), and desire to stay in the organization (Kleine in Weißenberger, 2014).

According to the result in our study, statistically significant differences in continuance organizational commitment were found between Slovenia and Czech Republic, and Croatia and Czech Republic. The scores for all countries were above the scale midpoint, what suggest that they feel trapped in their organizations and will only produce the minimum necessary to keep the job (Lambert, Minor, Wells in Hogan, 2015).

According to the results in our study, statistically significant differences in normative organizational commitment were found between Czech Republic and Austria. The scores for all countries were above the scale midpoint, what suggest their obligation to stay employed in their organization. Employees with high normative commitment respond to their own sense of loyalty and fairness (Hofman in Newman, 2014). Employees with high normative commitment will out-perform those with lower level (Meyer & Allen, 2004).

Although this research makes important contribution,

implications for theory, research and practice, current results and conclusions are evaluated on base of six CEE countries. Potential limitation of this research is that individual's national culture can differ and it is not in line with majority. Therefore, we have to be aware of that if we want to measure a nation's cultural characteristics for an unbiased study a large number of individuals are required (Lee, Trimi & Kim, 2013) and also for generalization of the results.

6 Conclusion

Understanding the importance of employees' psychological empowerment, job satisfaction and organizational commitment is of great importance for managers, because knowing the levels of mentioned constructs can help them how to handle them appropriate and also how to motivate them. Additionally, it can genuinely assist managers to eliminate disturbing factors which directly or indirectly influence on psychological empowerment, job satisfaction and/or organizational commitment.

Our research has been conducted among lecturers in higher education in six CEE countries based on different national cultures, where we found significant differences in psychological empowerment, normative and continuance organizational commitment, and job satisfaction; on the contrary, we did not find significant differences in affective organizational commitment.

Literature

- Ahmad, N., & Oranye, N. O. (2010). Empowerment, job satisfaction and organizational commitment: a comparative analysis of nurses working in Malaysia and England. *Journal of Nursing Management*, 18(5), 582–591, <http://dx.doi.org/10.1111/j.1365-2834.2010.01093.x>
- Allen, N. J., & Meyer, J. P. (1990a). Organizational Socialization Tactics: A Longitudinal Analysis of Links to Newcomers' Commitment and Role Orientation. *The Academy of Management Journal*, 33(4), 847–858, <http://dx.doi.org/10.2307/256294>
- Allen, N. J., & Meyer, J. P. (1990b). The measurement and antecedents of affective, continuance and normative commitment to the organization. *Journal of occupational psychology*, 63(1), 1–18, <http://dx.doi.org/10.1111/j.2044-8325.1990.tb00506.x>
- Allen, N. J., & Meyer, J. P. (1993). Organizational commitment: evidence of career stage effects?. *Journal of Business Research*, 26(1), 49–61, [http://dx.doi.org/10.1016/0148-2963\(93\)90042-N](http://dx.doi.org/10.1016/0148-2963(93)90042-N)
- Alniaçik, E., Alniaçik, Ü., Erat, S., & Akçin, K. (2013). Does Person-organization Fit Moderate the Effects of Affective Commitment and Job Satisfaction on Turn-over Intentions?. *Procedia-Social and Behavioral Sciences*, 99, 274–281, <http://dx.doi.org/10.1016/j.sbspro.2013.10.495>
- Amenume, E. K., & Lockwood, A. (2008). Psychological climate and psychological empowerment: an exploration in a luxury UK hotel group. *Tourism and Hospitality Research*, 8(4), 265–281, <http://dx.doi.org/10.1057/thr.2008.34>
- Aslan, A. S., Shaukat, M. Z., Ahmed, I., Shah, I. M., & Mahfar, M. (2014). Job satisfactions of academics in Malaysian public universities. *Procedia-Social and Behavioral Sciences*, 114, 154–158, <http://dx.doi.org/10.1016/j.sbspro.2013.12.676>
- Avolio, B. J., Zhu, W., Koh, W., & Bhatia, P. (2004). Transformational leadership and organizational commitment: Mediating role of psychological empowerment and moderating role of structural distance. *Journal of organizational behavior*, 25(8), 951–968, <http://dx.doi.org/10.1002/job.283>
- Avram, E., Ionescu, D., & Mincu, C. L. (2015). Perceived safety climate and organizational trust: the mediator role of job satisfaction. *Procedia-Social and Behavioral Sciences*, 187, 679–684, <http://dx.doi.org/10.1016/j.sbspro.2015.03.126>
- Bandura, A. (1977). Self-efficacy: toward a unifying theory of behavioral change. *Psychological review*, 84(2), 191–215, <http://dx.doi.org/10.1037/0033-295X.84.2.191>
- Belias, D., Koustelios, A., Vairaktarakis, G., & Sdrolia, L. (2015). Organizational Culture and Job Satisfaction of Greek Banking Institutions. *Procedia-Social and Behavioral Sciences*, 175, 314–323, <http://dx.doi.org/10.1016/j.sbspro.2015.01.1206>
- Bitmiş, M. G., & Ergeneli, A. (2013). The role of psychological capital and trust in individual performance and job satisfaction relationship: A test of multiple mediation model. *Procedia-Social and Behavioral Sciences*, 99, 173–179, <http://dx.doi.org/10.1016/j.sbspro.2013.10.483>
- Boštjančič, E. (2010). Ali lahko govorimo o organizacijski pripadnosti študentov fakulteti? [Can we talk about organizational loyalty of students to the faculty?] *Psihološka obzorja*, 19(3), 19–34.
- Boudrias, J. S., Morin, A. J., & Lajoie, D. (2014). Directionality of the associations between psychological empowerment and behavioural involvement: A longitudinal autoregressive cross-lagged analysis. *Journal of Occupational and Organizational Psychology*, 87(3), 437–463, <http://dx.doi.org/10.1111/joop.12056>
- Chang, L. C., Shih, C. H., & Lin, S. M. (2010). The mediating role of psychological empowerment on job satisfaction and organizational commitment for school health nurses: A cross-sectional questionnaire survey. *International Journal of Nursing Studies*, 47(4), 427–433, <http://dx.doi.org/10.1016/j.ijnurstu.2009.09.007>
- Chen, I. H., Brown, R., Bowers, B. J., & Chang, W. Y.

- (2015). Work-to-family conflict as a mediator of the relationship between job satisfaction and turnover intention. *Journal of Advanced Nursing*, 71(10), 2350–2363, <http://dx.doi.org/10.1111/jan.12706>
- Choi, S. B., Tran, T. B. H., & Park, B. I. (2015). Inclusive leadership and work engagement: mediating roles of affective organizational commitment and creativity. *Social Behavior and Personality: an International Journal*, 43(6), 931–943, <https://doi.org/10.2224/sbp.2015.43.6.931>
- Conger, J. A., & Kanungo, R. N. (1988). The empowerment process: Integrating theory and practice. *Academy of Management Review*, 13(3), 471–482, <http://dx.doi.org/10.5465/AMR.1988.4306983>
- Conger, J. A., Kanungo, R. N., & Menon, S. T. (2000). Charismatic leadership and follower effects. *Journal of Organizational Behavior*, 21(7), 747–767, [http://dx.doi.org/10.1002/1099-1379\(200011\)21:7<747::AID-JOB46>3.0.CO;2-J](http://dx.doi.org/10.1002/1099-1379(200011)21:7<747::AID-JOB46>3.0.CO;2-J)
- Edalati Shahriari, J., Maleki, J., Koolivand, P., & Meyvand, M. (2013). The study of the relationship between organizational structure and psychological empowerment among the staffs in Ministry of Economic Affairs and Finance. *European Online Journal of Natural and Social Sciences*, 2(3(s)), 330–338. Retrieved on 25.6.2016 from http://european-science.com/eojnss_proc/article/viewFile/3699/1421
- Eisenberger, R., Karagonlar, G., Stinglhamber, F., Neves, P., Becker, T. E., Gonzalez-Morales, M. G., & Steiger-Mueller, M. (2010). Leader–member exchange and affective organizational commitment: The contribution of supervisor’s organizational embodiment. *Journal of Applied Psychology*, 95(6), 1085–1103, <http://dx.doi.org/10.1037/a0020858>
- El-Sayed, S. H., El-Zeiny, H. H. A., & Adeyemo, D. A. (2014). Relationship between occupational stress, emotional intelligence, and self-efficacy among faculty members in faculty of nursing, Zagazig University, Egypt. *Journal of Nursing Education and Practice*, 4(4), 183–194, <http://dx.doi.org/10.5430/jnep.v4n4p183>
- Ergeneli, A., Ari, G. S., & Metin, S. (2007). Psychological empowerment and its relationship to trust in immediate managers. *Journal of Business Research*, 60, 41–49, <http://dx.doi.org/10.1016/j.jbusres.2006.09.012>
- Fanggida, E., Rolland, E., Suryana, Y., & Efendi, N. (2016). Effect of a Spirituality Workplace on Organizational Commitment and Job Satisfaction. (Study on the Lecturer of Private Universities in the Kupang City-Indonesia). *Procedia-Social and Behavioral Sciences*, 219, 639–646, <http://dx.doi.org/10.1016/j.sbspro.2016.05.045>
- Faulkner, J., & Laschinger, H. (2008). The effects of structural and psychological empowerment on perceived respect in acute care nurses. *Journal of Nursing Management*, 16(2), 214–221, <http://dx.doi.org/10.1111/j.1365-2834.2007.00781.x>
- Gilson, L. L., & Shalley, C. E. (2004). A little creativity goes a long way: An examination of teams’ engagement in creative processes. *Journal of Management*, 30(4), 453–470, <http://dx.doi.org/10.1016/j.jm.2003.07.001>
- Gok, S., Karatuna, I., & Karaca, P. O. (2015). The role of perceived supervisor support and organizational identification in job satisfaction. *Procedia-Social and Behavioral Sciences*, 177, 38–42, <http://dx.doi.org/10.1016/j.sbspro.2015.02.328>
- Goodale, J. C., Koerner, M., & Roney, J. (1997). Analyzing the impact of service provider empowerment on perceptions of service quality inside an organization. *Journal of Quality Management*, 2(2), 191–215, [http://dx.doi.org/10.1016/S1084-8568\(97\)90003-1](http://dx.doi.org/10.1016/S1084-8568(97)90003-1)
- Gözükara, İ., & Çolakoğlu, N. (2016). The Mediating Effect of Work Family Conflict on the Relationship between Job Autonomy and Job Satisfaction. *Procedia-Social and Behavioral Sciences*, 229, 253–266, <http://dx.doi.org/10.1016/j.sbspro.2016.07.136>
- Gutierrez, A. P., Candela, L. L., & Carver, L. (2012). The structural relationships between organizational commitment, global job satisfaction, developmental experiences, work values, organizational support, and person-organization fit among nursing faculty. *Journal of Advanced Nursing*, 68(7), 1601–1614, <http://dx.doi.org/10.1111/j.1365-2648.2012.05990.x>
- Hackman, J. R., & Oldham, G. R. (1975). Development of the job diagnostic survey. *Journal of Applied Psychology*, 60(2), 159–170, <http://dx.doi.org/10.1037/h0076546>
- Hajdukova, A., & Klementova, J. (2015). The Job Satisfaction as a Regulator of the Working Behaviour. *Procedia-Social and Behavioral Sciences*, 190, 471–476, <http://dx.doi.org/10.1016/j.sbspro.2015.05.028>
- Hauff, S., Richter, N. F., & Tressin, T. (2015). Situational job characteristics and job satisfaction: The moderating role of national culture. *International Business Review*, 24(4), 710–723, <http://dx.doi.org/10.1016/j.ibusrev.2015.01.003>
- Hirsto, L., Lampinen, M., & Syrjäkäri, M. (2013). Learning outcomes of university lecturers from a process-oriented university pedagogical course. *Trames: A Journal of the Humanities and Social Sciences*, 17(4), 347–365, <http://dx.doi.org/10.3176/tr.2013.4.03>
- Hofman, P. S., & Newman, A. (2014). The impact of perceived corporate social responsibility on organizational commitment and the moderating role of collectivism and masculinity: Evidence from China. *The International Journal of Human Resource Management*, 25(5), 631–652, <http://dx.doi.org/10.1080/09585192.2013.792861>
- Hofstede, G. (1980). *Culture’s consequences: International differences in work-related values*. Beverly Hills,

- CA: Sage.
- Hofstede, G., Hofstede, G. J., & Minkov, M. (2010). *Cultures and organizations: software of the mind: intercultural cooperation and its importance for survival* (3rd ed.). McGraw-Hill.
- Humphrey, S. E., Nahrgang, J. D., & Morgeson, F. P. (2007). Integrating motivational, social, and contextual work design features: a meta-analytic summary and theoretical extension of the work design literature. *Journal of Applied Psychology, 92*(5), 1332–1356, <http://dx.doi.org/10.1037/0021-9010.92.5.1332>
- Hunter, L. W., & Thatcher, S. M. (2007). Feeling the heat: Effects of stress, commitment, and job experience on job performance. *Academy of Management Journal, 50*(4), 953–968, <http://dx.doi.org/10.5465/AMJ.2007.26279227>
- Ivancevich, J., & Matteson, M. (2002). *Organizational Behaviour and Management (6th edition)*. New York: McGraw-Hill.
- Job Satisfaction Survey – JSS Page (2011). Retrieved on 11.12.2016 from <http://shell.cas.usf.edu/~pspector/scales/jssp.html>
- Jordan, G., Miglič, G., & Marič, M. (2016). Comparison of Organizational climate in the regional unit of the National Institute of Public Health before and after reorganization. *Mednarodna revija za javno upravo/International Public Administration Review, 14*(4), (In Press).
- Jose, G., & Mampilly, S. R. (2014). Psychological empowerment as a predictor of employee engagement: An empirical attestation. *Global Business Review, 15*(1), 93–104, <http://dx.doi.org/10.1177/0972150913515589>
- Judge, T. A., & Kammeyer-Mueller, J. D. (2012). Job attitudes. *Annual Review of Psychology, 63*, 341–367, <http://dx.doi.org/10.1146/annurev-psych-120710-100511>
- Kalantarkousheh, S. M., Sharghi, N., Soleimani, M., & Ramezani, S. (2014). The Role of Spiritual Intelligence on Organizational Commitment in Employees of Universities in Tehran Province, Iran. *Procedia-Social and Behavioral Sciences, 140*, 499–505, <http://dx.doi.org/10.1016/j.sbspro.2014.04.460>
- Karabiyik, B., & Korumaz, M. (2014). Relationship between teacher's self-efficacy perceptions and job satisfaction level. *Procedia-Social and Behavioral Sciences, 116*, 826–830, <http://dx.doi.org/10.1016/j.sbspro.2014.01.305>
- Kark, R., Shamir, B., & Chen, G. (2003). The two faces of transformational leadership: Empowerment and dependency. *Journal of Applied Psychology, 88*, 246–255, <http://dx.doi.org/10.1037/0021-9010.88.2.246>
- Keles, H. N. (2015). The Relationship Between Learned Resourcefulness and Job Satisfaction: A Research on Staff of Higher Education in Turkey. *Procedia-Social and Behavioral Sciences, 177*, 132–135, <http://dx.doi.org/10.1016/j.sbspro.2015.02.362>
- Kelli, A., Adamsoo, R., Mets, T., Jonsson, L., & Pisuke, H. (2013). The changing approach in academia-industry collaboration: from profit orientation to innovation support. *Trames: A Journal of the Humanities and Social Sciences, 17*(3), 215–241, <http://dx.doi.org/10.3176/tr.2013.3.02>
- Kim, S. (2012). Does Person-Organization Fit Matter in the Public-Sector? Testing the Mediating Effect of Person-Organization Fit in the Relationship between Public Service Motivation and Work Attitudes. *Public Administration Review, 72*(6), 830–840, <http://dx.doi.org/10.1111/j.1540-6210.2012.02572.x>
- Kirkman, B. L., & Rosen, B. (1999). Beyond Self-management: Antecedents and Consequences of Team Empowerment. *Academy of Management Journal, 42*, 58–74, <http://dx.doi.org/10.2307/256874>
- Kleine, C., & Weißenberger, B. E. (2014). Leadership impact on organizational commitment: The mediating role of management control systems choice. *Journal of Management Control, 24*(3), 241–266, <http://dx.doi.org/10.1007/s00187-013-0181-3>
- Lambert, E. G., Minor, K. I., Wells, J. B., & Hogan, N. L. (2015). Social support's relationship to correctional staff job stress, job involvement, job satisfaction, and organizational commitment. *The Social Science Journal, 53*, 22–32, <http://dx.doi.org/10.1016/j.soscij.2015.10.001>
- Lawrence, J., Ott, M., & Bell, A. (2012). Faculty organizational commitment and citizenship. *Research in Higher Education, 53*(3), 325–352, <http://dx.doi.org/10.1007/s11162-011-9230-7>
- Leach, D. J., Wall, T. D., & Jackson, P. R. (2003). The Effects of Empowerment on Job Knowledge: An Empirical Test Involving Operators of Complex Technology. *Journal of Occupational Psychology, 76*, 27–52, <http://dx.doi.org/10.1348/096317903321208871>
- Lee, A. N., & Nie, Y. (2014). Understanding teacher empowerment: Teachers' perceptions of principal's and immediate supervisor's empowering behaviours, psychological empowerment and work-related outcomes. *Teaching and Teacher Education, 41*, 67–79, <http://dx.doi.org/10.1016/j.tate.2014.03.006>
- Lee, J., & Wei, F. (2011). The mediating effect of psychological empowerment on the relationship between participative goal setting and team outcomes—a study in China. *The International Journal of Human Resource Management, 22*(2), 279–295, <http://dx.doi.org/10.1080/09585192.2011.540152>
- Lee, S. G., Trimi, S., & Kim, C. (2013). The impact of cultural differences on technology adoption. *Journal of World Business, 48*(1), 20–29, <http://dx.doi.org/10.1016/j.jwb.2012.06.003>
- Liden, R. C., Wayne, S. J., & Sparrowe, R. T. (2000). An examination of the mediating role of psychological empowerment on the relations between the job, inter-

- personal relationships and work outcomes. *Journal of Applied Psychology*, 85, 407–416, <http://dx.doi.org/10.1037/0021-9010.85.3.407>
- Lo, M. C., Ramayah, T., & De Run, E. C. (2010). Dimensionality Of Organizational Commitment To Change In Tertiary Education Institutions In Malaysia. *Journal of Academic Research in Economics*, 2(3), 311–319.
- Lourdes Machado, M., Soares, V. M., Brites, R., Ferreira, J. B., & Gouveia, O. M. R. (2011). A look to academics job satisfaction and motivation in Portuguese higher education institutions. *Procedia-Social and Behavioral Sciences*, 29, 1715–1724, <http://dx.doi.org/10.1016/j.sbspro.2011.11.417>
- Luchak, A. A., & Gellatly, I. R. (2007). A comparison of linear and nonlinear relations between organizational commitment and work outcomes. *Journal of applied psychology*, 92(3), 786–793, <http://dx.doi.org/10.1037/0021-9010.92.3.786>
- Martin, C. A., & Bush, A. J. (2006). Psychological climate, empowerment, leadership style, and customer-oriented selling: An analysis of the sales manager-salesperson dyad. *Journal of the Academy of Marketing Science*, 34, 419–438, <http://dx.doi.org/10.1177/0092070306286205>
- Martins, N., & Coetzee, M. (2007). Organisational culture, employee satisfaction, perceived leader emotional competency and personality type: An exploratory study in a South African engineering company. *South African Journal of Human Resource Management*, 5(2), 20–32, <http://dx.doi.org/10.4102/sajhrm.v5i2.116>
- Mathieu, J. E., & Zajac, D. M. (1990). A review and meta-analysis of the antecedents, correlates, and consequences of organizational commitment. *Psychological bulletin*, 108(2), 171–194, <http://dx.doi.org/10.1037/0033-2909.108.2.171>
- Mathieu, J. E., Gilson, L. L., & Ruddy, T. M. (2006). Empowerment and Team Effectiveness: An Empirical Test of an Integrated Model. *Journal of Applied Psychology*, 91, 97–108, <http://dx.doi.org/10.1037/0021-9010.91.1.97>
- McCallum, S. Y., Forret, M. L., & Wolff, H. G. (2014). Internal and external networking behavior: An investigation of relationships with affective, continuance, and normative commitment. *Career Development International*, 19(5), 595–614, <http://dx.doi.org/10.1108/CDI-08-2013-0101>
- Menon, S. (2001). Employee empowerment: An integrative psychological approach. *Applied Psychology*, 50(1), 153–180, <http://dx.doi.org/10.1111/1464-0597.00052>
- Meyer, J. P., & Allen, N. J. (1991). A three-component conceptualization of organizational commitment. *Human Resource Management Review*, 1(1), 61–89, [http://dx.doi.org/10.1016/1053-4822\(91\)90011-Z](http://dx.doi.org/10.1016/1053-4822(91)90011-Z)
- Meyer, J. P., & Allen, N. J. (2004). *TCM employee commitment survey academic users guide 2004*. London, Ontario, Canada: The University of Western Ontario, Department of Psychology. Retrieved on 7.7.2016 from <http://employeecommitment.com/TCM-Employee-Commitment-Survey-Academic-Package-2004.pdf>
- Meyer, J. P., & Parfyonova, N. M. (2010). Normative commitment in the workplace: A theoretical analysis and re-conceptualization. *Human Resource Management review*, 20(4), 283–294, <http://dx.doi.org/10.1016/j.hrmr.2009.09.001>
- Meyer, J. P., Allen, N. J., & Smith, C. A. (1993). Commitment to organizations and occupations: Extension and test of a three-component conceptualization. *Journal of Applied Psychology*, 78(4), 538–551, <http://dx.doi.org/10.1037/0021-9010.78.4.538>
- Meyer, J. P., Stanley, D. J., Herscovitch, L., & Topolnytsky, L. (2002). Affective, continuance, and normative commitment to the organization: A meta-analysis of antecedents, correlates, and consequences. *Journal of Vocational Behavior*, 61(1), 20–52, <http://dx.doi.org/10.1006/jvbe.2001.1842>
- Mincu, C. L. (2015). The impact of personal resources on organizational attitudes: Job satisfaction and trust in organization. *Procedia-Social and Behavioral Sciences*, 187, 685–689, <http://dx.doi.org/10.1016/j.sbspro.2015.03.127>
- Mishra, A. K., & Spreitzer, G. M. (1998). Explaining how survivors respond to downsizing: The roles of trust, empowerment, justice, and work redesign. *Academy of Management Review*, 23(3), 567–588, <http://dx.doi.org/10.5465/AMR.1998.926627>
- Morrison, R. (2008). Negative relationships in the workplace: Associations with organisational commitment, cohesion, job satisfaction and intention turnover. *Journal of Management and Organization*, 14, 330–344, <https://doi.org/10.1017/S1833367200003126>
- Mowday, R., Steers, R., & Porter, L. (1979). The measurement of organizational commitment. *Journal of Vocational Behaviour*, 14, 224–247, [http://dx.doi.org/10.1016/0001-8791\(79\)90072-1](http://dx.doi.org/10.1016/0001-8791(79)90072-1)
- Nakra, R. (2014). Understanding the Impact of Organizational Justice on Organizational Commitment and Projected Job Stay among Employees of the Business Process Outsourcing Sector in India. *Vision: The Journal of Business Perspective*, 18(3), 185–194, <http://dx.doi.org/10.1177/0972262914539217>
- Namasivayam, K., & Zhao, X. (2007). An investigation of the moderating effects of organizational commitment on the relationships between work–family conflict and job satisfaction among hospitality employees in India. *Tourism Management*, 28(5), 1212–1223, <http://dx.doi.org/10.1016/j.tourman.2006.09.021>
- Nguyen, N., & Borteyrou, X. (2016). Core self-evaluations as a mediator of the relationship between person–environment fit and job satisfaction among laboratory tech-

- nicians. *Personality and Individual Differences*, 99, 89–93, <http://dx.doi.org/10.1016/j.paid.2016.04.079>
- Özaralli, N. (2003). Effects of transformational leadership on empowerment and team effectiveness. *Leadership & Organization Development Journal*, 24(6), 335–344, <http://dx.doi.org/10.1108/01437730310494301>
- Park, Y., Seo, D. G., Park, J., Bettini, E., & Smith, J. (2016). Predictors of job satisfaction among individuals with disabilities: An analysis of South Korea's National Survey of employment for the disabled. *Research in Developmental Disabilities*, 53, 198–212, <http://dx.doi.org/10.1016/j.ridd.2016.02.009>
- Quinn, R. E., & Spreitzer, G. M. (1997). The road to empowerment: Seven questions every leader should consider. *Organizational Dynamics*, 26(2), 37–49.
- Quiñones, M., Van den Broeck, A., & De Witte, H. (2013). Do job resources affect work engagement via psychological empowerment? A mediation analysis. *Revista de Psicología del Trabajo y de las Organizaciones*, 29(3), 127–134, <http://dx.doi.org/10.5093/tr2013a18>
- Ravangard, R., Sajjadnia, Z., & Ansarizade, N. (2013). Study of the effects of perceived organizational justice and its components on organizational commitment of administrative and financial employees of Shiraz University of Medical Sciences general hospitals in 2012. *Archives of Pharmacy Practice*, 4(1), 35–43, <http://dx.doi.org/10.4103/2045-080X.111580>
- Rhoades, L., & Eisenberger, R. (2002). Perceived organizational support: a review of the literature. *Journal of Applied Psychology*, 87(4), 698–714, <http://dx.doi.org/10.1037/0021-9010.87.4.698>
- Riketta, M. (2002). Attitudinal organizational commitment and job performance: a meta-analysis. *Journal of Organizational Behavior*, 23(3), 257–266, <http://dx.doi.org/10.1002/job.141>
- Riketta, M. (2008). The causal relation between job attitudes and performance: a meta-analysis of panel studies. *Journal of Applied Psychology*, 93(2), 472–481, <http://dx.doi.org/10.1037/0021-9010.93.2.472>
- Robbins, S. P. & Judge, T. A. (2015). *Organizational Behavior (16th ed)*. Upper Saddle River, New Jersey: Pearson Education, Inc.
- Rothmann, S., & Coetzer, E. (2002). The relationship between personality dimensions and job satisfaction. *Business Dynamics*, 11(1), 29–42. Retrieved on 24.11.2016 from [http://www.ianrothmann.com/pub/mandyn_v11_n1_a4\[1\].pdf](http://www.ianrothmann.com/pub/mandyn_v11_n1_a4[1].pdf)
- Saari, L., & Judge, T. (2004). Employee attitudes and job satisfaction. *Human Resource Management*, 43(4), 395–407, <http://dx.doi.org/10.1002/hrm.20032>
- Saner, T., & Eyüpoglu, S. Z. (2012a). Have gender differences in job satisfaction disappeared? A study of Turkish universities in North Cyprus. *African Journal of Business Management*, 6(1), 250–257, <http://dx.doi.org/10.5897/AJBM11.1935>
- Saner, T., & Eyüpoğlu, Ş. Z. (2012b). The age and job satisfaction relationship in higher education. *Procedia-Social and Behavioral Sciences*, 55, 1020–1026, <http://dx.doi.org/10.1016/j.sbspro.2012.09.593>
- Schein, E. H. (1996). Career anchors revisited: Implications for career development in the 21st century. *The Academy of Management Executive*, 10(4), 80–88, <http://dx.doi.org/10.5465/AME.1996.3145321>
- Seibert, S. E., Silver, S. R., & Randolph, W. A. (2004). Taking empowerment to the next level: A multiple-level model of empowerment, performance, and satisfaction. *Academy of Management Journal*, 47(3), 332–349, <http://dx.doi.org/10.2307/20159585>
- Seibert, S. E., Wang, G., & Courtright, S. H. (2011). Antecedents and consequences of psychological and team empowerment in organizations: a meta-analytic review. *Journal of Applied Psychology*, 96(5), 981–1003, <http://dx.doi.org/10.1037/a0022676>
- Sempame, M., Rieger, H., & Roodt, G. (2002). Job satisfaction in relation to organisational culture. *South African Journal of Industrial Psychology*, 28(2), 23–30, <http://dx.doi.org/10.4102/sajip.v28i2.49>
- Shahmohammadi, N. (2015). The Relationship between Management Style with Human Relations and Job Satisfaction among Guidance Schools' Principals in District 3 of Karaj. *Procedia-Social and Behavioral Sciences*, 205, 247–253, <http://dx.doi.org/10.1016/j.sbspro.2015.09.069>
- Shapira-Lishchinsky, O., & Tsemach, S. (2014). Psychological empowerment as a mediator between teachers' perceptions of authentic leadership and their withdrawal and citizenship behaviors. *Educational Administration Quarterly*, 50(4), 675–712, <http://dx.doi.org/10.1177/0013161X13513898>
- Sigler, T. H., & Pearson, C. M. (2000). Creating an empowering culture: Examining the relationship between organizational culture and perceptions of empowerment. *Journal of Quality Management*, 5, 27–52, [http://dx.doi.org/10.1016/S1084-8568\(00\)00011-0](http://dx.doi.org/10.1016/S1084-8568(00)00011-0)
- Şirin, E. F. (2009). Analysis of relationship between job satisfaction and attitude among research assistants in school of physical education and sports. *Journal of Theory and Practice in Education*, 5(1), 85–104.
- Spector, P. E. (1997). *Job satisfaction: Application, assessment, causes, and consequences*. London: SAGE Publications.
- Spector, P. E. (2008). *Industrial and Organisational Behaviour (5th edition)*. New Jersey: John Wiley and Sons.
- Spreitzer, G. (2008). Taking Stock: a review of more than twenty years of research on empowerment at work. In Barling, J. & Cooper, C. L. (Ed.), *Handbook of organizational behavior* (54–73). Thousand Oaks, CA: Sage.
- Spreitzer, G. M. (1995a). An empirical test of a comprehensive model of intrapersonal empowerment in the

- workplace. *American Journal of Community Psychology*, 23(5), 601–629, <http://dx.doi.org/10.1007/BF02506984>
- Spreitzer, G. M. (1995b). Psychological empowerment in the workplace: Dimensions, measurement, and validation. *Academy of Management Journal*, 38(5), 1442–1465, <http://dx.doi.org/10.2307/256865>
- Stander, M. W., & Rothmann, S. (2010). Psychological empowerment, job insecurity and employee engagement. *South African Journal of Industrial Psychology*, 36(1), 1–8. Retrieved on 25.11.2016 from http://www.scielo.org.za/scielo.php?pid=S2071-0763201000010005&script=sci_arttext&tlng=pt
- Stinglhamber, F., Marique, G., Caesens, G., Desmette, D., Hansz, I., Hanin, D., & Bertrand, F. (2015). Employees' Organizational Identification and Affective Organizational Commitment: An Integrative Approach. *PLoS one*, 10(4), e0123955. <http://dx.doi.org/10.1371/journal.pone.0123955>
- Taylor, J. (2013). Goal setting in the Australian public service: Effects on psychological empowerment and organizational citizenship behavior. *Public Administration Review*, 73(3), 453–464, <http://dx.doi.org/10.1111/puar.12040>
- Thomas, K. W., & Velthouse, B. A. (1990). Cognitive elements of empowerment: An “interpretive” model of intrinsic task motivation. *Academy of Management Review*, 15(4), 666–681, <http://dx.doi.org/10.5465/AMR.1990.4310926>
- Tnay, E., Othman, A. E. A., Siong, H. C., & Lim, S. L. O. (2013). The influences of job satisfaction and organizational commitment on turnover intention. *Procedia-Social and Behavioral Sciences*, 97, 201–208, <http://dx.doi.org/10.1016/j.sbspro.2013.10.223>
- Tschannen-Moran, M. (2009). Fostering teacher professionalism in schools the role of leadership orientation and trust. *Educational Administration Quarterly*, 45(2), 217–247, <http://dx.doi.org/10.1177/0013161X08330501>
- Tyree Jr, A. K. (1996). Conceptualizing and measuring commitment to high school teaching. *The Journal of Educational Research*, 89(5), 295–304, <http://dx.doi.org/10.1080/00220671.1996.9941331>
- Uner, S., & Turan, S. (2010). The construct validity and reliability of the Turkish version of Spreitzer's psychological empowerment scale. *BMC public health*, 10(1), 1–8. Retrieved on 24.11.2016 from <http://bmcpublichealth.biomedcentral.com/articles/10.1186/1471-2458-10-117>
- Veletsianos, G., & Kimmons, R. (2013). Scholars and faculty members' lived experiences in online social networks. *The Internet and Higher Education*, 16, 43–50, <http://dx.doi.org/10.1016/j.iheduc.2012.01.004>
- Wang, Y. (2015). Examining organizational citizenship behavior of Japanese employees: A multidimensional analysis of the relationship to organizational commitment. *International Journal of Human Resource Management*, 26(4), 425–444, <http://dx.doi.org/10.1080/09585192.2011.560882>
- Westlund, S., & Hannon, J. (2008). Retaining talent: assessing job satisfaction facets most significantly related to software developer turnover intentions. *Journal of Information Technology Management*, 19(4), 1–15. Retrieved on 24.11.2016 from <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.552.3878&rep=rep1&type=pdf>
- Westover, J. H., & Taylor, J. (2010). International differences in job satisfaction: The effects of public service motivation, rewards and work relations. *International Journal of Productivity and Performance Management*, 59(8), 811–828, <http://dx.doi.org/10.1108/17410401011089481>
- Wu, C. H., & Griffin, M. A. (2012). Longitudinal relationships between core self-evaluations and job satisfaction. *Journal of Applied Psychology*, 97(2), 331–342, <http://dx.doi.org/10.1037/a0025673>
- Yang, X., & Wang, W. (2013). Exploring the determinants of job satisfaction of civil servants in Beijing, China. *Public Personnel Management*, 42(4), 566–587, <http://dx.doi.org/10.1177/0091026013502169>
- Yılmaz, S. M., Çelebi, Ç. D., & Çakmak, E. (2014). Job Satisfaction Level of Academicians in Faculty of Education. *Procedia-Social and Behavioral Sciences*, 116, 1021–1025, <http://dx.doi.org/10.1016/j.sbspro.2014.01.339>
- Zhang, A. Y., Song, L. J., Tsui, A. S., & Fu, P. P. (2014). Employee responses to employment-relationship practices: The role of psychological empowerment and traditionality. *Journal of Organizational Behavior*, 35(6), 809–830, <http://dx.doi.org/10.1002/job.1929>
- Zhang, X., & Bartol, K. M. (2010). Linking empowering leadership and employee creativity: The influence of psychological empowerment, intrinsic motivation, and creative process engagement. *Academy of Management Journal*, 53(1), 107–128, <http://dx.doi.org/10.5465/AMJ.2010.48037118>

Gašper Jordan, M.Sc., is an independent researcher who studied in the field of human resource management at the University of Maribor's Faculty of Organizational Sciences. His main interests are human resource management, organizational behaviour and organizational psychology.

Gozdana Miglič received her Ph.D. in sociological sciences at the Faculty of Social Sciences, University of Ljubljana. From 2009 she has been a lecturer at the Faculty of Organizational Sciences, University of Maribor. She is the author and co-author of several mono-

graphs and handbooks, numerous articles and conference papers, published in national and international journals. Her research is focused on human resource management, e. g. competencies models, recruitment, selection, training, career planning, organizational behavior.

Ivan Todorović works as a teaching assistant at the University of Belgrade, Faculty of Organizational Sciences. His research area includes organizational design, restructuring, organizational change, business process management and entrepreneurship. He has participated in more than 15 consulting projects in some of the largest companies from Serbia, as well as in several research projects financed by international institutions like EBRD, UNIDO and USAID. He is a co-author of 3 books and more than 40 articles in international monographs, journals and conference proceedings. From 2011 to 2013 he was a visiting lecturer

at the University of Maribor, Faculty of Organizational Sciences, in Slovenia. He was member of the team that won HULT Global Case Challenge 2012 in London, and he won Balkan Case Challenge 2010 in Vienna.

Miha Marič, Ph.D., is a researcher in the area of leadership, management, and organizational sciences. He is currently employed as an assistant professor at the University of Maribor's Faculty of Organizational Sciences and has a Ph.D. from the Faculty of Economics, University of Ljubljana. His research interests are power, leadership, organizational behavior, HRM, management, organization. As author or co-author, he has published twenty original scientific articles, thirteen professional articles, thirty-five scientific conference contributions, two chapters in monographs and co-authored one scientific monograph, and been an editor and reviewer. He has also participated in research projects and consulting work.

Psihološko opolnomočenje, zadovoljstvo z delom in organizacijska pripadnost visokošolskih pedagogov: primerjava šestih držav Srednje in Vzhodne Evrope (CEE)

Ozadnje in namen: Organizacije morajo uvajati nova spoznanja s področja upravljanja kadrovskih virov. Če želi imeti organizacija uspešne in učinkovite zaposlene, morajo le-ti biti zadovoljni z vsemi vidiki dela in bodo hkrati čutili večjo pripadnost organizaciji. Za popoln vpogled v zaposlene, morajo organizacije poskrbeti za psihološko stran zaposlenih, ki se kaže v psihološkem opolnomočenju.

Oblikovanje/Metodologija/Pristop: Raziskava je bila izvedena med 409. visokošolskimi pedagogi iz Avstrije, Hrvaške, Češke, Nemčije, Srbije in Slovenije. Proučevani konstrukti psihološkega opolnomočenja, zadovoljstva z delom in organizacijske pripadnosti so bili primerjani po državah. Spreitzerin PEQ je bil uporabljen za ocenjevanje psihološkega opolnomočenja, Spectorjev JSS za zadovoljstvo z delom ter Allenin in Meyerjev OCQ za oceno organizacijske pripadnosti.

Rezultati: Raziskava je pokazala, da je najvišja stopnja psihološkega opolnomočenja med visokošolskimi pedagogi iz Srbije in najnižja med tistimi iz Nemčije. Zadovoljstvo z delom je najvišje v Avstriji in najnižje v Sloveniji. Čustvena organizacijska pripadnost je najvišja v Sloveniji in najnižja v Nemčiji. Kalkulativna organizacijska pripadnost je najvišje ocenjena na Hrvaškem in najnižje na Češki. Dodatno, rezultati pokažejo, da je najvišja stopnja normativne organizacijske pripadnosti na Češkem in najnižja v Avstriji. Do statistično značilnih razlik ni prišlo le v primeru čustvene organizacijske pripadnosti.

Sklep: Poznavanje psihološkega opolnomočenja, zadovoljstva z delom in organizacijske pripadnosti je koristno za vodje, saj lahko s tem znanjem ustrezno upravljajo, razvijajo in motivirajo zaposlene.

Ključne besede: *psihološko opolnomočenje, organizacijska pripadnost, zadovoljstvo z delom, visoko šolstvo, upravljanje s kadrovskimi viri.*

DOI: 10.1515/orga-2017-0002

Reasons for Plagiarism in Higher Education

Polona Šprajc¹, Marko Urh¹, Janja Jerebic¹, Dragan Trivan², Eva Jereb¹

¹ University of Maribor, Faculty of Organizational Sciences, Kidričeva cesta 55a, 4000 Kranj, Slovenia
polona.sprajc@fov.uni-mb.si, marko.urh@fov.uni-mb.si, janja.jerebic@um.si, eva.jereb@fov.uni-mb.si

² UNION-Nikola Tesla University, Faculty of Business Studies and Law, Staro Sajmiste 29, 11070 Belgrade, Serbia
dtrivan@gmail.com

Background and Purpose: The survey was performed to determine the reasons that lead students to possibly commit plagiarism during their studies. By doing so, we wanted to determine the main reason for the appearance of plagiarism and how, within this main reasons, various indicators of plagiarism are judged and, finally, how demographic data and student motivation for study are associated with the reasons for plagiarism.

Design/Methodology/Approach: A paper-and-pencil survey was carried out among 17 faculties of the University of Maribor in Slovenia. A sample of 139 students 85 males and 54 females participated in this study, ages ranged from 19 to 36 years. The questionnaire contained 95 closed questions referring to: (i) general data, (ii) education, (iii) social status, (iv) awareness of plagiarism, and (v) reasons for plagiarism. Parametric and nonparametric statistical tests were performed depending on distributions of the answers.

Results: The results reveal that information and communication technology is largely responsible for the plagiarism with two reasons highlighted: ease of copying and ease of access to materials and new technologies. We also found some differences between low and high motivated students. Different average values of the answers considering motivation for study were confirmed for academic skills, teaching factors and other reasons for plagiarism, where the average for lower motivated students is significantly different (higher) than the average for higher motivated students. At the end we could find no direct relationship between the average time spent on the Internet and plagiarism.

Conclusion: The transmission of knowledge is the basic mission of faculties. This mission is based on moral beliefs about the harmfulness of its abuse, and plagiarism is exactly such abuse. Regardless of the students past at this point professors are those who could greatly contribute to the right set of skills to keep students off plagiarising.

Keywords: plagiarism, higher education, reasons for plagiarism, academic skills, teachers

1 Introduction

Plagiarism is a recurring problem in higher education (Jiang, Emmerton, & Mckange, 2013; Lorenz, 2013). While we search for a common definition of plagiarism, we are coping with a challenge for which no answer yet exists. Various authors advocate different definitions: citing direct text without attribution (Belter & DuPre, 2009), citing parts of text of another author, using parts of text without citing (Colnerud & Rosander, 2009), presentation of foreign ideas as their own, without a clear reference to the source ((Hard, Conway, & Moran, 2006). Furthermore, Perrin (2009), Larkham (2002) and Culwin (2001)

define plagiarism as the use of the author's words, ideas, reflections and thoughts without proper acknowledgment of the source. An extended definition of plagiarism takes into account the fact that if a student does not think about it and doesn't write his text all alone and does not apply the appropriate bibliographical references, this is indeed plagiarism (Lathrop & Foss, 2000).

Students are under enormous pressure from family, peers, and instructors to compete for scholarships, admissions, and, of course, place in the job market. They often see education as a rung in the ladder to success, and not an active process valuable in itself. Because of this, students tend to focus on the end results of their research,

rather than the skills they learn in doing it (Turnitin.com and Research Resources). This often results in plagiarism. Students justify plagiarism by pointing out that since their peers plagiarize, they must do the same to keep up (Turnitin.com and Research Resources, n.d.). It is clear that a lot of students plagiarise intentionally. Many authors tried to explain the reasons which led students to plagiarise. These reasons vary from being lazy (Dordoy, 2002), poor time management (Dordoy, 2002), pressure from other students, (Devlin, & Gray, 2007; Dordoy, 2002; Errey, 2002; Park, 2003; Wilhoit, 1994;), pressure to receive higher grades (Dordoy, 2002; Park, 2003; Wilhoit 1994), gaining easy access to material via the internet (Dordoy, 2002), fear of failure and taking risks because they think they will not get caught (Dordoy, 2002, & Sutherland, 2004). Reasons for plagiarising unintentionally may include collaborative team work in producing an assignment (Wilhoit 1994), misunderstanding of rules (Dordoy, 2002) and not being aware of what plagiarism entails (Dordoy, 2002).

Along these lines, the purpose of our study was to investigate the reasons for plagiarism in higher education. Our findings might aid in preventing or reducing plagiarism among students. The survey was aimed at obtaining a view toward the retention and the continuation of academic integrity. We wanted to highlight how students evaluate individual sets of causes for possible plagiarism, which of this causes are dominant and what the correlations between the general and opinion parts of the survey are. Furthermore, we wanted to find out, how the wider academic community, and finally the social environment could support the student in coping with this problem. We classified the reasons for plagiarism as following: information and communication technology, control, punishment and consequences, academic skills, teacher factor, different pressures of the external public, pride, and other reasons.

The research questions of the study were divided into three groups:

RQ group 1: What are the reasons for plagiarism in higher education, according to students? Are there any differences between male and female students regarding this? Are the reasons for plagiarism connected with specific study areas (formal, social, natural sciences)?

RQ group 2: Does the student's motivation affect his/her reasons for plagiarism? Do higher motivated students plagiarise less?

RQ group 3: Is plagiarism correlated with time spent on the internet (web)? Does social status connected with work and scholarship affect plagiarism?

Next the theoretical background is presented.

2 Theoretical background

The reasons for the plagiarism such as self-esteem, achievement desire and study motivation, are discussed by many authors (Angell, 2006; Rettinger & Kramer, 2009; Williams, Nathanson, & Paulus, 2010). In contrast Barnas (2000) claims that one of the main causes is the teacher factor. Songsriwittaya, Kongsuwan, Jitgarum, Kaewkuekool, and Koul (2009) state that the reason that motivates students to plagiarize is the goal to get good grades and to compare their success to their peers. Students with performance goals are more likely to engage in plagiarism than students with mastery goals. The views of Engler, Landau, & Epstein (2008), Hard, Conway, & Moran (2006) are also noteworthy. They say that plagiarism arises out of social norms and peer relationships. As a very common cause, the growing diversity of sources and form is emphasized, which (as such) often represents uncertainty regarding correct information usage (Evering & Moorman, 2012). The flood of online resources, without precisely stated authorship, may be one of the problems where students have difficulty determining what is right and what is wrong. Online resources are also available 24 hours a day, 7 days a week and enable a flood of information, which often leads to a confused state in a student. Given students' ease of access to both digital information and sophisticated digital technology, several researchers have noted that students may be more likely to ignore academic ethics and to engage in plagiarism than would otherwise be the case (Chang, Chen, Huang, & Chou, 2015). Many students simply do not view copying homework answers as wrong-at least not when it is done with technology (Yang, 2014).

A common reason is the poor preparation of notes on lectures (Rettinger & Kramer, 2009), which can lead to inadequate referencing of the text. We need to know that authors' words are not only written but also oral. Many students come with the question of primary and secondary sources, which can also become a reason for plagiarism. Additional reasons are related to the problem of increasing the number of students per professor, the pressure for high estimates, time pressures and the dissatisfaction of students with their study (Carrol, 2002). As we mentioned before the reason for plagiarism may also arise from personal factors, such as student age, sex, study program, study level and cultural background.

Fish and Hura (2013) think that plagiarism is much more likely to occur if students have an unclear perception of plagiarism and that plagiarism is quite common among their peers, and that the consequences are minor Okoro (2011) also highlights studies that reveal that 90% of students are aware that plagiarism is wrong and unethical but, at the same time, there is the academic world that is aware of the facts that students plagiarize (despite all the mentioned risks), because they feel that nobody will catch them. Some studies argue that students do not know

the actual nature of plagiarism because they have not been taught about proper citation methods (Blum, 2009; Carrol, 2007; Hansen, 2003).

The results of a study conducted in the US and Canadian universities present the incidence of plagiarism, since one of five students admitted that he/she has cheated on tests or exams at least once in the last year, but the number rises to 59% for undergraduate students (McCabe, 2005). Selwyn (2008) presents results from the UK, where about 60% of undergraduate students admitted plagiarism connected to the internet in the previous year and the fact that those who work on the internet better are more prone to plagiarism.

The idea of our research is presented in the initial part of the paper. The method and results of the research are presented in the next chapter.

3 Method

Sample

The paper-and-pencil survey was carried out in 2015 among 17 faculties of the University of Maribor in Slovenia. The survey was carried out by the Faculty of Organizational Sciences, University of Maribor.

A sample of 139 students (85 males (61%) and 54 (39%) females) participated in this study. Ages ranged from 19 to 36 years, with a mean of 21 years and 7 months ($M=21.57$ and $SD=2.164$). More than half (53%) of the participants

were formal sciences students, 23% were social sciences and 23% natural sciences students. The majority (75.5%) attended traditional courses, and 24.5% blended learning. More than half (52.5%) were working at the time of the study, and 42% of all participants had scholarships. More than two thirds (70%) of them were highly motivated for study and 30% less so; 27.5% of students spend 2 or fewer hours per day on the internet, 40.5% spend between 2 and 5 hours and 32% spend 5 or more hours on the internet per day. The general data can be seen in Table 1.

Instrument

The questionnaire contained 95 closed questions referring to: (i) general data (gender, age, study motivation, time spent on the internet), (ii) education (study level, study area, way of study, average grade), (iii) social status (working status, scholarship, financial situation, residence, father's and mother's educational level), (iv) awareness of plagiarism, and (v) reasons for plagiarism (ICT and web, control, academic skills, teaching factors, pressure, pride, other). The items in the (iv) and (v) groups used a 5-point Likert scale from strongly disagree (1) to strongly agree (5), with larger values indicating stronger orientation.

4 Results

All statistical tests were performed with SPSS at the significance level of 0.05. Parametric tests (Independent – Sam-

Table 1: General data

Gender	Male	85	61%
	Female	57	39%
Study level	Bachelor	118	85%
	Masters	21	15%
Study area	Formal sciences	74	53%
	Social sciences	32	23%
	Natural sciences	32	23%
Way of study	Classic learning	105	75.5%
	Blended learning	34	24.5%
Working within time of study	Yes	73	52.5%
	No	66	47.5%
Scholarship	Yes	58	42%
	No	81	58%
Motivation for study	Lower	41	30%
	Higher	97	70%
Average time spent on the internet in hours	2 or fewer hours	38	27.5%
	between 2 and 5 hours	56	40.5%
	5 or more hours	44	32%

Table 2: Average values and standard deviations of the answers

		Mean	St. deviation
1.1	It is easy for me to copy/paste due to contemporary technology	4.22	0.805
1.2	I do not know how to cite electronic information	2.35	1.054
1.3	It is hard for me to keep track of information sources on the web	2.93	1.075
1.4	I can easily access material from the internet	4.20	0.800
1.5	Easy access to new technologies	4.20	0.800
1.6	I can easily translate from other languages	3.49	1.093
1.7	I can easily combine material from multiple sources	3.82	1.002
1.8	It is easy to share documents, information, data	4.14	0.844
1	ICT and Web	3.67	0.577
2.1	There is no teacher control on plagiarism	2.50	0.912
2.2	There is no faculty control on plagiarism	2.35	0.859
2.3	There is no university control on plagiarism	2.27	0.839
2.4	There are no penalties	2.12	0.910
2.5	There are no honour codes on plagiarism	2.41	0.915
2.6	There are no electronic systems of control	2.14	0.929
2.7	There is no systematic tracking of violators	2.60	1.034
2.8	I will not get caught	2.17	1.096
2.9	I am not aware of penalties	2.55	1.078
2.10	I do not understand the consequences	2.58	1.135
2.11	The penalties are minor	2.51	0.898
2.12	The gains are higher than the losses	2.57	1.008
2	Control	2.40	0.615
3.1	I run out of time	3.39	1.113
3.2	I am unable to cope with the workload	2.79	1.087
3.3	I do not know how to cite	2.54	1.088
3.4	I do not know how to find material	2.40	1.004
3.5	I do not know how to research	2.31	0.939
3.6	My reading comprehension skills are weak	1.75	0.790
3.7	My writing skills are weak	2.14	0.967
3.8	I sometimes have difficulty expressing my ideas	2.58	1.089
3	Academic skills	2.49	0.708
4.1	The tasks are too difficult	2.84	0.968
4.2	Poor explanation - bad teaching	3.11	1.081
4.3	Too many assignments in a short time	3.36	1.022
4.4	Plagiarism is not explained	2.78	1.220
4.5	I am not satisfied with course contents	3.05	1.038
4.6	Teachers do not care	2.76	0.989
4.7	Teachers do not read students' assignments	2.65	0.962
4	Teaching factors	2.93	0.702

Table 2: Average values and standard deviations of the answers (continued)

5.1	Family pressure	1.86	0.827
5.2	Peers pressure	1.93	0.881
5.3	Under stress	2.76	1.221
5.4	Faculty pressure	2.64	1.183
5.5	Money pressure	2.37	1.105
5.6	Afraid to fail	2.83	1.197
5.7	Job pressure	2.32	1.131
5	Pressure	2.39	0.845
6.1	I do not want to look stupid in front of peers	2.40	1.108
6.2	I do not want to look stupid in front of professor	2.47	1.131
6.3	I do not want to embarrass my family	2.38	1.182
6.4	I do not want to embarrass myself	2.45	1.240
6.5	I focus on how my competences will be judged relative to others	2.45	1.047
6.6	I am focused on learning according to self-set standards	3.04	1.128
6.7	I am afraid to ask for help	2.26	0.981
6.8	My fear of performing poorly motivates me to plagiarize	2.27	0.997
6.9	Assigned academic work will not help me personally/professionally	2.19	1.078
6	Pride	2.43	0.845
7.1	I do not want to work hard	2.48	1.132
7.2	I do not want to learn anything, just pass	2.00	0.956
7.3	My work is not good enough	2.09	0.900
7.4	It is easier to plagiarize than to work	2.65	1.148
7.5	To get better-higher mark (score)	2.71	1.124
7	Other reasons	2.39	0.811

ples *t*-Test, Paired – Samples *t*-Test, One-Way ANOVA) were selected for normal and near normal distributions of the answers. Nonparametric tests (Mann-Whitney Test, Kruskal-Wallis Test, Friedman's ANOVA) were used for significantly non-normal distributions.

RQ group 1

The average values of the answers (and standard deviations) in the sample, referring to the reasons for plagiarism are shown in Table 2.

According to Friedman's ANOVA, the reasons for plagiarism can be divided into three homogeneous groups. First and dominating are ICT and Web reasons (Group 1), the second group consists of teaching factors (Group 4) and all the other reasons (2, 3, 5, 6 and 7) belong to Group 3. The distributions of the average values of the answers in Groups 2, 3, 5, 6 and 7 are not significantly different

($p=.066$; see Table 3).

ICT and Web reasons were detected as dominating reasons for plagiarism and, as such, they were investigated in more detail (Table 2). That the distributions of the answers to the questions 1.1, 1.4, 1.5 and 1.8 are not significantly different was confirmed by Friedman Test ($Chi-Square = 1.638, p=.651$). Consequently, the average values (means) of the answers to the questions 1.1, 1.4, 1.5 and 1.8 are not significantly different, whereas the distributions of the answers for all the other pairs were confirmed to be significantly different.

Different distributions of the answers considering gender were confirmed for 1.2 and 1.4 by the Mann-Whitney Test ($p=.020; p=.048$). It seems that male students on average have more problems with knowing how to cite electronic information than female students do; female students can also access material from the internet more easily (Table 4). Different distributions of the answers con-

Table 3: Homogeneous subsets according to Friedman's ANOVA

Group	Sample average rank		
	Subset 1	Subset 2	Subset 3
5	3.094		
2	3.216		
7	3.295		
6	3.511		
3	3.543		
4		4.903	
1			6.439
Test Statistic	8.806		
Sig (2-sided)	.066		

Table 4: Descriptive statistics for individual statements (ICT and Web) according to gender and results for Mann-Whitney Test

	ICT and Web	Male		Female		Mann-Whitney Test	
		Mean	Std. Dev.	Mean	Std. Dev.	Z	p
1.2	I do not know how to cite electronic information	2.49	1.042	2.11	1.040	-2.322	.020
1.4	I can easily access material from the internet	4.08	0.862	4.39	0.656	-1.976	.048

Table 5: Descriptive statistics for individual statements (ICT and Web) according to study area and results for Kruskal-Wallis Test

	ICT and Web	Formal Sciences		Social Sciences		Natural Sciences		Kruskal-Wallis Test	
		Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Chi-Square	p
1.2	I do not know how to cite electronic information	2.54	1.088	1.91	1.027	2.31	0.896	9.574	.008
1.6	I can easy translate from other languages	3.73	0.983	3.25	1.136	3.22	1.184	6.065	.048

sidering study area were confirmed for 1.2 and 1.6 by the Kruskal-Wallis Test ($p=.008$; $p=.048$). Students enrolled in social sciences seem to have fewer problems with citing electronic information than students of formal and natural sciences. However, students of formal sciences find translating from other languages easier than students from the other two science areas do (Table 5).

Different average values of the answers considering gender were confirmed by the Independent t -Test ($t=2.247$, $p=.026$). This was also done for the pride reasons, where the average for male ($M=2.56$ and $SD=.854$) is significant-

ly different (higher) than the average for female ($M=2.24$ and $SD=.797$). The normality of distribution for average values of the answers within groups (male and female) was checked with a Kolmogorov-Smirnov test, the results of which were not significant. The average values of the answers for individual statements 6.5, 6.7 and 6.9 and the significances for t -Test for equality of means are shown in Table 6. The average values of the answers for these three statements are significantly different (higher for male than female).

Table 6: Descriptive statistics for individual statements (pride group) and results for *t*-Test

	Pride	Male		Female		<i>t</i> -Test	
		Mean	Std. Dev.	Mean	Std. Dev.	<i>t</i>	<i>p</i>
6.5	I focus on how my competences will be judged relative to others	2.65	1.081	2.13	0.912	3.067	.003
6.7	I am afraid to ask for help	2.44	1.017	1.98	0.858	2.826	.005
6.9	Assigned academic work will not help me personally/professionally	2.42	1.100	1.83	0.947	3.207	.002

Table 7: Descriptive statistics for individual statements (academic skills, teaching factors and other reasons) according to motivation and results for *t*-Test

			Lower motivation		Higher motivation		<i>t</i> -Test	
			Mean	Std. Dev.	Mean	Std. Dev.	<i>t</i>	<i>p</i>
Academic skills	3.1	I run out of time	3.71	1.209	3.25	1.051	2.244	.026
	3.2	I am unable to cope with the workload	3.10	1.136	2.65	1.041	2.248	.026
	3.3	I do not know how to cite	2.95	1.176	2.38	1.015	2.844	.005
	3.4	I do not know how to find material	2.71	1.031	2.27	0.974	2.380	.019
	3.5	I do not know how to research	2.61	0.972	2.19	0.905	2.461	.015
	3.8	I sometimes have difficulty expressing my own ideas	2.88	1.208	2.44	1.010	2.177	.031
Teaching factors	4.2	Poor explanation - bad teaching	3.44	1.001	2.97	1.094	2.363	.020
	4.3	Too many assignments in a short time	3.66	0.938	3.23	1.036	2.299	.023
	4.5	I am not satisfied with course contents	3.34	1.087	2.94	0.998	2.113	.036
	4.6	Teachers do not care	3.13	0.939	2.61	0.977	2.807	.006
Other reasons	7.1	I do not want to work hard	2.80	1.269	2.35	1.051	2.178	.031
	7.2	I do not want to learn anything, just pass	2.56	1.074	1.76	0.801	4.283	.000
	7.3	My work is not good enough	2.39	1.046	1.97	0.809	2.303	.025

RQ group 2

Different average values of the answers considering motivation for study were confirmed with ANOVA for academic skills, teaching factors and other reasons for plagiarism, where the average for lower motivated students is significantly different (higher) than the average for higher motivated students ($p=.002$; $p=.008$; $p=.017$). Means and standard deviations of the answers for individual statements and the results for *t*-Test of equality of means are shown in Table 7.

As can be seen in Table 7, on average students with lower motivation run out of time, are unable to cope with the workload, do not know how to cite, do not know how

to find material or draw conclusions from the research, and have difficulties in expressing their own ideas. They also find that teachers give poor explanations and think they get too many assignments in a short time. The question here could also be why their motivation is low. It could be that they are not satisfied with course contents. Since higher motivated students seem to be much more satisfied with course contents ($t=2.113$, $p=.036$) (see statement 4.5 in Table 7). Lower motivation could also be due to students' perception of teachers' relation with them. As can be seen in Table 7, students with lower motivation think that teachers do not care ($t=2.807$, $p=.006$). Lower study motivation is also more obvious for students who do not want to work

Table 8: Descriptive statistics for statement "It is easier to plagiarize than to work" according plagiarism and results for ANOVA

	Other reasons	Students plagiarised						ANOVA	
		never		once		2 or more time		F	p
		Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.		
7.4	It is easier to plagiarize than to work	2.33	1.012	2.73	1.087	2.90	1.300	3.040	.051

Table 9: Results for Independent t-Test for Statement 7.4 regarding plagiarism

7.4	It is easier to plagiarize than to work	Students plagiarised		t-Test	
		never	once	t	p
		never	2 or more time	-1.900	.060
once	2 or more time	-2.320	.023		
		once	2 or more time	-0.693	.490

Table 10: Cross-tabulation

		Students plagiarised		
		never	once	2 or more times
Motivation	lower	16	14	11
	higher	30	37	30

hard ($t=2.178$, $p=.031$) and just want to pass and do not want to learn anything ($t=4.283$, $p=.000$) and those who think their work is not good enough ($t=2.303$, $p=.025$).

Results of the ANOVA test showed that the frequency of plagiarising does not affect other reasons for the plagiarism group. The only statistically important difference concerns the statement that it is easier to plagiarise than to work (Table 8). Students who plagiarised two or more times in average think that it is easier to plagiarise than to work than students who never plagiarised. Different average values of the answers to the statement were confirmed by an Independent t -Test ($t=-2.320$, $p=.023$) for the students in groups "never" and "2 or more" (Table 9).

Chi-Square Test of Independence was also used to determine whether higher motivated students plagiarise less. The relationship between variables can be seen in Table 10. According to the calculated p -value ($Chi-Square=0.854$, $p=.652$), the independence of the variables cannot be declined.

The Spearman's correlation coefficient between motivation (higher and lower motivated students) and plagiarism for the sample data is 0.071. Based on the significance of the correlation test ($p=.409$) we cannot say that high motivated students plagiarise less.

RQ group 3

A Chi-Square Test of Independence was used to determine whether there is a significant association between the average time spent on the internet and plagiarism. The relationship between variables can be seen in Table 11. According to the calculated p -value ($Chi-Square=4.364$, $p=.359$), the null hypothesis that the variables are independent cannot be declined. The Spearman's correlation coefficient between average time spent on the internet and plagiarism for the sample data is 0.088. Based on the significance of the correlation test ($p=.306$), we cannot say that plagiarising is correlated with time spent on the internet.

Regarding social status, such as work and scholarships, we determined that the only statistically important difference between students who work ($M=2.30$ and $SD=0.622$) and who do not ($M=2.51$ and $SD=0.593$) regarding the reasons for plagiarism concerns the group control ($t=-1.996$, $p=.048$).

Different distributions of the answers considering work within the time of the study were confirmed by statements 2.1 ($Z=-3.274$, $p=.001$) and 2.2 ($Z=-2.158$, $p=.031$) using the Mann-Whitney Test (Table 12). As can be seen, students who do not work more often think that there is no teacher and no faculty control on plagiarism than those who work.

Table 11: Cross-tabulation

		Student plagiarised		
		never	once	2 or more times
Average time spent on the internet in hours	2 or fewer hours	12	16	10
	between 2 and 5 hours	23	17	16
	5 or more hours	10	19	15

Table 12: Results for Mann-Whitney Test

	Control	work: Yes		work: No		Mann-Whitney Test	
		Mean	Std. Dev.	Mean	Std. Dev.	Z	p
2.1	There is no teacher control on plagiarism	2.26	0.800	2.77	0.957	-3.274	.001
2.2	There is no faculty control on plagiarism	2.19	0.828	2.53	0.863	-2.158	.031

Descriptive statistics (*t*-Test) of the reasons for plagiarism according to the scholarship was also calculated but showed no statistically important differences between those who have and do not have scholarships.

5 Discussion

The predominant causes for plagiarism

The results of our research showed that information and communication technology are the most apparent cause with an average value of 3.67 (see Table 2). Since the plagiarism is highlighted not only as an academic question, it is important to relate the personal lives of students with a high degree of causal relationship between plagiarism and social factors such as living in the digital age, daily Internet exposure and the inclusion of the Internet in the academic environment. Although there is no empirical research which would directly link the plagiarism and the Internet (Carter, 2008), numerous studies show the ease of access to Internet material as a catalyst for plagiarism (Emerson, 2008; Ma, Wan, & Lu, 2008; Ma et al., 2007; Power, 2009; Senders, 2008; Suarez & Martin, 2001; Sulikowski, 2008). Students in our research indicate the information communication technology (ICT) to be the cause for plagiarism. Within the ICT cause, two reasons are highlighted: ease of copying, with an average value of 4.22 (see Table 2) and ease of access to materials and new technologies, with an average value of 4.20 (see Table 2).

Technology has become a major cultural communication tool and, despite offering better access to a variety of ideas and information, it also presents an opportunity for misrepresented ideas and information (Howard & Davies, 2009). We are aware that authorship may become blurred

because of the abundance of ways to access information (Moorman & Horton, 2007). Students have frequent experience with the various internet search browsers, different social media, social networks and multimedia tools (such as digital, video cameras) outside the academic environment. The problem occurs because the digital literacy experience is not automatically connected with the skills knowledge and expertise that are necessary for searching, navigation and evaluation of information in an ethical sense (Poe, 2010). Taking responsibility for teaching skills and competencies related to plagiarism is an urgent imperative (Evering & Moorman, 2012).

The second most important cause for plagiarism are items related to teachers with an average of 2.93 (see Table 2). The reason may be supported by the fact that many students still cannot accept responsibility for their behaviour. They follow fixed principles that are specific to their practices, especially when they are a part of the education system. Many youths avoid responsibility (Arnett, 2000); according to several authors there is a lack of the responsibility of students, and this is a widespread concern (Kolbert, 2012; Trzesniewski & Donnellan, 2010).

Following the survey on this topic (Evering & Moorman, 2012), the orientation of schools, parents and the wider social environment should be focused on the way the information is collected online according to ethical principles and not only by the evaluation of what is right and what is wrong. We are not coping with a problem of a given technology and the development guidelines, neither of the availability of resources. We would like to present the thesis that is necessary for young people to be oriented to the proper field of education where they can get the full range of skills, abilities and competencies within the ICT hand-in-hand with moral and ethical judgement when dis-

cussing the internet and plagiarism.

Furthermore, our goal was to discover differences between male and female students while considering ICT as the dominant cause for plagiarism. A study published at the University of the Balearic Islands in Spain has found that, on the whole, male students are more likely to plagiarize than their female counterparts in their college courses. The study did not attribute it to an ethical difference of judgement between the sexes, but rather that male students are more likely to procrastinate and then turn to plagiarism in the rush to complete the assignment. The study, which looked at nearly 2800 students at the college, found that 81.3% of those queries had copied fragments from websites and 72.5% had copied from encyclopaedias and other printed sources ("As of March 30, 2015, the Plagiarism today listed on its website <https://www.plagiarismtoday.com/2015/03/30/do-men-plagiarize-more-than-women/>"). Our research showed that male students more than female students disclose pride, unwillingness to help others and the belief that their academic work will do no good for them (see Table 4). However, there are also some studies which show us that there are no differences between male and female students regarding plagiarism. One study determined that students plagiarize regardless of gender or age (Jurdi, Hage, & Henry, 2011), and another one indicated that plagiarism is more based on moral values developed in the primary family (Kecici, Bulduk, Oruc, & Celik, 2011). Our research showed differences according to the statements "I do not know how to cite electronic information" and "I can easily access material from the internet" (see Table 4). Responses indicate that male students have more problems with ways of citing Internet information, and female students seek material from the Internet more easily.

It is evident that there are differences in the academic instructions presented to students, which very clearly present ways of seeking information and ways of accompanying research work. We propose that the academic world clarify the instructions for proper citations and consider tools that would prepare young people to properly handle electronic resources. The different methods of citation, could also be one of the reasons for improper citations of sources. This highlights the possible standardization of ways of quoting sources, which could make work easier.

Regardless, plagiarism is not only the problem of our time. Students who intentionally or inadvertently copied the words of another author have existed for the last two hundred years (Carter 2008). Plagiarism has been known from the outset of over civilisation: the only thing that changed is the media and socio cultural expectations of our society (Sulikowski, 2008). Although plagiarism has always been an academic issue, from students' perspective, the main reason for plagiarism was ICT technology. The internet, including different search engines, social networks and the possibility of electronic communication,

have given students an extremely large field of access to information materials for study projects. The survey *Pew Internet and American Life Project* (Lenhart, Madden, & Hitlin, 2005) showed that almost 90% of students aged between 12 and 17 years use the internet, and that most of the students and their parents believe that the internet helps in meeting the study requirements (Sisti, 2007).

Plagiarism in connection with motivation

Based on the results of our research, we find that the difference between low and highly motivated students largely lay in different academic skills, teaching factors and other reasons for plagiarism. This is a view of human behaviour that is supported by various studies that show us if individuals believe that they can perform a particular job effectively they are more eager to use any means to achieve their goal (Bandura, 1986). Among the reasons that were detected in low-motivated students we find the lack of time, inability to cope with the workload, lack of knowledge to cite, how to find material and how to research, and of abilities to express their ideas (see Table 7). Zimmerman (2002) claims that individuals who are self-regulated are more aware of the importance of their learning, their determination of personal goals, determination of strategies to achieve the objectives, projections of their behaviour and increasing their motivation. Particularly among low-motivated students we find that the reasons given by them are poor explanations by their teachers and too many assignments in too little time for them. It is interesting that there are no differences between low and highly motivated students within the frequency of plagiarism (see Table 7). Some researchers argue that self-efficacy has an enormous impact on student performance (Coutinho & Neuman, 2008; Long, Monoi, Harper, Knoblauch, & Murphy, 2007; Pajares, 1996; Schunk, 1989).

Our perspective is that professors are those who greatly contribute to the right set of skills and abilities of students in the conditions of plagiarism (here we agree with Fish & Hura, 2013). Higher motivated students are more satisfied with the content of the curriculum and teacher's involvement. Less motivated students do not want to invest too much effort in study; they just want to pass the exam, and they feel that their work is not good enough. However, we have to be aware that lower motivated students also blame the allegedly poor explanations of their teachers (see Table 7).

Time spent on the Internet and Social status

Our research has shown that there is no direct relationship between the average time spent on the Internet and plagiarism and that within the social status of students there are differences only between those who work during their studies and those who do not work. Students who do not work largely reveal control (see Table 2) as a reason for plagiarism. Among students who receive a scholarship for

study and students who do not, we did not find any differences in the causes for plagiarism (see Table 12).

Despite the obvious advantages of the Internet, the time spent online may be a cause for concern. Students who have trouble with controlling their own time may suffer from internet addiction, which has a negative impact on students in general (Young, 1998; Chen & Peng, 2008; Cao & Su, 2007).

Advances in computer technology have enabled the internet to serve as a platform not only to seek information, but also to exchange ideas and knowledge with other users, and obtain expert opinions via email, teleconferencing, chatting and other avenues. Nevertheless, the advent of social network sites such as Facebook, Twitter, LinkedIn and others that include chatting and online games have changed the perception of internet use from one that is associated with learning to that of a socializing facility. Such website applications have resulted on the internet being used for both academic and non-academic activities (Ayub, Hamid, & Nawawi, 2014).

Websites can certainly affect how students use the Internet, and they change their educational habits, which manifests as the progressive growth of e-tools for learning, e-classrooms and other benefits that faculties may offer students as the form of information and communication technologies through which can enrich competencies and knowledge.

Understanding and achieving results based on what is already known as well as anticipated in advance, such as in the work environment is also important in the academic environment. The transmission of knowledge is the basic mission of faculties. This mission is based on moral beliefs about the harmfulness of its abuse, and plagiarism is exactly such abuse. Teachers should be able to transmit the knowledge of these moral beliefs to students in such a way that they will be able to cope with plagiarism.

Literature

- Angell, L.R. (2006). The relationship of impulsiveness, personal efficacy and academic motivation to college cheating. *College Student Journal*, 40(1), 118-131.
- Arnett, J. (2000). Emerging adulthood: A theory of development from the late teens through the twenties. *American Psychologist*, 55, 469-480, <http://dx.doi.org/10.1037/0003-066X.55.5.469>
- Ayub, A.F.M, Hamid, W.H.W., & Nawawi, M.H. (2014). Use of Internet for Academic Purposes among Students in Malaysian Institutions of Higher Education. *The Turkish Online Journal of Educational Technology*, 13(1), 232-241.
- Bandura, A. (1986). *Social foundations of thought & action: A social cognitive theory*, Engelwood Cliffs, NJ, Prentice-Hall.
- Barnas, M. (2000). "Parenting" students: Applying developmental psychology to the college classroom. *Teaching of Psychology*, 27, 276-277.
- Belter, R.W., & DuPre, A. (2009). A strategy to reduce plagiarism in an undergraduate course. *Teaching of Psychology*, 36(4), 257-261, <http://dx.doi.org/10.1080/00986280903173165>
- Blum, S.D. (2009). *My word! Plagiarism and college culture*, Ithaca NY, Cornell University Press.
- Cao, F., & Su, L. (2007). Internet addiction among Chinese adolescents: prevalence and psychological features. *Child Care Health*, 33(3), 275-281, <http://dx.doi.org/10.1111/j.1365-2214.2006.00715.x>
- Carrol, J.A. (2002). *Suggestions for teaching international students more effectively*, Oxford, Oxford books.
- Carrol, J. (2007). *A handbook for deterring plagiarism in higher education (2nd ed.)*, Oxford, England, Oxford Centre for Staff and Learning Development, Oxford Brookes University.
- Carter, D.B. (2008). Honors, honor codes, and academic integrity: Where and how do they converge and diverge? *Journal of the National Collegiate Honors Council*, 9(2), 15-20.
- Chang, C.M., Chen, Y.L., Huang, Y., & Chou, C. (2015). Why do they become potential cyber-plagiarizers? Exploring the alternative thinking of copy-and-paste youth in Taiwan. *Computers and Education*, 87, 357-367, <http://dx.doi.org/10.1016/j.compedu.2015.07.006>
- Chen, Y. F., & Peng, S.S. (2008). University students' Internet use and its relationships with academic performance, interpersonal relationships, psychosocial adjustment, and self-evaluation. *CyberPsychology & Behavior*, 11, 467-469, <http://dx.doi.org/10.1089/cpb.2007.0128>
- Colnerud, G., & Rosander, M. (2009). Academic dishonesty, ethical norms and learning. *Assessment and Evaluation in Higher Education*, 34(5), 505-517, <http://dx.doi.org/10.1080/02602930802155263>
- Coutinho, S. A., & Neuman, G. (2008). A model of metacognition, achievement goal orientation, learning style and self-efficacy. *Learning Environments Research*, 11(2), 131-151, <http://dx.doi.org/10.1007/s10984-008-9042-7>
- Culwin, F. (2001). Plagiarism issues for higher education. *Vine*, 31(2), 36-41, <http://dx.doi.org/10.1108/03055720010804005>
- Devlin, M., & Gray, K. (2007). In their words: a qualitative study of the reasons Australian university student plagiarize. *Higher Education Research and Development*, 26 (2), 181 -198, <http://dx.doi.org/10.1080/07294360701310805>
- Dordoy, A. (2002, July). *Cheating and plagiarism: student and staff perceptions at Northumbria. Proceeding of Northumbria Conference, Educating the future*. Retrieved January 29, 2009, from <http://www.jisepas.ae.uk/images/bin/AD.doc>

- Emerson, L. (2008). Plagiarism, a Turnitin trial and experience of cultural disorientation. In M. Vicinus and C. Eisner (Eds.), *Originality, imitation and plagiarism: Teaching writing in the digital age* (pp. 183-194), Ann Arbor, University of Michigan Press.
- Engler, J.N., Landau, J.D., & Epstein, M. (2008). Keeping up with the Joneses: Students' perceptions of academically dishonest behavior. *Teaching of Psychology*, 35, 99-102.
- Errey, L. (2002). Plagiarism: something fishy?... or just a fish out of the water? *Teaching Forum*, 50, 17-20.
- Evering, L.C., & Moorman, G. (2012). Rethinking plagiarism in the digital age. *Journal of Adolescent and Adult Literacy*, 56(1), 35-44, <http://dx.doi.org/10.1002/JAAL.00100>
- Fish, R., & Hura, G. (2013). Students' perceptions of plagiarism. *Journal of the Scholarship of Teaching and Learning*, 13(5), 33-45.
- Hansen, B. (2003). Combating plagiarism: Is the Internet causing more students to plagiarize? *The Congressional Researcher*, 13(32), 773-796.
- Hard, S.F. J, Conway, M., & Moran, A.C. (2006). Faculty and colleges student beliefs about the frequency of student academic misconduct. *The Journal of Post-secondary Education*, 77(6), 1058-1080, <http://dx.doi.org/10.1353/jhe.2006.0048>
- Howard, R.M., & Davies, L.J. (2009). Plagiarism in the Internet age. *Educational Leadership*, 66(6), 64-67.
- Jiang, H., Emmerton, L., & McKange, L. (2013). Academic integrity and plagiarism: a review of the influences and risk situations for health students. *Higher Education Research and Development*, 32(3), 369-380, <http://dx.doi.org/10.1080/07294360.2012.687362>
- Jurdi, R., Hage, H., & Henry, P. (2011). Academic dishonesty in the Canadian classroom: Behaviours of a sample of university students. *The Canadian Journal of Higher Education*, 41(3), 1-35.
- Keccici, A., Bulduk, S., Oruc, D., & Celik, S. (2011). Academic dishonesty among nursing students: A descriptive study. *Nursing Ethics*, 18(5), 725-733, <http://dx.doi.org/10.1177/0969733011408042>
- Kolbert, E. (2012). Spoiled rotten: Why do kids rule the roost? *The New Yorker*, 76-79.
- Larkham, M. (2002). Plagiarism and its treatment in higher education. *Journal of Further and Higher Education*, 26(4), 339-349, <http://dx.doi.org/10.1080/0309877022000021748>
- Lathrop, A., & Foss, K. (2000). *Students cheating and plagiarism in the internet era: a wakeup call*, Englewood: Libraries Unlimited.
- Lenhart, A., Madden, M., & Hitlin, P. (2005). *Teens and Technology*, Pew Internet and American Life Project. Teens Retrieved August 8, 2016, from http://www.pewinternet.org/files/old-media/Files/Reports/2005/PIP_Teens_Tech_July2005web.pdf.pdf
- Long, J. F., Monoi, S., Harper, B., Knoblauch, D., & Murphy, P.K. (2007). Academic motivation and achievement among urban adolescents. *Urban Education*, 42(3), 196-222, <http://dx.doi.org/10.1177/0042085907300447>
- Lorenz, J.M. (2013). *Cheating & Plagiarism in Nursing*, Retrieved September 24, 2015, from <http://nursing.advanceweb.com/Continuing-Education/CE-Articles/Cheating-Plagiarism-in-Nursing.aspx>
- McCabe, D.L. (2005). Cheating among college and university students, A North American perspective. *International Journal of Educational Integrity*, 1(1), 10-11.
- Moorman, G., & Horton, J. (2007). Millennials and how to teach them. In Moorman, G., Lewis, J. (Eds.), *Adolescent literacy instruction: Policies and Promising Practices*, pp. 263-285. Newark, International Reading Association.
- Okoro, E.A. (2011). Academic integrity and student plagiarism: Guided instructional strategies for business communication assignments. *Business Communication Quarterly*, 74(2), 173-178, <http://dx.doi.org/10.1177/1080569911404064>
- Pajares, F. (1996). Self-efficacy beliefs in academic settings. *Review of educational research*, 66(4), 543-578, <http://dx.doi.org/10.3102/00346543066004543>
- Perrin, R. (2009). *Pocket guide to APA style (3rd ed.)*, Boston, MA: Wadsworth.
- Rettinger, D.A., & Kramer, Y. (2009). Situational and personal causes of student cheating. *Research in Higher Education*, 50(3), 293-313, <http://dx.doi.org/10.1007/s11162-008-9116-5>
- Power, L. G. (2009). University students' perceptions of plagiarism. *The Journal of Higher Education*, 80(6), 643-662, <http://dx.doi.org/10.1353/jhe.0.0073>
- Selwyn, N. (2008). Not necessarily a bad thing..., A study of online plagiarism amongst undergraduate students. *Assessment and Evaluation in Higher Education*, 33(5), 465-479.
- Schunk, D.H. (1989). Self-efficacy and achievement behaviours. *Educational Psychology Review*, 1, 173-207, <http://dx.doi.org/10.1007/BF01320134>
- Senders, S. (2008). Academic plagiarism and the limits of theft. In Eisner, C., Vicinus, M. (Eds.), *Originality, imitation and plagiarism: Teaching writing in the digital age*, pp. 195-207. Ann Arbor: University of Michigan Press.
- Sisti, D.A. (2007). How do High School Students Justify Internet Plagiarism. *Ethics & Behavior*, 17(3), 215-231, <http://dx.doi.org/10.1080/10508420701519163>
- Songsriwittaya, A., Kongsuwan, S., Jitgarum, K., Kaewkuekool, S., & Koul, R. (2009). *Engineering Students' Attitude Towards Plagiarism a Survey Study*, Korea: ICEE & ICEER.
- Suarez, J., & Martin, A. (2001). Internet plagiarism: A teacher's combat guide. *Contemporary Issues in Tech-*

nology and Teacher Education, 1(4), 546–549.

- Sulikowski, M. (2008). *Copy, paste, plagiarize: Teaching scholarship to a generation of googlers requires prevention, detection, and action*, Retrieved July 16, 2011, from http://dx.doi.org/www.vanderbilt.edu/magazines/vanderbilt-magazine/2008/03/copy_paste_plagiarize/
- Trzesniewski, K. H., & Donnellan, M.B. (2010). Rethinking 'generation me': A study of cohort effects from 1976–2006. *Perspectives on Psychological Science*, 5, 58–75.
- Turnitin.com and Research Resources. (n.d.). *Why students plagiarize*, Retrieved January 3, 2017, from <https://www.aub.edu.lb/it/acps/Documents/PDF/WhyStuPlagiarize.pdf>
- Wilhoit, S. (1994). Helping students avoid plagiarism. *College Teaching*, 4 (4), 161-164, <http://dx.doi.org/10.1080/87567555.1994.9926849>
- Williams, K.M., Nathanson, C., & Paulus, D.L. (2010). Identifying and profiling scholastic cheaters: Their personality, cognitive ability and motivation. *Journal of Experimental Psychology, Applied*, 16 (3), 293-307, <http://dx.doi.org/10.1037/a0020773>
- Yang, Y. (2014). *Why Students Plagiarise in Organic Chemistry Laboratory Course?*, IEEE International Symposium on Ethics in Science, Technology and Engineering.
- Young, K.S. (1998). *Caught in the Net: How to recognize the signs of Internet addiction and a winning strategy for recovery*, New York: John Wiley.
- Zimmerman, B.J. (2002). Becoming a self-regulated learner: An Overview. *Theory into Practice*, 41(2), 64-70, http://dx.doi.org/10.1207/s1540421tip4102_2

Polona Šprajc (Ph.D.) is an Assistant Professor at the Faculty of Organizational Sciences, University of Maribor in the Department of Personnel and Vice dean for educational activity. Her major research interests concern human resource management, marketing and business ethics. She teaches on undergraduate and master level. She is author of chapters in books and articles in scientific and professional journals, published in Slovenia and abroad.

Marko Urh obtained his Ph.D. in the field of Organizational sciences from the University of Maribor. He is a senior lecturer in the Department of Personnel and Information Sciences at the Faculty of Organisational Sciences, University of Maribor, Slovenia. His main research interests are in higher education, e-learning, human resource development, gamification and information systems.

Janja Jerebic is an Assistant Professor of Mathematics at the Faculty of Organizational Sciences, University of Maribor, Slovenia. Her main research interests are graph theory and data analysis.

Dragan Trivan, PhD in Security and Protection Studies, associate professor at the Faculty of Business Studies and Law in Belgrade, "Union Nikola Tesla" University. Mr Trivan was elected to scientific titles in several countries. He is the president of Serbian Association of Managers in Corporate Security. He is also the author of several monographs and number of research papers presented at national and international conferences and published in domestic and foreign journals. For exceptional achievements in business, scientific, and humanitarian work, he was repeatedly awarded domestically and abroad. Professor Trivan is a member of the American Society of Criminologists and the International Association of Criminologists.

Eva Jereb is a professor in the Department of Personnel and Information Sciences at the Faculty of Organizational Sciences, University of Maribor, Slovenia. Her main research interests are in higher education, e-learning, human resource development, self-management, personnel expert systems, office organization and the phenomenon of telework.

Vzroki za plagiarizem v visokem šolstvu

Ozadje in namen: Namen raziskave je bil ugotoviti, kateri so tisti vzroki zaradi katerih se študenti odločijo za plagiarizem. Želeli smo dognati, kateri je glavni vzrok, da do plagiarizma pride in kako so znotraj glavnega vzroka ocenjene posamezne trditve. Analizirali smo tudi povezanost demografskih podatkov študentov in njihovo stopnjo motivacije za študij z vzroki za plagiarizem.

Oblikovanje/metodologija/pristop: Podatke za raziskavo smo zbrali z anketnim vprašalnikom, ki smo ga razdelili med študente 17 fakultet Univerze v Mariboru v Sloveniji. V raziskavi je sodelovalo 139 študentov, 85 moških in 54 žensk, starih od 19 do 36 let. Anketni vprašalnik je vseboval 95 zaprtih vprašanj, ki so bila strukturirana v: (i) splošne podatke, (ii) izobraževanje, (iii) socialni status, (iv) zavedanje plagiatorstva, (v) vzroki za plagiarizem. Odgovori so bili porazdeljeni na likertovi lestvici od (1) sploh se ne strinjam do (5) močno se strinjam. Izvedeni so bili parametrični in neparametrični statistični testi.

Rezultati: Rezultati kažejo, da je informacijska in komunikacijska tehnologija v veliki meri odgovorna za plagiarizem študentov. V največji meri sta izpostavljena vzroka: enostavnost kopiranja in preprost dostop do materialov in novih tehnologij. Ugotovili smo tudi nekatere razlike med nizko in visoko motiviranimi študenti za študij. Razlike v povprečnih vrednostih odgovorov pri stopnji motiviranosti za študij se kažejo pri vzrokih: akademske spretnosti, učni dejavniki in drugi razlogi za plagiarizem, pri čemer so povprečne vrednosti nižje motiviranih študentov statistično pomembno drugačne (višje) od povprečnih vrednosti višje motiviranih študentov. Med povprečnim časom, ki ga študenti porabijo na internetu in vzroki za plagiarizem ni bilo ugotovljene neposredne povezanosti.

Zaključek: Osnovno poslanstvo fakultet je prenos znanja na študente. To poslanstvo temelji na moralnem in etično sprejemljivem ravnanju vseh subjektov. Fakulteta je tista, ki mora študente usmerjati ter jim nuditi pravi nabor spretnosti in veščin, da do plagiarizma ne bo prihajalo.

Ključne besede: *plagiarizem, visoko šolstvo, vzroki za plagiarizem, akademske veščine, profesorji*

DOI: 10.1515/orga-2017-0005

Burnout of Older and Younger Employees – The Case of Slovenia

Maja Rožman¹, Sonja Treven², Vesna Čančer², Marijan Cingula³

¹ Lackova cesta 13, 2000 Maribor, Slovenia
maja.500@hotmail.com

² University of Maribor, Faculty of Economics and Business, Slovenia
sonja.treven@um.si, vesna.cancer@um.si

³ University of Zagreb, Faculty of Economics and Business, Croatia
mcingula@efzg.hr

Background and Purpose: People spend a significant part of their lifespan working, but the role of age in job design and implementation of work have largely been ignored. The consequences can be evident in stress and burnout in different symptoms. Thus, age-diverse employees are faced with different symptoms of burnout and stress when carrying out their work. The main aim of this paper is to present burnout of older employees compared to younger employees in Slovenian companies.

Design/Methodology/Approach: The paper is based on research including a survey between two age groups of employees, namely the younger employees that were classified in the group of under 50 years of age and the older employees that were classified in the group of above 50 years of age. Since the Kolmogorov-Smirnov and Shapiro-Wilk test showed that the data was not normally distributed, the non-parametric Mann-Whitney U test was used to verify differences in the physical symptoms of burnout, emotional symptoms of burnout, and behavioral symptoms of burnout in the workplace between two groups.

Results: The results show that there are significant differences in the great majority of the variables describing the physical symptoms of burnout, emotional symptoms of burnout, and behavioral symptoms of burnout in the workplace between younger and older employees.

Conclusion: Well-being in the workplace of age-diverse employees is a key for long-term effectiveness of organizations. Managers and employers should apply appropriate measures to reduce burnout as well as to contribute to employees well-being and better workplace performance.

Keywords: Physical symptoms of burnout, emotional symptoms of burnout, behavioral symptoms of burnout, employees, human resource management

1 Introduction

Modern organizations are faced with an important problem: burnout in the workplace and as a result of dissatisfaction and demotivation of their employees in the workplace.

Burnout is an important occupational health issue that has a substantial health and well-being, career progression and organizational productivity impact (Kristensen et al., 2005 in Robinson et al., 2016) and is a psychological re-

sponse to prolonged work stress that results from a mismatch between the person and the job (Ellrich, 2016).

Satisfied employees are a vital prerequisite for a healthy company (Halkos and Bousinakis, 2010). Stressful and dissatisfied employees would not be able to deliver the same quality of work and productivity as those employees with lower stress levels and higher satisfaction. Therefore, it is important that employers create a safe and friendly work environment (George and Zakkariya, 2015). Age-related differences are apparent in the nature of stressors

likely to be encountered at work (Hansson et al., 2001). However, stress can be considered as an unpleasant emotional situation that we experience when requirements (work-related or not) cannot be counter-balanced with our ability to resolve them, which leads to burnout. This results in emotional changes as a reaction to this danger (Halkos and Bousinakis, 2010). Occupational stress and burnout have impacted the health and psychological well-being of workers with the attendant effects on their attitude to work (Brandy and Cox, 2002 in Babajide and Akintayo, 2011). When the working environment is perceived to be conducive, there is less stress and job performance is greatly enhanced (Parkes, 2002).

Burnout refers to a state of emotional and mental exhaustion caused by long-term chronic, emotional, and interpersonal stress while carrying out a task. It is a psychological withdrawal from work in response to excessive stress or dissatisfaction (Leiter et al., 2001). Burnout mediates a relationship between job stressor consisting of role conflict, role ambiguity, and role overload, and job outcomes consisting of job performance, job satisfaction, and turnover intention (Ambrose and Norman, 2010; Fogarty et al., 2000). Intiyas and Supriyadi (2013) clearly suggest that the increase of pressure on the antecedent factor (job stressor) will increase the burnout intensity and then will result in diminished job outcomes.

Burnout of older employees can be explained by a high workload, a lack of challenge and physical demands of the job, less opportunities for growth, and a lack of social support, especially from colleagues within the organization (Henkens and Leenders, 2010).

The consequences of burnout for the individual, for the companies, and for the nation are worrying. Burnout can affect health, giving rise to both physical and psychosomatic problems as well as depression, low self-esteem, guilt feelings, anxiety, and low tolerance for frustration. Work-related consequences can include dissatisfaction with the work, mistakes in the workplace, absenteeism, fluctuation, and presentism (Suner-Soler et al., 2014).

Further, it has become important to understand the role of individual differences in examining the effects of job characteristics on job attitudes (Morgeson and Humphrey, 2006). That means, that job characteristics are not experienced in the same way by all workers (Zaniboni et al., 2014).

Zaniboni et al. (2014) demonstrated that the role of age in the relationship between job characteristics and job attitudes is important, because with the aging population, it is important to see how jobs might be redesigned to enable people to continue to work successfully. It is appropriate to examine the interplay between age and work characteristics because people generally spend a significant part of their lifespan working, and therefore have ample opportunity to display these adaptive processes throughout their working lives, yet the role of age in job design has largely

been ignored (Truxillo et al., 2012).

Leaders have an important role in reducing the burden and stress of employees at the workplace by providing adequate complexity of work (Yavas et al., 2013). Despite changes and new directions, organizations devote very little focus to safeguard welfare and satisfaction of employees in the workplace. Some companies would not change their practices, even if this would adversely affect the well-being of employees (Rumbles and Rees, 2013).

The main aim of the paper is to consider human resource management in the age-diversity of employees in the context of burnout in the workplace. There is not much literature and research that is comprehensively and systematically based on theoretical knowledge nor studies about age-diverse employees and their symptoms of burnout. With this research we wanted to fill that gap.

First, this article provides a review of the literature on burnout and age-diverse employees. Then the aim of the study and its hypotheses as well as a description of the methodology are discussed. In two following sections the results about the burnout among younger and older employees and discussion of the findings are shown. Finally, limitations and future research opportunities are presented.

2 Theoretical framework

2.1 Symptoms of burnout

Burnout is a psychological term or concept for the experience of long-term exhaustion and diminished interest, usually in the work context. Further, burnout is often construed as the result of a period of expending too much effort at work while having too little recovery (Embriaco et al., 2007). Burnout symptoms are work-related. High levels of role stress are the result of burnout symptoms (Ashill et al., 2009). Thus, occupational stressors and burnout are serious threats to the health and well-being of employees, which may cause physical, mental and social illness for employees (Mosadeghrad, 2014).

2.2 Burnout in the workplace

Burnout in the workplace is a psychological syndrome of chronic emotional and interpersonal stressors experienced by individuals at work and their subsequent responses to the tasks, the organization, co-workers, clients, and themselves. Further, individuals experiencing burnout may suffer from physical illnesses, sleep disturbances, work/family conflicts, and substance abuse (Swider and Zimmerman, 2010). According to Burke and Greenglass (2001 in Malasch et al. 2001), burnout leads to lower productivity and effectiveness at work. It is associated with decreased job satisfaction and a reduced commitment to the job or the organization. Nahrgang et al. (2011) assert that

the demands of the workplace have often been linked to increased employee burnout and absenteeism.

Among younger employees the level of burnout is reported to be higher than it is among older employees. Often, age correlates with work experience, so burnout appears to be more of a risk earlier in one's career (Malasch et al. 2001), yet although Finnish research suggested burnout increases with ageing (Ahola et al., 2006 in Henkens and Leenders, 2010). Lester and Brower (2001) pointed out that the effects of stressors are felt more by workers above 45 years than those below forty year of age (Lester and Brower, 2001). According to Henkens and Leenders (2010), burnout of older employees can be explained by a high workload and a lack of challenge and physical demands of the job, less opportunities for growth, and a lack of social support, especially from colleagues.

2.3 Age-diversity in the workplace

Demographic changes and age-diversity provide new challenges for the management of organizations (Hertel et al., 2013a). With a more age-diverse workforce, new research questions arise. It becomes more important to find ways for people to stay satisfied and engaged in their work at different life stages (Zaniboni et al., 2014). Organizations' need to know more about age-diversity in the workplace in order to adapt their HRM strategies and leadership styles in an effective and sustainable way for their age-diverse employees (Hertel et al., 2013b). Job characteristics are not experienced in the same way by all age-diverse workers. Given the demographic shifts in today's workplace, worker age would appear to be an important individual difference (Zaniboni et al., 2014). Organizations' should be aware of the well-being of all age-diverse employees, therefore the well-being of employees contributes to the productivity of the organization. It is important to know that a satisfied employee is a necessary precondition for a healthy organization (Halkos and Bossinakis, 2010). Stressful, depressed, and dissatisfied employees cannot achieve the same level of quality of work and productivity than employees with low stress and high satisfaction (George in Zakkariya, 2015).

2.4 Human resource management

Human resource management affects the functioning of employees in the organization, while organizations are still insufficiently aware of demographic changes and challenges of an aging workforce for their future development and operation. Ilmarinen (2001) argues that the aging of workforce at a certain level of organization requires consideration of the age of employees in their daily management. The author also stresses that workload must be reduced with age.

2.5 Age management and diversity management

Naegele and Walker (2006) define age management as those measures that combat age barriers and promote age-diversity. According to Walker and Taylor (1998 in Principi et al., 2015), age management initiatives may be considered as practices designed to tackle age barriers, either directly or indirectly, and to provide an environment in which each individual is able to achieve his or her potential without being disadvantaged by their age. Thus, age management encompasses the following eight dimensions: job recruitment; learning, training, and life-long learning; career development; flexible working time practices; health protection and promotion, and workplace design; redeployment; employment exit and the transition to retirement; comprehensive approaches (Naegele and Walker, 2006).

Ashikali and Groeneveld (2015) summarize that diversity management is used to attract, retain, and effectively manage a diverse workforce in order to contribute to the organizations' performance. Thus, diversity management is about changing organizational practices and climates as the only way to realize the potential of a diverse workforce. Managing diversity requires a strategic approach to managing people at work and is an important part of human resource management, which includes a wide range of activities that improve the functioning of individuals and organizations (Beaver and Hutchings, 2005).

3 Aim of the study and hypotheses

The main purpose of this research is to examine burnout of employees in the workplace with physical, emotional, and behavioural symptoms in Slovenian companies. This study examines if there are differences in burnout at work settings between younger and older employees. The literature covers all employees, therefore it was decided to investigate if there are differences in burnout between older employees and younger employees.

This paper aims to answer the following research question: (1) RQ1: Are there statistically significant differences in the burnout symptoms in the workplace between older and younger employees?

Based on the research questions were designed three hypotheses in which burnout symptoms are divided into physical symptoms of burnout, emotional symptoms of burnout, and behavioural symptoms of burnout.

The research hypotheses for this study were as follows:

RH1: There are differences in the physical symptoms of burnout in the workplace between older (50 to 65 years) and younger employees (18 to 49 years).

In the literature, the definitions of older employees vary. In most cases, the lower age limit defining older em-

ployees is 45 years (Brooke, 2003) or 50 years (Ilmarinen, 2001). The term “older employees” includes employees between 40 and 50 years of age (Ghosheh et al., 2006). Because of the different theoretical principles, it was decided to use the boundary of 50 years.

Mosadeghrad (2014) argues that job related, individual, organisational, and environmental factors influence employees stress. Further, the job itself including duties, responsibilities, heavy workload, variations in workload, role ambiguity, and role conflict can be a source of stress and burnout for employees in organization. Pruessner et al. (1999) summarize that physical symptoms of burnout include exhaustion, fatigue, headaches, sleep disorders, loss of energy, nonspecific pain, reduced attention span, feelings of meaninglessness, apathy, raised blood pressure, chest pains and gastro-intestinal disorders (Mosadeghrad, 2014).

RH2: There are differences in the emotional symptoms of burnout in the workplace between older (50 to 65 years) and younger employees (18 to 49 years).

Burnout is a unique response to continuous and prolonged exposure to occupational stress. Employees who become more tired every day may be more exhausted. Thus, negative emotions are associated with work overload. Further, negative emotions at work play a key role in the development of burnout and they may lead to health deterioration. Burnout is saturated with low-arousal and unpleasant emotions (Beata et al., 2014). Emotional symptoms of burnout in the workplace may include depressed mood states, anxiety, irritability, loss of confidence, tension, or sadness (Mosadeghrad, 2014).

RH3: There are differences in the behavioural symptoms of burnout in the workplace between older (50 to 65 years) and younger employees (18 to 49 years).

Burnout leads to lower productivity and effectiveness at work. It is associated with decreased job satisfaction and a reduced commitment to the job or the organization (Maslach et al., 2001). Behavioral symptoms of burnout in the workplace may include disturbed sleep patterns, reduced reaction times, reduced work capacity, and less work motivation (Mosadeghrad, 2014).

4 Methodology

4.1 Data and sample

The quantitative method of data gathering was used in the empirical study to examine the burnout in the workplace between younger and older employees, including physical, emotional, and behavioral symptoms of burnout. Questionnaires were sent to small, medium-sized, and large Slovenian companies in January 2016. This research includes 400 companies and one employee in each company. The companies were from basic industries, capital goods,

consumer durables, consumer non-durables, consumer services, finance, healthcare, miscellaneous, public utilities, technology, and transportation. The sampling frame included companies from business register AJPES, which had registered 191.863 companies in 2015. From those companies, 525 companies were randomly selected with the program Random Number Generator and the response rate was 76%. The respondent in each company was selected by the company itself randomly, after receiving the questionnaire. The employees were divided into two age groups, namely the younger employees were classified in the group of under 50 years of age and the older employees were classified in the group of above 50 years of age. The sample consists of 400 employees: 174 (43.5%) young employees (18 to 49 years) and 226 (56.5%) older employees (50 to 65 years). The Level of the highest achieved education of the respondents includes: 2 (0.5%) Primary school, 64 (16.0%) Vocational or secondary school, 137 (34.3%) High school, 180 (45.0%) University education, and 17 (4.2%) Masters degree or doctorate. The respondents were from all regions in Slovenia. The Size of companies in which the respondents are employed includes: 102 (25.5%) large companies, 226 (56.5%) medium-sized companies, and 72 (18%) small companies.

4.2 Research instrument

When designing the questionnaire for measuring the burnout of employees in the workplace, we relied on various theoretical principles and research. Physical symptoms of burnout in the workplace have been summarized based on Shirom's (1989) categories. Emotional symptoms of burnout in the workplace have been summarized using Yunus and Mahajar (2009), Michael et al. (2009) and Moore (2000) listings. Behavioral symptoms of burnout in the workplace have been summarized referencing Fairbrother and Warn (2003); Grebner et al. (2010) and Malik et al. (2010).

To determine the burnout of older and younger employees in the workplace, the employees indicated their agreement to the listed statements on a 5-point Likert type scale labelled from 1 to 5 whereby 1 is strongly disagree and 5 is completely agree.

4.3 Statistical analysis

In article arithmetic means and medians to describe the symptoms of burnout of younger and older employees were used. The Kolmogorov-Smirnov and Shapiro-Wilk test were used to verify the normality of the data distribution (Bastič, 2006). We found that the data is not normally distributed, therefore, we have verified the differences between younger and older employees with the non-parametric Mann-Whitney U test (which is a substitute for the par-

ametric t-test of independent samples). The Mann-Whitney U test is based on the average ranks and sums of ranks (Bastič, 2006) of answers about the physical, emotional, and behavioural symptoms of burnout.

5 Results

The Kolmogorov-Smirnov and Shapiro-Wilk test showed that data is not normally distributed ($p < 0.001$) at a 0.1% significance level (Bastič, 2006) for any statement that describe the burnout of employees, therefore, the differences between two independent samples were examined with the non-parametric Mann-Whitney U test.

Table 1 presents descriptive statistics for the symptoms of burnout of employees in the workplace. In Table 2, the arithmetic mean and the median of the statements according to the age groups are shown. Table 3 presents the average ranks and sums of ranks for answers about the physical symptoms of burnout of younger and older employees on which the Mann-Whitney U test is based. They are shown to facilitate the understanding of the test results. To implement this test, the values of the numeric variable are converted into ranks. This means that Mann-Whitney U test numeric variable are converted into ranks, therefore value rankings are used for test statistic. Table 4 presents statistically significant differences in physical symptoms of burnout between younger and older employees.

The results in Table 1 show that employees are faced with physical, emotional and behavioral symptoms of burnout in the workplace. In the context of physical symptoms, employees are more susceptible to headaches and migraines, messy sleep cycle, tiredness and exhaustion, lower back pain and shoulder pain. In the context of emotional symptoms, employees are more susceptible to tension and in the context of behavioral symptoms and more susceptible to insomnia.

The arithmetic means and the medians for answers about the physical symptoms of younger and older respondents in Table 2 show that on average physical symptoms in our sample are more common at older respondents. Table 2 shows that the means for answers about the physical symptoms of younger and older respondents indicate that, on average, older respondents had the highest agreement with: I have headaches, migraines; I have lower back pain, shoulder pain; I often have the flu or virosis; I have increased heart rate; I have stomach aches; my blood pressure varies; I have indigestion; I have sweaty and cold hands; I have vertigo; I'm sweating.

On average higher agreement of younger respondents is achieved with the following statements describing physical symptoms: I am often tired, exhausted; my sleep cycle is messy.

The review of average ranks in Table 3 shows that significant differences in the physical symptoms of burnout exists between the groups. This is reflected in headaches,

migraines; messy sleep cycle; vertigo; sweating; sweaty and cold hands; blood pressure varies; flu or virosis; tiredness; stomach aches; increased heart rate; lower back pain, shoulder pain and in indigestion.

Table 4 presents the results of the Mann-Whitney U test for considering statistically significant differences in the physical symptoms of burnout among older and younger employees.

The results of the Mann-Whitney U test in Table 4 show that the differences are statistically significant ($p < 0.001$) at a 0.1% significance level in most (i.e. 67 %) variables of physical symptoms of burnout. These statements are: I have vertigo (tsi3); I'm sweating (tsi4); I have sweaty and cold hands (tsi5); My blood pressure varies (tsi6); I often have the flu or virosis (tsi7); I have stomach aches (tsi9); I have increased heart rate (tsi10); I have indigestion (tsi12).

Based on this result, we accepted hypothesis RH1: There are significant differences in the physical symptoms of burnout in the workplace between older (50 to 65 years) and younger (18 to 49 years) employees.

In the following tables we will present the results for the second research hypothesis.

Further, in Table 5, the arithmetic mean and the median of the age groups are shown. Table 6 presents the average ranks and sums of ranks for answers about the emotional symptoms of burnout of younger and older employees on which the Mann-Whitney U test is based. Table 7 presents statistically significant differences in emotional symptoms of burnout between younger and older employees.

The arithmetic means and the medians for answers about the emotional burnout of younger and older employees in Table 5 show that on average both of them are not emotional burnout. On average, younger employees are more tense than older employees.

The review of average ranks in Table 6 shows that significant differences in the emotional symptoms of burnout exist between the groups. This is reflected in depressive feelings, tension, panic, afraid of losing the job or not finishing the work on schedule, sadness, feeling of helplessness, everything seems meaningless, emotionally exhausted, exceedingly sensitive, quarrelsome and in anger.

Table 7 represents the results of the Mann-Whitney U test for considering statistically significant differences in the emotional symptoms of burnout among older and younger employees.

By using the Mann-Whitney U test, we verified whether the observed differences are statistically significant. Results of the Mann-Whitney U test in Table 7 show that the differences are statistically significant ($p < 0.001$) at a 0.1% significance level in most (i.e. 73 %) statements. These statements are: I am tense (csi2); I feel panic (csi3); I am afraid of losing the job or not finishing the work on schedule (csi4); I am sad (csi5); I have a feeling of helplessness (csi6); To me, everything seems meaningless

Table 1: Descriptive statistics for answers about the symptoms of burnout in the workplace

	N	Mean	Std. Deviation	Minimum	Maximum
tsi1: I have headaches, migraines.	400	3,36	,810	1	5
tsi2: My sleep cycle is messy.	399	3,47	,879	1	5
tsi3: I have vertigo.	400	1,68	,644	1	4
tsi4: I'm sweating	399	1,78	,696	1	4
tsi5: I have sweaty and cold hands.	398	1,84	,733	1	4
tsi6: My blood pressure varies.	399	1,88	,833	1	4
tsi7: I often have the flu or virosis.	399	2,88	,904	1	5
tsi8: I am often tired, exhausted.	400	3,53	,928	1	5
tsi9: I have stomach aches.	399	2,01	,845	1	4
tsi10: I have increased heart rate	400	2,13	,960	1	5
tsi11: I have lower back pain, shoulder pain.	398	3,24	1,084	1	5
tsi12: I have indigestion.	398	1,72	,693	1	5
csi1: I have depressive feelings.	400	2,60	,867	1	5
csi2: I am tense.	399	3,34	1,024	1	5
csi3: I feel panic	399	1,89	,725	1	5
csi4: I am afraid of losing the job or not finishing the work on schedule.	399	2,52	,896	1	5
csi5: I am sad.	400	2,11	,842	1	5
csi6: I have a feeling of helplessness.	400	1,86	,719	1	5
csi7: To me, everything seems meaningless.	399	1,79	,693	1	5
csi8: I am emotionally exhausted.	400	2,64	,899	1	5
csi9: I am exceedingly sensitive.	400	2,09	,816	1	5
csi10: I am quarrelsome.	400	2,12	,731	1	4
csi11: I feel anger.	400	2,10	,738	1	4
vsi1: I have attacks of rage and cry.	400	1,97	,705	1	4
vsi2: I avoid activities.	400	2,64	,885	1	5
vsi3: I have nightmares.	400	2,40	,885	1	5
vsi4: I have insomnia.	399	3,00	,999	1	5
vsi5: I have difficulties with concentration and memory.	399	1,87	,744	1	4
vsi6: I wish for solitude.	399	1,94	,768	1	5
vsi7: My working ability has declined.	399	2,23	,921	1	5
vsi8: I lack the will to work.	400	2,71	1,062	1	5
vsi9: I lack the will to socialise with co-workers.	399	2,65	1,018	1	5

Table 2: The arithmetic means and the medians for answers about the physical symptoms of younger and older employees

	18 to 49 years		50 to 65 years		Total	
	Mean	Median	Mean	Median	Mean	Median
tsi1: I have headaches, migraines.	3.32	3.00	3.38	4.00	3.36	3.00
tsi2: My sleep cycle is messy.	3.50	4.00	3.44	4.00	3.47	4.00
tsi3: I have vertigo.	1.29	1.00	1.97	2.00	1.68	2.00
tsi4: I'm sweating	1.53	1.00	1.97	2.00	1.78	2.00
tsi5: I have sweaty and cold hands.	1.61	1.00	2.02	2.00	1.84	2.00
tsi6: My blood pressure varies	1.58	1.00	2.11	2.00	1.88	2.00
tsi7: I often have the flu or virosis.	2.66	3.00	3.04	3.00	2.88	3.00
tsi8: I am often tired, exhausted.	3.60	4.00	3.47	4.00	3.53	4.00
tsi9: I have stomach aches.	1.70	1.00	2.25	2.00	2.01	2.00
tsi10: I have increased heart rate	1.79	1.00	2.40	2.00	2.13	2.00
tsi11: I have lower back pain, shoulder pain.	3.21	3.00	3.27	4.00	3.24	3.00
tsi12: I have indigestion.	1.31	1.00	2.03	2.00	1.72	2.00

(csi7); I am emotionally exhausted (csi8); I am exceedingly sensitive (csi9). Based on this results, we can answer the research question that there are statistically significant differences in the emotional symptoms of burnout between older and younger employees.

Based on the results, we accepted hypothesis RH2: There are significant differences in the emotional symptoms of burnout in the workplace between older (50 to 65 years) and younger (18 to 49 years) employees.

In the following tables we will present the results for the third research hypothesis.

In Table 8, the arithmetic mean and the median of the age groups are shown. Table 9 presents the average ranks and sums of ranks for answers about the behavioral symptoms of burnout of younger and older employees on which the Mann-Whitney U test is based. Table 10 presents statistically significant differences in behavioral symptoms of burnout between younger and older employees.

The arithmetic means and the medians for answers about the behavioural burnout of younger and older employees in Table 8 show that older respondents are more susceptible to behavioural symptoms of burnout than younger respondents. On average, higher values of agreement of older respondents is achieved with the following statements describing behavioural symptoms of burnout: I lack the will to socialise with co-workers; I lack the will to work; I avoid activities; my working ability has declined; I have nightmares. On average, older respondents are neither agree nor disagree with these statements.

On average, younger respondents have the next lowest symptoms of burnout: I have difficulties with concentration and memory; I wish for solitude and my working ability has declined, while the mean value indicates a higher burnout symptom of which is: I have insomnia.

The review of average ranks in Table 9 shows that significant differences in the behavioural symptoms of burnout exist between the groups. Which is reflected in attacks of rage and cry, avoid activities, nightmares, insomnia, difficulties with concentration and memory, wish for solitude, declined working ability, lack will to work, lack will to socialise with co-workers.

Table 10 represents the results of the Mann-Whitney U test for considering statistically significant differences in the behavioral symptoms of burnout among older and younger employees.

The results of the Mann-Whitney U test in Table 10 shows that differences are statistically significant ($p < 0.001$) at 0.1% significance level in most (i.e. 89 %) variables of behavioural symptoms of burnout. These statements are: I have attacks of rage and cry (vsi1); I avoid activities (vsi2); I have nightmares (vsi3); I have difficulties with concentration and memory (vsi5); I wish for solitude (vsi6); my working ability has declined (vsi7); I lack the will to work (vsi8); I lack the will to socialise with co-workers (vsi9).

Based on this results, we accepted hypothesis RH3: There are significant differences in the behavioral symptoms of burnout in the workplace between older (50 to 65 years) and younger (18 to 49 years) employees.

Table 3: Average ranks and sums of ranks for answers about the physical symptoms of burnout of younger and older employees

		N	Mean Rank	Sum of Ranks
tsi1: I have headaches, migraines.	18 to 49 years	174	192.56	33505.50
	50 to 65 years	226	206.61	46694.50
	<i>Total</i>	400		
tsi2: My sleep cycle is messy.	18 to 49 years	173	200.97	34768.00
	50 to 65 years	226	199.26	45032.00
	<i>Total</i>	399		
tsi3: I have vertigo.	18 to 49 years	174	132.59	23071.00
	50 to 65 years	226	252.78	57129.00
	<i>Total</i>	400		
tsi4: I'm sweating.	18 to 49 years	173	154.16	26670.00
	50 to 65 years	226	235.09	53130.00
	<i>Total</i>	399		
tsi5: I have sweaty and cold hands.	18 to 49 years	174	159.14	27690.50
	50 to 65 years	224	230.85	51710.50
	<i>Total</i>	398		
tsi6: My blood pressure varies.	18 to 49 years	174	151.88	26426.50
	50 to 65 years	225	237.22	53373.50
	<i>Total</i>	399		
tsi7: I often have the flu or virosis.	18 to 49 years	173	177.82	30763.50
	50 to 65 years	226	216.98	49036.50
	<i>Total</i>	399		
tsi8: I am often tired, exhausted.	18 to 49 years	174	205.67	35787.00
	50 to 65 years	226	196.52	44413.00
	<i>Total</i>	400		
tsi9: I have stomach aches.	18 to 49 years	174	156.29	27195.00
	50 do 65 years	225	233.80	52605.00
	<i>Total</i>	399		
tsi10: I have increased heart rate.	18 to 49 years	174	156.61	27250.50
	50 to 65 years	226	234.29	52949.50
	<i>Total</i>	400		
tsi11: I have lower back pain, shoulder pain.	18 to 49 years	173	196.78	34042.50
	50 to 65 years	225	201.59	45358.50
	<i>Total</i>	398		
tsi12: I have indigestion.	18 to 49 years	174	131.62	22902.50
	50 to 65 years	224	252.23	56498.50
	<i>Total</i>	398		

Table 4: Statistically significant differences in physical symptoms of burnout between younger and older employees

	Mann-Whitney U	Asymp. Sig. (2-tailed)
tsi1: I have headaches, migraines.	18280.500	.195
tsi2: My sleep cycle is messy.	19381.000	.874
tsi3: I have vertigo.	7846.000	.000
tsi4: I'm sweating	11619.000	.000
tsi5: I have sweaty and cold hands.	12465.500	.000
tsi6: My blood pressure varies.	11201.500	.000
tsi7: I often have the flu or virosis.	15712.500	.000
tsi8: I am often tired, exhausted.	18762.000	.404
tsi9: I have stomach aches.	11970.000	.000
tsi10: I have increased heart rate.	12025.500	.000
tsi11: I have lower back pain, shoulder pain.	18991.500	.667
tsi12: I have indigestion.	7677.500	.000

Table 5: The arithmetic means and the medians for answers about the emotional symptoms of burnout of younger and older employees

	18 to 49 years		50 to 65 years		Total	
	Mean	Median	Mean	Median	Mean	Median
csi1: I have depressive feelings.	2.60	3.00	2.60	2.00	2.60	3.00
csi2: I am tense.	3.76	4.00	3.01	3.00	3.34	3.00
csi3: I feel panic	1.68	1.00	2.05	2.00	1.89	2.00
csi4: I am afraid of losing the job or not finishing the work on schedule.	2.98	3.00	2.16	2.00	2.52	2.00
csi5: I am sad.	1.82	2.00	2.34	2.00	2.11	2.00
csi6: I have a feeling of helplessness.	1.51	1.00	2.13	2.00	1.86	2.00
csi7: To me, everything seems meaningless.	1.36	1.00	2.12	2.00	1.79	2.00
csi8: I am emotionally exhausted.	2.70	3.00	2.59	2.00	2.64	3.00
csi9: I am exceedingly sensitive.	1.87	2.00	2.26	2.00	2.09	2.00
csi10: I am quarrelsome.	2.16	2.00	2.09	2.00	2.12	2.00
csi11: I feel anger.	2.12	2.00	2.08	2.00	2.10	2.00

6 Discussion and conclusion

We answered the research question with the results of the Mann-Whitney test that show: there are statistically significant differences in the burnout symptoms in the workplace between younger and older employees in Slovenian companies.

The results of this research show that on average, older employees are more susceptible to physical symptoms

of burnout than younger employees. This is reflected in headaches and migraines, lower back pain and shoulder pain, flu or virosis, increased heart rate, stomach aches, blood pressure varies, indigestion, sweaty and cold hands, vertigo and sweating. Thus, long-term health problems and chronic diseases increase with age. Older employees need urgent adjustments at work due to their health problems to prevent the risks of early retirement and work disability. Lower physical capacity is mainly a problem at jobs

Table 6: Average ranks and sums of ranks for answers about the emotional symptoms of burnout of younger and older employees

		N	Mean Rank	Sum of Ranks
csi1: I have depressive feelings.	18 to 49 years	174	206.50	35931.00
	50 to 65 years	226	195.88	44269.00
	<i>Total</i>	<i>400</i>		
csi2: I am tense.	18 to 49 years	174	246.51	42892.50
	50 to 65 years	225	164.03	36907.50
	<i>Total</i>	<i>399</i>		
csi3: I feel panic.	18 to 49 years	174	160.07	27851.50
	50 to 65 years	225	230.88	51948.50
	<i>Total</i>	<i>399</i>		
csi4: I am afraid of losing the job or not finishing the work on schedule.	18 to 49 years	174	258.16	44920.00
	50 to 65 years	225	155.02	34880.00
	<i>Total</i>	<i>399</i>		
csi5: I am sad.	18 to 49 years	174	162.17	28218.00
	50 to 65 years	226	230.01	51982.00
	<i>Total</i>	<i>400</i>		
csi6: I have a feeling of helplessness.	18 to 49 years	174	143.78	25018.00
	50 to 65 years	226	244.17	55182.00
	<i>Total</i>	<i>400</i>		
csi7: To me, everything seems meaningless.	18 to 49 years	174	129.07	22458.50
	50 to 65 years	225	254.85	57341.50
	<i>Total</i>	<i>399</i>		
csi8: I am emotionally exhausted.	18 to 49 years	174	213.53	37154.00
	50 to 65 years	226	190.47	43046.00
	<i>Total</i>	<i>400</i>		
csi9: I am exceedingly sensitive.	18 to 49 years	174	167.86	29207.50
	50 to 65 years	226	225.63	50992.50
	<i>Total</i>	<i>400</i>		
csi10: I am quarrelsome.	18 to 49 years	174	207.75	36148.50
	50 to 65 years	226	194.92	44051.50
	<i>Total</i>	<i>400</i>		
csi11: I feel anger.	18 to 49 years	174	204.08	35510.50
	50 to 65 years	226	197.74	44689.50
	<i>Total</i>	<i>400</i>		

Table 7: Statistically significant differences in the emotional symptoms of burnout between younger and older employees

	Mann-Whitney U	Asymp. Sig. (2-tailed)
csi1: I have depressive feelings.	18618.000	.334
csi2: I am tense.	11482.500	.000
csi3: I feel panic.	12626.500	.000
csi4: I am afraid of losing the job or not finishing the work on schedule.	9455.000	.000
csi5: I am sad.	12993.000	.000
csi6: I have a feeling of helplessness.	9793.000	.000
csi7: To me, everything seems meaningless.	7233.500	.000
csi8: I am emotionally exhausted.	17395.000	.037
csi9: I am exceedingly sensitive.	13982.500	.000
csi10: I am quarrelsome.	18400.500	.230
csi11: I feel anger.	19038.500	.550

Table 8: The arithmetic means and the medians for answers about the behavioral symptoms of burnout of younger and older employees

	Mann-Whitney U	Asymp. Sig. (2-tailed)
csi1: I have depressive feelings.	18618.000	.334
csi2: I am tense.	11482.500	.000
csi3: I feel panic.	12626.500	.000
csi4: I am afraid of losing the job or not finishing the work on schedule.	9455.000	.000
csi5: I am sad.	12993.000	.000
csi6: I have a feeling of helplessness.	9793.000	.000
csi7: To me, everything seems meaningless.	7233.500	.000
csi8: I am emotionally exhausted.	17395.000	.037
csi9: I am exceedingly sensitive.	13982.500	.000
csi10: I am quarrelsome.	18400.500	.230
csi11: I feel anger.	19038.500	.550

with high physical workload. Satisfactory employment and friendly working environment can help age-diverse employees to avoid sickness and physical deterioration, secure good cognitive and physical capacity and promote positive and active attitudes towards life.

Although the results show that older employees on average disagree with the statements describing emotional burnout, average values of their agreement are higher in the case of feeling panic, being said, having a feeling of helplessness, meaningless and being exceedingly sensitive. Physical symptoms and emotional symptoms of burnout may be related to discriminatory and stereotyped treatment of older employees in the workplace. Older employees often have difficulties in the case of educa-

tion, training, remuneration, promotion within the workplace since they are treated differently than younger employees. Usually, employers only see obligation in older employees rather than using them as a valuable resource since they have a lot of knowledge and experience. Age discrimination, prejudices and stereotypes about age by the employers have a significant negative impact on the working environment, well-being and state of health of the older employees. Younger employees often suffer from an imbalance between work and private life; therefore, they often experience stress or fail to complete their work on schedule. Younger employees are faced with tension within a workplace or when carrying out work tasks, they do not have so much professional experience and expertise as

Table 9: Average ranks and sums of ranks for answers about the behavioral symptoms of burnout of younger and older employees

		N	Mean Rank	Sum of Ranks
vsi1: I have attacks of rage and cry.	18 to 49 years	174	172.25	29972.00
	50 to 65 years	226	222.25	50228.00
	<i>Total</i>	<i>400</i>		
vsi2: I avoid activities.	18 to 49 years	174	175.30	30503.00
	50 to 65 years	226	219.90	49697.00
	<i>Total</i>	<i>400</i>		
vsi3: I have nightmares.	18 to 49 years	174	175.89	30604.50
	50 to 65 years	226	219.45	49595.50
	<i>Total</i>	<i>400</i>		
vsi4: I have insomnia.	18 to 49 years	173	213.92	37007.50
	50 to 65 years	226	189.35	42792.50
	<i>Total</i>	<i>399</i>		
vsi5: I have difficulties with concentration and memory.	18 to 49 years	174	135.31	23543.50
	50 to 65 years	225	250.03	56256.50
	<i>Total</i>	<i>399</i>		
vsi6: I wish for solitude.	18 to 49 years	173	139.18	24078.50
	50 to 65 years	226	246.56	55721.50
	<i>Total</i>	<i>399</i>		
vsi7: My working ability has declined.	18 to 49 years	174	134.99	23488.50
	50 to 65 years	225	250.27	56311.50
	<i>Total</i>	<i>399</i>		
vsi8: I lack the will to work.	18 to 49 years	174	163.64	28474.00
	50 to 65 years	226	228.88	51726.00
	<i>Total</i>	<i>400</i>		
vsi9: I lack the will to socialise with co-workers.	18 to 49 years	174	150.57	26198.50
	50 to 65 years	225	238.23	53601.50
	<i>Total</i>	<i>399</i>		

older employees which cause additional strain resulting in emotional symptoms of burnout.

On average, older and younger employees are not exposed to behavioural symptoms of burnout. But on average, older employees neither agree nor disagree with the following: I lack the will to socialise with co-workers, I lack the will to work, I avoid activities, my working ability has declined, I have nightmares. Both, older and younger employees on average neither agree nor disagree with: I have insomnia. The same as physical and emotional symptoms of burnout in Slovenian companies, so are behavioural symptoms also caused by discrimination and stereotypes of age-diverse employees, workload in

the workplace which includes long hours, work overload, time pressure, lots of job demands, difficult or complex tasks, over-demanding and inflexible work schedules, lack of breaks, lack of control over aspects of the job, lack of involvement in decision making, lack of variety and poor physical work conditions. Causes for symptoms of burnout can also result from lack of communication in the workplace and poor management. Lack of communication in the workplace can occur between management and employees and also between individual employees. Poor communication often leads to conflict, which can harm an organization. Poor management is reflected in an aggressive management style, bullying, lack of support of em-

Table 10: Statistically significant differences in the behavioral symptoms of burnout between younger and older employees

	Mann-Whitney U	Asymp. Sig. (2-tailed)
vsi1: I have attacks of rage and cry.	14747.000	.000
vsi2: I avoid activities.	15278.000	.000
vsi3: I have nightmares.	15379.500	.000
vsi4: I have insomnia.	17141.500	.028
vsi5: I have difficulties with concentration and memory.	8318.500	.000
vsi6: I wish for solitude.	9027.500	.000
vsi7: My working ability has declined.	8263.500	.000
vsi8: I lack the will to work.	13249.000	.000
vsi9: I lack the will to socialise with co-workers.	10973.500	.000

ployees from manager, lack of understanding and leadership, manager forever finding fault and poor relationships in the workplace.

The consequences of symptoms of burnout for the organization are high absenteeism, high presentism, high fluctuation, poor performance and productivity, increased ill-health, poor motivation and satisfaction in the workplace.

Therefore managers play an important role by reducing the workload on employees in the workplace. Managers should be aware of age of employees and their diverse needs. Slovenian companies should provide for their employees work hour flexibility (for example reduced hours, part-time work, job sharing), work schedule flexibility (for example flex schedule, annualized hours, compressed work week), flexibility of place (for example remote work), promoting health and a healthy lifestyle, promoting awareness of stress, stressors and solutions, promoting well-being and preventing stress in the workplace, managing stress and burnout in the workplace, relaxation training. Working conditions must be adapted to all employees and workplaces should be developed according to age diversity of employees and the workload adapted to all age groups. Organizational factors tend to play an important role in employees burnout and well-being. Therefore, Slovenian organizations should actively try to detect such factors and take corrective actions for the better health and well-being of the employee. It is important to know that job characteristics are not the same for age-diverse workers. In today's workplace, worker age would appear to be such an important individual difference. Managing diversity requires a strategic approach to manage people at work and is an important part of human resource management. From this perspective, this research shows the importance of well-being, health and friendly work environment for age-diverse employees and elimination of burnout symptoms in the Slovenian workplace. Age-diverse employees are faced with different symptoms of burnout when car-

rying out their work. Therefore, this research adds to the body of knowledge by pointing out the relationships between the age and the burnout symptoms which have not been studied enough, because the role of age in job design and implementation of work have largely been ignored.

7 Limitations and future research opportunities

Our study is limited to the field of older and younger employees in Slovenian place. Limitation of this research is also reflected in the literature, because there is not much literature that comprehensively and systematically bases on theoretical knowledge and studies examining the management of older employees and management of age-diverse employees. Therefore, our proposal for further research is to examine the differences in burnout and coping with burnout in the workplace among younger and older employees between different countries. Further research possibilities include also the study relating to examination of the different measures that have been introduced in different countries for prevention of burnout in the workplace and their performance for an organization. Future studies could also investigate the effects of other antecedents (drivers) which would influence burnout.

Literature

Ahola, K., Honkonen, T., Isometsa, E., Kalimo, R., Nykyri, E., & Koskinen, S. (2006). Burnout in the General Population: Results from the Finnish health 2000 study. *Social Psychiatry and Psychiatric Epidemiology*, 41 (1), 11-17. In Hertel G., van der Heijden B.I. J.M., de Lange A. H., & Deller J. (2013b). Facilitating Age Diversity in Organizations – Part I: Challenging Popular Misbeliefs. *Journal of Managerial Psychology*, 28 (7/8), 729-740, <http://dx.doi.org/10.1108/JMP->

07-2013-0233

- Ambrose, J., & Norman Benson Wier, C.S. (2010). Healthy Lifestyle as a Coping Mechanism for Role Stress in Public Accounting. *Behavioral Research in Accounting*, 22, 21-41, <http://dx.doi.org/10.2308/bria.2010.22.1.21>
- Ashikali T., & Groeneveld S. (2015). Diversity Management for All? An Empirical Analysis of Diversity Management Outcomes Across Groups. *Personnel Review*, 44 (5), 757-780, <http://dx.doi.org/10.1108/PR-10-2014-0216>
- Ashill, N. J., Rod, M., Thirkell, P., & Carruthers, J. (2009). Job Resourcefulness, Symptoms of Burnout and Service Recovery Performance: An Examination of Call Centre Frontline Employees. *Journal of Services Marketing*, 23 (5), 338-350, <http://dx.doi.org/10.1108/08876040910973440>
- Bastič, M. (2006). *Metode raziskovanja [Research Methods]*. Ekonomsko-poslovna fakulteta, Univerza v Mariboru.
- Beaver, G., & Hutchings, K. (2005). Training and Developing an Age Diverse Workforce in SMEs: The need for a strategic approach. *Education + Training*, 47(8/9), 592-604, <http://dx.doi.org/10.1108/00400910510633134>
- Beata A. B., & Izabela W., A. M. D. (2014). Fatigue and Burnout in Police Officers: The mediating role of emotions. *Policing: An International Journal of Police Strategies & Management*, 37 (3), 665-680, <http://dx.doi.org/10.1108/PIJPSM-10-2013-0105>
- Brandy K. L., & Cox, G. O. (2002). *Management of Occupational Stress*. NY: Macmillan Publishers. In Babajide, E. O., & Akintayo, I. (2011). Occupational Stress, Psychological Well Being and Workers Behavior in Manufacturing Industries in South-West Nigeria. *International Journal of Management & Innovation*, 3 (1), 32-42, <http://trove.nla.gov.au/version/172250455>
- Burke R. J., & Greenglass E. R. (2001). *Hospital Restructuring, Work-family Conflict and Psychological Burnout Among Nursing Staff*. Psychol, Health. In Maslach, C., Schaufeli, W.B., & Leiter, M.P. (2001). Job Burnout. *Annual Review of Psychology*, 52, 397-422, <https://www.ncbi.nlm.nih.gov/pubmed/22804500>
- Ellrich, K. (2016). Burnout and Violent Victimization in Police Officers: A dual process model. *Policing: An International Journal of Police Strategies & Management*, 39 (4), 652-666, <http://dx.doi.org/10.1108/PIJPSM-10-2015-0125>
- Embriaco, N., Papazian, L., Kentish-Barnes, N., Pochard, F., & Azoulay, E. (2007). Burnout Syndrome among Critical Care Healthcare Workers. *Current opinion in critical care*, 13 (5), 482-488, <https://www.ncbi.nlm.nih.gov/pubmed/17762223>
- Fairbrother, K., & Warn, J. (2003). Workplace Dimensions, Stress and Job Satisfaction. *Journal of Managerial Psychology*, 18 (1), 8-21, <http://dx.doi.org/10.1108/02683940310459565>
- Fogarty, T. J., Singh, J., Rhoads, G. K., & Moore R. K. (2000). Antecedents and Consequences of Burnout in Accounting: Beyond the role stress model. *Behavioral Research in Accounting*, 12, 31-68, <http://ssrn.com/abstract=37387>
- George, E., & Zakkariya K.A. (2015). Job Related Stress and Job Satisfaction: A comparative study among bank employees. *Journal of Management Development*, 34 (3), 316-329, <http://dx.doi.org/10.1108/JMD-07-2013-0097>
- Grebner, S., Elfering, A., & Semmer, N., K. (2010). The Success Resource Model of Job Stress. In: Perrewé, Pamela L., & Ganster, Daniel C. (eds.) *New Developments in Theoretical and Conceptual Approaches to Job Stress. Research in Occupational Stress and Well-being*, 8, 61-108. Retrieved from https://books.google.si/books/about/New_Developments_in_Theoretical_and_Conc.html?id=XrJsbnrFbY8C&redir_esc=y
- Halkos, G., & Bousinakis, D. (2010). The Effect of Stress and Satisfaction on Productivity. *International Journal of Productivity and Performance Management*, 59 (5), 415-431, <http://dx.doi.org/10.1108/17410401011052869>
- Hansson, R.O., Robson, S.M., & Limas, M.J. (2001). Stress and Coping among Older Workers. *Work*, 17 (3), 247-56, <https://www.ncbi.nlm.nih.gov/pubmed/12441603>
- Henkens, K., & Leenders, M. (2010). Burnout and Older Workers Intentions to Retire. *International Journal of Manpower*, 31 (3), 306-321, <http://dx.doi.org/10.1108/01437721011050594>
- Hertel, G., van der Heijden, B.I.J.M., de Lange, A.H., & Deller J. (2013b). Facilitating Age Diversity in Organizations – Part I: Challenging Popular Misbeliefs. *Journal of Managerial Psychology*, 28 (7/8), 729-740, <http://dx.doi.org/10.1108/JMP-07-2013-0233>
- Hertel, G., van der Heijden, B.I.J.M., de Lange, A.H., & Deller J. (2013a). Facilitating Age Diversity in Organizations – Part II: Managing Perceptions and Interactions. *Journal of Managerial Psychology*, 28 (7/8), 857-866, <http://dx.doi.org/10.1108/JMP-07-2013-0234>
- Kristensen, T.S., Borritz, M., Villadsen, E., & Christensen, K.B. (2005). The Copenhagen Burnout Inventory: A New Tool for the Assessment of Burnout. In Robinson, L.D., Megee, C., & Caputi, P. (2016). Burnout and the Work-family Interface: A Two-wave Study of sole and partnered working mothers. *Career Development International*, 21 (1), 31-44, <http://dx.doi.org/10.1108/CDI-06-2015-0085>
- Ilmarinen, J. (2001). Aging Workers. *Occupational and Environmental Medicine*, 58 (8), 546-552, <https://www.ncbi.nlm.nih.gov/pubmed/11452053>
- Intiyas Utami, S. C., & Supriyadi, G. M. (2013). Flexible Working Arrangement and Stress Management Training in Mitigating Auditor's Burnout: An Experimental

- Study. *Accounting & Taxation*, 5 (1), 97-113, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2270892
- Leiter, M.P., Frizzell, C., Harvie, P., & Churchill, L. (2001). Abusive Interactions and Burnout: Examining Occupation, Gender, and the Mediating Role of Community. *Psychology and Health*, 16 (5), 547-63, <http://dx.doi.org/10.1080/08870440108405526>
- Lester, J. M., & Brower K. L. (2001). *Industrial psychology*. NY: Macmillan Press Ltd.
- Malik, O.F., Waheed, A., & Malik, K.U.R. (2010). The Mediating Effects of Job Satisfaction on Role Stressors and Affective Commitment. *International Journal of Business and Management*, 5 (11), 223-235, <http://dx.doi.org/10.5539/ijbm.v5n11p>
- Maslach, C., Schaufeli, W.B., & Leiter, M.P. (2001). Job Burnout. *Annual Review of Psychology*, 52, 397-422. Retrieved from <http://www.wilmarschaufeli.nl/publications/Schaufeli/154.pdf>
- Michael, O., Court, D., & Petal, P. (2009). Job Stress and Organizational Commitment among Mentoring Coordinators. *International Journal of Educational Management*, 23 (3), 266-288, <http://dx.doi.org/10.1108/09513540910941766>
- Moore, J. (2000). One Road to Turnover: An Examination of Work Exhaustion in Technology Professionals. *MIS Quarterly*, 24 (1), 141-168, <https://www.jstor.org/stable/3250982>
- Morgeson, F.P., & Humphrey, S.E. (2006). The Work Design Questionnaire (WDQ): Developing and Validating a Comprehensive Measure for Assessing Job Design and the Nature of Work. *Journal of Applied Psychology*, 91 (6), 1321-1339, <https://www.ncbi.nlm.nih.gov/pubmed/17100487>
- Mosadeghrad, A.M. (2014). Occupational Stress and its Consequences: Implications for Health Policy and Management. *Leadership in Health Services*, 27 (3), 224-239, <http://dx.doi.org/10.1108/LHS-07-2013-0032>
- Nahrgang, J. D., Morgeson, F. P., & Hofmann, D.A. (2011). Safety at Work: A Meta-analytic Investigation of the Link Between Job Demands, Job Resources, Burnout, Engagement, and Safety Outcomes. *Journal of Applied Psychology*, 96 (1), 71-94, <https://www.ncbi.nlm.nih.gov/pubmed/21171732>
- Naegele, G., & Walker, A. (2006). *A Guide to Good Practice in Age Management*. European Foundation for the Improvement of Living and Working Conditions, Office for Official Publications of the European Communities, Luxembourg, 1-35. Retrieved from <http://www.ageingatwork.eu/resources/a-guide-to-good-practice-in-age-management.pdf>
- Parkes, H. L. (2002). *Human health and management*. London: Macmillan Press Ltd.
- Walker, A., & Taylor, P. (1998). Combating Age Barriers in Employment: a European Portfolio of Good Practice, Office for Official Publications of the European Communities, Luxembourg. In Principi A., Fabbietti P., & Lamura G. (2015). Perceived Qualities of Older Workers and Age Management in Companies: Does the Age of HR Managers Matter? *Personnel Review*, 44 (5), 801-820, <http://dx.doi.org/10.1108/PR-09-2013-0158>
- Pruessner, J. C., Hellhammer, D. H., & Kirschbaum, C. (1999). Burnout, Perceived Stress, and Cortisol Responses to Awakening. *Psychosomatic medicine*, 61 (2), 197-204, <https://www.ncbi.nlm.nih.gov/pubmed/10204973>
- Rumbles, S., & Rees G. (2013). Continuous Changes, Organizational Burnout and the Implications for HRD. *Industrial and Commercial Training*, 45 (4), pp. 236-242, <http://dx.doi.org/10.1108/00197851311323538>
- Shirom, A. (1989). Burnout in Work Organizations. *International Review of Industrial and Organizational Psychology*. New York: Wiley,
- Suner-Soler, R., Grau-Martina, A., Flichtentrei, D., Prats M., Braga F., Font-Mayolas S., & Gras, M.E. (2014). The Consequences of Burnout Syndrome among Healthcare Professionals in Spain and Spanish speaking Latin American countries. *Burnout and Health-Care*, 1 (2), pp. 82-89, <http://dx.doi.org/10.1016/j.burn.2014.07.004>
- Swider, R.B.W., & Zimmerman, Y.D. (2010). Born to Burnout: A Meta-analytic Path Model of Personality, Job Burnout, and Work Outcomes. *Journal of Vocational Behavior*, 76, 487-506, <http://dx.doi.org/10.1016/j.jvb.2010.01.003>
- Truxillo, D.M., Cadiz, D.M., Rineer, J.R., Zaniboni, S., & Fraccaroli, F. (2012). A Lifespan Perspective on Job Design: Fitting the Worker to the Job to Promote Job Satisfaction, Engagement, and Performance. *Organizational Psychology Review*, 2 (4), 340-360. Retrieved from <http://journals.sagepub.com/doi/pdf/10.1177/2041386612454043>
- Yavas, U., Babakus, E., & Karatepe, O.M. (2013). Does Hope Moderate the Impact of Job Burnout on Frontline Bank Employees In-role and Extra-role Performances? *International Journal of Bank Marketing*, 31 (1), 56-70, <http://dx.doi.org/10.1108/02652321311292056>
- Yunus, M.J., & Mahajar, A. (2009). The Empirical Study of Burnout among Nurses of Publichospitals in the Northern Part of Malaysia. *Journal of International Management Studies*, 4 (3), 1-9. Retrieved from <http://citeseerx.ist.psu.edu/viewdoc/download;jsessionid=B656EC2B7DF348BBD4E6C3EADA2E7DF7?-doi=10.1.1.383.8225&rep=rep1&type=pdf>
- Zaniboni, S., Truxillo, D. M., Fraccaroli, F., McCune, E. A., & Bertolino, M. (2014). Who Benefits from More Tasks? Older Versus Younger Workers. *Managerial Psychology*, 29 (5), 523-508, <http://dx.doi.org/10.1108/JMP-12-2012-0381>

Maja Rožman studied at the Faculty of Economics and Business at the University of Maribor, and successfully graduated in Finance and Banking in 2011. In 2013, she acquired her master's degree and is currently working on her Ph.D. at the Faculty of Economics and Business in Maribor at the Department of Management and Organization.

Sonja Treven, Ph.D., Professor is employed at the School of Business and Economics at the University of Maribor, Slovenia. She researches in the field of human resource management and organisational behaviour. She is the Head of the Department of Management and Organisation. She is the author of 3 books and co-author of more than 20 books as well as more than eighty scientific articles. She participated in more than 100 domestic and international conferences with her papers as an author or co-author.

Vesna Čančer holds a Ph.D. in Economic and Business Sciences, and is an associate professor of quantitative methods in Business Science at the University of Maribor's Faculty of Economics and Business (UM FEB). Her research focuses primarily on decision analysis, creative problem solving, and research methods, together with their interdisciplinary applications. She is head of the Department of Quantitative Economic Analysis at UM FEB and editor-in-chief of a journal of contemporary issues in economics and business entitled *Naše gospodarstvo / Our Economy*.

Marijan Cingula, Ph.D., Professor is employed at the Faculty of Economics and Business Zagreb at the University of Zagreb in Croatia for the fields of organisational restructuring, business strategy as well as corporate management. He was the Head of the Department of organisation at the Faculty of organisation and informatics in Varaždin for some years. He is the author/coauthor of some books, manuals and great number of scientific papers. He also participated in many international and domestic conferences with his papers.

Izgorelost starejših in mlajših zaposlenih - primer Slovenije

Ozadje in namen: Ljudje preživijo velik del svojega življenja na delovnem mestu, vendar je vloga starosti pri oblikovanju delovnih mest in izvajanju dela v veliki meri prezrta. Posledice se lahko odražajo v stresu in različnih simptomih izgorelosti. Tako se starostni raznoliki zaposleni soočajo z različnimi simptomi izgorelosti in stresom pri opravljanju njihovega dela. Glavni cilj prispevka je predstaviti izgorevanje starejših zaposlenih v primerjavi z mlajšimi zaposlenimi v slovenskih podjetjih.

Zasnova / metodologija / pristop: Prispevek temelji na raziskavi med dvema starostnima skupinama, in sicer mlajših zaposlenih, ki so bili razvrščeni v skupino pod 50 let in starejših zaposlenih, ki so bili razvrščeni v skupino nad 50 let. Kolmogorov-Smirnov in Shapiro-Wilk test je pokazal, da podatki niso normalno porazdeljeni, zato smo uporabili ne-parametrični Mann-Whitney U test za preverjanje razlik v telesnih, čustvenih in vedenjskih simptomih izgorelosti na delovnem mestu med obema skupinama.

Rezultati: Rezultati kažejo, da obstajajo statistično značilne razlike v veliki večini spremenljivk, ki opisujejo fizične, čustvene in vedenjske simptome izgorelosti na delovnem mestu med mlajšimi in starejšimi zaposlenimi v slovenskih podjetjih.

Zaključek: Dobro počutje na delovnem mestu starostno različnih zaposlenih je ključnega pomena za dolgoročno uspešnost organizacije. Managerji in delodajalci morajo izvajati ustrezne ukrepe za zmanjšanje izgorevanja, kot tudi, da prispevajo k dobremu počutju zaposlenih in boljše delovanje na delovnem mestu.

Ključne besede: *Fizični simptomi izgorelosti, čustveni simptomi izgorelosti, vedenjski simptomi izgorelosti, zaposleni, upravljanje s človeškimi viri*

DOI: 10.1515/orga-2017-0001

Analysis of Expatriation Process in a Slovenian Company

Rok Pintar¹, Jorge Tiago Martins², Mojca Bernik¹

¹ University of Maribor, Faculty of Organizational Sciences, Kidričeva cesta 55a, 4000 Kranj, Slovenia
rok.pintar@fov.uni-mb.si, mojca.bernik@fov.uni-mb.si

² Information School, The University of Sheffield, UK
jorge.martins@sheffield.ac.uk

Background and Purpose: The multinational companies require different approach of human resource management to achieve their goals. The reason is in employees who are working abroad, so-called expatriates. The purpose of the research is to investigate perceptions and experience of the expatriates working in one of the Slovenian multinational company.

Design/Methodology/Approach: The online survey was performed among all expatriates working for the pharmaceutical company. The questionnaire was randomly sent and delivered in an electronic form, structured in an online program named 1ka (<https://www.1ka.si>). A total of all 12 questionnaires were completed fully and properly.

Results: Results indicate that there are several reasons that expatriates went to work abroad, but none of them did not completely fulfilled the expectations of the expatriates. There are no differences between those expatriates who are working abroad up to 12 months and those who are working more than 12 months in their fulfilment of expectations working abroad for this company.

Conclusion: Based on the findings, the study shows the expatriates importance factors for their contribution of working abroad for the company and fulfilment of their expectations. The results are useful for the employees that will be in the future involved in the expatriation process in this company.

Keywords: *expatriation; international career; knowledge transfer, international HRM, MNCs*

1 Introduction

The organization must be aware of how important is to select suitable employees for the operation of working abroad. Only such candidates will be able to conduct their activities in an environment which is not the same as their environment at home. For modification of expatriate assignments, companies have more options in terms of identifying and selecting expatriates (Collings, Scullion and Morley, 2007). In the multinational company (MNC) where we conducted the study are very precautionous when selecting candidate for their expatriation process and have a well-organized and developed international human resource management. Expatriation basically means sending company employees to another country to work and perform duties (Harvey and Kiessling, 2004). Successful organizations and companies recognize their employees as

the most important source of competitive advantage (Zupan and Kaše, 2007), and human resource management (HRM) is the one responsible for realizing this. Global MNCs are increasingly aware that efficient human resources management provides the profitability and success of most business operations (Morley and Collings, 2004). In the international human resource management (HRM) literature, expatriation is accorded significant status since it is seen as a one of the key contributors to company performance and development (Cerdina and Brewster, 2014). In most organizations have international operations consistent with the strategic plan of HRM. International operations represent an important strategic area for all MNCs, and therefore expatriate employees are the key players in the local and global business environment (Schiuma, Bourne and Harris, 2006). International operation defined by the company is directly linked to the success of an ex-

patriate employee and is a process of integration of different cultures (Tušar, Žnidaršič and Miglič, 2016). Such employees with their career development contribute to business success of organizations. The strategic purpose of international operations is to evolve effective knowledge of management and to promote the development and existence of global managers. Such managers can use their experience and knowledge to contribute to a long-term success of the organization and provide a safe and profitable business environment. Multinational corporations (MNCs) today have recognized the critical role that human resources play in global competitiveness (Lin, Lu and Lin, 2012). International operations enable employees to acquire valuable international skills that are useful for the development of business strategies of the company. With the influence of globalisation continuing to expand in today's business environment, many organizations increasingly rely on expatriates to conduct business abroad (Huff, Song and Gresch, 2014). Our analysis and our examples are based on expatriates assigned abroad by the analysed company.

Organizations and companies use expatriation (Hocking, Brown and Harzing, 2004): (1) to provide skills in a market where they are hard to find, (2) to develop the organization through control and coordination, and (3) to create learning amongst expatriates that will benefit the firm. For reason one, the company's priority is to fill positions, leaving no room for consideration of individuals' careers; the second reason is about imposing central control, with the same effects, or about developing co-ordination through global mind-sets in the organization, which may involve changing minds at headquarters as well as in the subsidiaries, and would be include career considerations; and reason three, is to develop individual careers (Cerdin, 2008). Expatriates employees bring benefits to MNCs; improving control and reliability, transfer of technical skills, attaining expert knowledge, the possibility of personal and career development, etc. (Connelly, Hitt, DeNisi and Ireland, 2007), and are also the critical connectors of the home organization with branch offices abroad (Riusala and Suutari, 2004).

Expatriate adjustment, effectiveness and performance while on assignment had been examined frequently since this type of conceptual work appeared (Black, Mendenhall and Oddou, 1991). A valuable aspect of expatriate development is the expatriation experience for employees. The global-assignment-success cycle can develop successful employees within the organization assuming that (1) they have been selected effectively, (2) they use their time abroad to develop their competencies and (3) they return successfully to their organization (Stroh, Black, Mendenhall and Gregersen, 2005). Expatriation is nearly always a success for those employees who go abroad, but they often leave the company upon return (Suutari and Brewster, 2003). Therefore, expatriation has to be perceived from the outset in overall career development of employees in

a company, within a broader logic of HRM, the chance of expatriate management leading to satisfactory results for both the organization and the employees is higher (Cerdin and Brewster, 2014).

The decision to leave home and familiar environment and search for an expatriate job is a disruptive, even momentous choice (Tharenou, 2008). Yet companies nowadays increasingly rely on their employees to even don't hesitate and take the offered job position, regardless to their opinion. Their purpose is to develop managers with global competencies that would represent the organization with their knowledge and experience. They are basically the ones that create cultural synergy to integrate business practices from the headquarters (HQ) of the companies to their subsidiaries. In many ways the success of companies' international business activities today depends on expatriates, for example, how well they are able to function in the new environment to which they are transferred, cooperate with locals, apply their competences and knowledge, learn new things, and cope with uncertainty (Koveshnikov, Wechtler and Dejoux, 2014).

1.1 International career

The nowadays modern and developed society is becoming global and multicultural especially in the international business field. Multiculturalism is an important dimension of global organization and means regular interaction between people from different cultures and contributes to diversity in the organization since merging different views, approaches, ways of doing business and establishing an international career (Adler, 2001). The development of an international career is usually possible in companies that do not operate only on the domestic market, but have their area of operation distributed on other foreign countries and foreign continents. That kind of organization can also be called a global company. Globalisation is widely regarded as a prime catalyst for international assignments, therefore international business activities are developing and the international expansion of investment flows continues to grow (Point and Dickmann, 2012). With globalisation, expatriate processes in MNCs are becoming a common practice for developing their employee's international careers. Career capital is particularly important for expatriates, whatever the purposes of their assignment, either short-term or strategic, as it constitutes the foundation of their employability (Cerdin and Brewster, 2014). International career involves dealing on a daily basis with unfamiliar norms related to business practices, customs, living conditions, healthcare, safety, political systems, the law, language and religion (Harrison, Shaffer and Bhaskar-Shrinivas, 2004). While on a foreign assignment, employees may be anxious and uncertain about what will happen to them, their job skills, their careers, their immediate families, and their extended families (Borstorff, Harris, Feild and Giles, 1997). In considering expatriation, employees construct

outcome expectations for their career, and these expectations of career instrumentality contribute to the belief that they can control events (Tharenou, 2008). Expatriates are valuable human capital and a source of sustained competitive advantage to the MNCs (Gonzalez and Chakraborty, 2014).

1.2 The characteristics of expatriation

As business continues to globalize, it has become increasingly common for organizations to assign their employees to extended work assignments abroad (Bolino, 2007). Through expatriate employees, organizations can implement effective control and global integration of the operation regarding to their branch offices abroad (Minbaeva and Michilova, 2004). The multinational global companies widely use expatriate employees for implementation of an informal control. The supervisory role of the expatriate employees means that they must monitor the strategic and operational processes at branch offices while ensuring that these take place in accordance with the directives of the home organization (Petison and Johra, 2008). Achieving success in expatriate assignments is an important issue for companies operating across national borders (Kohonen, 2008).

Adaptation of expatriates on an international operation is a multi-dimensional problem, which can be examined with the three aspects or dimensions: labour adjustment, adaptation coping with locals in a foreign country and overall adjustment to a new culture and living conditions (Andreason, 2003). The expatriation literature consistently suggests that expatriates on assignment require a great deal of support to adjust to their new environment (Mahajan and Toh, 2014). Self-efficacy for working abroad has been defined as individuals' certainty that they are able to master the challenges related to working and living in a country with a culture different than their own (Cianini and Tharenou, 2000). Cultural training is necessary for recruitment and selection process for the organization in order to evaluate and confirm the candidates' aptitude for expatriation, and even to take into consideration their families (Haslberger and Brewster, 2008). Nevertheless multinational companies are not implementing cultural training extensively in their expatriation management (Shen, 2005), because the connection between such training and expatriate performance remains hard to confirm (Puck, Kittler and Wright, 2008).

1.3 Knowledge transfer in expatriation

Expatriation experience and, in particular, the relationship development capability has significant positive effects on the international knowledge translation process (Choi and Johanson, 2012). Expatriates clearly play an important role in the transfer of knowledge from the headquarters (HQ)

of an MNC to its subsidiaries in a foreign (Tsang, 1999). Furthermore, expatriates who have business experience in a particular industry can effectively facilitate the knowledge transfer process whenever the knowledge transferred is closely related to that particular industry (Delios and Bjorkman, 2000). Companies should be aware that their expatriate employees are the ones who have the ability of transferring the knowledge and their experience to other individuals (Crowne, 2009). When expatriates experience learning and vitality on their assignments, they are more likely to have the energy and motivation to become engaged in work. Learning enables expatriates to obtain more resources that they can draw upon to invest in their work roles (Ren, Yunlu, Shaffer and Fodchuk, 2015). Next in the paper the methodology and results of the research expatriation process in a company are presented.

2 Methodology

2.1 Research questions and research hypothesis

Through the research, we wanted to answer the following three research questions (RQ) and one research hypothesis (RH):

RQ1: What are the reasons that the expatriates went to work abroad in this company? And if there are any differences regarding number of children, gender, age and education level of the expatriates?

RQ2: How are expatriates evaluating the importance factors of their contribution of working abroad for the company? And if expatriates that are studying, value this importance factors more than those who are not studying? And if there are any differences of valuating this importance factors between older expatriates (≥ 35 years) and younger expatriates (< 35 years).

RH₁: Working abroad for the company has completely fulfilled the expectations of the expatriates.

2.2 Instrument

We gathered the data through an online questionnaire. The questionnaire contained 46 questions relating to (1) data of the respondent (age, sex, number of children, relationship status, education, location of company HQ, location of current employment, work position in the company, the duration of working abroad in the company and current study status) and (2) evaluated reasons for becoming expatriates in this company, importance factors for their contribution of working abroad for the company and the reasons for possible extension of their abroad employment.

The questionnaire was of the closed type. All statements of the evaluated reasons for becoming expatriates in this company and all statements of the reasons for possible extension of their abroad employment were measured on the 5-point Likert type scale of presence, in which “1” means “strongly disagree” and “5” means “completely agree”. The statements regarding to importance factors for expatriates contribution of working abroad for the company were also measured on the 5-point Likert type scale of presence, in which “1” means “very low” and “5” means “very high”.

In order to answer all the research questions we first tested the overall reliability of a questionnaire with Cronbach’s alpha reliability test. The Cronbach’s alpha tests shown in Table 1 were made for two segments of our questionnaire involving reasons of employees for becoming expatriates in this company and importance factors for their contribution of working abroad for the company.

Table 1 presents the Cronbach’s alpha values based on standardized items for two segments of questionnaire used in our research. The values are all calculated higher than 0.6, and that means that are acceptable values and our scale used in our questionnaire is reliable (see Kline, 2000; Tabachnick and Fidell, 2007).

2.3 Sample

The online survey was performed among expatriates working for the pharmaceutical company. The questionnaire was randomly sent and delivered in an electronic form, structured in an online program named lka (<https://www.lka.si>). A total of 12 questionnaires were completed fully and properly. The sample consists of 12 expatriates employed in the company, 58.3% were male and 41.7% were females; the respondents are aged between 25 and 55 years (mean: 38 years and 4 months); half of them (50%) are without children, 8.3% have one child and 41.7% have two or more children; 50% are married and 50% are in a relationship (unmarried). The sample was highly educated with 41.7% of repatriates, that answered our questionnaire, have finished their university diploma or master’s degree and 58.3% that have a doctoral degree (Ph.D). All questioned repatriates have the company headquarters (HQ) located in Slovenia; their current location of employment is

distributed between countries of Germany (58.3%), Austria (16.7%), Switzerland (16.7%) and USA (8.3%). The average current duration of the respondent’s abroad employment in the company was, in the time of conducting the study, 2 years and 2 months. Also 25% of them are still studying and are part-time students. For further analysis we classified older expatriates (≥ 35 years) and younger expatriates (< 35 years) working in this company with hierarchical clustering. 58.3% are older or equal to 35 years old and 41.7% are younger than 35 years old.

2.4 Data analysis

Data gathered from the survey were first analysed with hierarchical clustering in order to determine different groups of respondents according to their age (2 groups). The clustering was made with Ward’s method and standardized variables. For further analysis we therefore gained two groups regarding on their age (group 1: ≥ 35 years old; group 2: < 35 years old).

Furthermore we analysed descriptive statistics for age, sex, number of children, working status, relationship status, education, location of company HQ, location of current employment, work position in the company, the duration of working abroad in the company and current study status of respondents. In the next step we also made descriptive statistics for three segments of the questionnaire that were used to analyse our research questions (Table 2, Table 3 and Table 4). Further analyses were made with t-test, paired sample test, test of homogeneity of variances and one- sample t-test.

3 Results

3.1 Descriptive statistics

In the following section we will represent descriptive statistics of our research and attempt to determine the answers to our research questions and research hypothesis. Table 2 presents descriptive statistics for eleven different reasons of employees becoming expatriates in this company. Expatriates on average assessed that working abroad represents a challenge for them the highest ($\bar{x} = 4.67$) of their

Table 1: Cronbach’s alpha test of two questionnaire segments

Questionnaire segments	Cronbach’s alpha	Cronbach’s alpha based on standardized items	N of items
Reasons of employees for becoming expatriates in this company	0.755	0.729	11
Importance factors of expatriates contribution of working abroad for the company	0.673	0.688	7

Table 2: Descriptive statistics of the reasons of employees for becoming expatriates in this company (n=12)

Reasons of employees for becoming expatriates in this company	Mean	SD
personal interest	4.25	0.965
personal decision in agreement with the company	3.92	1.311
expatriation started without consultation with the company	1.58	0.900
better wage and payment	4.50	0.674
working abroad represents a challenge	4.67	0.651
in order to fill a free working position	2.92	1.676
in order of knowledge transfer between company's HQ and subsidiary	3.42	1.621
objectives and motives of expatriation were clearly determined by company HRM	3.67	1.231
main objective of expatriation is the supervision of local employees	1.83	1.030
functions taken over working abroad cannot be performed by no local employee	1.92	1.240
subsidiary is the source of knowledge that has to be transferred to company's HQ	3.33	1.073

Table 3: Descriptive statistics for importance factors of expatriates contribution of working abroad for the company (n=12)

Importance factors of expatriates contribution of working abroad for the company	Mean	SD
effect on an increase of expatriate employees in the company in the future	3.33	0.985
application of standardized reporting system in the company	3.25	1.055
provide supervision, coordination and guidance of local employees	3.50	1.314
successful leadership and management of a department or a team of employees	3.67	1.303
faster flow of information between company HQ and subsidiary	4.25	0.452
assistance in the internationalization of the company	4.33	0.492
upgrade of knowledge and working skills	3.83	1.030

reasons for becoming expatriates in the company, followed by better wage and payment ($\bar{x} = 4.50$), personal interest ($\bar{x} = 4.25$), personal decision in agreement with the company ($\bar{x} = 3.92$), objectives and motives of expatriation were clearly determined by company HRM ($\bar{x} = 3.67$), in order of knowledge transfer between company's HQ and subsidiary ($\bar{x} = 3.42$), subsidiary is the source of knowledge that has to be transferred to company's HQ ($\bar{x} = 3.33$), in order to fill a free working position ($\bar{x} = 2.92$), functions taken over working abroad cannot be performed by no local employee ($\bar{x} = 1.92$), main objective of expatriation is the supervision of local employees ($\bar{x} = 1.83$) and expatriation started without consultation with the company ($\bar{x} = 1.58$).

Table 3 presents descriptive statistics for seven different importance factors of the expatriates contribution of working abroad for the company. Expatriates on average assessed that they value their assistance in the internation-

alization of the company the most ($\bar{x} = 4.33$). For them the importance factors of their contribution of working abroad for the company are also insuring a faster flow of information between company HQ and subsidiary ($\bar{x} = 4.25$) and the ability of retaining an upgrade of knowledge and working skills ($\bar{x} = 3.83$). Slightly lower estimated importance factors of expatriates contribution of working abroad for the company were implementation of successful leadership and management of a department or a team of employees abroad ($\bar{x} = 3.67$), providing supervision, coordination and guidance of local employees ($\bar{x} = 3.50$), contributing to an increase of expatriate employees in the company in the future ($\bar{x} = 3.33$) and assuring application of standardized reporting system in the company ($\bar{x} = 3.25$).

3.2 Analyses of research questions

RQ1: What are the reasons that the expatriates went to work abroad in this company? And if there are any differences regarding number of children, gender, age and education level of the expatriates?

In order to answer the first research question a paired sample t-test for reasons that the expatriates went to work abroad in this company was performed. We verified expatriates reasons with the help of a statement containing eleven different variables (see Table 2), that was assessed on a 5-point Likert scale. The presented results in Table 2 show that some of the average values are outstanding. Expatriates on average assessed reason “working abroad represents a challenge” for their abroad allocation in the company the highest ($\bar{x} = 4.67$), followed by “better wage and payment” ($\bar{x} = 4.50$) and “personal interest” ($\bar{x} = 4.25$). Nevertheless, we wanted to know whether the average of “working abroad represents a challenge” is statistically higher to the other two variables. We therefore used a paired sample t-test to compare the average of variable “working abroad represents a challenge” to the ones that have a slightly lower average.

Furthermore we compared the average of the three variables that are related to the reasons for their abroad allocation in the company. Two paired t-tests were performed with each pair of variables having their null and alternative hypothesis stated:

variable “better wage and payment”: $H_0: \mu_{\text{challenge}} = \mu_{\text{payment}}$
 $H_1: \mu_{\text{challenge}} > \mu_{\text{payment}}$

variable “personal interest”: $H_0: \mu_{\text{challenge}} = \mu_{\text{personal interest}}$
 $H_1: \mu_{\text{challenge}} > \mu_{\text{personal interest}}$

The results of paired sample t-tests are shown in Table 5. In the first pair (working abroad represents a challenge - better wage and payment) p-value is equal to $0.551 > 0.05$. Also in the second pair (working abroad represents a challenge - personal interest) p-value is higher than 0.05 (0.210), which means that the null hypothesis, which says that the variable average of “working abroad represents a

challenge” is equal to the average of the other two variables (better wage and payment, personal interest) cannot be rejected at the 5% significance level. We proved that the first three averages do not differ from each other, so we can say that for expatriates the reasons for going to work abroad: working abroad represents a challenge, better wage and payment and personal interest are equally important.

We furthermore wanted to find out whether there are any differences in expatriates reasons for working abroad for the company, regarding number of children. Because only one respondent has one child, we joined him in the group of having two or more children. So we have two groups (group 1; with no children and group 2; with children. We conducted the following t-test. For verification, we have set the null and alternative hypothesis:

H_0 : There are no statistically significant differences between the number of children of expatriates in their reasons for working abroad for the company.

H_1 : There are statistically significant differences between the number of children of expatriates in their reasons for working abroad for the company.

Table 6 shows the results of t-tests for equality of means between number of children of expatriates regarding to their reasons for working abroad for the company. Based on the results of Levene’s test for equality of variances we cannot reject any null hypothesis of equality of variances at the 5% significance level, because all the variables are valued $p > 0.05$, except for the variable “personal decision in agreement with the company” where p-value is 0.019. Based on t-tests of the null hypothesis of equality of means we therefore accept the 5% significance level for all variables, where p-value is higher than 0.05. Therefore there are no differences between the number of children of expatriates regarding their reasons for working abroad for the company.

For the remaining variable “in order to fill a free working position” where the calculated p-value is less than 0.05 ($t = -2.892$, $p = 0.016$), which means that there are significant differences between the responses of those expatriates who do not have children and those who have at least one child. Expatriates who have children value this variable more and are therefore more interested in this reason for

Table 5: Paired sample t-test for reasons that the expatriates went to work abroad in the company

	Mean	Paired differences		t	df	P (2-tailed)
		SD				
Pair 1	working abroad represents a challenge - better wage and payment	0.167	0.937	0.616	11	0.551
Pair 2	working abroad represents a challenge - personal interest	0.417	1.084	1.332	11	0.210

Table 6: Results of the t-tests for equality of means between the number of children of expatriates in their reasons for working abroad for the company

Reasons that expatriates went to work abroad	Levene's test for equality of variances		T-test for equality of means		
	F	Sig.	t	df	p (2-tailed)
personal interest	0.250	0.628	0.286	10	0.780
personal decision in agreement with the company	7.813	0.019	-1.659	6.111	0.147
expatriation started without consultation with the company	1.612	0.233	0.958	10	0.360
better wage and payment	0.227	0.644	-0.845	10	0.418
working abroad represents a challenge	0.227	0.644	0.000	10	1.000
in order to fill a free working position	0.125	0.731	-2.892	10	0.016
in order of knowledge transfer between company's HQ and subsidiary	2.162	0.172	0.170	10	0.868
objectives and motives of expatriation were clearly determined by company HRM	0.500	0.496	-0.933	10	0.373
main objective of expatriation is the supervision of local employees	0.625	0.448	-0.542	10	0.599
functions taken over working abroad cannot be performed by no local employee	2.041	0.184	-0.681	10	0.511
subsidiary is the source of knowledge that has to be transferred to company's HQ	1.250	0.290	1.085	10	0.304

working abroad for the company, than expatriates without children.

Because we furthermore wanted to find out whether there are any differences between genders in expatriates reasons for working abroad for the company, we conducted the following t-tests. For verification, we have set the null and alternative hypothesis for each variable:

H_0 : There are no statistically significant differences between male employees and female employees in reasons for becoming expatriates in this company.

H_1 : There are statistically significant differences between male employees and female employees in reasons for becoming expatriates in this company.

Table 7 shows the results of t-tests for equality of means between expatriates genders regarding their reasons for working abroad for the company. Based on the results of Levene's test for equality of variances we cannot reject any null hypothesis of equality of variances at the 5% significance level, because all significances are valued $p > 0.05$, except for the variable "in order to fill a free working position" where p-value is 0.019. Based on the results of t-tests the null hypothesis of equality of means is therefore

accepted everywhere at the 5% significance level (as $p > 0.05$). On the basis of the information received, therefore we can say that there are no differences between expatriates genders regarding their reasons for working abroad for the company.

We furthermore wanted to find out whether there are any differences in reasons for working abroad for the company regarding expatriates age; therefore we conducted the following t-tests. Data gathered from the survey were already analysed with hierarchical clustering and we therefore have two groups regarding on their age (group 1: ≥ 35 years old; group 2: < 35 years old). In the group 1 there are 7 respondents and group 2 there are 5 respondents. For verification, we have set the null and alternative hypothesis for each variable:

H_0 : There are no statistically significant differences between expatriates younger than 35 years and expatriates that are 35 years old and older in their reasons for working abroad for the company.

H_1 : There are statistically significant differences between expatriates that are younger than 35 years and expatriates that are 35 years old and older in their reasons for

Table 7: Results of the t-tests for equality of means between expatriates genders in reasons for them working abroad for the company

Reasons that expatriates went to work abroad	Levene's test for equality of variances		T-test for equality of means		
	F	Sig.	t	df	p (2-tailed)
personal interest	1.428	0.260	-1.068	10	0.310
personal decision in agreement with the company	4.882	0.052	-0.178	10	0.863
expatriation started without consultation with the company	1.173	0.304	0.578	10	0.576
better wage and payment	1.545	0.242	1.351	10	0.207
working abroad represents a challenge	1.807	0.209	-0.581	10	0.574
in order to fill a free working position	7.756	0.019	-0.151	9.834	0.883
in order of knowledge transfer between company's HQ and subsidiary	0.663	0.434	-0.317	10	0.758
objectives and motives of expatriation were clearly determined by company HRM	4.213	0.067	0.151	10	0.883
main objective of expatriation is the supervision of local employees	0.485	0.502	-1.047	10	0.320
functions taken over working abroad cannot be performed by no local employee	3.936	0.075	1.251	10	0.240
subsidiary is the source of knowledge that has to be transferred to company's HQ	2.355	0.156	-0.711	10	0.493

working abroad for the company.

Table 8 shows the results of t-tests for equality of means between expatriates age regarding their reasons for working abroad for the company. Based on the results of Levene's test for equality of variances we cannot reject any null hypothesis of equality of variances at the 5% significance level, because all the variables are valued $p > 0.05$. Based on t-tests of the null hypothesis of equality of means we therefore accept the 5% significance level for all variables, where p-value is higher than 0.05. On the basis of the information received, therefore we can say that there are no differences between age of expatriates (younger and older) in their reasons for working abroad for the company.

We wanted to know also if perhaps there are any differences between the answers of respondents regarding to expatriates educational level in reasons for working abroad for the company. From the gathered data there were only two groups of the educational levels (university diploma/master's degree and doctoral degree) selected by expatriates working in this company. For verification, we have set the null and alternative hypothesis:

H_0 : There are no statistically significant differences between the educational levels of expatriates in their reasons

for working abroad for the company.

H_1 : There are statistically significant differences between the educational levels of expatriates in their reasons for working abroad for the company.

Table 9 shows the results of t-tests for equality of means between expatriates educational level regarding their reasons for working abroad for the company. Based on the results of Levene's test for equality of variances we cannot reject any null hypothesis of equality of variances at the 5% significance level, because all the variables are valued $p > 0.05$, except for the variable "personal interest" where p-value is 0.026 and variable "working abroad represents a challenge" where p-value is 0.002. Based on t-tests of the null hypothesis of equality of means we therefore accept the 5% significance level for all variables, where p-value is higher than 0.05. On the basis of the information received, therefore we can say that there are no differences between educational level of expatriates in their reasons for working abroad for the company.

For the remaining variable "personal interest" where the p-value is less than 0.05 ($t = 3.576$, $p = 0.012$), which means that there are significant differences between the responses of those expatriates who have finished university

Table 8: Results of the t-tests for equality of means between expatriates age in their reasons for working abroad for the company

Reasons that expatriates went to work abroad	Levene's test for equality of variances		T-test for equality of means		
	F	Sig.	t	df	p (2-tailed)
personal interest	1.428	0.260	-1.068	10	0.310
personal decision in agreement with the company	1.425	0.260	0.690	10	0.506
expatriation started without consultation with the company	1.173	0.304	0.578	10	0.576
better wage and payment	0.448	0.518	0.418	10	0.685
working abroad represents a challenge	1.108	0.317	0.287	10	0.780
in order to fill a free working position	2.420	0.151	1.743	10	0.112
in order of knowledge transfer between company's HQ and subsidiary	2.769	0.127	0.376	10	0.715
objectives and motives of expatriation were clearly determined by company HRM	0.021	0.887	1.721	10	0.116
main objective of expatriation is the supervision of local employees	2.604	0.138	1.265	10	0.235
functions taken over working abroad cannot be performed by no local employee	3.936	0.075	1.251	10	0.240
subsidiary is the source of knowledge that has to be transferred to company's HQ	0.381	0.551	-1.315	10	0.218

diploma or master's degree and those who have a doctorate degree. Expatriates who have university diploma or master's degree value this variable more and are therefore more interested in this reason for working abroad for the company, than expatriates with Ph.D.

RQ2: How are expatriates evaluating the importance factors of their contribution of working abroad for the company? And if expatriates that are studying, value this importance factors more than those who are not studying? And if there are any differences of valuating this importance factors between older expatriates (>= 35 years) and younger expatriates (< 35 years).

In order to answer the second research question a paired sample t-test for importance factors of expatriates contribution of working abroad for the company was performed. We verified expatriates importance factors with the help of a statement containing seven different variables (see Table 3), that was assessed on a 5-point Likert scale. The presented results in Table 3 show that some of the average values are outstanding. Expatriates on average assessed the importance factor "assistance in the internationalization of the company" for their contribution of working abroad for

the company the highest ($\bar{x} = 4.33$), followed by "faster flow of information between company HQ and subsidiary" ($\bar{x} = 4.25$) and "upgrade of knowledge and working skills" ($\bar{x} = 3.83$). Nevertheless, we wanted to know whether the average of "assistance in the internationalization of the company" is statistically higher to the other two variables. We therefore used a paired sample t-test to compare the average of variable "assistance in the internationalization of the company" to the ones that have a slightly lower average.

Furthermore we compared the average of the three variables that are related to the importance factors of expatriates contribution of working abroad for the company. Two paired t-tests were performed with each pair of variables having their null and alternative hypothesis stated:

variable "faster flow of information between company HQ and subsidiary": $H_0: \mu_{\text{internationalization}} = \mu_{\text{information}}$, $H_1: \mu_{\text{internationalization}} > \mu_{\text{information}}$

variable "upgrade of knowledge and working skills": $H_0: \mu_{\text{internationalization}} = \mu_{\text{knowledge}}$, $H_1: \mu_{\text{internationalization}} > \mu_{\text{knowledge}}$

The results of paired sample t-tests are shown in Table 10.

Table 9: Results of the t-tests for equality of means between expatriates educational level in their reasons for working abroad for the company

Reasons that expatriates went to work abroad	Levene's test for equality of variances		T-test for equality of means		
	F	Sig.	t	df	p (2-tailed)
personal interest	6.822	0.026	3.576	6.000	0.012
personal decision in agreement with the company	1.389	0.266	1.088	10	0.302
expatriation started without consultation with the company	1.173	0.304	-0.578	10	0.576
better wage and payment	1.124	0.314	0.418	10	0.685
working abroad represents a challenge	17.067	0.002	1.922	6.000	0.103
in order to fill a free working position	0.325	0.581	0.832	10	0.425
in order of knowledge transfer between company's HQ and subsidiary	0.049	0.830	0.317	10	0.758
objectives and motives of expatriation were clearly determined by company HRM	0.663	0.434	0.778	10	0.454
main objective of expatriation is the supervision of local employees	2.604	0.138	-1.265	10	0.235
functions taken over working abroad cannot be performed by no local employee	1.074	0.324	0.188	10	0.855
subsidiary is the source of knowledge that has to be transferred to company's HQ	0.210	0.656	0.174	10	0.866

Table 10: Paired sample t-test for importance factors of expatriates contribution of working abroad for the company

		Paired differences		t	df	p (2-tailed)
		Mean	SD			
Pair 1	assistance in the internationalization of the company - faster flow of information between company HQ and subsidiary	0.083	0.515	0.561	11	0.586
Pair 2	assistance in the internationalization of the company - upgrade of knowledge and working skills	0.500	1.168	1.483	11	0.166

In the first pair (assistance in the internationalization of the company - faster flow of information between company HQ and subsidiary) p-value is equal to $0.586 > 0.05$. Also in the second pair (assistance in the internationalization of the company - upgrade of knowledge and working skills) p-value is higher than 0.05 (0.166), which means that the null hypothesis, which says that the variable average of "assistance in the internationalization of the company" is equal to the average of the other two variables (faster flow

of information between company HQ and subsidiary, upgrade of knowledge and working skills) cannot be rejected at the 5% significance level. We proved that the first three averages do not differ from each other, so we can say that the importance factors of expatriates contribution of working abroad for the company: assistance in the internationalization of the company, faster flow of information between company HQ and upgrade of knowledge and working skills are equally important.

Table 11: Results of the t-tests for equality of means between employees status of studying in factors of expatriates contribution of working abroad for the company

Importance factors of expatriates contribution of working abroad for the company	Levene's test for equality of variances		T-test for equality of means			
	F	Sig.	t	df	p (2-tailed)	p/2
effect on an increase of expatriate employees in the company in the future	1.836	0.205	0.659	10	0.525	0.262
application of standardized reporting system in the company	0.000	1.000	1.500	10	0.165	0.082
provide supervision, coordination and guidance of local employees	0.714	0.418	0.745	10	0.473	0.237
successful leadership and management of a department or a team of employees	1.151	0.309	0.494	10	0.632	0.316
faster flow of information between company HQ and subsidiary	2.242	0.165	2.113	10	0.061	0.030
assistance in the internationalization of the company	0.000	1.000	0.000	10	1.000	0.500
upgrade of knowledge and working skills	0.385	0.549	0.968	10	0.356	0.178

We furthermore wanted to find out whether expatriates that are studying, value this importance factors more than those who are not studying. We conducted the following t-test. For verification, we have set the null and alternative hypothesis:

H_0 : Expatriates that are studying and those who are not studying equally value this importance factors.

H_1 : Expatriates that are studying value this importance factors more than those who are not studying.

Table 11 shows the results of t-tests for equality of means of employees status of studying in factors of expatriates contribution of working abroad for the company. Based on the results of Levene's test for equality of variances we cannot reject any null hypothesis of equality of variances at the 5% significance level, because all the variables are valued $p > 0.05$. The hypothesis are tested one-way, therefore all p-values (t-test for equality of means) are divided by 2. Based on t-tests of the null hypothesis of equality of means we therefore accept the 5% significance level for all variables, where calculated p-value is higher than 0.05. On the basis of the information received, therefore we can say that expatriates that are studying and those who are not studying equally value this importance factors.

For the remaining variable "faster flow of information between company HQ and subsidiary" where the calculated p-value is less than 0.05 ($t = 2.113$, $p/2 = 0.030$), which means that there are significant differences between the responses of those expatriates that are studying and expa-

triates that are not studying. Expatriates that are studying value this variable more and therefore more appreciate this importance factor of their contribution of working abroad for the company, than expatriates that are not studying.

We furthermore wanted to find out whether there are any differences in valuating this importance factors between older expatriates (≥ 35 years) and younger expatriates (< 35 years); therefore we conducted the following t-tests. Data gathered from the survey were already analysed with hierarchical clustering and we therefore have two groups regarding on their age (group 1: ≥ 35 years old; group 2: < 35 years old). In the group 1 there are 7 respondents and group 2 there are 5 respondents. For verification, we have set the null and alternative hypothesis for each variable:

H_0 : There are no statistically significant differences between expatriates younger than 35 years and expatriates that are 35 years old and older in importance factors of their contribution of working abroad for the company.

H_1 : There are statistically significant differences between expatriates that are younger than 35 years and expatriates that are 35 years old and older in importance factors of their contribution of working abroad for the company.

Table 12 shows the results of t-tests for equality of means between older and younger expatriates in importance factors of their contribution of working abroad for the company. Based on the results of Levene's test for equality of variances we cannot reject any null hypothesis of equality of variances at the 5% significance level, be-

Table 12: Results of the t-tests for equality of means between older and younger expatriates in importance factors of their contribution of working abroad for the company

Importance factors of expatriates contribution of working abroad for the company	Levene's test for equality of variances		T-test for equality of means		
	F	Sig.	t	df	p (2-tailed)
effect on an increase of expatriate employees in the company in the future	0.028	0.871	-0.778	10	0.454
application of standardized reporting system in the company	2.355	0.156	-0.400	10	0.698
provide supervision, coordination and guidance of local employees	0.901	0.365	1.685	10	0.123
successful leadership and management of a department or a team of employees	0.102	0.756	0.143	10	0.889
faster flow of information between company HQ and subsidiary	200.000	0.000	2.121	6.000	0.078
assistance in the internationalization of the company	2.604	0.138	0.778	10	0.454
upgrade of knowledge and working skills	0.641	0.442	-0.456	10	0.658

cause all the variables are valued $p > 0.05$, except for the variable "faster flow of information between company HQ and subsidiary" where p-value is 0.000. Based on t-tests of the null hypothesis of equality of means we therefore accept the 5% significance level for all variables, where p-value is higher than 0.05. On the basis of the information received, therefore we can say that there are no differences between older expatriates (≥ 35 years) and younger expatriates (< 35 years) in these importance factors of their contribution of working abroad for the company.

3.3 Analysis of research hypothesis

RH₁: Working abroad for the company has completely fulfilled the expectations of the expatriates.

For verification of the research hypotheses (RH₁), we conducted one-sample test, which was compared to the average of the variable "Working abroad for the company has completely fulfilled my expectations" with the test value 4 (mean and higher values of the test value, affects the expatriate opinion on their fulfilment of expectations working abroad for the company). The average value of the variable "Working abroad for the company has completely fulfilled my expectations" was assessed on average of $\bar{x} = 3.67$. For this variable we have set the null and alternative hypothesis:

$$H_0: \mu_{\text{expectations}} = 4, H_1: \mu_{\text{expectations}} > 4$$

Table 17 shows the result for one-sample test for the variable "Working abroad for the company has completely fulfilled my expectations". The p-value is 0.266, but be-

cause our sample average ($\bar{x} = 3.67$) of tested variable is lower than test value 4, we have to calculate this p-value according to the formula $(1 - p / 2)$. Calculated p-value is equal to 0.367, therefore we can conclude, that we cannot reject the null hypothesis at 5% risk in favour of the alternative hypothesis, which says that the average the variable "Working abroad for the company has completely fulfilled my expectations" is higher than 4. The hypothesis H₁: Working abroad for the company has completely fulfilled the expectations of the expatriates, is based on this result therefore **rejected**.

We wanted to know also if perhaps there are any differences between the answers of respondents regarding to expatriates duration of working abroad for the company for less or equal to 12 months or more than 12 months; therefore we conducted the following t-tests. For verification, we have set the null and alternative hypothesis for each variable:

H₀: There are no statistically significant differences between expatriates who are working abroad less or equal to 12 months and those who are employed abroad more than 12 months.

H₁: There are statistically significant differences between expatriates who are working abroad less or equal to 12 months and those who are employed abroad more than 12 months.

Table 18 shows the result of t-test for equality of means between those expatriates who are working abroad less or equal to 12 months and those who are working more than 12 months. Based on the results of Levene's test for equality of variances we cannot reject null hypothesis of equality of variances at the 5% significance level, because p-value

Table 17: One-sample test for the variable "Working abroad for the company has completely fulfilled my expectations"

	Test value = 4					
	t	df	Sig. (2-tailed)	Mean difference	95% Confidence interval of the difference	
					Lower	Upper
Working abroad for the company has completely fulfilled my expectations	-1.173	11	0.266	-0.333	-0.96	0.29

Table 18: T-test for equality of means for the variable "Working abroad for the company has completely fulfilled my expectations"

	Levene's test for equality of variances		T-test for equality of means			
	F	Sig.	t	df	p (2-tailed)	
Working abroad for the company has completely fulfilled my expectations	0.661	0.435	0.189	10	0.854	

is > 0.05 (0.435). Based on t-tests of the null hypothesis of equality of means we therefore accept the 5% significance level ($t = 0.189$, $p = 0.854$). On the basis of the information received, therefore we can say that there are no differences between those expatriates who are working abroad less or equal to 12 months and those who are working more than 12 months in their fulfilment of expectations working abroad for this company.

4 Discussion

The findings from this research in the company will be used and implemented for further expatriation processes within this MNC. Due to the small sample size, all results should be interpreted with caution. Our study demonstrates the reasons of employees in the company for becoming expatriates importance factors for their contribution of working abroad and the reasons for possible extension of their abroad employment. The following study has its limitations and weaknesses. For further data capture and processing we should aim to gain more answers from expatriates in the company to obtain a greater sample. Another disadvantage of the research is that we only gained results of the expatriates who are employed in management or research departments in the company and are all highly educated. This is proved with the obtained answers of the twelve expatriates on their work position in the company; HR manager, global program manager, project Manager, global manager of pharmacovigilance (pv) safety operations, global quality manager, associate scientist, director of development, global head of portfolio of active ingredients, head of the development center, manager, researcher and technician specialist. We have also collected the respondents answers from one source (expatriates employed in the company) using one method (online survey). Fur-

thermore we also must be aware of the disruption factors that effect on expatriates during the research process. Expatriates undergo many disruptions similar to other types of life transitions, including disruptions to existing roles, identities and social networks, which result in the experience of uncertainty, ambiguity and anxiety (Nardon, Aten & Gulanowski, 2015).

The proposal of further research is to analyze the connection between expatriate adjustment and their effectiveness abroad to furthermore link them with the company performance. Furthermore the expatriation process should be more connected with talent management. Because of the global company status, global talent management is the right label to identify the connection between talent management and expatriation (Scullion, Collings and Caligiuri, 2010; Swailes, 2013). There are two streams regarding to two conceptions of talent management, namely (1) the elitist, or talent segmentation, approach focused on a few chosen individuals, often termed 'high potentials', in whom the organization invests, and (2) a broad aspect of Human Resource Management where all employees are considered as talent (Tarique and Schuler, 2010). All respondents have their HQ of the company located in Slovenia and we gained answers from four subsidiaries located in four foreign countries. Therefore further research should be focused towards finding more expatriates in more different countries for examination of characteristics of expatriates affect the transfer of knowledge between the HQ and a subsidiary in a foreign country. The lack of effective strategies to utilize the knowledge and skills gained by expatriates has long been regarded as one of the weakest links in international human resource management (Oddou, Szkudlarek, Osland, Deller, Blakeney and Furuya, 2013).

Because of the strategic plan of the company to expand

into more foreign markets, it is important to ensure the appropriate mechanisms to keep control over the subsidiaries abroad. MNCs usually use a wide range of these mechanisms such as the share of capital in the case of international joint ventures, expatriation, active participation in the board of directors, staffing key management positions, training and socialization of employees and technology transfer (Jaussaud and Schaaper, 2006). Expatriation is very important in the aspects of the company international HRM and the expatriation process and international operations cannot be successfully conducted if there is no support from the management of the company. Successful MNCs regarding on expatriation process therefore provide relocation supports, language training, cross-cultural training and orientation to expatriates and their family members before assignment and after arrival to enhance their adaptability and familiarization to the host country environment, culture, as well as to reduce the culture shock effect (Abdullah and Jin, 2015).

Employees reasons for becoming expatriates in this company, and differences regarding number of children, gender, age and education level of the expatriates

The results of the research show the most common reasons of employees for becoming expatriates in this company. Expatriates decided to work abroad because this represents a challenge for them ($\bar{x} = 4.67$), they were also convinced because of better wage and payment ($\bar{x} = 4.50$) and because of personal interest ($\bar{x} = 4.25$). With analysis of the results we have proved that there are no differences in this reasons regarding expatriates gender, age (younger: < 35 years old and older: \geq 35 years old) and educational level. The analysed results also indicate that there are no differences regarding expatriates number of children, except for the variable "in order to fill a free working position", which means expatriates who have children value this variable more and are therefore more interested in this reason for working abroad for the company, than expatriates without children. This leads to a conclusion that expatriate employees in this company with children consider their career is not connected to and may facilitate access their children social networks and friendships (McNulty, 2012). Dealing with individual demands and building appropriate capabilities (to enhance positive crossover effects) are likely to be influenced by the types of organizational support provided to them and their families (McNulty, 2015).

Importance factors of expatriates contribution of working abroad for the company, and differences regarding their current study status and age.

For expatriates assistance in the internationalization of the company ($\bar{x} = 4.33$) is their most important contribution. The results show that they also contribute to a faster flow of information between company HQ and subsidiary ($\bar{x} = 4.25$) and they have a possibility of upgrading their knowledge and working skills ($\bar{x} = 3.83$). The results show

that there are no differences between this importance factors regarding in expatriates age and current study status, except that expatriates that are studying, value the variable "faster flow of information between company HQ and subsidiary" more, and therefore more appreciate this importance factor of their contribution of working abroad for the company, than expatriates that are not studying. This analysed MNC has a policy to support and encourage all their employees to educate and has a fund that offers scholarships. Successful MNCs has to have a strategy to sponsor their employees in educating in order to ensure competency-related profiles, attracting a diverse pool of applicants and providing them with full career support (Vaimana, Haslberger and Vance, 2015).

Fulfilment of the expatriates expectations working abroad for the company, and differences regarding their duration working abroad.

Based on the analyzed results we can say that working abroad for the company did not completely fulfilled the expectations of the expatriates. This also refers to a qualitative dimension describing how well the expatriate has acculturated with regard to various aspects of work at the foreign assignment, such as performance standards and expectations, supervisory and job responsibilities (Selmer, Lauring, Normann and Kubovcikova, 2015). We furthermore proved that there are no differences between those expatriates who are working abroad less or equal to 12 months and those who are working more than 12 months in their fulfilment of expectations working abroad for this company.

These findings are useful for the employees that will be in the future involved in the expatriation process in this company.

Literature

- Abdullah, D. N. M. A., & Jin, C. S. (2015). Determining the Types of Training and Development Supports for Expatriates. *Procedia - Social and Behavioral Sciences*, 172, 548–554, <http://dx.doi.org/10.1016/j.sbspro.2015.01.401>
- Adler, N. (2001). *International dimensions of organizational behaviour*. Third edition. Cincinnati: South-Western College Publishing.
- Andreason, A. (2003). Expatriate adjustment to foreign assignments. *International Journal of Commerce & Management*, 1, 42-61, <http://dx.doi.org/10.1108/eb047459>
- Black, J. S., Mendenhall, M., & Oddou, G. R. (1991). Toward a comprehensive model of international adjustment: An integration of multiple theoretical perspectives. *Academy of Management Review*, 16(2), 291–317.
- Bolino, M. C. (2007). Expatriate assignments and intra-organizational career success: Implications for

- individuals and organizations. *Journal of International Business Studies*, 38(5), 819–835, <http://dx.doi.org/10.1057/palgrave.jibs.8400290>
- Cerdin, J. L. (2008). *Careers and expatriation*. International human resource management: A European perspective, Routledge, Abingdon, UK, 192–215.
- Cerdin, J. L., & Brewster, C. (2014). Talent management and expatriation: Bridging two streams of research and practice. *Journal of World Business*, 49(2), 245–252, <http://dx.doi.org/10.1016/j.jwb.2013.11.008>
- Choi, S. G., & Johanson, J. (2012). Knowledge translation through expatriates in international knowledge transfer. *International Business Review*, 21(6), 1148–1157, <http://dx.doi.org/10.1016/j.ibusrev.2012.01.002>
- Cianni, M., & Tharenou, P. (2000). *A cross-cultural study of the willingness of graduating students to accept expatriate assignments*, Readings in international business, Prentice Hall, Victoria, 337–360.
- Collings, D. G., Scullion, H., & Morley, M. J. (2007). Changing patterns of global staffing in the multinational enterprise: Challenges to the conventional expatriate assignment and emerging alternatives. *Journal of World Business*, 42, 198–213, <http://dx.doi.org/10.1016/j.jwb.2007.02.005>
- Connelly, B., Hitt, M. A., DeNisi, A. S., & Ireland, R. D. (2007). Expatriates and corporate level international strategy: governing with the knowledge contract. *Management Decision*, 45(3), 564–581, <http://dx.doi.org/10.1108/00251740710745016>
- Crowne, K. A. (2009). Enhancing knowledge transfer during and after international assignments. *Journal of knowledge management*, 13(4), 134–147, <http://dx.doi.org/10.1108/13673270910971888>
- Delios, A., & Bjorkman, I. (2000). Expatriate staffing in the foreign subsidiaries of Japanese Multinational Corporation in the PRC and the United States. *International Journal of Human Resource Management*, 11, 278–299, <http://dx.doi.org/10.1080/095851900339873>
- Gonzalez, J. A., & Chakraborty, S. (2014). Expatriate knowledge utilization and MNE performance: A multilevel framework. *Human Resource Management Review*, 24(4), 299–312, <http://dx.doi.org/10.1016/j.hrmr.2014.03.001>
- Grant-Vallone, E. J., & Ensher, E. A. (2001). An examination of work and personal life conflict, organizational support, and employee health among international expatriates. *International Journal of Intercultural Relations*, 25(3), 261–278, [http://dx.doi.org/10.1016/S0147-1767\(01\)00003-7](http://dx.doi.org/10.1016/S0147-1767(01)00003-7)
- Harrison, D. A., Shaffer, M.A., & Bhaskar-Shrinivas P. (2004). Going places. *Research in Personnel and Human Resources Management*, 23 (2004), 199–247.
- Harvey, M., & Kiessling, T. (2004). The negative effects of being a ‘late’ newcomer during an expatriation assignment. *International Journal of Intercultural Relations*, 28(6), 551–576.
- Haslberger, A., & Brewster, C. (2008). The expatriate family – An international perspective. *Journal of Managerial Psychology*, 2(3), 324–346, <http://dx.doi.org/10.1108/02683940810861400>
- Hocking, J. B., Brown, M., & Harzing, A. W. (2004). A knowledge transfer perspective of strategic assignment purposes and their path-dependent outcomes. *International Journal of Human Resource Management*, 15(3), 565–586, <http://dx.doi.org/10.1080/0958519042000181269>
- Huff, K. C., Song, P., & Gresch, E. B. (2014). Cultural intelligence, personality, and cross-cultural adjustment: A study of expatriates in Japan. *International Journal of Intercultural Relations*, 38, 151–157, <http://dx.doi.org/10.1016/j.ijintrel.2013.08.005>
- Jaussaud, J., & Schaaper, J. (2006). Control mechanisms of their subsidiaries by multinational firms: A multidimensional perspective. *Journal of International Management*, 12(1), 23–45, <http://dx.doi.org/10.1016/j.intman.2005.04.001>
- Kline, P. (2000). *The handbook of psychological testing (2nd ed.)*. London: Routledge.
- Kohonen, E. (2008). The impact of international assignments on expatriates’ identity and career aspirations: Reflections upon re-entry. *Scandinavian Journal of Management*, 24(4), 320–329, <http://dx.doi.org/10.1016/j.scaman.2008.08.004>
- Koveshnikov, A., Wechtler, H., & Dejoux, C. (2014). Cross-cultural adjustment of expatriates: The role of emotional intelligence and gender. *Journal of World Business*, 49(3), 362–371, <http://dx.doi.org/10.1016/j.jwb.2013.07.001>
- Lin, C. Y. Y., Lu, T.C., & Lin, H. W. (2012). A different perspective of expatriate management. *Human Resource Management Review*, 22(3), 189–207, <http://dx.doi.org/10.1016/j.hrmr.2012.02.003>
- Mahajan, A., & Toh, S. M. (2014). Facilitating expatriate adjustment: The role of advice-seeking from host country nationals. *Journal of World Business*, 49(4), 476–487, <http://dx.doi.org/10.1016/j.jwb.2013.10.003>
- McNulty, Y. (2012). ‘Being dumped in to sink or swim’: An empirical study of organizational support for the trailing spouse. *Human Resource Development International*, 15(4), 417–434, <http://dx.doi.org/10.1080/13678868.2012.721985>
- McNulty, Y. (2015). Acculturating non-traditional expatriates: A case study of single parent, overseas adoption, split family, and lesbian assignees. *International Journal of Intercultural Relations*, 49(6), 278–293, <http://dx.doi.org/10.1016/j.ijintrel.2015.05.006>
- Minbeava, D. B., & Michailova, S. (2004). Knowledge transfer and expatriation in multinational corporations. *Employee relations*, 26(6), 663–679, <http://dx.doi.org/10.1108/01425450410562236>

- Morley, J., & Collings, D. G. (2004). Contemporary debates and new directions in HRM in MNCs: introduction. *International journal of manpower*, 6, 487-499, <http://dx.doi.org/10.1108/01437720410560406>
- Nardon, L., Aten, K., & Gulanowski, D. (2015). Expatriate adjustment in the digital age: The co-creation of online social support resources through blogging. *International Journal of Intercultural Relations*, 47, 41-55, <http://dx.doi.org/10.1016/j.ijintrel.2015.04.001>
- Oddou, G., Szkudlarek, B., Osland, J. S., Deller, J., Blakeney, R., & Furuya, N. (2013). Repatriates as a Source of Competitive Advantage: How to manage knowledge transfer. *Organizational Dynamics*, 42(4), 257-266, DOI: 10.1016/j.orgdyn.2013.07.003
- Petison, P., & Johri, L. (2008). Managing local employees: expatriate roles in a subsidiary. *Management Decision*, 46(5), 743-760, <http://dx.doi.org/10.1108/00251740810873743>
- Point, S., & Dickmann, M. (2012). Branding international careers: An analysis of multinational corporations' official wording. *European Management Journal*, 30(1), 18-31, <http://dx.doi.org/10.1016/j.emj.2011.09.001>
- Puck, J. P., Kittler, M. G., & Wright, C. (2008). Does it really work? Re-assessing the impact of pre-departure cross-cultural training on expatriate adjustment. *International Journal of Human Resource Management*, 19 (12), 2182-2197.
- Ren, H., Yunlu, D. K., Shaffer, M., & Fodchuk, K. M. (2015). Expatriate success and thriving: The influence of job deprivation and emotional stability. *Journal of World Business*, 50(1), 69-78, <http://dx.doi.org/10.1016/j.jwb.2014.01.007>
- Riusala, K., & Suutari, V. (2004). International knowledge transfers through expatriates. *Thunderbird International Business review*, 6, 743-770, <http://dx.doi.org/10.1002/tie.20034>
- Schiuma, G., Bourne, M., & Harris, H. (2006). Assessing the value of international workers. *Measuring Business Excellence*, 1, 60-71, <http://dx.doi.org/10.1108/mbe.2006.26710aaf.002>
- Scullion, H., Collings, D. G., & Caligiuri, P. (2010). Global talent management. *Journal of World Business*, 45 (2), 105-108, <http://dx.doi.org/10.1016/j.jwb.2009.09.011>
- Selmer, J., Luring, J., Normann, J., & Kubovcikova, A. (2015). Context matters: Acculturation and work-related outcomes of self-initiated expatriates employed by foreign vs. local organizations. *International Journal of Intercultural Relations*, 49(6), 251-264, <http://dx.doi.org/10.1016/j.ijintrel.2015.05.004>
- Shen, J. (2005). International training and management development: Theory and reality. *Journal of Management Development*, 24(7), 656-666, <http://dx.doi.org/10.1108/02621710510608786>
- Stroh, L., Black, J. S., Mendenhall, M. E., & Gregersen, H. (2005). *International assignments: An integration of strategy, research, & practice*. Lawrence Erlbaum and Associates, Inc., London.
- Suutari, V., & Brewster, C. (2003). Repatriation: Evidence from a longitudinal study of careers and empirical expectations among Finnish repatriates. *International Journal of Human Resource Management*, 14(7), 1132-1151, <http://dx.doi.org/10.1080/0958519032000114200>
- Swales, S. (2013). The ethics of talent management. *Business Ethics: A European Review*, 22(1), 32-46, DOI: 10.1111/beer.12007
- Tabachnick, B. G., & Fidell, L. S. (2007). *Using multivariate statistics (5th ed.)*. Boston: Allyn & Bacon.
- Tarique, I., & Schuler, R. S. (2010). Global talent management: Literature review, integrative framework, and suggestions for further research. *Journal of World Business*, 45(2), 122-133, <http://dx.doi.org/10.1016/j.jwb.2009.09.019>
- Tharenou, P. (2008). Disruptive decisions to leave home: Gender and family differences in expatriation choices. *Organizational Behavior and Human Decision Processes*, 105(2), 183-200, <http://dx.doi.org/10.1016/j.obhdp.2007.08.004>
- Tsang, E. W. K., (1999). The knowledge transfer and learning aspects of international HRM: an empirical study of Singapore MNCs. *International Business Review*, 8(5-6), 591-609, [http://dx.doi.org/10.1016/S0969-5931\(99\)00021-9](http://dx.doi.org/10.1016/S0969-5931(99)00021-9)
- Tušar, M., Žnidaršič, A., & Miglič, G. (2016). Differences between National Culture Matter – Case of Slovenian – Korean Working Environment. *Organizacija*, 49(3), 183-193, <http://dx.doi.org/10.1515/orga2016-0017>
- Vaimana, V., Haslberger, A., & Vance, C. M. (2015). Recognizing the important role of self-initiated expatriates in effective global talent management. *Human Resource Management Review*, 25(3), 280-286, <http://dx.doi.org/10.1016/j.hrmr.2015.04.004>
- Zupan, N., & Kaše, R. (2007). The role of HR actors in knowledge networks. *International Journal of Manpower*, 3(4), 243-259, <http://dx.doi.org/10.1108/01437720710755236>

Rok Pintar (M.Sc.) is a Doctoral student at the Faculty of Organizational Sciences, University of Maribor. His research activities are focused on education, human resource management, the implementation of e-learning, marketing, entrepreneurship, foreign exchange trading and economics. He has published several scientific papers in the aforementioned fields and is also an active participant in domestic and international conferences.

Jorge Tiago Martins (Ph.D.) is a Lecturer in Organizational Informatics at The University of Sheffield's Information School, UK. His overarching research and

teaching area is the management and use of information technology (IT) in complex organisations. He is interested in the intersection between Information Management/ Knowledge Management systems and organisation, with particular emphasis on structures, cultures, work practices, behaviour and change.

Mojca Bernik (Ph.D.) is Assistant Professor for Human Resource Management field on University of Maribor, Faculty of Organizational Sciences. She is Head of Human Resource Management Department. Her research field is strategic human resource management within organizations. She published research results in different publications in Slovenia and foreign countries.

Analiza procesa ekspatriatizma v slovenskem podjetju

Ozadje in namen: Mednarodna podjetja zahtevajo drugačen pristop kadrovskega managementa pri doseganju svojih ciljev. Vzrok je v zaposlenih, ki delujejo v tujini in jih imenujemo ekspatriati. Namen raziskave je zato ugotoviti dožemanje načina dela in izkušenj ekspatriatov znotraj enega izmed mednarodnih podjetij v Sloveniji.

Zasnova/Methodologija/Pristop: Za raziskavo je bila uporabljena spletna anketa med vsemi ekspatriati v farmacevtskem podjetju. Vprašalnik je bil poslan naključno v elektronski obliki in strukturiran v programu 1 ka (<https://www.1ka.si>). Vseh 12 poslanih vprašalnikov je bilo v celoti in pravilno izpolnjenih.

Rezultati: Rezultati so pokazali, da je več dejavnikov, ki vplivajo na odhod ekspatriatov v tujino., pa vendar nobeden izmed njih ni zadovoljil njihovih pričakovanj. Rezultati so med drugim pokazali, da ni nobenih razlik v njihovih pričakovanjih med tistimi ekspatriati, ki so v tujini 12 mesecev ali manj in tistimi, ki presegajo čas dela v tujini za več kot 12 mesecev.

Zaključek: V raziskavi so bili ugotovljeni dejavniki, ki vplivajo na odhod ekspatriatov v tujino in zadovoljitev njihovih pričakovanj. Rezultati raziskave bodo v pomoč vsem bodočim ekspatriatom, ki se bodo odločali za ta način dela v izbranem podjetju.

Ključne besede: *ekspatriatizem, mednarodna kariera, prenos znanja, multinacionalne korporacije*




Univerza v Mariboru

Fakulteta za organizacijske vede

Vod v management sprememb

Jure Kovač, Jürgen Mühlbacher, Georg Kodydek

Založba  Moderna organizacija

AUTHOR GUIDELINES / NAVODILA AVTORJEM

Manuscripts considered for publication in Organizacija (organizacija@fov.uni-mb.si) are those which:

- *Contain original work* – which is not published elsewhere in any medium by the authors or anyone else and is not under consideration for publication in any other medium. The author(s) is/are also responsible for any violations of the copyright regulations.
- *Are focused on the core aims and scope of the journal*: Organizacija is an interdisciplinary peer reviewed journal that seeks both theoretically and practically oriented research papers from the area of organizational science, business information systems and human resources management.
- *Are clearly and correctly written* – should contain all essential features of a complete scientific paper, should be written in a clear, easy to understand manner and be readable for a wide audience.
- *Are written in English* – should be clearly and grammatically written, in an easily readable style. Attention to detail of the language will avoid severe misunderstandings which might lead to rejection of the paper. Correct language is the responsibility of the authors. Unless the author is an English native speaker, the paper must be proofread by a language editor, English native speaker

All parts of the manuscript should be type-written (font size 12), with margins of 2.5 cm. Pages should be numbered consecutively throughout the manuscript. The text should be subdivided into numbered chapters. Figures and tables, consecutively numbered (Figure 1, Figure 2, ..., Table 1, Table 2, ...) can be included in electronic form in the text. All lettering and figure elements must be large enough to be readable when figure or table has been reduced to fit journal page or column. All figures and tables must be specifically referred in the text. Colour pictures cannot be published in the printed version of the journal; colours appear only in the internet version. The paper should start with a cover page with names and mailing and electronic addresses of the authors. To assure the anonymity of the refereeing procedure the names of the authors should not appear in the text.

When referring to the literature use the APA style (<http://www.apastyle.org/>). A short description of

the APA style is included in the Guidelines for Authors (see <http://www.degruyter.com/view/j/orga>).

All the papers will be reviewed by at least two referees. Based on the opinions and suggestions of the reviewers, the editors accept the paper, demand minor or major enhancements, or reject the paper. If major enhancements are required the upgraded paper is reviewed again.

Manuscripts can be submitted via journal web site (<http://organizacija.fov.uni-mb.si>). For further information and clarifications contact Organizacija's editorial office (organizacija@fov.uni-mb.si or joze.zupancic@fov.uni-mb.si).

Address of the Editorial office:
University of Maribor,
Faculty of Organizational Science
Kidričeva cesta 55a
4000 Kranj, Slovenia
Fax: +386-4-2374-299
Phone: +386-4-2374-226

V reviji Organizacija objavljamo znanstvene članke, rezultate raziskovalnega dela avtorjev. Predloženi prispevki naj bodo napisani v angleškem jeziku. Imeti morajo strukturo IMRAD, ki je običajna za znanstvena in strokovna besedila (informacija n.pr. na <http://www.uta.fi/FAST/FIN/RESEARCH/imrad.html>). Objavljamo dela s predmetnega področja revije, ki še niso bila objavljena in niso bila poslana v objavo v kakšni drugi reviji ali zborniku. Avtorji so odgovorni za vse morebitne kršitve avtorskih pravic.

Besedilo naj bo oblikovano za tiskanje na papirju in levo poravnano. Na začetku prispevka, takoj za naslovom, naj bo povzetek (izvleček) dolžine največ 250 besed, ključne besede, v končni – sprejeti verziji članka pa na koncu prispevka tudi kratek strokovni življenjepis vsakega od avtorjev (do 10 vrstic) in letnica rojstva (zaradi vnosa podatkov v knjižnični informacijski sistem COBISS, v reviji letnica ne bo objavljena). Na prvi strani besedila naj bodo napisani le naslov prispevka, imena in (poštni in elektronski) naslovi avtorjev članka, po možnosti tudi telefonska številka enega od avtorjev. Da bi zagotovili anonimnost recenziranja, naj se imena avtorjev ne pojavljajo v besedilu prispevka. Na koncu članka, za življenjepisi, naj bo slovenski prevod naslova, povzetka in ključnih besed.

Članek naj bo razčlenjen v oštevilčena poglavja. Naslovi članka, poglavij in podpoglavij naj bodo napisani z malimi črkami, da so razvidne kratice. Slike in tabele v elektronski obliki vključite kar v besedilo. Besedilo so lahko priložene slike in/ali tabele na papirju v obliki pripravljeni za preslikavo. V tem primeru naj bo vsaka slika na posebnem listu, oštevilčene naj bodo z arabskimi številkami, v besedilu naj bo označeno, kam približno je treba uvrstiti sliko: na tem mestu naj bo številka slike/tabele in njen podnapis. Slike bomo praviloma pomanjšali in jih vstavili v članek. Upoštevajte, da morajo biti oznake in besedila na vseh slikah dovolj velika, da bodo čitljiva tudi pri velikosti slike, kot bo objavljena v reviji. Vse slike naj bodo črno-bele z belim ozadjem; barvnih slik v tiskani verziji revije ne moremo objaviti, barve so vidne le v spletni verziji.

Članki morajo biti pred objavo v Organizaciji lektorirani. Končno verzijo mora lektorirati naravni govorec oz. lektor s primerljivim znanjem angleščine.

Seznam citirane literature oblikujte v APA stilu; podroben opis le-tega je na <http://www.apastyle.org/>, povzetek pa je tudi v podrobnem navodilu avtorjem na www.versita.com/o/authors. Ne uporabljajte opomb za citiranje; eventualne opombe, ki naj bodo kratke, navedite na dnu strani. Označite jih z arabskimi številkami.

Predložene prispevke pregledata in ocenita najmanj dva recenzenta. Na osnovi mnenj in predlogov recenzentov uredniški odbor ali urednik sprejmejo prispevek, zahtevajo manjše ali večje popravke in dopolnitve ali ga zavrnejo. Če urednik oziroma recenzenti predlagajo večje popravke, se dopolnjeni prispevek praviloma pošlje v ponovno recenzijo.

Članke za objavo lahko predložite preko spletnega mesta <http://organizacija.fov.uni-mb.si>. Za nadaljnje informacije in pojasnila se lahko obrnete na uredništvo Organizacije (organizacija@fov.uni-mb.si ali joze.zupancic@fov.uni-mb.si).

Naslov uredništva:

Univerza v Mariboru,
Fakulteta za organizacijske vede
Kidričeva cesta 55a
4000 Kranj
Faks: 04-2374-299
Tel.: 04-2374-226

Prva slovenska revija za organizacijska in kadrovska raziskovanja in prakso. Revijo sofinancira Javna agencija za raziskovalno dejavnost Republike Slovenije. Ponatis in razmnoževanje deloma ali v celoti brez pisnega dovoljenja nista dovoljena. Izdajatelj: Univerza v Mariboru, Fakulteta za organizacijske vede Kranj, Založba MODERNA ORGANIZACIJA, Kidričeva cesta 55a, KRANJ, telefon: 04 23 74 200, telefaks: 04 23 74 299, E-pošta: organizacija@fov.uni-mb.si. Uredništvo revije: Kidričeva cesta 55a, 4000 Kranj, naročniški oddelek: 04 23 74 295. Letna naročnina: za pravne osebe za prvi naročeni izvod 51,47 EUR, drugi naročeni izvod 41,38 EUR, vsak nadaljnji 36,33 EUR, za posameznike 25,23 EUR. Cena posamezne številke je 9,08 EUR. Na leto izidejo 4 številke. Tisk: ROLGRAF d.o.o. Naklada 200 izvodov.

Organizacija is covered by the following services: Cabell's Directory, CEJSH (The Central European Journal of Social Sciences and Humanities), Celdes, CNPIEC, Die Elektronische Zeitschriftenbibliothek, DOAJ, EBSCO - TOC Premier, EBSCO Discovery Service, ECONIS, Ergonomics Abstracts, ERIH PLUS, Google Scholar, Inspec, International Abstracts in Operations Research, J-Gate, Microsoft Academic Search, Naviga (Softweco), Primo Central (ExLibris), ProQuest - Advanced Polymers Abstracts, ProQuest - Aluminium Industry Abstracts, ProQuest - Ceramic Abstracts/World Ceramics Abstracts, ProQuest - Composites Industry Abstracts, ProQuest - Computer and Information Systems Abstracts, ProQuest - Corrosion Abstracts, ProQuest - Electronics and Communications Abstracts, ProQuest - Engineered Materials Abstracts, ProQuest - Mechanical & Transportation Engineering Abstracts, ProQuest - METADEX (Metals Abstracts), ProQuest - Sociological Abstracts, ProQuest - Solid State and Superconductivity Abstracts, Research Papers in Economics (RePEc), SCOPUS (in the process of registration), Summon (Serials Solutions/ProQuest), TDOne (TDNet), TEMA Technik und Management, WorldCat (OCLC)

CONTENTS - 1/2017

Damjan MALETIČ, Matjaž MALETIČ, Basim AL-NAJJAR, Katerina GOTZAMANI, Maria GIANNI, T. Bartosz KALINOWSKI, Boštjan GOMIŠČEK Contingency Factors Influencing Implementation of Physical Asset Management Practices	1
Gašper JORDAN, Gozdana MIGLIČ, Ivan TODORVIĆ, Miha MARIČ Psychological Empowerment, Job Satisfaction and Organizational Commitment Among Lecturers in Higher Education: Comparison of Six CEE Countries	17
Polona ŠPRAJC, Marko URH, Janja JEREBIC, Dragan TRIVAN, Eva JEREB Reasons for Plagiarism in Higher Education	33
Maja ROŽMAN, Sonja TREVEN, Vesna ČANČER, Marijan CINGULA Burnout of Older and Younger Employees – The Case of Slovenia	47
Rok PINTAR, Jorge Tiago MARTINS, Mojca BERNIK Analysis of Expatriation Process in a Slovenian Company	63