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Organizational Flexibility, Employee Security, and Organizational Efficiency – a Case Study of Slovenian Public and Private Sector Organizations

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Background: Literature defines different types of flexibility and security with regard to work. Regardless of which type of flexibility or security is discussed, the consequences for individuals, organizations or employers and society are significant.
Purpose: The purpose of the research was to compare and analyse the correlation between the different types of flexibility and security in work and organizational efficiency.
Methodology: Data was gathered using the Computer-Assisted Web Interview (CAWI) method. A link to an online questionnaire was e-mailed to randomly selected organisations across all economic sectors in Slovenia that had a published e-mail address, either in business directories or on a company website. We asked them to forward our e-mail to their employees. The correlation between different variables was used for data analysis.
Results: The results of our research show that there is a low positive level of correlation between different types of flexibility and security in the context of work and also between different types of flexibility in work and organizational efficiency. The correlation between different types of security in work and organizational efficiency is positive and medium strong.
Conclusion: It is recommended that the legislators be aware of the importance of their correlation with organizational efficiency when preparing legislative amendments regarding introduction of the flexibility and security in the field of work.

Keywords: *flexibility, flexible employment contracts, employee income security, job security, reproductive skills security, organizational efficiency*

1 Introduction

The relevant literature identifies different types of flexibility related to work in organizations: internal and external numerical flexibility, functional flexibility, wage and labour costs flexibility, as well as external and procedural flexibility. The problem of the organisational flexibility is also related to the problem of the employees' security. The literature identifies different types of security, which are related to work in organizations: economic, social or income security, representation security, employment, job, work and working ability security, and combination security. Regardless of which type of flexibility or security we discuss, the consequences are significant for individuals, organizations or employers and society.

The public sector is represented by all public entities as direct and indirect state budget users. Their activities are in the public interest, their founder or majority owner is the state or local community. The public sector consists of public authorities, administrations, local governments,

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public agencies, public funds, public institutions, public commercial institutions and other public entities that are established to provide public services (in the public interest), which are also indirect users of the state budget and the budget of local communities. The public sector executes decisions made about public affairs in the political sector (the National Assembly, the Municipal Council), the executive sector (the Government, the Mayor), and at operational and professional levels (public administration) and within public services (health, education, culture, social protection). The private sector is represented by organizations that do not belong to the public sector and are not related to the direct or indirect state budget or budgets of local community users.

The purpose of the research was to compare and analyse the correlation between different types of flexibility and security in work and organizational efficiency in public and private sector organizations. We want to determine whether there is a correlation between different types of flexibility and security in work and organizational efficiency. If such correlation exists, legislators should take it into account during the preparation of legislative changes.

The first part of the article presents various types of flexibility and security in work and organizational efficiency. The second part presents results of the comparison and analysis of the correlation between different types of flexibility and security in work and organizational efficiency in public and private sector organizations.

2 Literature review

2.1 Job flexibility and security

According to Jonsson (2007), flexibility, means that employers can 'hire and fire' workers at will due to weak labour-market regulations. The literature describes different types of flexibility in the context of work. Goodwin (2002) defines numerical flexibility as the capability of organizations and employers to adjust the number of employees to their needs. Altuzarra and Serrano (2010) define numerical flexibility as statistical flexibility and relate it to other job contracts. Tros and Wilthagen (2004), the ILO (2004) and Wachsen and Blind (2011) describe numerical flexibility as external and internal numerical flexibility. External flexibility is defined as ability of the organization to adjust number of employees to the business activities by using different types of employment, whether they reduce or increase the number of employees. Internal flexibility indicates the ability of the organization to adjust their work to their business needs by changing their work time. Acording to Herzog-Stein and Zapf (2014) internal-numerical flexibility refers to the internal adjustment of the amount of labour input used in an establishment's production process without recourse to the external labour market. This flexibility is achieved by using a variety of working-time arrangements. External-numerical flexibility defined as adjusting an establishment's use of labour through hiring and firing, temporary employment or fixed-term contracts.

According to Tros and Wilthagn (2004), and the ILO (2004), functional flexibility relates to an organization's adjustment of its work to its business needs by defining tasks and relocating employees to different job positions. Goodwin (2002), and Wachsen and Blind (2011) interpret functional flexibility as multi-functionality or capability to do other work besides one's own. Altuzarra and Serrano (2010) define that type of flexibility as dynamic flexibility. Eichhorst et al. (2010) make a distinction between external and internal functional flexibility. The external type includes qualified, trained, educated and competent individuals, who can adapt to structural changes. Internal functional flexibility is the ability of organizations to respond to changes in demand with a flexibly organized working process, requiring skilled, well-trained and competent employees, who can perform multiple tasks.

The economic aspect is analyzed in the context of wage flexibility and features the variable part of wage regarding job performance and overall business performance (Tros and Wilthagen, 2004; ILO, 2004; Wachsen and Blind, 2011). Eichhorst et al. (2010) associate that type of flexibility with adjustment of actual wages to macroeconomic circumstances. Vermeylen and Hurley (2007) define the externalization of flexibility, which refers to the possibility of employment and unemployment contracts (employment through employment agencies).

A long-term employment contract is a typical type of employment contract. Characteristically, no exact date of termination of the position specified on such a contact, and they are commonly believed to be more secure and stable than other types of job contracts. The literature (e. g. Soltwedl et al., 1999; ILO, 2004a; Pit Catouphes et al., 2009; Richman et al., 2010) defines different atypical or flexible types of employment contracts: shifting employees to other jobs at another location, limited-time working, tele-working, flexible working hours, half or part-time working, job-sharing, concentrated work week days (for example: four days of longer working time, with the fifth day off), hiring occasional employees.

The European Commission (2009) defines geographical flexibility (mobility) and further divides them into flexibility (mobility) within and outside the country as well as mobility within and between organizations.

According to Jonsson (2007), despite flexibility, stability means that employees have strong employment protection, perceived as job security. Literature describes different types of job security. The ILO (2004) defined the term 'economic security' as derived from basic social security. It is also related to the ability to access infrastructure for basic health needs, education, housing, information and other job-associated securities. Nesadurai (2005) separates economic security on micro and macro levels. Economic security on the micro level refers to the security of an employee's job and income. Economic security on the macro level is directed to ensuring the integrity of the market, creating growth, prosperity in a society that enables the well-being of the individual.

According to Standing (1999), the security of employee income indicates the actual and expected income that an individual earns with work or receives as social or other transfers. Security of employee income includes income level (absolutely and relatively), regarding payments, and expectations of current and future income, such as minimum wage, wage of indexation and progressive taxation. The ILO (2004) and Wilthagen et al. (2004) state that this form of security relates to an employee's opportunity to obtain basic resources and have a decent life.

Work security relates to the work conditions in organizations that encourage employee well-being. According to Standing (1999), this type of security is reflected in the regulations of health and security in the workplace, stress prevention, workplace bullying, discrimination, and absenteeism. The State Service Commission (2003) describes harassment (racial and sexual) and intimidation in the workplace. The ILO (2004) warned about the restrictions on working hours and night work.

The State Service Commission (2003) states that work security is also regarded as harassment (racial, sexual) and bullying in the workplace. The ILO (2004) in this context also mentions limits to working time and night work.

Security related to education, training and development are the skills that Standing (1999) defines as reproductive skills security. In his opinion, this type of security represents the ability of the individual to achieve such education and training that promotes opportunities for employment. The ILO (2004) defines it as employee skills security, which means the opportunities for the acquisition, retention, and the development of individual education, abilities, skills and knowledge.

According to Standing (1999), combination security represents the individual's ability to coordinate paid work with other responsibilities. Hobson (2014) defines this coordination as the work-life balance. Tros (2004) describes combination security as coordination between professional and private life, work-life balance and flexible, early (partial) retirement and flexible working time.

Muffels and Luijkx (2005) state that organizations that are able to compete on the labour market successfully are able to afford higher levels of social security, which is also a requirement for maintaining of high level flexibility. Green and Leeves (2013) conducted research to determine whether there is a link between unemployment, wages, job security, financial security and workers' wellbeing for workers in flexible employment. They found that workers in flexible employment encounter more unemployment and experience increased job insecurity; unemployment is associated with wage penalties. Lower wages, job insecurity and financial insecurity affect well-being. However, these adverse outcomes are mitigated by longer job tenure.

In connection with their results, in our research we wanted to determine whether a correlation between different types of flexibility and security in the field of work (present in the literature review) exists. Therefore, we posit Hypothesis H1:

H1: The correlation between different types of flexibility and security in the field of work exists.

2.2 Organizational efficiency

According to Kovac (2007), organizational efficiency is a positive result of the comparison between the inputs and the results obtained. Mandl et al. (2008) and Sorber (1999) posit that efficiency is the relationship between inputs and effects; therefore, efficiency shows effects regardless of the inputs or resources needed to achieve the objectives. Robbins and Coulter (2005) state that efficiency means obtaining the greatest possible output out of the smallest quantities of inputs.

The relevant literature describes different methods of the measurement of organizational efficiency. Mandl et al. (2008) write that the efficiency cannot be measured directly; therefore, different approaches to data and methodological framework are used. According to Koh and Saad (2007), benchmarking or comparative analysis are frequently used methods. Rolstadas (1995) posits a systematic, iterative process of evaluation and selection the leading organizations in the industry.

For the efficiency measurement, there is no one single method. The Common Assessment Framework (CAF) is one benchmarking method; it is a total quality management tool developed by the public sector for the public sector, inspired by the Excellence Model of the European Foundation for Quality Management (EFQM®). It is based on the premise that excellent results in organisational performance, citizens/customers, people, and society are achieved through leadership driving strategy and planning, people, partnerships, resources, and processes. It looks at the organisation from different angles simultaneously (EIPA, 2013). Aristovnik et al. (2012) write that the CAF is easy to use and takes into account the particularities of the public sector (the impact of the policy, professional work, customer orientation, non-financial results). The authors emphasize that the optimal effects of the assessment are achieved if a self-assessment principle is used, because 'the employees knew the organization the best', but a credible outcome requires a critical review.

In connection with employee efficiency, Abdolreza et al. (2013) studied wage flexibility. They determined that wage and salary factors have a great effect on efficiency. Wright and Davis (2003) determined that higher security of employment has an impact on lower motivation for work and lower productivity. In their research, Dessler (1993), Guest (2004), Egger-Peitler et al. (2007), Wanyama and Mutsotso (2010), Talebi et al. (2012), determined that security of employment has a positive impact on independency, motivation, productivity of the employees and increase their loyalty to the organization. Salaries, employment security, security and health at work, possibilities regarding education and promotion also have an impact on organizational efficiency. Baptiste (2008) and the Regus Global Report (2011) write that easier harmonization of professional and family (private) lives leads to lower levels of employee absence, their greater precision, higher productivity and loyalty to the organization. In their research, Helpern (2005), Kossek (2005), Rowlattova et al. (2006), Davis and Kalleberg (2006), Kelly et al. (2008), Kossek and Hammer (2008), Kossek and Michel (2010) and the Regus Global Report (2011) studied flexibility in relation to the organizational efficiency and ascertained that the correlation exists. Flexibility has a positive effect on the organizational efficiency, because employees are motivated, productive, which consequently leads to better products and services quality, larger commitment to the organization and lower costs.

In connection to these results, in our research we wanted to determine whether different types of flexibility and security in the context of work correlate with organizational efficiency in public and private sector organizations. Therefore, we posited two more research hypotheses:

H2: A correlation between different types of security in the context of work and organizational efficiency exists.

H3: A correlation between different types of flexibility in the context of work and organizational efficiency exists.

In our research, we used Robbins and Coulter's (2005) definition of organizational efficiency, which means obtaining the greatest possible output from the smallest quantities of inputs.

3 Methodology

The purpose of the research was to compare and analyse correlations between the different types of flexibility and security in the context of work and organizational efficiency in public and private sector organizations. The research was conducted in Slovenia from September 2011 to October 2011. Data was gathered using the Computer-Assisted Web Interview (CAWI) method. A link to an online questionnaire was e-mailed to 6,000 randomly selected organisations in all the sectors of the economy in Slovenia that had a published e-mail address, either in business directories or on a company website.

The link to the online questionnaire was sent by e-mail to official e-mail addresses, asking them to forward it to employees. We do not know whether this was done, which could imply that the survey did not include manual workers, industry workers but mainly workers in administration, or that questionnaire fulfilled one or many employees from the same organization.

The reason for the low responsiveness rate was that the survey was carried out online. Other reasons that employee state were:

- at the time of our research, they had a number of other research projected in which they participated,
- the leader decided that employees would not be allowed to participate in the research,
- they did not have time.

Conclusions are therefore limited only to the part of population that has been included in the sample. The research was carried out at the time of the economic crisis, which also affects the results of this research.

3.1 Instrument

The questionnaire was divided into two parts. The first was about demographic details. The study gathered data about the organization and people who participated on the research:

- the type of the organization,
- the activity in the private sector organizations and the number of the employees,
- employment, workplace, gender, age and education.

The second part of the questionnaire gathered information about the flexibility of organizations, employees' security and organizational efficiency. Table 1 shows descriptions of the flexibility, security and efficiency variables.

Our research included a comparison of the organizational efficiency in public and private sector organizations. For the efficiency measurement, there is not just one single method; according to Aristovnik (2012), the optimal effects of the assessment are achieved if a self-assessment principle is used, because 'the employees knew the organization the best'; therefore, in our research the employees evaluated the organizational efficiency. The results, therefore, show the evaluated and not actual organizational efficiency. We decided to take this approach, because we wanted to obtain information about the organizational efficiency, while ensuring the anonymity of the participants of the research.

Questions related to organizational efficiency in our research were, therefore, taken from the results criteria from the CAF. The questions included in the questionnaire analyze the quality aspects of the services or products, the accuracy and productivity of employees, the information transparency and cost-effectiveness of organizations, short-term objectives, and stakeholder satisfaction. Positive results of these variables show organizational evaluated efficiency.

Table 1: Descriptions of the flexibility, security and efficiency variables. Source: own

Variables of the flexibility	
Variables of numerical flexibility	
FA	The capability of an organization to adjust the number of employees to the need of organizations.
FB	The capability of an organization to adjust the work of organizational and/or business needs by using different forms of employment.
FC	The capability of an organization to adjust the work of organizational and/or business needs through overtime work.
FD	The capability of an organization to adjust the work of organizational and/or business needs by using copyrights or similar job contracts, e.g. service contracts.
FE	The capability of an organization to adjust the work of organizational and/or business needs by hiring students.
FF	The capability of an organization to adjust the work of organizational and/or business by reducing the number of employees.
FG	The capability of an organization to adjust the work of organizational and/or business by increasing the number of employees.
FH	The capability of an organization to adjust the work of organizational and/or business by changing the volume of working hours.
FI	The capability of an organization to adjust the work of organizational and/or business by timing of work or by changing working time.
Variables of functional flexibility	
FJ	The capability of an organization to adjust the content of work of an individual to organizational and /or business needs in the context of the definition of working assignments by changing systematization.
FK	The capability of an organization to adjust the content of work of an individual to organizational and /or business needs in the context of the definition of working assignments by organizational instructions.
FL	The capability of an organization to adjust the content of work of an individual to organizational and /or business needs by relocating employees to different job positions without changing employment contracts.
FM	The capability of organization to adjust the content of work of an individual to organizational and /or business needs by relocating employees to different job positions with termination of an old and the offer of a new employment contract.
Variable of wage flexibility	
FN	The ability of the organizations to adjust wages according to the job performance of an individual employee.
FO	The ability of the organizations to adjust wages according to business results and business performance.
Variable of location flexibility	
FP	The ability of the organization to transfer employees to other job positions or to other locations.
Variable of flexible employment contracts	
FQ	The ability to create flexible employment contracts that would meet the needs of the organization with tele-working from home, within domestic country.

Table 1 (continued)

FR	The ability to create flexible employment contracts that would meet the needs of the organization with tele-working from abroad.
FS	The ability to create flexible employment contracts that would meet the needs of the organization with limited-time working.
FT	The ability to create flexible employment contracts that would meet the needs of the organization with flexible working hours.
FU	The ability to create flexible employment contracts that would meet the needs of the organization with half or part-time working.
FV	The ability to create flexible employment contracts that would meet the needs of the organization with job-sharing.
FW	The ability to create flexible employment contracts that would meet the needs of the organization with concentrated works week days, for example: four days of longer working time, with the fifth day off).
FX	The ability to create flexible employment contracts that would meet the needs of the organization by hiring employees from an employment agency.
FY	The ability to create flexible employment contracts that would meet the needs of the organization by hiring occasional employees.
FZ	The ability to create flexible employment contracts that would meet the needs of the organization by hiring students.
Variables of the security	
Variables of economic security	
SA	The possibilities of an individual to access infrastructure for basic health needs (in general).
SB	The possibilities of an individual to access infrastructure for the basic health needs of safety at workplace.
SC	The possibilities of an individual to access infrastructure for the basic needs of education (in general).
SD	The possibilities of an individual to access the basic needs of education at workplace upon request of the employee and at the employer's expense.
SE	The possibilities of an individual to access workplace training based on the needs of employers.
SF	The possibilities of an individual to buy a house.
SG	The possibilities of an individual to rent an apartment.
SH	An individual's level of job security.
Variables of income security	
SI	The possibilities of an individual to have resources for a decent life (such as income, the regulation of minimum wage).
SJ	The possibilities of an individual to have opportunities for wages coordination and indexation.
Variable of workplace (service) security	
SK	The level of protection of an individual from large changes in working conditions by the current employer.
Variable of work security	
SL	The possibilities of an individual to have safe working conditions that also enable well-being in the workplace.
Variable of employee job skills security	
SM	The possibilities of an individual to achieve education and training, as well as the opportunities to improve skills and competences acquisition, retention and development.
Variables of combination security	
SN	The possibilities of an individual to have work-life balance, enabling an individual to satisfy family needs.
SO	The possibilities of an individual to have work-life balance, enabling an individual to satisfy the needs to integrate into civil, political, religious and other organizations.

Table 1 (continued)

Variables of the efficiency	
EA	The organization service compliance with the quality standards and quality of service provision.
EB	The accuracy of the employees in terms of the compliance with the deadlines.
EC	The accuracy of the employees in terms of the respect for the services content.
ED	Information transparency of the employees.
EE	Information transparency of the customer.
EF	Employee productivity (percentage of the working time required to finish the task).
EG	Organizational cost-efficiency (whether the services or products are obtained / performed with optimal costs).
EH	Achieving short-term (operational) goals with the respect to the scope of services.
EI	Achieving short-term (operational) goals depending on the quality services.
EJ	Stakeholders' satisfaction (e.g. citizens, other organizations).

Employees who participated in the research evaluated the variables of flexibility, security and efficiency numerically from the lowest (1) to the highest (7) mark. Table 2 shows the measurement scale. The reliability test showed that the data gathered about organizational flexibility was suitable for analysis because the Cronbach's Alpha coefficient was 0.916.

The reliability test showed that the data gathered about job security was suitable for analysis because the Cronbach's Alpha coefficient was 0.887.

The reliability test showed that the data gathered about organizational efficiency was suitable for analysis because the Cronbach's Alpha coefficient was 0.952.

Table 2: A measurement scale. Source: own

Mark	Variables of flexibility	Variables of security	Variables of efficiency
1	very inflexible	an individual does not have (quoted) opportunities	very ineffective/inconsistent/ unproductive/unsatisfied
2	inflexible	an individual has very poor (quoted) opportunities	ineffective/inconsistent /unproductive/ unsatisfied
3	partly inflexible	an individual has bad (quoted) opportunities	partly ineffective/inconsistent/ unproductive/unsatisfied
4	neither is, nor is flexible	an individual has limited (quoted) opportunities	neither is, nor is effective/consistent/ productive/satisfied
5	partly flexible	an individual has good (quoted) opportunities	partly effective/ consistent/productive/ satisfied
6	flexible	an individual has very good (quoted) opportunities	effective/consistent /productive/satisfied
7	very flexible	an individual has great (quoted) opportunities	very effective/consistent /productive/ satisfied

3.2 Sample

The questionnaire was returned by 1,009 employees in organizations in the private and the public sectors. The participants are broken down as follows: 25.5% were employed in the private sector and 74.5% in the public sector. 3.8% in government services, 12.9% in ministries, 0.7% in directorates, 2.0% in tax administration, 4.0% in social work centres, 4.6% in inspectorates, 17.8% in administrative units, 14.2% in municipalities and 5.1% in public institutions and public agencies. Gender and age are broken down as follows: 70.3% participants were women and 29.7% were men. The participant's average age was 42.6 years. Education among participants is as

Table 3: Average estimates and standard deviations of the flexibility, security and efficiency variables for the participants, employed in private and public sector organizations. Source: own

Variable	Mean			Std. Deviation
	Private sector	Public sector	Total	
FA	3.88	3.67	3.73	1.621
FB	3.79	3.31	3.44	1.755
FC	4.72	3.43	3.77	1.912
FD	2.78	2.86	2.84	1.829
FE	3.81	3.17	3.34	1.896
FF	2.69	3.10	2.99	1.834
FG	3.06	2.72	2.81	1.693
FH	4.60	3.07	3.49	1.928
FI	5.30	3.40	3.91	1.990
FJ	2.99	3.73	3.53	1.822
FK	4.91	4.14	4.35	1.647
FL	4.06	3.53	3.67	1.825
FM	2.45	2.71	2.64	1.694
FN	2.68	2.16	2.30	1.651
FO	2.96	2.09	2.33	1.639
FP	4.21	2.87	3.24	1.865
FQ	2.79	1.97	2.20	1.751
FR	2.07	1.73	1.83	1.498
FS	4.57	3.15	3.54	1.872
FT	5.01	2.92	3.50	1.984
FU	3.80	2.83	3.10	1.837
FV	3.10	2.53	2.69	1.744
FW	2.88	1.87	2.15	1.673
FX	1.92	1.68	1.75	1.362
FY	1.88	1.74	1.78	1.374
FZ	3.75	3.04	3.24	1.873
SA	5.67	4.80	5.04	1.558
SB	5.65	4.82	5.05	1.520
SC	5.48	4.50	4.78	1.625
SD	2.62	3.64	3.35	1.866
SE	3.60	4.47	4.23	1.816
SF	1.80	1.92	1.89	1.270
SG	2.53	2.56	2.55	1.608
SH	4.22	4.38	4.33	1.715
SI	4.00	4.04	4.03	1.584
SJ	3.14	2.44	2.64	1.503
SK	4.55	4.02	4.17	1.649
SL	5.61	4.77	5.00	1.555
SM	5.55	4.45	4.75	1.578

Table 3 (continued)

SN	4.52	4.49	4.50	1.567
SO	5.29	4.36	4.62	1.705
EA	6.00	4.85	5.18	1.462
EB	5.76	4.98	5.19	1.524
EC	6.10	5.11	5.38	1.466
ED	5.48	4.58	4.83	1.603
EE	5.86	4.69	5.02	1.581
EF	5.58	4.82	5.03	1.298
EG	5.10	4.56	4.71	1.442
EH	5.51	4.87	5.05	1.385
EI	5.93	4.83	5.14	1.471
EJ	5.75	4.75	5.03	1.413

Table 4: Average estimates and standard deviations of the values of the flexibility, security and efficiency variables for the participants, employed on managerial and non-managerial workplace. Source: own

Variable	**Mean**			**Std. Deviation**
	Managerial workplace	Non-managerial workplace	Total	
FA	3.90	3.67	3.73	1.620
FB	3.38	3.46	3.44	1.754
FC	3.82	3.74	3.76	1.915
FD	2.72	2.88	2.84	1.827
FE	3.37	3.34	3.35	1.901
FF	2.97	2.99	2.99	1.833
FG	2.68	2.85	2.81	1.690
FH	3.60	3.46	3.49	1.929
FI	4.05	3.87	3.91	1.994
FJ	4.00	3.36	3.52	1.823
FK	3.83	4.19	4.35	1.652
FL	3.83	3.62	3.67	1.824
FM	2.64	2.63	2.63	1.693
FN	2.62	2.19	2.30	1.650
FO	2.60	2.24	2.33	1.638
FP	3.12	3.27	3.23	1.865
FQ	2.09	2.22	2.19	1.748
FR	1.75	1.84	1.82	1.493
FS	3.40	3.60	3.55	1.872
FT	3.53	3.49	3.50	1.982
FU	3.03	3.12	3.10	1.838
FV	2.76	2.66	2.69	1.742
FW	2.12	2.15	2.14	1.668
FX	1.63	1.78	1.74	1.356

Table 4 (continued)

FY	1.77	1.77	1.77	1.367
FZ	3.21	3.24	3.23	1.874
SA	5.27	4.97	5.04	1.558
SB	5.42	4.93	5.05	1.522
SC	4.89	4.74	4.78	1.625
SD	3.72	3.21	3.34	1.864
SE	4.80	4.03	4.22	1.819
SF	2.01	1.84	1.88	1.266
SG	2.61	2.53	2.55	1.604
SH	4.67	4.21	4.32	1.716
SI	4.53	3.86	4.03	1.580
SJ	2.95	2.53	2.64	1.499
SK	4.65	4.00	4.17	1.647
SL	5.46	4.84	5.00	1.561
SM	5.18	4.61	4.75	1.578
SN	5.09	4.29	4.49	1.569
SO	5.01	4.48	4.61	1.708
EA	5.46	5.09	5.18	1.462
EB	5.38	5.13	5.19	1.525
EC	5.59	5.31	5.38	1.466
ED	5.31	4.66	4.82	1.606
EE	5.45	4.86	5.01	1.582
EF	5.12	5.00	5.03	1.298
EG	4.94	4.63	4.71	1.443
EH	5.28	4.97	5.05	1.386
EI	5.39	5.06	5.14	1.472
EJ	5.31	4.93	5.03	1.413

follows: 8.1% of participants finished primary, vocational professional or middle professional education, 16.9% finished either a four-year high school or high school education, 29.0% finished college or higher education, 31.7% had university degree, 14.3% had finished post-graduate studies such as specialization, master's or doctoral degrees.

The types of contracts participants held were as follows: 85.0% of participants had permanent jobs, 11.9% had contract jobs, 1.0% were students, 1.3% had copyright, or service contracts, and 0.8% marked other choice, were retired, had a five-year mandate, were unemployed, self-employed or officials.

Results

Table 3 shows average estimates and standard deviations of the flexibility, security and efficiency variables for the participants, employed in public and private sector organizations. The descriptions of these variables are shown in the Table 1.

Regarding the flexibility variables, the results of the research show that employees in the private sector evaluated most flexibility variables better than employees in the public sector. Employees in the private sector evaluated the following variables better:

- time adjustment to work,
- flexibility regarding working hours,
- flexibility regarding extension of working hours,
- the possibility of reallocating to different job positions, without changing their employment contract.

The results show that participants from the private sector have better possibilities of experiencing numerical and functional flexibility and mobility. Participants from the public sector evaluated the possibilities for tele-working worse than those from the private sector. Changes regarding increasing flexibility that would enable tele-working need to be performed by changing labour legislation.

Participants from the private and public sectors both agree that organizations do not hire employees through employment agencies very often. The reason might be the lack of trust or previous bad experience on the part of some individuals. We can avoid such problems by supervising these employment agencies. In general, participants from the public sector evaluated the situation in the field of work flexibility as low.

The results of our research show that participants evaluated security in the area of infrastructure for basic healthcare the highest. That is understandable because the labour law in Slovenia determines that the employer has to register the worker with the social insurance system and with the unemployment insurance system.

The possibilities of an individual to buy or rent an apartment or house are evaluated as the lowest, which might be a consequence of the current situation at the labour market, which is a result of the recent economic recession and the fact that, during this period, unemployment has risen only among the employees in the private sector. The state has to do more in the field of housing market, in order to increase the possibilities of individuals to buy or rent an apartment or house.

Participants from private sector organizations evaluated most of the values of variables of security and efficiency higher than participants from the public sector. The economic recession, as well as the planned reduction of employment in the public sector, had a large impact on the result.

Table 4 shows average estimates and standard deviations of the values of the flexibility, security and efficiency variables for the participants employed in managerial and non-managerial workplaces. The descriptions of these variables are shown in Table 1.

The results of the research show that participants employed on managerial workplaces evaluated highly:

- the capability of organization to adjust the content of work of an individual to organizational and /or business needs in the context of the definition of working assignments via changing systematization,
- the ability of the organizations to adjust wages according to business results and business performance,
- the capability of organization to adjust the content of work of an individual to organizational and / or business needs in the context of the definition of working assignments via organizational instructions.

The results, therefore, show that participants employed on managerial workplaces are enabled functional flexibility, more often than those on non-managerial workplaces, which is often also associated with better opportunities for participating in education and training, which also affects to better payment.

Regarding security, participants on managerial workplaces evaluated more highly:

- the possibilities of an individual to access infrastructure for the basic health needs of safety at workplace,
- the possibilities of an individual to access the basic needs of education at workplace upon request of the employee and at the employer's expense,
- the possibilities of an individual to access workplace training based on the needs of employers,
- the level of protection of an individual from large changes in working conditions by the current employer, the possibilities of an individual to have safe working conditions, which also enable well-being in the workplace, the possibilities of an individual to have work-life balance, understanding enabling an individual to satisfy family needs,
- the possibilities of an individual to have resources for a decent life (such as income, the regulation of minimum wage),
- the possibilities of an individual to have opportunities for wages coordination and indexation.

The results of the research show that participants, employed on managerial workplaces have better opportunities in regarding economic security, workplace security, job skills security and combination security. The fact that participants employed on managerial workplaces have better opportunities for education and work-life balancing is worrying. Organizations need to pay more attention to education. Employees, employed on managerial workplaces and those on non-managerial workplaces should have the same opportunities.

The results show that participants employed on managerial workplaces evaluated these variables related to the organizational efficiency on a higher position:

- the organization service compliance with the quality standards and quality of service provision,
- information transparency for the employees,
- information transparency for the customer,
- stakeholder satisfaction.

The results for the variables of organizational efficiency show that participants employed on both managerial positions and in non-managerial workplaces evaluated these variables as being good. The process of information for the participants employed on the non-managerial workplaces should be more transparent. The results show

that participants employed on non-managerial workplaces evaluated quality standards and quality of service provision and stakeholder's satisfaction as worse, which might be because they evaluated these variables more rigorously.
Due to the large number of the variables, the analysis of the correlation was made according to content sections of the flexibility, security and efficiency variables. The values of the content sections of the variables were calculated as the arithmetic mean of the basic variables. Groups of flexibility and security variables are groups of independent variables, groups of organizational efficiency variables are groups of dependent variables.

Table 5 shows the symbols of the content sections of the flexibility, security and efficiency variables, that we researched.

Table 6 shows Pearson's correlation coefficients between the flexibility, security and efficiency variables. Analyses of the correlations show that there are in general weak, positive relations between variables of the flexibility and security in the context of work and between variables of the flexibility in the context of work and organizational efficiency (see Table 6).

Table 5: Symbols of the content sections of the flexibility, security and efficiency variables Source: own

Content sections of the flexibility, security and efficiency variables	
Content sections of the flexibility variables	
F1	The ability of the organization to adjust the level and /or number of employees to their needs.
F2	The ability of the organization to adjust the work of organizational and/or business needs by using different forms of employment, through overtime work, by using copyrights or similar job contracts and/or service contracts, by hiring students, by reducing the number of employees, by increasing the number of employees.
F3	The ability of the organization to adjust the work of organizational and/or business needs by changing the volume of working hours or by timing of work or by changing working time.
F4	The ability of the organization to adjust the content of work of an individual to organizational and /or business needs in the context of the definition of working assignments by changing job descriptions, in the context of the definition of working assignments by organizational instructions, by relocating employees to different job positions without changing employment contracts, by relocating employees to different job positions with termination of an old and offer of a new employment contract.
F5	The ability of the organization to adjust wages according to the job performance of an individual employee or by business results and business performance.
F6	The ability of the organization to transfer employees to other job positions or to other locations.
F7	The ability of the organization to create flexible employment contracts that would meet the needs of the organization with tele-working from home, within the domestic country, tele-working from abroad, contract jobs, flexible working hours, half or part-time working, job-sharing, concentrated work week days (e.g. four days of longer working time, with the fifth day off), hiring employees from employment agency, hiring occasional employees, hiring students.
Content sections of the security variables	
S1	Possibilities of an individual to access infrastructure for basic health needs in general, health and security needs at the workplace, education in general, education at the workplace upon request of employee and at the employer's expense, training in the workplace, buying a house, renting an apartment and job security.
S2	Possibilities of an individual to receive or have resources for a decent life (such as the regulation of minimum wage), opportunities for wages coordination and indexation.
S3	The level of an individual's protection from major changes in working conditions by the current employer.
S4	Possibilities of an individual to have safe working conditions and enable well-being.
S5	Possibilities of an individual to achieve education and training, as well as opportunities for skills and competences acquisition, retention and development.
S6	Possibilities of an individual to have work-life balance, understanding of an individual for the needs to integrate into civil, political, religious and other organizations.

Table 5 (continued)

Content sections of the efficiency variables	
E1	Services or products consonance with quality standards or quality of ensuring services.
E2	Employees' precision in terms of adherence to deadlines or in terms of services content.
E3	The transparency of the internal information for the service providers and the transparency of the relevant information for the subscriber or recipient of the services.
E4	Employee's accuracy and productivity (percentage of working time needed to finish the work).
E5	Organizational cost-efficiency (are the services or products made with the optimal costs).
E6	Achieving short-term (operative) goals, depending on the scope of services and depend on services quality.
E7	Stakeholders' satisfaction (e.g. citizens, other organizations, etc.).

The results show that the possibilities of an individual to access infrastructure for the basic needs for living (including to rent or to own an apartment), healthcare and education correlate with the capability of the organization to:

- adjust the number of employees,
- adjust the content and organization of the work by using different types of employment and overworking hours
- make flexible types of employment contracts.

The results show that variables of the economic security correlates with variables of the numerical flexibility and variables of the flexible employment contract. Participants who have better possibilities with regards to economic security think that their organization ensures them better possibilities with regards to numerical flexibility and flexible employment contracts.

The results show that the possibilities of the employees to achieve the education, training as well as acquisition, retention and development of their skills and competences are mostly related to adaptation of work to the organizational needs by:

- relocation of employees,
- changing the volume of working hours or timing of work.

Numerical flexibility, functional flexibility and flexibility regarding employment contracts are therefore the most correlated with the basic social security of an individual and the security of reproduction skills. Participants who have better possibilities in the field of numerical and functional flexibility and flexible employment contracts have better possibilities in the context of economic security and security of the reproduction skills (e. g. education, training).

The result of the research show that the capability to wages adjusts is the most associated with:

- the opportunities of employees to obtain the means of subsistence,
- the opportunities for wage adjustment.

Wage flexibility is therefore the most strongly related to income and social security of individuals. This result is logical: participants who have better wages have better possibilities in the field of economic security.

The results show that correlation between all groups of flexibility and security variables in the field of work exists; therefore, Hypothesis H1:

The correlation between different types of flexibility and security in the field of work exists is confirmed. Arguments are taken at relatively low level of the risk (α = 0.001).

The results of the research show that there is a medium positive correlation between group of the security variables and organizational efficiency variables. The correlation does not exist between only one group of variables (F5), which represents variable of capability of an organization to adjust wages upon the job performers of each employee, results and their business performers. The correlation also does not exist for the group of variables of organizational efficiency (U6), which includes achievements of the short-term operational goals in terms of volume and quality of services. With the exceptional of the three arguments, which are marked in bold in Table 6, all other arguments are taken at relatively low level of the risk (α = 0.001).

All the groups of security variables are the best related with the evaluated group of the compliance of services/products to the standards of quality of services/products. The results show that the quality standards of the products or services that organization depends on the possibilities of an individual:

- to access infrastructure for basic health needs (in general and workplace),
- to have opportunities for wage coordination,
- for protection from large changes in working conditions (by the current employer),
- to have working conditions in the organization

Table 6: Pearson correlation coefficients (n = 835). Source = own

	F1	F2	F3	F4	F5	F6	F7	S1	S2	S3	S4	S5	S6	E1	E2	E3	E4	E5	E6
F1																			
F2	0.516**																		
F3	0.370**	0.527**																	
F4	0.572**	0.521**	0.441**																
F5	0.439**	0.451**	0.367**	0.439**															
F6	0.229**	0.273**	0.423**	0.373**	0.273**														
F7	0.377**	0.672**	0.589**	0.451**	0.496**	0.414**													
S1	0.531**	0.356**	0.341**	0.450**	0.331**	0.188**	0.413**												
S2	0.256**	0.279**	0.196**	0.314**	0.398**	0.165**	0.299**	0.509**											
S3	0.197**	0.212**	0.255**	0.236**	0.208**	0.201**	0.291**	0.444**	0.465**										
S4	0.269**	0.228**	0.338**	0.309**	0.202**	0.240**	0.301**	0.579**	0.452**	0.630**									
S5	0.191**	0.210**	0.424**	0.316**	0.178**	0.277**	0.331**	0.569**	0.362**	0.470**	0.621**								
S6	0.210**	0.241**	0.341**	0.329**	0.163**	0.244**	0.308**	0.535**	0.381**	0.439**	0.588**	0.543**							
E1	0.273**	0.254**	0.400**	0.329**	0.148**	0.289**	0.323**	0.441**	0.309**	0.384**	0.573**	0.569**	0.519**						
E2	0.226**	0.151**	0.334**	0.235**	**0.118***	0.243**	0.197**	0.379**	0.147**	0.273**	0.456**	0.457**	0.428**	0.688**					
E3	0.231**	0.189**	0.395**	0.304**	0.144**	0.254**	0.249**	0.436**	0.205**	0.362**	0.536**	0.528**	0.488**	0.699**	0.785**				
E4	0.223**	0.145**	0.326**	0.299**	0.129**	0.221**	0.214**	0.365**	**0.117***	0.235**	0.395**	0.454**	0.342**	0.586**	0.707**	0.680**			
E5	0.308**	0.154**	0.304**	0.321**	0.171**	0.210**	0.174**	0.372**	0.162**	0.250**	0.396**	0.399**	0.360**	0.548**	0.575**	0.600**	0.691**		
E6	0.198**	0.144**	0.370**	0.262**	**0.077**	0.214**	0.202**	0.420**	0.149**	0.276**	0.482**	0.493**	0.442**	0.673**	0.780**	0.766**	0.759**	0.695**	
E7	0.211**	0.188**	0.380**	0.258**	**0.106***	0.259**	0.243**	0.355**	0.151**	0.318**	0.482**	0.478**	0.414**	0.657**	0.630**	0.700**	0.619**	0.588**	0.684**

Legend: ** ….. $p < 0.001$
*…… $p < 0.005$

that are safe and provide well-being,
- to achieve education and training and opportunities for skills and competences acquisition, retention and development,
- to a work-life balance.

Therefore, organizations need to be aware that if their employees have good opportunities with regard to economic, income, workplace, work and combination security, their products or services will have better quality.

The results of the research show medium strong positive correlation between the variables of security and organizational efficiency; therefore, Hypothesis H2:

The correlation between different types of security in the field of work and organizational efficiency exists is confirmed.

The results of the research show that the organizational cost efficiency is the most related to the wage and external numerical flexibility. The quality of services/products is most related to:
- adjustment to work for the needs of the organization by using different forms of employment, by using overtime, copyrights and by changing volume of working hours or the timing of work,
- adjustment of the content of work to the needs or the organization,
- relocation of employees,
- establishment of flexible types of employment contracts.

Internal numerical flexibility, functional flexibility and other flexible types of employment contracts are thus the most related to the quality of services/products. Therefore, organizations need to be aware that products or services will have better quality if their employees will have good opportunities with regard to numerical and functional flexibility and flexible employment contracts.

Results of the research show low positive levels of correlation between all types of flexibility in the field of work and organizational efficiency (Pearson coefficients are lower than 0.5). Variables of the flexibility do not correlate with the ability of organization to adjust wages and with achieving short-term goals with regard to the volume and quality of services/products $\alpha > 0.005$ ($\alpha = 0.028$). Therefore, Hypothesis H3:

The correlation between different types of flexibility in the field of work and organizational efficiency exists is confirmed.

5 Discussion

The results of the research regarding flexibility variables show that employees in the private sector evaluated most flexibility variables more highly than employees in the public sector did. Participants in the research from the private sector have better possibilities with regard to numerical and functional flexibility and mobility. Participants from the public sector in general evaluated the situation in the field of work flexibility as being low. They evaluated the possibilities for tele-working worse than those from the private sector. Changes regarding increasing flexibility that would enable tele-working need to be performed by changing the relevant labour legislation.

Participants from the private and public sectors both agree that organizations do not hire employees through employment agencies very often. The reason might be the lack of trust or previous bad experience that some individuals had in the past. This can be avoided by supervising these employment agencies more closely.

The results of the research show that participants from the private sector organizations evaluated most security variables higher than those from the private sector did. Participants from both sectors evaluated security in the area of infrastructure for basic healthcare as the highest. That is understandable because labour legislation in Slovenia requires employers to register workers with the social insurance system and with the unemployment insurance system.

The possibilities of an individual to buy or rent an apartment or house are the lowest evaluated variables. This result might be a consequence of the current situation at the labour market, which is a result of the recent economic recession and the fact that, during this period, unemployment has risen only among the employees in the private sector. The state has to do more in the field of housing market, in order to increase the possibilities of individuals buying or renting an apartment or house.

Participants from the private sector organizations evaluated most of the variables of the organizational efficiency more highly than public sector participants did. The economic recession, as well as the planned reduction of employment in the public sector, might have an impact on the result.

The comparison between participants employed on managerial workplaces and those on non-managerial workplaces shows that the former have better opportunities with regard to functional flexibility, which is often also associated with better opportunities for participating in education and training, which also affects better payment.

The results of the research show that participants employed on managerial workplaces have better opportunities with regards to economic security, workplace security, job skills security and combination security. That might be because participants from the non-managerial workplaces evaluated these variables rigorously. Nevertheless, participants employed on managerial and non-managerial workplaces should have the same opportunities. Organizations need to pay more attention to education. Greater educational opportunities for employees in managerial work places also mean better conditions with regard to functional and wage flexibility.

The results for the organizational efficiency variables show that participants employed on both managerial and non-managerial workplaces evaluated these variables as good. The process of information for the participants employed on the non-managerial workplaces should be more transparent. The results show that those participants evaluated quality standards and the quality of service provision and stakeholder's satisfaction as worse, which might be because they evaluated these variables more rigorously.

The results show that correlations between all groups of flexibility and security variables in the field of work exist. The variables of economic security correlate with the variables of numerical flexibility and the variables of flexible employment contracts. Participants who have better possibilities with regard to economic security think that their organization provides better possibilities with regard to numerical flexibility and flexible employment contracts. Numerical flexibility, functional flexibility and flexibility regarding employment contracts are therefore the most correlated with basic social security of an individual and the security of reproduction skills. Participants who have better possibilities with regard to numerical and functional flexibility and flexible employment contracts have better possibilities with regard to economic security and security of the reproduction skills (e.g. education, training). Wage flexibility is the most related to income and social security of individuals. This is logical, since participants who have better wages have better possibilities for economic security.

The correlation between flexibility of organization and security of an individual has been studied by other authors. Muffels and Luijkx (2005) state that other organizations that are able to compete on the labour market successfully are also able to afford higher levels of social security, which is also a requirement for maintaining high levels of flexibility. Elmeskov et al. (1998), Cazes and Nesporova (2001) OECD (1999; 2004), Kahn (2005), and the European Commission (2006) link strict employment protection legislation to:

- the unemployment of the young people, people who are less skilled, older and female,
- increasing atypical forms of employment during times of economic growth,
- the possibility of the allocation of employees to other (worse) job positions within organizations,
- structural dynamics,
- more frequent temporary employment contracts,
- the duration of employment with the same employer,
- increasing the percentage of self-employed (in total employment).

The results of the research show a medium strong positive correlation between the variables of security and organizational efficiency. All groups of the security variables are most related with the evaluated group of the compliance of services/products to the standards of quality of services/products. Therefore, organizations need to be aware that if their employees have good opportunities for economic, income, workplace, work and combination security, their products or services will have better quality. Internal numerical flexibility, functional flexibility and other flexible types of employment contracts are therefore the most related to the quality of services/products. Therefore, organizations need to be aware that products or services will have better quality if their employees will have good opportunities for numerical and functional flexibility and flexible employment contracts.

Regarding the correlation between the variables of security and organizational efficiency, authors have different opinions. Wright and Davis (2003) state that higher security of employment has an impact on lower motivation for work and lower productivity. Dessler (1993), Guest (2004), Egger-Peitler et al. (2007), Wanyama and Mutsotso (2010), Talebi et al. (2012) state that security of employment has a positive impact on independency, motivation, productivity of the employees and increase their loyalty to the organization; salaries, employment security, security and health at work, possibilities regarding education and promotion have also an impact on the efficiency of the organizations. Baptiste (2008) and Regus Global Report (2011) and Kozjek et al. (2014) state that easier harmonization of professional and family (private) life leads to lower employee absence, their greater accuracy in the work, higher productivity and loyalty to the organization.

Helpern (2005), Kossek (2005), Rowlattova et al. (2006), Davis and Kalleberg (2006), Kelly et al. (2008), Kossek and Hammer (2008), Kossek and Michel (2010) studied flexibility in relation to the organizational efficiency. They determined that a correlation between flexibility and organizational efficiency exists. Flexibility in the organization has a positive effect on the efficiency.

The link to the online questionnaire was sent by e-mail to official e-mail addresses, asking them to forward it to employees. We do not know whether this was done. This could imply that the research did not include manual workers, industry workers but mainly workers in administration; or that questionnaire completed by one or many employees from the same organization. The reason of low responsiveness rate was that the survey was carried out online. Other reasons that employee state were:

- at the time of our research, they had a number of other research projects in which they participated,
- the leader decided that employees are not allowed to participate in the research,
- they did not have time.

Conclusions are therefore limited only to the part of the population that has been included in the sample. The research was carried out at the time of the economic crisis, which is also the fact that affect to the results of research. The research should be repeated in times of economic growth and with more participants from private sector organizations.

6 Conclusion

Discussions on the perfect balance between flexibility and security in the field of work are more frequent during economic crises. Less attention is given to correlations between flexibility and security in the field of work with the organizational efficiency.

The results of our research show that there is a low positive level of correlation between variables of the flexibility and security in the context of work as well as between variables of the flexibility in the field of work and organizational efficiency. Numerical flexibility, functional flexibility and employment flexibility are the most related to basic social security of an individual and to the security of reproduction skills. Wage flexibility is the most related to income and social security of the individuals. Participants who have better possibilities in the with regard to economic security think that their organization enables better possibilities with regard to numerical flexibility and flexible employment contracts. Participants who have better possibilities with regard to numerical and functional flexibility and flexible employment contracts have better possibilities with regard to economic security and security of the reproduction skills (e.g. education, training).

The flexibility of wages and external numerical flexibility are most related to the cost-efficiency of the organizations. The internal numerical flexibility, functional flexibility and other types of flexible forms of employment contracts are most related to quality of service and products. Therefore, organizations need to be aware that products or services will be of better quality if their employees will have good opportunities with regard to numerical and functional flexibility and flexible employment contracts.

The correlation between variables of the security with regard to work and organizational efficiency is positive and medium strong. Social security, income security, employment security and reproduction and combination security are most related to compliance with the service quality standards. Therefore, organizations need to be aware that if their employees have good opportunities with regard to economic, income, workplace, work and combination security, their products or services will be of better quality.

During the preparation of the legislative amendments regarding introduction of flexibility and security in the field of work, it is therefore necessary to realize the importance of their correlation with organizational efficiency. The fact that efficiency of organizations is more related to the security of individuals, rather than flexibility of organizations must not be forgotten. There must be good reasons to increase the flexibility in the field of work; otherwise, a lower level of efficiency of organizations can be expected.

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Varnost zaposlenih ter fleksibilnost in učinkovitost organizacij – primer organizacij v javnem in zasebnem sektorju v Sloveniji

Ozadje: Literatura opredeljuje različne vrste fleksibilnosti in varnosti na področju dela. Ne glede na to, katera vrsta fleksibilnosti in varnosti se obravnava, pa so pomembne posledice, ki jih spremembe fleksibilnosti in varnosti na področju dela, povzročijo posameznikom, organizacijam oziroma delodajalcem in družbi.
Namen: Namen raziskave je bil primerjati in analizirati povezanost med različnimi vrstami fleksibilnosti in varnosti na področju dela z učinkovitostjo organizacij.
Metodologija: Podatki so bili zbrani z metodo CAWI (s spletnim anketiranjem). Povezava do spletnega vprašalnika in prošnja, da e-pošto posredujejo vsem zaposlenim, je bila posredovana po e-pošti naključno izbranim organizacijam in delodajalcem, ki so imeli svoj e-poštni naslov objavljen na svoji spletni strani oziroma v poslovnem registru. Za analizo podatkov je bil uporabljen Pearsonov koeficient korelacij.
Rezultati: Rezultati raziskave kažejo nizke pozitivne stopnje povezanosti med fleksibilnostjo organizacij in varnostjo posameznikov ter med fleksibilnostjo in učinkovitostjo organizacij. Povezanost med varnostjo posameznikov in učinkovitostjo organizacij je pozitivna in srednje močna.
Zaključek: Pripravljavcem sprememb na področju delovno-pravne zakonodaje priporočamo, da se pri pripravi sprememb glede fleksibilnosti in varnosti na področju dela zavedajo pomena povezave med fleksibilnostjo in varnostjo na področju dela ter učinkovitostjo organizacij.

Ključne besede: *fleksibilnost, fleksibilne oblike pogodb o zaposlitvah, dohodkovna varnost, varnost zaposlitve, varnost reprodukcije veščin, učinkovitost organizacij*

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The Influence of Social Networking Sites on Recruiting Human Resources in the Czech Republic

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Background: This paper is focused on the usage of social networking sites (SNS) for human resources departments in the process of hiring new employees. It also maps the development and influence of SNS on recruiter's behavior and customs. The main aim is to find out, whether SNS could/will replace traditional online job boards in the Czech Republic. The motivation for the research is to determine whether SNS can be used for serious and practical business purposes.
Methods: The paper presents authors' empirical research with two interconnected instruments used for data collection: (1) Questionnaire with 15 questions devoted to usability, evaluation and comparison of SNS with job portals (N=286 HR specialists) and (2) Comparison of 3 online job advertising methods – job portals, SNS and business website.
Results: HR specialists regularly use publicly available information on candidates' Facebook profiles. Similar results have been observed using both instruments. SNS's in the Czech Republic are not yet used by recruiters as the main tool for recruitment, however, are often used as a support tool for decision making in the final stage of recruitment. Use of SNS's by recruiters is universal; we have not found any significant differences in terms of demographics (men, women, old, young HR professionals). The rate of utilization of SNS's by recruiters in the Czech Republic is gradually increasing, but does not reach the US level.
Conclusion: Our findings confirm the rising importance of social networking sites (SNS) usage as a new recruiting technology. However, as a major player in the field of recruitment, job boards (eg. Jobs.cz) are still important. However, the expectation is that in the near future, this will change and SNS's may replace the job boards.

Keywords: *human resources, new trends, social networks, social networking site, SNS, job boards, competitive advantage*

1 Introduction

Originating from classic findings that people are connected through just "six degrees of separation," based on Milgram's (1967) Small world study, "the idea that people are organized in "social networks" is much older than the internet. However, recently a social network can be represented as an on-line space designed primarily for interpersonal communication, often referred to as a Social Networking Site (SNS). This is a place for staying in touch with old friends, making new contacts and increasing one's social capital.

There is an enormous interest in SNS from the business sector. Companies advertise themselves here, offer their products, keep in touch with customers and also recently, have started monitoring their employees as well as looking for, and vetting future employee candidates. Social networking sites are becoming important tools in the recruitment area.

They are becoming an important alternative to the traditional recruitment of employees through job boards (e.g. in the Czech Republic jobs.cz). It is clear that the potential of SNS for the Human Resource (HR) area is large. For example, Breithbarth (2011) highlights the advantages of

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opening a profile on LinkedIn, underlining the fact that just “having a profile” is not enough, it is also necessary to maintain, update and engage on it too.

The companies’ main goals are to save money and time when choosing employees, but on the other hand, the savings should not affect the quality of potential employees. The question of how to decrease costs, but maintain the level of the candidates may indicate the smart use of SNS where the individuals may reveal more information than to the recruiter during a job-interview than the recruiter may normally find out. In the U.S., employee selection through SNS is a common practice (O’Shea, 2012). For the Czech labor market it is a relatively new challenge.

This paper is focused on the SNS and their impact on the HR department in organizations when selecting new employees. It seeks to answer whether social media has a chance to fully penetrate the field of human resources and become a full-fledged tool for job search and recruitment. Or, whether they can move the HR forward in any direction, even perhaps replacing the very popular tools, such as job boards like jobs.cz, prace.cz etc., which currently dominate the field of Czech HR.

2 Literature review

2.1 New trends in HR

Traditionally, a recruiter’s options for seeking new candidates have been newspaper advertisements, purchasing databases from external sources or asking specialized hiring professionals to head-hunt the appropriate candidates. Lately online tools have become a possibility. There are six main ways of how to look for an employee in the virtual environment:

- job boards,
- aggregators of job offers,
- labor offices,
- web sites of particular companies (section “vacancies”),
- specialized discussion forums,
- social networks.

Doucek et al. (2012) point out that social media sites like Facebook and LinkedIn have come recently to the labor market, and are used more and more frequently in the area of recruitment. Employers (represented by HR specialists) quickly discovered this new space for facilitating the recruitment process. They are using the SNS to evaluate potential candidates and to choose the best candidates for employment. It is clearly shown by the statistics of CareerBuilder (Hafner, 2009), that indicates the ratio of hiring decisions are influenced by screening of SNS profiles. Almost, one fifth of the employers claim that SNS content encouraged them to hire the candidate. On the other side, more than 45% of employers stated that due to screening the internet profile of a candidate, they decided not to hire them.

Job seekers are not yet prepared for the new trend. The majority of people who are looking for a new job do not pay appropriate attention to their internet profile (Pavlicek, 2013). However, the recruiter can find out; whether they are responsible and loyal persons; whether they provided correct information during interviews; how other people react on their comments or whether they are friendly, popular and easygoing, etc. There are many aspects which can be discovered in the recruiting process using social media. SNS can be very dangerous for their users, when they reveal more than they expected or wanted (Sunshine, 2011).

2.2 SNS don’t serve their original purpose

SNS are beginning to be used for other purposes than those for which they were originally created. It is typical for Facebook and Twitter. According to Qualman (2011), ‘Social media platforms like Facebook, YouTube and Twitter changed the way consumers behave, connecting millions of people with the instant communication tool.’ However, for companies that have established themselves on social networks, is not an easy task to interconnect into one meaningful communication so different fields such as IT, customer service, marketing and management. They must come up with new procedures, roles and responsibilities, metrics and strategies. They must answer the challenges and legal issues that may arise (see Wollan and Smith, 2011).

2.3 Use of Social Networks HR

Reppler’s (2011) research confirmed the importance of personal presentation of candidates on the internet, especially on social networks, with following findings related to USA:

- Recruiters are using social networks to screen job applicants. This means it is important to carefully manage image on these types of sites.
- Facebook and Twitter are being used a lot to screen job applicants. On Facebook and Twitter, hirers are trying to get a more personal view of a candidate, rather than the resume-like view they will see on LinkedIn. Hirers are looking at the social networking profiles of candidates very early in the process. This means that job seekers need to have their online act in order before they begin looking for a job.

Therefore well prepared resume is important, but there are more points, that are taken in account by the employer. One of the new indicators is the overall presentation of the candidate on the internet – his/her digital footprint that leaves during the everyday interaction and communication on the web. 91% of employers check the candidates on the internet; a large part of them verifies their online identities on social networks. The research shows that HR professionals use to determine additional information about the applicant in particular the following sources: Facebook (76%), Twitter (53%) and LinkedIn (48%), (see Figure 1). Reppler (2011) also summarizes main reasons for hiring and rejecting candidates (Table 1).

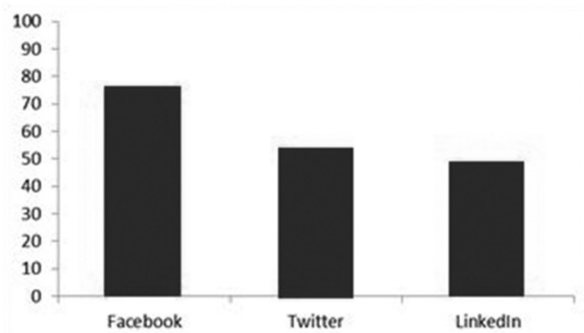

Figure 1: Utilization of Social Networking Sites for recruiting in %. Source: Adapted from Reppler (2011)

2.4 Tools used by HR specialist

Search for the candidates by the advertisements in paper form may now already be considered almost an archaism. Cisco's statistics confirm that in the Connected World Technology Report (CISCO, 2011). The young generation's attitude towards work with information technologies is changing. The needs and preferences of the next generation of employees will affect the development of the labor market - how the individual companies adapt to these trends will affect their competitiveness in the future in the battle for skilled workers.

Professor John Sullivan summed up the 10 strongest trends in recruitment and talent management for 2012 (HRnews, 2012). These include the strengthening of the influence of social media, which will include more and more relevant data, and also corporate programs recommending talents through connection to social media.

Professional server ere.net (Raphael, 2015) published forecast of five trends that can be expected in recruitment. The most important trend from the perspective of social network is search and recruitment, so-called just-in-time. "The trend of searching employees is being moved from static databases to social media and there is a perspective of continuing and growing that trend. Traditional databases and talent pools will be replaced with online forums and communities. The entire recruitment campaigns can be implemented in a matter of days or weeks." (HRnews, 2012). Historically, job boards were important on the labor market, both for jobseekers and employers. This fact can be illustrated with the results of a study organized by the research company Factum Invenio, which says that 80% of the internet population is seeking employment opportunities through the internet. Of those, nearly one fifth is heading to social networks, while 75% of applicants are seeking information about offers on specialized job boards, such as Jobs.cz and Prace.cz. (Jobs.cz, 2010). The advantage of a dedicated online space (job boards) is that there are concentrated those, who are actually seeking work (as opposed to general browsing on social networks).

Table 1: Reasons for hiring and rejecting candidates. Source: Adapted from Reppler (2011)

Rejected		**Hired**	
13%	Lied about their qualifications	39%	Gave a positive impression of their personality and organizational fit
11%	Demonstrated poor communication skills	36%	Profile supported their professional qualifications
11%	Posted negative comments about a previous employer	36%	Profile showed candidate was creative
11%	Posted inappropriate photos	34%	Candidate had good references posted by others
11%	Posted inappropriate comments	33%	Showed solid communications skills

3 Methods

Empirical research is based on two interconnected instruments:

- Survey with questionnaire containing 15 questions (listed in subchapter 3.1.) focused on the usability, evaluation and comparison of social networks with job portals and 5 questions focused on the demographic data (N=286 HR specialists).
- Comparison of 3 online job advertising methods – job portals, social networks and business website.

3.1 Survey

The aim of the survey was to collect data for subsequent analysis. We try to determine the current view and practice in HR recruitment in the area of social networks compared to traditional methods, such as advertising on job boards.

The questionnaire survey was conducted online, during one month period. Link to the questionnaire was sent via e-mail directly to HR professionals (mailing list comes from collaborating personal agency Jobs21) in various sectors within the Czech Republic. Questionnaire was also distributed on Czech HR groups/pages on LinkedIn and Facebook, in the specialized forums and discussion groups focusing on HR.

The questionnaire contained 15 questions devoted to usability, evaluation and comparison of social networks in recruitment with job portals. We used both closed and opened questions in which respondents could evaluate and express their views on social networks and job boards, as well as state their personal experience.
List of questions in the survey:

- Are you personally involved in recruitment? (closed question)
- How do you search for new employees? (open ended question)
- What is – according to you - the most effective way to advertise job openings? (closed question)
- Based on your experience, rate SNS by frequency of use in recruitment. (closed question)
- Do you regularly check the candidate’s professional and/or private profile on a social network? (closed question)
- How crucial for your hiring decision are information about candidates from SNS? (closed question)
- Do you see the future of social networks in recruitment? (closed question)
- Does your company have profile in SNS? (closed question)
- What does your company use social media for? (open ended question)
- Do you think social networks can replace job boards?(closed question)
- What advantages do you see in SNS in recruitment? (closed question)
- What kind of workers are looking on social networks? (open ended question)
- How many successful candidates have you discovered through social networks? (open ended question)
- Do you personally use SNS? (open ended question)
- What is your opinion on social networks and their use in the recruitment of HR managers? (open question)

The questionnaire was concluded by demographic section determining gender, age, locality and size + economic sector of the company (more in Tables 2 and 3). There was a disproportional amount of females in the sample, caused by disproportional distribution of females in HR field.

Table 2: Age of respondents in correlation with gender. Source: Questionnaire by authors

Gender	**Number**	**18 - 24 age**	**25 - 34 age**	**35 - 44 age**	**45 - 54 age**	**More than 55 age**
Female	206	4,84 %	33,09 %	18,97 %	4,84 %	3,69 %
Male	80	3,15 %	11,89 %	6,26 %	7,39 %	3,98 %

Table 3: Size of company. Source: Questionnaire by authors

Size of company	**Micro compan (1–9 employees)**	**Small company (10–99 employees)**	**Midsize company (100–499 employees)**	**Large company (500 and more employees)**
Number in %	9,93 %	37,59 %	26,95 %	25,53 %

The total return was 286 questionnaires (61.8%), of which 77.9% came by e-mail, 12.6% from LinkedIn and 2.3% form Facebook. Other sources are negligible. We used unique IP addresses condition as a deterrent against the accumulation of responses from one respondent. Almost 70% of answers came from Prague. Industries such as consulting, mediation, evaluation, information technologies and services are together 43%. The research results are presented in the Chapter 4 (Findings) of this paper.

3.2 Content Analysis

Content analysis mapped the existing recruitment information channels. We focused solely on on-line channels, because only these are relevant to the subject of our interest (are competitors/substitutes of social networks). Our analysis is based on the results of the questionnaire survey and previous expert interviews, in which we have identified three main recruitment informational channels: companies' websites, job boards and social networks.

In the area of job boards server jobs.cz maintains its long term prevalence, so it was chosen as a representative unit of the whole group. Social networks are represented by Facebook (FB), LinkedIn, and Twitter.

Analysis of current recruitment information channels is presented in Table 8, which presents the advantages, disadvantages and reach of various channels. Finally, we also specified the suitability of a particular channel for different employee positions.

4 Findings

4.1 Questionnaire survey results

Based on our survey, we have come to following interesting results:
Survey clearly showed the still prevailing dominance of job portals in the Czech Republic, but it also registered recent rise of social networks on the Czech labor market. (Question: Based on your experience rate social networks by frequency of use in recruitment.)

Question "Do you check the candidate's profile on the social network?" revealed, that almost 53% of HR professionals check the candidate's profiles.

The questionnaire also proved (Question: Do you personally use social networks?) that HR professionals who use social networks in their personal life far more inclined to use social networks for business purposes.

65% of HR professionals who screen the candidate profile on a social network, have their own profile on social networks and are at least occasionally active there. Maybe that is why they hired 62% of applicants discovered directly (firstly) on social networks. On the other hand, HR professionals who do not perform social network screening come mostly (67%) from companies without social network presence. This is why just they hired just 12% of applicants discovered directly (firstly) on social networks.

The survey confirmed (supported by 99 respondents) that HR professionals, who privately use social network at least once a week, do screen the profiles of candidates on social networks.

Table 4: Private use of SN / Professional use of SN. Source: Authors

Antecedent: *Do you personally use social networks? – Daily or Several times a week.*
Succedent: *Are you viewing the candidate's profile on a social network? – Yes.*
Reliability of implication (confidence): *72.26%*

	Succedent	Non Succedent
Antecedent	99	38
Non Antecedent	52	97

Table 5: Large company / Future of SN. Source: Authors

Antecedent: *Size of the company – Large company (500+).*
Succedent: *Do you see the future of social networks in recruitment – Main method or Supplement.*
Reliability of implication (confidence): *98.61 %*

	Succedent	Non Succedent
Antecedent	71	1
Non Antecedent	194	88

Another confirmed hypothesis (supported by 71 respondents) is, that HR professionals from large companies believe that social networks are the future of recruitment: either as a supplement or even main method of finding candidates. Illustrative finding is, that even the recruiters, who still have not hired any employee based on a contact from the social networks, sometime check the of candidates' online profiles.
Answers, how recruiters see the future of social networks, significantly varied: 99% of respondents who do screen candidate's profile, see the future of social networks in the recruitment (either as one of the main alternatives or at least as a support for other ways). In the second group, which does not use social networks for screening, less than 15% of respondents think that social networks have the future in recruitment.

On social networks, most respondents are looking for junior positions (35%), followed by management of 19.8%, specialists and top management together less than 6%.

Questionnaire survey highlighted that HR professionals whose company is on social networks and also organizes recruitment within the social networks, are the most frequently between the ages of 18-34 years. This confirms the assumption that the younger generation has therefore closer relation to social networks and modern technology than the older one.

The data presented in Table 6 and Table 7 was gathered by analyzing the responses to open ended questions.

Table 6: What advantages do you see in social networks in recruitment? (multiple answers). Source: Questionnaire by authors.

Advantages in social networks in recruitment	**Number of responds**	**Number in %**
It‘s the current trend	150	52.63%
Job offer can be published free of charge	136	47.72%
Swiftness (immediate display)	125	43.86%
Possibility to check candidate‘s profile -“digital footprint“	118	41.40%
Easily accessible - no extra technology needed	113	39.65%
Good tool for HR marketing	86	30.18%
Common and familiar environment for young generation	65	22.81%
Possibility of continuous edit and update	50	17.54%
Detection of false claims (easy comparison of professional information in CV)	50	17.54%
I do not see any benefit	48	16.84%

Table 7: How do you search for new employees? (multiple answers). Source: Questionnaire by authors.

How you search for a new employee?	**Number of responds**	**Number in %**
Advertising on the job boards (jobs.cz, práce.cz, spráce.cz and others)	254	87, 9%
On our own company’s website	219	75, 8%
Recommendations through friends	178	61,6%
By searching the internet (headhunting)	108	37,4%
By publishing openings on social networks (Facebook, LinkedIn, Twitter and others)	88	30, 5%
Advertising in press	82	28,4%
Another method	36	12,46%

4.2 Content analysis results

According to the results shown in Table 7, we selected two most common ways of job advertising and compared them with the social networks.

The most important advantages of SNS compared to job boards and web sites are: price – they are usually free, swiftness (instant publication) and digital footprint[1]. HR professionals realize the benefits of social media. This is confirmed by the results of a questionnaire survey on the question "What benefits of social networks do you perceive in recruitment?". The biggest advantages were: Firstly – that the social networks are the current trend. Secondly the possibility to study candidate's digital footprint, thirdly swiftness of information flow, and a possibility to publish job offers free of charge.

Analysis of the current possibilities of online advertising shows the advantages of social networks compared to working portals and websites. The most important include: Price (usually free), speed (instant view) and digital footprint.

Table 8: Comparing the different means of online recruitment. Source: authors.

	Job board (jobs.cz)	FB	LinkedIn	Twitter	Corporate websites
Kind of employees	junior and senior management, graduates	young people, graduates	specialists, senior and top management	specialists	active jobseekers
Advantages	many responses CV database seeking, almost non-limited advertisement	existence of digital footprint, increasing visitors of corporate FB page	CV presentation, references, circles of friends, interest groups	easy reach of specialists worldwide	responses of active individuals who are interested in a particular company
Disadvantages	price, a large number of irrelevant responses	uncertainty that someone replies distrust in FB	activity must make HR	limited number of characters, little used in the Czech Republic	limited distribution low response

5 Discussion

Our survey showed that HR specialists regularly use the public information on candidates' Facebook profiles. Question "Do you check the candidate's profile on the SNS?" revealed, that almost 53% of Czech HR professionals check the candidate's profiles. Similar question in the research made by Reppler (2011) reached 91%, which demonstrates the difference between Czech Republic and USA.

From the data that we have collected and analyzed we could sense that there is an experience gap between employers and potential employees. Employers represented by HR specialist have had very quickly discovered this new space and have learned how to use it to their advantage – for facilitating the recruitment process. They are using the social networks to professionally evaluate potential candidates and to choose the best employees. It is also clearly shown by the statistic of CareerBuilder (Hafner, 2009).

Employers looking through their employee's pages or data can sometimes gain access to the most intimate personal data. Not only are employees responsible for their statuses, they are also judged by who they are friends with, needing to clean up or delete friends' comments and posts on their pages. Facebook users carelessly publish a lot of personal information. More than 60% show their photos and around 50% of Facebook users, have their wall open for all Facebook users. Based on our research, we for example know that more than 90% of Facebook users have

1 "Digital footprint" is the data left behind by users in virtual on-line sphere. A passive digital footprint is created when data is collected without the owner knowing (IP address, cookies, etc.), active digital footprints are created when personal data is released deliberately by a user for the purpose of information about oneself by means of websites or social media. Recruiters mainly focus on the active digital footprint (Grayson, 2011).

the information about their education publicly accessible (Bohmova and Malinova, 2013).

As time goes by, we can expect some changes – people probably won't change their behavior or life-style, but they will put more effort in maintaining the good public image in the terms of internet presentation (including forcing Google to "forget" something). Candidates would hide the problematic photos, comments and other information, or even they could publish specific information, that will make up their profile more desirable.

But we expect eventually closing of the gap between employers and employees. So finally the screening the Facebook profile could become almost worthless. On the other hand, it could open new opportunity for Facebook to sell the publicly hidden information to the recruiters, as the LinkedIn already does (Hines, 2015).

Our survey confirmed that HR professionals from large companies are interested in the social networks' data and believe that social networks are the future: either as a supplement or even main method of finding candidates. The reason may be the fact that large companies are often part of the multinational chains. And if the chain comes, for example, from the USA, the employees in the Czech Republic can be affected significantly by the overall corporate culture. Interesting fact is, that even the recruiters, who still did not accept any employee based on a contact from the social networks, sometime check the of candidates' online profiles.

Our findings can be compared with the results of Jobs.cz (2010). It declared that even Czech recruiters are beginning to discover new horizons. The study on a sample of 234 Czech recruiters pointed out, that social networks like Facebook or LinkedIn use professionally 24% of the respondents, 27% of them use the social networks only for personal purposes. 44% of HR specialists do not use social networks in order to not lose the time. The remaining 11% of respondents consider the use of social networks in the future.

Social networks noticed the recent trend and skillfully began to adapt to the new situation. The largest ones: Facebook, LinkedIn, and Twitter have developed new tools to effectively link with the labor market. Leadership in relation to HR holds LinkedIn, the social network for professionals, which is inherently destined to be used by human resources.

There are even some special applications created just for recruitment, for example Czech personnel agency "Bohemia job start" has created an applications on Facebook which enables search for job offers, facilitates creation of CV or gives the tips for interview (Facebook, 2014). Also international company Monster launched the first global Facebook´s application for professional networking - BeKnown (Monster, 2014).

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5.1 Limitations of the study

Our work was focused on Czech Republic only; most of respondents were from Prague. The survey was conducted in Czech language – therefore even foreigners and expats living and working here were excluded from the pool of respondents. Hence the study reflects just and only Czech point of view, which can be different form the global one. Another limitation of the study is self-selection of the respondents, which could further skew the results.

Future directions for research (unanswered questions) are thus following: Similar researches should be done in other countries (possible further expansion to V4 and CEE countries).

Also, we have interviewed just HR specialists, but this topic could be also tackled from the point of regular internet users – employees.

6 Conclusion

Based on our research, we believe that social networks are important HR tool, but they are not able at the moment fully replace the websites of companies or job boards. Websites are and probably will remain important channel to present job offers– especially for companies. Also job boards are here to stay - due to the fact that some professions (plumber, electrician, and other kind of laborers) are inappropriate for recruiting on social networks.
However, the increasing importance of social networks is undeniable. Some professions (mostly IT specialists, white collar workers, upper management) will be hired mostly through them, in other cases, the networks will be at least used for background check of selected candidates.
We expect that social media will become a suitable alternative to traditional recruiting tools, and we assume that there is a very probable a parallel functioning of all the above mentioned instruments in recruitment.

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Vpliv informacij s spletnih družbenih omrežij na zaposlovanje v Češki republiki

Ozadje: Članek obravnava proces zaposlovanja v kadrovskih oddelkih z uporabo spletnih družbenih omrežij. Ravno tako izpostavlja razvoj in vpliv spletnih družbenih omrežij na vedenje in navade kandidatov za zaposlitev. Glavni cilj je bil ugotoviti, ali spletna družbena omrežja lahko nadomestijo tradicionalne spletne portale na Češkem. Vodilo raziskave je bilo ugotoviti, ali spletna družbena omrežja lahko uporabljamo za resne in praktične poslovne namene.
Metode: V članku je predstavljena empirična raziskava, kjer smo uporabili dva med seboj povezana instrumenta za zbiranje podatkov: (1) vprašalnik s 15 vprašanji v zvezi z uporabnostjo, koristnostjo in primerjavo družabnih omrežij s zaposlitvenimi portali (N = 286 kadrovskih strokovnjakov) in (2) primerjava treh spletnih metod oglaševanja: zaposlitvenih portalov, družabnih omrežij in poslovnih spletnih strani.
Rezultati: Kadrovski strokovnjaki redno uporabljajo javno dostopne informacije kandidatov, ki jih najdejo n.pr. na Facebook profilih. Podobne rezultate smo dobili z uporabo obeh instrumentov. Družbena omrežja na Češkem še niso glavno orodje pri izbiri kandidatov za zaposlitev, se pa pogosto uporabljajo kot pomoč pri odločitvah o zaposlitvi kandidatov, predvsem v končni fazi postopka zaposlovanja. Uporaba družbenih omrežij pri kadrovanju je splošna; nismo ugotovili pomembnih razlik v smislu demografije (moški, ženske, starejši, mladi strokovnjaki). Kadroviki v Češki republiki vse več uporabljajo družbena omrežja, vendar uporaba ne dosega ravni Združenih držav Amerike.
Zaključek: Naše ugotovitve potrjujejo, da narašča pomen socialnih omrežij kot ene novih tehnologij pri zaposlovanju. Vendar glavni akterji na področju zaposlovanja, zaposlitveni portali (n.pr. Jobs.cz) še vedno ostajajo pomembni. Pričakovati pa je, da se v bodoče to lahko spremeni, da bodo družbena omrežja nadomestila zaposlitvene portale.

Ključne besede: *človeški viri, trend, družbena omrežja, spletne strani za družbeno mreženje, zaposlitveni portal, konkurenčna prednost*

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Students' Perception of HR Competencies

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Background and purpose: Human resource professionalism receives considerable attention in terms of the competence of individual. In this article, we want to bridge the existing competencies of students and the perceived competencies that they assume will be developed and obtained during their studies. The purpose of our paper is a) to present competencies in general, b) to determine the meaning of the development of competencies in the field of higher education, and c) to present the role of competencies in human resource management. The aim of this paper is to examine the human resource competencies among students, and their judgments regarding the competencies they have already received during their studies.
Methodology: The questionnaire was distributed to full-time students of the Faculty of Organizational Science, University of Maribor, in such a way that both genders, both undergraduate and graduate studies, and all years of study were represented. We have measured students' opinions concerning their current and future perceptions about professional competencies in the HR field.
Results: Based on the self-assessment of fifteen HR competencies, we used hierarchical clustering performed with Ward's method and standardized variables and got two clusters. A t-test was used according to low or high levels of students' current competencies. The positive association between satisfaction with study programme and student's opinion on development of competencies during their studies was confirmed with one-tailed Pearson correlation coefficient.
Conclusion: The majority of students believe that they possess significant HR competencies. They have expressed a need for further education and training in that field. The students have assessed that the study programme allows them to acquire and develop the competencies for a successful task performance of the HR professional.

Keywords: *study, HR competencies, HR professional, development of students' HR competencies*

1 Introduction

Students nowadays are affected by different factors (economic, cultural, social etc.) depending on the time and place in which they live. Any study programme should enable students gaining competencies to use their knowledge, skills abilities, etc. to obtain suitable employment. Programmes within human resource management are no exception: they are preparing students to engage in human resource careers.

Competency is a complex concept that includes not only acquiring adequate knowledge, skills, and abilities, but maintaining these throughout one's career (Bradley, Drapeau and DeStefano, 2012). The role of HR has been elevated from clerical to administrative, administrative to managerial, managerial to executive, and executive to strategic partner (Venkata Ratnam and Srivastava, 1991; Budhwar, 2009). If the HR function is to fulfil its aims, HR professionals need to possess the competencies required to perform their responsibilities (Srimannarayana, 2013). Competencies for HR professionals may be defined by the view of senior managers and other employees or by an empirically tested conceptual framework (Ulrich, Brockbank, Yeung and Lake, 1995). They generally focus on the knowledge and abilities of HR professionals and the extent to which they can exploit HR knowledge to create business success (Ulrich, Brockbank, Johnson, Sandholtz and Younger, 2008).

The objective of our study is to present the perception of HR competencies of HR students and their willingness

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to develop the competencies that have been cited as valuable by researchers. We also studied the self-assessment of the presence of HR competencies, students' need for additional education and training for development HR competencies, their need to develop the competencies for the successful performance of the tasks of HR professionals, and the existence of differences among students. The goal of our study is also to determine the differences, if any, in the perception of HR competencies according to the year of study and satisfaction with study programme.

1.1 Competencies in general

Competence is a multidimensional construct characterized by the attainment, maintenance, and preservation of critical knowledge, skills and attitudes (Rubin et al., 2007). Boselie and Paauwe (2004, p. 554) define competence as the requirements for an individual to work, with an emphasis on the final result instead of attempts or contributions. Moore and Dainty (2002, p. 315) define competence as combination of ability and willingness to perform tasks. Most authors (Kröl, 2003, Kasiulis, 2005, Diskienė and Marčinskas, 2007 and others) claim that performance of working duties currently requires a combination of qualifications, knowledge, approaches, motives, values, abilities and other constituents of competences.

Via the setting of a systemic, dynamic, cognitive and holistic framework for building management theory, the competence perspective has integrated and extended some fundamental ideas developed over the last several decades under various banners, including 'resource base', 'dynamic capabilities' and 'core competences perspectives' (Sanchez, 2004, p. 521). Barney (1991, p. 111) claimed that the final requirement for a firm's resource to be a sustained competitive advantage is that there must be no strategically equivalent valuable resources that are themselves either not rare or imitable.

Nelson and Winter (1982) proposed that business success is found in organizational routines, which are the common activities a firm develops in its use of specific resources. Rumelt (1994) proposed that competencies become widespread across products or businesses, by changing more slowly than the products they make possible, by embodying 'collective learning' in the firm, and by embracing competition to acquire the best skills and capabilities.

A professional competence combines the knowledge and skills that are related to the employee's particular field of work; it also encompasses all the characteristics, abilities, and experience employed in the everyday activity as specialized knowledge; social competence is the ability to communicate with other people in a group; personal competence is the ability to learn, analyse and develop personal characteristics, and learn from personal experience, as well as cognitive abilities, analysis, and the ability to find solutions in critical situations; managerial competence is the ability to inspire, motivate, control stress and conflicts, and the ability to be in charge of the work of others; methodical competence is the ability to organize one's work, plan, adapt and prioritize (Druteikiene, Česyniene and Stankevičiene, 2013).

1.2 Competencies in human resource management

Since the 1980s, the shift from 'personnel management' to 'human resource management' has required treating people as a key resource (Armstrong, 2009). Armstrong claimed that human resource management puts greater emphasis on business functions, rather than problem-solving and mediation. The most popular version of human resource management roles can be attributed to Ulrich (1997), and it has been understood that it is necessary for HR professionals that they assume certain roles if they are about to make a contribution to the business. However, managing human resources during organizational change is not an easy task. HR professionals are supposed to have a crucial role in managing change in an organization.

Their roles must be related to the organizational needs. With the increase in general competition, organizations must become more adaptable, resilient, agile and customer-focused in order to succeed (Ullah, 2012). The roles of HR professionals are not only important for managing organizational change but also for establishing changes in a business area. (Ullah, 2012). Globalization and information technology have been important for the HR professionals and their work (Brockbank, 1997, Bawa and Ali, 1999 and Caldwell, 2003).

As one of the pioneers in researching the emerging impact of workplace change on personnel practice, Storey (1992) proposed four personnel roles: advisors, handmaidens, regulators, and change makers. Abigail, Findley, Hine, Thompson and McKinlay (1997) considered the handmaidens' role to be a companion role. Regulators are responsible for rules and business strategy. Change makers' role as personnel managers is to face the marketing area and make strategic moves through soft HR interventions in order to enhance employee motivation and commitment. HR professionals retain a key role in providing expertise and advice, and in ensuring that managers follow disciplinary procedures and thus avoid possible damaging situations (Harris, Doughty and Kirk, 2002). The professional HR perspective is the best example of consistency, rule compliance and statutory management (Gilmore and Williams, 2007).

Competencies for HR professionals may be defined from different aspects by using an empirically tested base (Ulrich et al., 1995). Chanda and Kabra (2000) stated that the competency of HR professionals is a part of knowledge, skills, attitudes, and values. Ulrich et al. (1995) defined competency in conjunction with business, but more likely as the competitive advantages of business. Their HR model combines different views of competencies, which are divided into four domains: knowledge of the business, personal credibility, HR expertise and management of change. They argue that the management of change is critical, as an organization's external rate of change must be matched by an internal rate of change if the organization is to remain competitive.

The second most important element, personal credibility, deals with the extent to which HR professionals embody the values of the firm and act with proper attitudes when dealing with HR issues in their efforts to create results (Ulrich and Eichinger, 1998 in Long and Ismail, 2010). HR professionals, by virtue of their knowledge of human performance, are well positioned to exercise strategic leadership and contribute significantly to a firm's competitive advantage (Long and Ismail, 2011, p. 1054). In high-performing companies, HR professionals are a part of business at a strategic level. They may manage the culture, change, communication, decision making and connectivity (Boselie and Paauwe, 2004). Graham and Tarbell (2006) represented the employee's view regarding the credibility of HR professionals. Based on the study conducted on European companies, Boselie and Paauwe (2004) suggested that personal credibility and the HR function have a positive effect on the importance of HR function and its professionals.

1.3 Higher education and development of competencies

As previously mentioned, competences integrate knowledge, skills, attitudes, and values. At the same time, the meaning of competence-based education should be explored; this is a major point of interest in this paper. Competence-based higher education is a type of study that focuses on the competences that are achieved and assessed during the study programme (Lambrechts, Mula, Ceulemans, Molderez and Gaeremynck, 2012). Competence-based higher education enables students to obtain the relevant knowledge, skills, values and attitudes that they will require in their future professional and personal lives (Lambrechts et al., 2012, p. 67).

Rychen (2002) claims that the use of competences contributes to an improved process of assessing students, regarding the abilities they acquire to face study challenges, but also to setting the important educational goals that improve education systems and lifelong education. For measuring the views of students on current and future professional competences in the field of HR, a list of competencies of Slovenian managers of human resources was used (Kohont, 2005, p. 209).

Kohont (2005, p. 117) identified fifteen competences within the HR professional field: leadership, strategic thinking, teamwork, communication, change management, decision-making and responsibility, creativity and innovation, professionalism, people-orientation, results-orientation, business knowledge, time and work organization, accuracy, analytical thinking, and the use of ICT.

Current research provides very little empirical evidence regarding the influence of academic higher education on the development of professionalism among students (Zlatkin-Troitschanskaia, Förster and Kuhn in Blőmeke, Zlatkin-Troitschanskaia, Kuhn and Fege, 2013, p. 159). The research is based on Klieme and Leutner's (2006) definition of competence as a context-specific performance disposition. This definition means that subject-specific knowledge and thinking are essential with regards to conceptualizing competence in the study area. In contrast to personality traits, competencies associated with particular behaviours are learnable (Bird, 1995).

This challenges educators to develop study opportunities (Bjornali and Støren, 2012). Taconis, Van der Plas and Van der Sanden (2004) and Baartman, Bastiaens, Kirschner and Van der Vleuten, (2007) emphasized that competence-based curricula should address knowledge, skills, self-esteem and attitudes in a connected way, since each of these separately is not sufficient for the desired competent professional behaviour.

The goal of this paper is to investigate the presence of HR competencies among students of the HRM study programme and their attitudes toward additional education and training for development of those competencies. In addition, the differences in development of HR competencies among students with different levels of study satisfaction and the differences in their estimation of the extent to which the study programme enables the acquisition and the development of the competencies necessary for the successful performance of tasks of HR professional are examined. Based on the goal of the paper a research question (RQ) and three research hypotheses (RH) were stated.

RQ1: How many groups of students exist based on their self-assessment of presence of fifteen HRM competencies?

RH1: Groups of students with higher levels of HR competencies (obtained from results of RQ1) have on average greater needs for additional education and training for development of those competencies than students with lower self-assessment of present competencies do.

RH2: A positive correlation exists between satisfaction with each student's study programme and their opinion that their study programme enables them to acquire and to develop the competencies necessary for the successful performance of tasks of HR professional.

RH3: The opinion that the study programme enables the acquisition and the development of the competencies necessary for the successful performance of tasks of HR professional exists and differs among students of according to their year of study.

2 Methods

2.1 Instrumentation

The socio-demographic part of the questionnaire include questions on gender, the type of the study, and the year of the study. Students were asked to self-assess the current presence of each of the fifteen different competencies (presented in Table 2), and later to evaluate the need for additional education and training on those competencies and the extent of competencies development during the current study programme. All variables on competencies were measured on the 5-point Likert type scale of presence, in which '1' means 'not present at all', and '5' means 'completely present'. Students were asked to estimate their satisfaction with the study programme and the extent to which the study programme enables the acquisition and the development of the competencies necessary for the successful performance of tasks of HR professional.

2.2 Population, sample and data collection method

The survey was performed in spring 2009 among students of Human Resources and Educational Systems of Faculty of Organizational Sciences, University of Maribor. The questionnaire was delivered in paper format to a non-probabilistic convenience sample of students who attended lectures. A total of 155 questionnaires were completed.

2.3 Data analysis

Data gathered from the survey were first analysed with hierarchical clustering in order to determine different groups of students according to their opinion of the presence of fifteen HR competencies. In the second step, the significant differences of student needs for additional education and training for development of HR competencies were examined between two obtained groups of students according to their level of present HR competencies. Later, the correlation between each students' satisfaction with their study programme and their opinion that their study programme enables them to acquire and to develop the competencies necessary for the successful performance of tasks of HR professional was examined. The differences in the students' opinion that the study programme enables them the acquisition and the development of the competencies necessary for the successful performance of tasks of HR professional were investigated with analysis of variance and robust test of equality of means.

3 Results

3.1 Sample description and descriptive statistics of the questionnaire items

The sample consists of 155 students; 78.7% were female and 21.3% were males; 54.8% of respondents were studying in the professional higher degree programme and 45.2% in the academic higher degree programme. The highest proportion of the respondents was enrolled in the second year of the study (40.6%), a third (33.6%) was in the first year and one quarter (25.8%) in the third year of the study. Almost all respondents (94.8%) had already deliberated their own competencies.

Table 1 presents descriptive statistics for fifteen HR competencies in two different contents: self-assessment of the current presence of the competency and the need for additional education and training for the development of the competency. Students on average assessed their people-orientation competency the highest ($\overline{x}$ = 4.27), followed by creativity and innovation ($\overline{x}$ = 4.14), their communication skills ($\overline{x}$ = 4.02), and accuracy ($\overline{x}$ = 4.01). The lowest estimated competency was their strategic thinking ($\overline{x}$ = 2.98). On average, students have the highest need for education and training for development of creativity and innovation ($\overline{x}$ = 3.67) and team work ($\overline{x}$ = 3.63), while the lowest need was expressed for analytical thinking ($\overline{x}$ = 3.10) and business knowledge ($\overline{x}$ = 3.03).

3.2 Hierarchical clustering

In order to answer to the first research question, hierarchical clustering is based on the self-assessment of fifteen HR competencies. The clustering was performed with Ward's method and standardized variables. The dendrogram (Figure 1) clearly shows that two clusters of students exist, based on their self-assessment of current competencies.

The larger group of students consists of 113 students (72.9%) and the cross table reveals that 74.1% of students have already thought about their competencies belonging to that group. In addition, we have attempted to determine what the average assessments of present competencies were in both groups.

Figure 2 presents both groups of students obtained from hierarchical clustering and their average estimates of self-assessment of their present competencies. Both groups differ significantly at the 5% significance level in their average estimates for all competencies, except in the assessment of accuracy and analytical thinking (detailed result of t-tests are not presented here). Therefore, the group with higher average values was called 'Students with higher self-assessment of their present competencies' (consisting of 113 respondents; drawn with solid grey line in Figure 2) and the other group was 'Students with lower self-assessment of their present competencies' (consisting of 42 respondents; drawn with black dashed line in Figure 2).

Table 1: Descriptive statistics for the self-assessment of the current presence of the competency and the need for additional education and training for the development of the competency

Competency	Self-assessment of the current presence		Need for additional education and training	
	Mean	SD	Mean	SD
Leadership	3.52	0.840	3.47	0.900
Strategic thinking	2.98	0.943	3.46	0.885
Teamwork	3.23	1.068	3.63	1.038
Communication	4.02	0.886	3.41	0.888
Change management	3.30	0.869	3.27	1.008
Decision-making and responsibility	3.73	1.065	3.55	1.046
Creativity and innovation	4.14	0.846	3.67	0.968
Professionalism	3.29	0.806	3.60	1.114
People-orientation	4.27	0.724	3.55	1.135
Results-orientation	3.80	0.886	3.29	0.933
Business knowledge	3.30	1.002	3.03	1.006
Time and work organization	3.66	0.824	3.43	1.069
Accuracy	4.01	0.806	3.25	1.142
Analytical thinking	3.30	0.907	3.10	1.172
Use of ICT	3.76	0.919	3.56	1.082

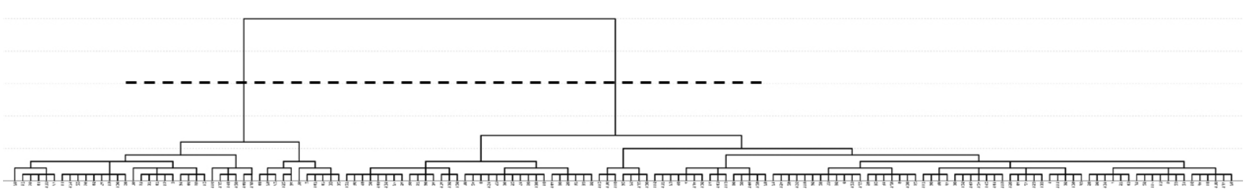

Figure 1: Dendrogram from hierarchical clustering

3.3 T-tests

In the following section, the results of three groups of t-tests are presented. First, we attempt to determine the answer to the first research hypothesis regarding whether groups of students with higher levels of their HR competencies have on average a greater need for additional education and training for development of those competencies than a group of students with lower self-assessment of present competencies. The results of the t-tests are presented in Table 2, while average values are depicted in Figure 3.

The group of students with higher self-assessment of present competencies has, on average, a statistically significantly greater need for additional education and training for the development of the individual competencies in nine out of fifteen HR competencies at a 5% significance level. Those competencies are: Leadership ($t=1.984, p=0.025$), Strategic thinking ($t=1.960, p=0.026$), Teamwork ($t=2.765, p=0.003$), Communication ($t=2.284, p=0.012$), Change management ($t=2.436, p=0.008$), Decision-making and responsibility ($t=2.833, p=0.003$), Results-orientation ($t=2.399, p=0.009$), Business knowledge ($t=1.825, p=0.035$), and Accuracy ($t=2.461, p=0.007$). Based on the above results, the first research hypothesis can be confirmed since students with higher levels of present competencies have expressed greater needs for additional development for nine out of fifteen competencies.

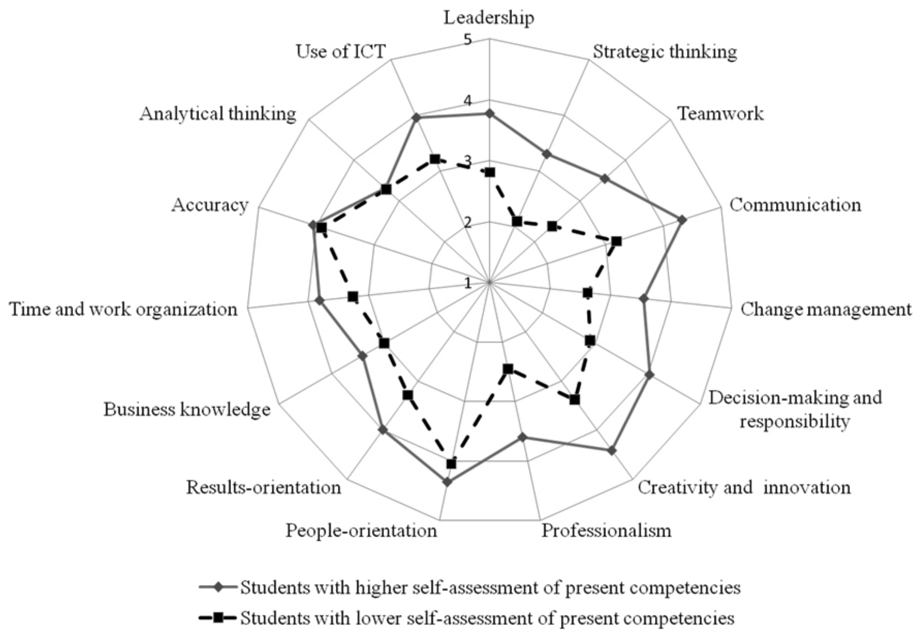

Figure 2: Two groups of students from hierarchical clustering and their average estimates of self-assessment of their present competencies

Table 2: Results of the t-test for the students' need for additional education and training for development of HR competencies according to low or high level of the present competencies

	Average		**Levene's Test of Equality of Variances**		**T-test of Equality of Means**			
	Higher[a]	**Lower[a]**	**F**	**Sig.**	**t**	**df**	**p (2-tailed)**	**p/2**
Leadership	3.56	3.24	5.751	0.018	1.984	153	0.049	**0.025**
Strategic thinking	3.55	3.24	0.088	0.768	1.960	153	0.052	**0.026**
Teamwork	3.77	3.26	0.861	0.355	2.765	153	0.006	**0.003**
Communication	3.50	3.14	0.669	0.415	2.284	153	0.024	**0.012**
Change management	3.39	2.95	0.285	0.594	2.436	153	0.016	**0.008**
Decision-making and responsibility	3.69	3.17	0.003	0.957	2.833	153	0.005	**0.003**
Creativity and innovation	3.73	3.50	0.339	0.561	1.344	153	0.181	0.090
Professionalism	3.65	3.45	0.315	0.576	1.006	153	0.316	0.158
People-orientation	3.58	3.50	0.225	0.636	0.366	153	0.715	0.358
Results-orientation	3.40	3.00	0.102	0.750	2.399	153	0.018	**0.009**
Business knowledge	3.12	2.79	0.539	0.464	1.825	153	0.070	**0.035**
Time and work organization	3.45	3.38	3.697	0.056	0.363	153	0.717	0.358
Accuracy	3.38	2.88	1.291	0.258	2.461	153	0.015	**0.007**
Analytical thinking	3.12	3.05	0.095	0.758	0.317	153	0.751	0.376
Use of ICT	3.55	3.60	0.328	0.568	-0.237	153	0.813	0.406

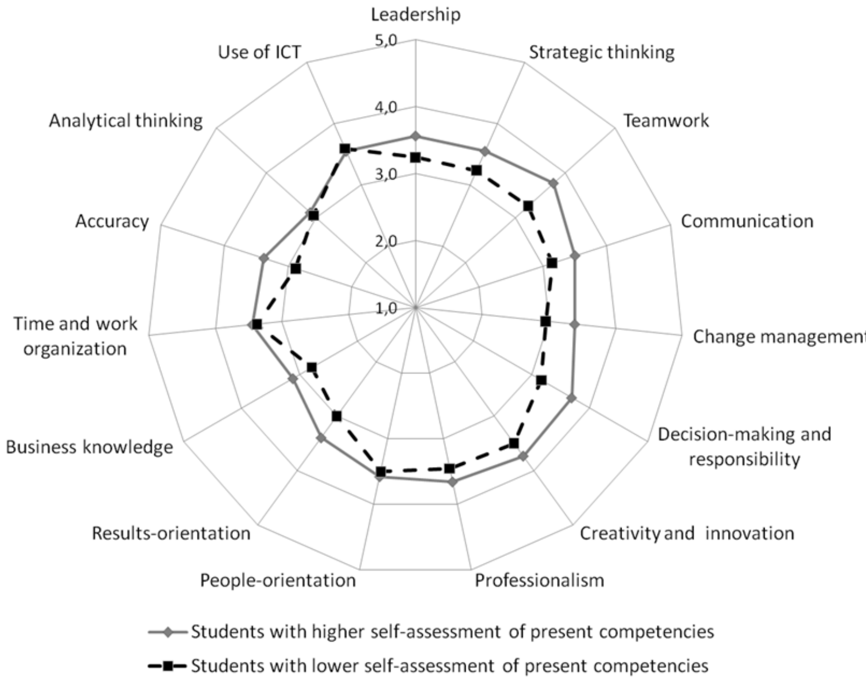

Figure 3: Average estimates of students' need for additional education and training for development of HR competencies according to low or high level of the present competencies

Table 3: Results of the ANOVA for the student' opinion that study programme enables the acquisition and the development of the competencies necessary for the successful performance of tasks of HR professional according to year of the study

<table>
<tr><th rowspan="2">Year of the Study</th><th colspan="3">Descriptive statistics</th><th colspan="4">Test of Homogeneity of Variances</th><th colspan="4">Robust Tests of Equality of Means</th></tr>
<tr><th>N</th><th>Mean</th><th>SD</th><th>Levene Statistic</th><th>df1</th><th>df2</th><th>p</th><th>Brown-Forsythe Statistic</th><th>df1</th><th>df2</th><th>p</th></tr>
<tr><td>1st year</td><td>52</td><td>3.71</td><td>1.091</td><td rowspan="3">4.339</td><td rowspan="3">2</td><td rowspan="3">152</td><td rowspan="3">0.015</td><td rowspan="3">8.532</td><td rowspan="3">2</td><td rowspan="3">132.4</td><td rowspan="3">0.000</td></tr>
<tr><td>2nd year</td><td>63</td><td>4.32</td><td>0.820</td></tr>
<tr><td>3rd year</td><td>40</td><td>4.35</td><td>0.700</td></tr>
</table>

3.4 Correlation

The association between satisfaction with study programme and students' opinion that the study programme enables them to acquire and to develop the competencies necessary for the successful performance of tasks of HR professional was examined with a one-tailed Pearson correlation coefficient. The p-value of the Pearson correlation coefficient was equal to 0.001, indicating that both variables are statistically significantly correlated at the 1% significance level. The value of the Pearson correlation coefficient was equal to 0.250, which means that the second research hypothesis could be confirmed. Therefore, a low positive linear relationship between students' satisfaction with their study programme and their opinion that the study programme enables them to acquire and to develop the competencies necessary for the successful performance of tasks of HR professional exists.

ANOVA

The third research hypothesis was analysed with ANOVA. The results in Table 3 shows that the average student's opinion that study programme enables them to acquire and to develop the competencies necessary for the successful performance of tasks of an HR professional of the 1st year students is equal to 3.71 on a 5-point scale: the average opinion of 2nd year students is equal to 4.32, and the average opinion of 3rd year students is equal to 4.35. Since the p-value of Levene's test of equality of variances was equal to 0.015, the assumption of equal variances across groups could not be confirmed at a 5% significance level, the robust test of equality of means has to be performed instead of ANOVA.

The p-value of the Brown-Forsythe Statistic from the robust test was equal to 0.000; therefore, we can conclude that statistically significant differences exist, at a 5% significance level, among students of different years of study in the average student's opinion that the study programme enables the acquisition and the development of the competencies necessary for the successful performance of tasks of HR professional.

In addition, multiple comparisons with a Games-Howell's test were preformed, and we determined that statistically significant differences exist at 5% significance level between first and second (p=0.004) and first and third year students (p=0.003) in their opinion that their study programme enables the acquisition and the development of the competencies necessary for the successful performance of the tasks of HR professional. Therefore, the third research hypothesis is confirmed.

4 Discussion

The research concerning acquiring and developing the competencies that an HR professional needs for his or her successful work performance and results of the empirical research represent the basis allowing us to discuss the findings in in two parts.

Student self-assessment of developed competencies and need to acquire and develop the HR professional competencies

For students, the recognition of the proper competencies is of the utmost importance, because in this way they can manage the further development of all competencies, both of those which are well developed as well as those that are inadequately developed yet necessary for the profession that students intend to practice. University education has, to a certain degree, influence upon the competency development (Pavlin, 2012, p.125); however, it is important that each student can further acquire and develop them by means of additional training and education.

The research has indicated that the students have high estimations regarding current HR competencies, because there is not a single competency self-assessment for which it could be assured that it is expressed to a lesser degree or not at all. On the basis of the self-assessment of the current HR competencies, we have divided the students into two distinctive groups; the group of students with higher self-assessment of HR competencies and the group of students with lower self-assessment of HR competencies. This result could be interpreted according to Brečko's assertion (2006, p.245) that individuals differ among themselves regarding whether the abilities, values and motives prevail in their self-image or not. A similar opinion is shared by Funčič Masič, Bakračevič Vukman and Schmidt (2011, p.93), who stated that to an individual's endeavours, motivation, perseverance and flexibility are influenced to the degree that he/she trusts his abilities to control proper functioning and that of the environment.

People-orientation and communication are ranked by Kohont (2005, p.118) among the most important competencies of the HR professional. It is good to see that the students (according to their current self-estimated presence of the competencies) have given the highest appraisal precisely to people-orientation (= 4.27), creativity and innovation (= 4.14), and communication (= 4.02). People-orientation is important for HR professionals because they deal mostly with people at work (Kohont, 2005, p.111). Consequently, it is important that they be ready and open for cooperation. Ulrich et al. (2008, p.19) stated that HR professionals should be able to establish an innovation protocol that helps shape new ideas, and they also should be able to instil a spirit of innovation among all employees. Communication skills in HR professionals are reflected in their ability to convey a sensible oral and written message as well as in their active listening of the others in case of interpersonal communication. Moreover, the research of the Society for Human Resource Management (SHRM, 2010, p.6) cites communication as the most important competency of the senior HR leaders in the United States.

The participants of the research attributed the lowest average evaluation of their current HR competencies to strategic thinking (= 2.98); however, this does not necessarily mean that this competency is not present among them, because on average they have evaluated it as medium present. Recently, strategic thinking is becoming increasingly important due to the transformation of the HR function from administrative into strategic one (Budhvar, 2009). HR professionals should be able to establish a process to ensure strategic clarity and be able to align organizational action to make the strategy happen (Ulrich et al., 2008, p.10). Consequently, an HR professional should have a broad perspective about organization while simultaneously understanding how decision making and functioning are interwoven at different levels of business activity. The research of the Society for Human Resource Management (SHRM, 2010, p.6) ranks the competency 'strategic thinking' in Canada, India and in the Middle Eastern and in the Northern African countries at first place, while in the United States it is at second place.

The growing importance of the strategic thinking due to globalization with respect to the process of internationalization is also indicated by the statement that this competency is ranked by HR managers in the first place in Slovenian multinational companies (Kohont, 2014, p.304).

Furthermore, we also think that it is encouraging that the participants in the study feel, in regards to almost all HR competencies, at least a medium need for additional education and training. O'Donoghue and Maguire (2005, p. 442) stated that each individual should assume responsibility for his/her own development and employability and consider his/her career in the sense of a broader employability. Thus, we can infer that the students are aware of the importance of competency development in a broader context because additional education and training are part of their career development.

The students have given the highest average appraisal to the need to educate and train themselves with regards to creativity and innovation (= 3.67), and teamwork (= 3.63). Nowadays, it is important for an HR professional to develop creativity and innovation skills, particularly on account of the ability to adjust to constant changes, to restructure and to transmit innovations into his HR activity as well as because of their indirect influence on the company's performance.

Finally, the development of the competency for a teamwork helps an HR professional to develop the ability to form the working teams focused on achieving the goals, and his capacity to choose the competent members.

The aforementioned results are encouraging because they indicate that the students are also aware of the importance of competency development from the point of view of a better employability, because the team-work is precisely the competence mentioned by Akkuyunlu, Kovačič, Pavlin and Svetlik (2009, p.69) as a key factor for healthy functioning in the workplace and society.

Taking into consideration the fact that changing working conditions and labour markets are causing shifts in relation to the social competencies and transferable skills of the graduates (Uhomoibhi, 2009, p.250), we believe that the students could consolidate those competences considered by employers to be particularly important by means of additional training in the workshops.

HR competencies development in the course of study

In discussing HR competencies, we first have to mention the individuals who choose the profession of HR professional and thus take responsibilities for decisions about their professional and career paths (Devjak, Devjak and Polak, 2014, p.4). In this manner, they realize their aspirations and ambitions in the faculties that represent the basis for the development of a creative and knowledge-based society, because their primary mission is to educate high-level experts who will take care of sustainable development.

As the third participant in this relationship, organizations must be mentioned. Adamska and Minárová (2014, p.69) are of the opinion that knowledge creation, development, application and evaluation are of key importance for ensuring the further development of the organization as well as for acquiring and maintaining competitive advantage.

HR competencies are essential for the successful performance of HR professionals. It is a generally accepted fact that suitably educated and trained people can respond appropriately to expected changes in the business (Garavan and McGuire, 2001). This is why we have to know which competencies should be presented to them. In accordance with the abovementioned, HR professionals should, in the course of the study, acquire a suitable education and develop the necessary HR competencies. The results of our research have demonstrated that the participants mainly agree that the study programme allows them to acquire and develop the competencies for the successful performance of the duties pertaining to an HR professional during their courses of study (= 4.12).

This is in accordance with the thinking of Way (2002: 484), who stated that the study programme should allow to HR students to acquire the necessary competencies, because this is the only way they can effectively carry out the work of HR professionals. A similar view is also shared by Johnson and King (2002), but they emphasize that education should change in accordance with the expected business changes, this also means the curricula should be appropriately adjusted.

We would only add that in doing so all participants have to be taken into consideration: in the first place, university institutions, employers and students, as well as external factors (e.g. situation on the labour market). This is why we agree with the recommendation of Pavlin (2012, p.127) that university institutions should systematically establish relationships with employers, with the purpose of informing them about the expectations of programs and graduates, and the intention to design study programs together with them.

Furthermore, we have established that statistically significant differences exist among the students of different years in their opinion regarding the study programme allows them to acquire and develop the competencies for a successful task performance as an HR professional during their course of the study. As students advance to higher years of study their opinion scores increases. We expected such a result and explain it by the fact that the students of the last year of studies have been acquainted during the lectures with the programme in its entirety, while the students of the first year have been acquainted only with the theoretical part of the program.

The majority of the participants of the research expressed their satisfaction with the study programme (= 3.80). Furthermore, we have established that the students who are more satisfied with the study program have more positive opinions regarding whether the study programme allows them to acquire and develop the competencies for a successful task performance of the HR professional during the course of the study. Having in mind the fact that many authors (Kotler, Keller, Brady, Goodman, and Hansen, 2012; Lovelock and Wirtz, 2011) interpret satisfaction as a positive feeling, i.e. fulfilment felt by an individual in using a service or a product, we can infer that the students had been, at the time of their enrolment in university, well acquainted with the study program, its contents, and performance. If we look at the students as service users, we can conclude that the study programme has, to a large extent, fulfilled or even exceeded their expectations.

Students' self-assessment of HR competencies has indicated that they have them, at least to a medium degree and the majority of them even to a higher degree. The students are aware of the importance of developing such competencies: most of them have even expressed the need for further education and training, in addition to their studies related in the same field. Their satisfaction with the study programme is expressed to a higher degree; the students assert that the study programme allows them to acquire and develop the competencies for a successful task performance of the HR professional. We believe that the graduates with developed HR competencies will achieve better results, in the working environment as well as in the process of further education and life in general. They will be more self-confident and convinced that the work they are carrying out is appropriate for them. This can give them advantages in society and the labour market, above all because of their personal motivation and positive orientation toward the future.

In the next stage of the research, the study would be designed as a longitudinal survey in which students will be asked to assess the presence of HRM competencies during their studies, at graduation and few years after graduation. We propose that the faculty consistently pursue students' competencies and extend the research to those graduates already involved in the working environment, carrying out the tasks of HR professionals. We have limited our research to the students' competency self-assessment, so we propose that the faculty also perform other evaluations of the present HR competencies. We believe that in this way the faculty could more easily and better adjust the curricula of the study programs to suit the needs of the HR competencies development.

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Percepcija študentov glede kadrovskih kompetenc

Namen: Kadrovska stroka pripisuje visoko pomembnost kompetencam posameznika. V prispevku želimo povezati obstoječe kompetence študentov in kompetence, ki jih bodo po pričakovanjih pridobili in razvijali tekom študija. Namen prispevka je: a) predstaviti kompetence v splošnem, b) določiti pomen razvoja kompetenc na področju visokega šolstva in c) osvetliti vlogo kompetenc na kadrovskem področju. Cilj članka je raziskati kadrovske kompetence med študenti in ugotoviti njihovo mnenje o kompetencah, ki so jih že razvili tekom študija.
Metodologija: Anketni vprašalnik smo razdelili rednim študentov Fakultete za organizacijske vede, Univerze v Mariboru. V raziskavo smo zajeli oba spola, visokošolski in univerzitetni študijski program ter vse letnike študija. Merili smo percepcijo študentov glede kadrovskih kompetenc.
Rezultati: Na podlagi samoocen petnajstih kompetenc s kadrovskega področja smo izvedli razvrščanje v skupine z Wardovo metodo in standardiziranimi spremenljivkami in dobili dve skupini. Nato smo uporabili t-test s skupinama glede na nizko oziroma visoko stopnjo razvitih kompetenc. Potrdili smo pozitivno povezanost med zadovoljstvom s študijskim programom in mnenjem študentov o razvoju kompetenc med študijem, kar smo preučili z enostranskim Pearsonovim korelacijskim koeficientom.
Zaključek: Večina študentov meni, da imajo kadrovske kompetence prisotne v večji meri. Izrazili so potrebo po dodatnem izobraževanju in usposabljanju na področju kadrovskih kompetenc. Študenti so ocenili, da program študija omogoča, da bodo pridobili oz. razvili kompetence za uspešno opravljanje nalog kadrovskega strokovnjaka.

Ključne besede: *študij, kadrovske kompetence, kadrovski strokovnjak, razvoj kadrovskih kompetenc študentov*

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The Heterogeneous Accentuation of Economic Content In Vocational Education: A Starting Point for Occupation-Specific Human Resource Development

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Background and Purpose: Since the successive introduction of "learning field" oriented curricula in Germany, teaching at vocational schools as part of the dual system has been based on concrete actions. The underlying curricula describe business-oriented learning fields. The translating of these learning fields into pedagogical learning situations is the responsibility of the vocational curriculum conferences at the individual vocational school level, whereby con-siderable leeway is afforded them in these activities. This means that, despite there being an identical curricular basis, it is possible for individual schools to apply heterogeneous content emphases within the education programmes for commercial vocations. This study examines the correlation between such heterogeneous content with regard to the subject of economics and the person characteristics of the relevant teachers.
Design/Methodology/Approach: In order to determine the individual significance of eco-nomics curricula as part of the education programme for commercial occupations on a learning field basis, an online survey was conducted among commerce teachers. Descriptive statements about the significance of topics of content are generated with the help of the relevance ratings provided by the respondent teachers.
Results: The findings for the correlations indicate a relationship between the relevance of economics content and individual experience of teaching staff with regard to that particular academic discipline, because a high relevance rating correlates with individual tangencies within the teacher's educational biography
Conclusion: The shifting of lesson content design onto the individual vocational schools has resulted in human resource determinant factors coming into force. Apart from a (fully desira-ble) heterogeneity of content, these factors have also led to a decrease of economics content.

Keywords: *education, economic education, curriculum, learning fields, institutionalized human resource development*

1 Introduction: Current Situation

In Germany, the curricular foundations for vocational schools are elaborated centrally by the Standing Conference of the Ministers of Education and Cultural Affairs of the *Länder* (KMK), hereafter "Standing Conference", but on account of that country's federalist educational structure, the curricula are implemented by the individual federal states (*Länder*). Up to the mid-1990s, all curricula were structured according to academic subjects, so that teaching was conducted in conventional, subject-focussed lessons. But since 1996, the Standing Conference's structural guidelines for curricula have been replaced by action oriented framework curricula and implemented in the

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meantime by the individual *Länder (*cf. Reetz/Seyd 2006 p. 227). In this paper, we focus on vocational school curricula for commercial occupations that require education/ training in Germany. The redesigning of the curricula was undertaken in a step-by-step way over the years and was completed in 2013. Thus, all currently relevant curricula for vocational schools have a "learning field" oriented structure (cf. Standing Conference of the Ministers of Education and Cultural Affairs of the federal states, 2013).

2 How Learning Field Based Curricula Are Structured

The newly designed curricula for vocational teaching are based on vocational learning fields, which themselves have been derived from vocational "action fields".

"Learning fields are didactically prepared fields of activity. They are competency-based and indicate what a learner should actually be able to do in a vocational action field after having completed a learning field. This is expressed in the form of a goal formulation" (Sloane, 2003, p. 4.[1], cf. also Standing Conference of the Ministers of Education and Cultural Affairs of the federal states, 2011, p. 10ff.).

In a work context, systematically organized subject-specific knowledge is not usually called for, whereas specialized competencies relevant to a particular occupation are.[2] The curricular goal is now that of depicting vocational actions within the relevant curricula (cf. Mathes 2011, p. 374; Czycholl/Ebner 2006, p. 45). This means that the systematic handling of academic subjects is neglected. Knowledge and action comprise in equal measures the determinants of curricular content implementation (cf. Fischer/Seeber 2014, p. 10f.; Wilbers 2014, p. 62 ff.: Nickolaus 2014, p. 1ff.; Nickolaus 2011, p. 159f.: Czycholl/Ebner 2006, p. 44ff.: Reetz/Seyd 2006, p. 247; Straka 2006, p. 151f.);

"Action competency is perceived to be the willingness and the ability of individuals to conduct themselves in professional, societal and private situations in an appropriate and individually and socially responsible manner".[3] (Standing Conference of the Ministers of Education and Cultural Affairs of the federal states, 2011, p. 31).

In all curricula, the learning fields are identically broken down into the items "Goal Formulation" and "Contents", as exemplified by learning field no. 8 – "Analyzing and Evaluating Annual Financial Statements" as part of the vocational education programme for *Industriekaufmann/ Industriekauffrau* (industrial office clerk) (cf. Standing Conference of the Ministers of Education and Cultural Affairs of the federal states, 2002, p. 16).On an individual

Table 1: How a learning field is structured as exemplified by learning field No. 8 of the vocational education programme for Industriekaufmann/Industriekauffrau (Industrial Office Clerk).

Learning field no. 8: Analyzing an Annual Financial Statement **Year 2 of Education Programme** **Standard duration: 80 lessons**
Goal formulation: Students work on an annual financial statement and make assessment decisions under consideration of corporate interests and current accounting provisions. They prepare the statements, determine factors to assess companies and draw conclusions for company policy. They also analyze the statement from the view point of an external observer. Students select appropriate media for their work, present their results and give reasons for their decisions.
Content: Valuation approaches for assets and for debts according to commercial law and fiscal law, acquisition costs and production costs. Valuation principles – prudence principle, shareholder principle Open reserves and undisclosed reserves Factors of asset structure and capital structure, liquidity, equity to fixed assets ratio, profitability Cash flow Means of presentation

1 Author's own translation

2 With reference to the concept of Fachkompetenz ("professional competency"), cf. Dubs 2006, p. 167 ff.; Min-nameier 2006, p. 391; Pätzold 2006, p. 174 ff.; Tramm 2003, p. 2f. and with reference to the relationship be-tween Wissen ("knowledge") and Wissensanwendung ("application of knowledge"), cf. Nickolaus 2014, p. 3; Nickolaus/Petsch/Norwig 2013, p. 539; Nickolaus/Seeber 2013, p. 166ff., Gschwendtner/Abele/Nickolaus 2009, p. 575. For a detailed differentiation between the concept of education and the concepts of competence and qualification, cf. Reinisch 2006, p. 259ff.; Beutner/Schaumann/Twardy 2006, p. 289ff. and as a summary Baethge/Baethge-Kinsky 2006, p. 153ff.

3 Author's own translation

vocational school level, it is the task of the school to translate the action oriented guidelines into pedagogical learning situations. Content emphases may – and indeed should – vary, depending on the occupation being trained for (cf. Straßer 2013, p. 497ff.). Thus, different content emphases can be placed within identical education programmes. Owing to Germany having a "dual" vocational education system, the impacts of this aspect go beyond the domain of the vocational schools and extend into the occupational human resource development of real companies, since curricularly implemented content may be heterogeneously distributed amongst a company's human capital.

The objective of this study is, then, to examine the influence that person characteristics related to the teaching of economics have on the relevance attributed to economics content. These person characteristics come into effective play within the scope of the leeway that is present in the learning situation structure. In this context, professional teaching experience and studying business and economics as part of a teaching degree serve as person characteristics, both of them producing differentiated results with regard to economics curricula.

3 Economics in the Framework of Action Oriented Curricula for Commercial Vocational Education

The reason for limiting this analysis to economics content areas stems from the classification of economics content into education-theoretical categories. The topic of economics teaching has – similarly to many of its related content fields - a bipolar nature ranging from aspects of general education with regard to an individual's own lifestyle[4] across to vocational or career-related education in the context of commercial vocational profiles (cf. German Federal Ministry of Education and Research, 2005, §1, Para. 3).[5] There is a direct relevance between economics and commercial vocational education, but only a limited action oriented relevance for individual occupations, whereby the degree of intensity varies between the different occupational profiles as well as within a particular occupational profile. Prior to the introduction of learning field based curricula, there was an autonomous discipline of "economics" with its own specific subject curriculum that ranged across the various education programmes. The current learning field oriented curricula have resulted in an integrative implementation of economics-related content within the framework of the subject "economic and social processes" (or "general economics" in the vocational education programme for bank clerks (*Bankkauffrau/ Bankkaufmann),* cf. German Ministry of Education, 2004, p. 10). Thus, no homogeneous foundations exist between the commercial vocational programmes; on the contrary, these vary according to the individual occupational profiles, so it can be assumed that economics content is subject to heterogeneous implementation.[6] The heterogeneous curricular foundations for economics-related content fields that have emerged over time enable an observation of both structural and content-related changes within the educational canon for commercial vocational education that have resulted from the implementation of the learning field approach. At the same time, content emphases can be derived from action oriented content within action oriented learning fields.

4 Methodology of the Analysis

To date, questions pertaining to the content variance of learning field structured vocational education programmes have rarely been systematically addressed. In the following, the curricular leeway afforded to the vocational curricula conferences and the teachers provides the starting point for researching the impacts stemming from the implementation of learning field oriented curricula on the relevance of the subject "economics".

4.1 Generation of Hypotheses

Theory-based paradigms for developing professional expertise promote stepwise models which link competency growth to factors in a teacher's own educational biography and incorporate both of them into individual development

4 Within the framework of the discussed concept of economics education, this is also a key task of any vocation-al school. Cf. Korunka/Frank 2005, p. 25f.; Loerwald/Schröder 2011, p. 9ff.; Retzmann 2011, p. 15ff.; May 2011, p. 3ff.; Tramm/Seeber 2006, p. 274f.

5 The relationship between the concepts of "commercial education" and "economics education" is described by Fischer/Seeber, who state that there is interaction between the two. Whereas "economics" does not represent reality, strictly speaking, but constructs models of reality, commercial education is related to situational learning (Fischer/Seeber 2014, p. 5).

6 Economics content is thus, on account of the introduction of learning field based curricula, affected at a con-tent-related level (vocational action orientation) and at a structural level (integration into the subject "economic and social processes").

7 Whereas Fuller/Brown evaluate the individual problems and concerns of teachers in relation to their professional experience, identifying three different stages of development ("survival stage", "mastery stage" and "routine stage"), cf. Fuller/Brown 1975, p. 25ff.), Sikes et al. develop typical stages of experience dependent on the age of the teacher (cf. Schönknecht 2005, p. 3). Huberman proceeds similarly, but links the different stages to years of professional experience rather than age of the teacher (cf. Huberman 1988, p. 119ff.).

stages (cf. Schönknecht 2005, p. 2ff.).[7] Different levels of experience as a determinant of teaching practice have been subject to premise-derived questions in earlier research. For instance, Götzl et al. (2013, p. 12) examined the significance of professional experience for organizational teaching factors by observing selected social forms, lessons and real learning time in relation to professional experience.

Another analysis looked at whether there are differences in the way students perceive a lesson in relation to the professional experience of a teacher (cf. Berliner 1992, p. 227 ff.) or whether the professional experience of a teacher has an impact on the learning success of the student being taught. However, no significant correlations were found (cf. Lipowsky 2006, p. 54), so that "the professional experience of a teacher plays a somewhat minor role with regard to the learning success of a student and is difficult to interpret as an independent variable"[8] (Lipowsky 2006, p. 54). Different professional experience levels have already been examined in relation to organizational characteristics of teaching, but personal attitudes about subject-related content dependent on teaching experience have not to date been examined (cf. Götzl et al. 2013, p. 12 f.).[9]

Within the framework of the autonomous subject "economics", there are differences in the educational biographies of the relevant teachers, which become evident in the designing of their own lessons. The earlier existence of the academic subject "economics" and the corresponding curricula before the introduction in Germany of the learning field based approach, means that more experienced teachers actually taught the subject of economics in vocational schools, whilst their younger colleagues do not have the same experience.

Under model-theoretic premises, this signifies that structural differences flow into potential model stages and make a noticeable impact on the relevance rating. In the present case being examined here, the assumption was that a teacher's own experience of teaching "economics" as an autonomous subject could have an impact on the implemented content of the learning fields. Thus, the following Hypothesis 1 was derived:

Hypothesis 1: "Teachers with teaching experience in the autonomous subject of "economics" attribute a higher relevance to the corresponding content also in the learning field approach than do their colleagues who do not have such experience".

Theoretical models for developing pedagogical professional knowledge describe its development in dependency on problem solving processes. Whilst Bereiter/Scardamalia (2007) focus on cognitive resources being released when problem-solving processes are repeated – which may then be used for future tasks of more complexity, Ericsson/Charness (1994) use the non-intrinsic goal of individual performance enhancement to help to explain the growth of professional knowledge (following Brunner/Kunter/Krauss et al. 2006, p. 526). What both approaches share in common is the assumption that experience data alone do not suffice to explain domain-specific professional knowledge, and that cognitive and motivational resources must be appropriately used (cf. Brunner/Kunter/Krauss et al. 2006, p. 526).

Translated into structures of economics teaching, one can assume that potential differences in relevance may be a result of different learning opportunities, which arise particularly during teacher training programmes at university. In this context, research has to date not brought forth any clear-cut findings with regard to a correlation between the discipline-related educational level of teachers and their teaching performance. As there are differences related to the observed discipline being taught[10], this analysis will examine potential correlations between different preparatory training structures for teaching economics and current topic-related relevance measuring.

Those teachers who have taken a teaching degree specializing in business and economics are grouped together. In a teaching degree programme that specializes in business and economics, economics content is relevant for the examinations, so that we can assume that teachers who have taken such a degree will have had experience of economics content during their training. We contrast this group with a group of teachers who did not have components of business and economics in their teaching degree programme, teachers who were trained in disciplines other than business and economics and teachers who entered the profession by an alternate route. Analogously to the hypothesis on relevance observation, we have derived a second hypothesis:

Hypothesis 2: "Teachers who studied business and economics as part of their teaching degree rate the relevance of economic content more highly than teachers who did not".

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8 Author's own translation

9 For the influence of professional experience of teachers outside of specialized subjects, cf. e.g. Schlichter 2012, p. 4 and 23; Lipowsky 2006, p. 53ff.; Wayne/Youngs 2006, p. 77, Schönknecht 2005, p. 19f.

10 Uniform evidence that there are differences in pedagogical/psychological knowledge between teachers who took a teaching degree and those who became teachers via alternate routes can be found in various studies (cf. as a summary Kunina-Habenicht/Schulze-Stocker/Kunter et al. 2013, p. 6, see also Zurstrassen 2009, p 40). For natural science subjects there are different findings (cf. Lagler/Wilhelm 2013, p. 50f.; Wayne/Youngs 2006, p. 86), whereby for the subject of mathematics, a significant positive correlation was found (Lagler/Wilhelm 2013, p. 49f.; Wayne/Youngs 2006, p. 86). For other subjects, however, findings were inconsistent, e.g. for history and English (Cf. Wayne/Youngs 2006, p. 86).

4.2 Methodological Approach

In order to determine the individual significance of economics curricula as part of the education programme for commercial occupations on a learning field basis, an online survey was conducted among commerce teachers. All participants were male and female teachers who had been teaching at vocational schools of commerce in the German federal state of North Rhine Westphalia in the summer of 2014. All of them were teaching in programmes for selected commercial occupations as part of Germany's dual system of company training and vocational education. Consonant with a circular order issued by the German Ministry of Education (cf. German Ministry of Education 1996), the heads of all those vocational schools in North Rhine Westphalia which catered for the relevant commercial occupations were contacted, rather than the teachers themselves. The heads were requested to inform the relevant teachers about the opportunity to participate in the study.

No further selection of teaching staff was implemented, so that all of those teachers in the relative education programmes could be taken into consideration. The selection of occupations taught was determined by factors regarding the number of new training/apprenticeship contracts drawn up in the previous year.[11] Using a 6-point scale, teachers were required to rate the teaching relevance of individual economics-related items. In accordance with a 5-point Likert scale, respondents could choose from "strongly disagree" across to "strongly agree".

A 6[th] point was added in case a certain content area was not an integral part of the teaching programme. Between 0 and 5 points were allocated (starting with "topic not dealt with" and moving up to "high relevance").[12] The items were selected according to the content guidelines for the learning fields. To take account of individual teaching implementation, these were broken down into various content areas, as exemplified in table 2.

The curricularly specified content areas were taken unmodified from economics-oriented learning fields and serve as a topical point of reference.[13] Owing to their low degree of abstraction, the topic areas were broken down further into more specific areas (see the five exemplified ones in table 2). These then serve as items to be evaluated by the survey participants, which means that it is possible to quantify different content accentuations within roughly structured content specifications as well as the content area within the whole learning field (via cumulation). Thus, each point within the curricular goal formulation forms the framework for further specifications of content, the relevance of which was to be rated by respondents. The whole survey questionnaire is structured analogously to this.

Descriptive statements about the significance of topics of content are generated with the help of the relevance ratings provided by the respondent teachers. It is possible to observe economics-related learning fields in the context of the entire curriculum for a particular occupation as well as individual topics in specific learning fields.[14] By surveying personal characteristics, determinant factors are derived, which influence the translating of learning field based guidelines into individual learning situations and thus impact on the relevance of economic content in lessons. The focus in the evaluation is on different tangencies between current teachers with regard to their educational biographies and their current economics relevancy ratings.

5 Selected Findings

In order to examine a potential impact of teachers' experience on the relevance of economics content (Hypothesis 1), the analysis included participants with up to 20 years of teaching experience, and over 20 years of experience, so that only the latter group of respondents can have actually ever taught economics as an autonomous subject.[15] A mean comparison of both groups showed a significant difference with regard to the status accorded to intervocational teaching of economics:[16]

11 Teachers were addressed who taught in vocational education programmes for the occupations of Automo-bilkauffrau/-mann ("automobile salesperson"), Bankkauffrau/-mann ("bank clerk"), Kauffrau/-mann im Einzel-handel ("retail trade salesperson"), Kauffrau/-mann im Groß- und Außenhandel ("wholesale and foreign trade salesperson"), Immobilienkauffrau/-mann ("real estate agent"), Industriekauffrau/-mann" ("industrial clerk"), Speditionskauffrau/-mann ("forwarding/shipping agent"), Versicherungskauffrau/-mann ("insurance agent").

12 The constant rating scale, according to which participants can give their estimations, enables the comparison across several education programmes, independent of their individual learning field structures.

13 The topic area shown in table 2, "Price formation in perfect and imperfect markets" has been taken unchanged from learning field no. 6 in the vocational education programme for Bankkauffrau/-mann (bank clerk).

14 As the autonomous subject "economics" was implemented without differentiation between the different com-mercial vocations prior to the learning field approach, we do not differentiate here either at this point

15 The grouping according to 20 years of teaching experience is determined by the introductory date in Germany of learning field based curricula.

16 The mean values shown incorporate all of the examined mean values as well as all the items covered. A further breaking down into individual items with regard to content would not enable a comparison between all of the examined education programmes, because on account of vocational action orientation principles, individual topics are not implemented consistently throughout the curricula for specific programmes. A particular topic cannot be examined in all of the education programmes because, owing to the heterogeneity of content, no uniform reference basis exists despite the economics subject matter not being primarily occupation-specific. Moreover, with the help of total mean values, the study takes account of quantitative differences between the learning fields.

Table 2: Example of a Questionnaire for learning field No. 6 in the vocational education programme for Bankkauffrau/-mann (Bank Clerk), (excerpt):

What relevance status do the following economics-related topics have in your teaching concept for the vocational education of bank clerks? (question 2/15)					
Please estimate the relevance of the economics-related topics for the vocational education of bank clerks					
Topic area: **Price formation in perfect and imperfect markets (LF6)**					
Price formation in different market forms (monopolistic, polypolistic, oligopolistic markets)					
Low relevance	**Somewhat low relevance**	**Moderate Relevance**	**Somewhat higher relevance**	**High relevance**	**Not relevant/topic is not dealt with**
●		●	●	●	●
Aggregate supply and demand functions in polypolistic markets forms					
Low relevance	**Somewhat low relevance**	**Moderate Relevance**	**Somewhat higher relevance**	**High relevance**	**Not relevant/topic is not dealt with**
●	●	●	●	●	●
Market power of participants (producers and consumers) in different market					
Low relevance	**Somewhat low relevance**	**Moderate Relevance**	**Somewhat higher relevance**	**High relevance**	**Not relevant/topic is not dealt with**
●	●	●	●	●	●
Expressing the price-demand function in different market forms					
Low relevance	**Somewhat low relevance**	**Moderate Relevance**	**Somewhat higher relevance**	**High relevance**	**Not relevant/topic is not dealt with**
●	●	●	●	●	●
Price formation in imperfect markets (e.g. no homogenous products, incomplete information, preferences….).					
Low rele-vance	**Somewhat low relevance**	**Moderate Relevance**	**Somewhat higher relevance**	**High relevance**	**Not relevant/topic is not dealt with**
●	●	●	●	●	●

Table 3: Group results according to teaching experience

Differentiator	Mean Value (MV)	Standard Deviation(SD)	Standard Error MV
> 20 years of teaching experience	3.144	.710	.106
< 20 years of teaching experience	2.743	.855	.088

Table 4: T-Test for mean value equality

T	df	Sig. (2-sided)	MV-Difference	SD-Difference	95% Confidence Interval of Difference	
					Lower	Upper
2.730	137	.007	.401	.147	.111	.692

With homogeneity of variance for both test groups (Levene's test: F=.193; Sig. = .141) there are significant variances (see Table 4).

The test group with at least 20 years of teaching experience rates the relevance of economics content moderately (MV=3.1). In contrast, the test group with less than 20 years' experience is lower (MV=2.7). For the group of more experienced teachers, we see lower variances (n=45; Var.=.493) than for their younger colleagues (n=94, Var.=.722), showing that the relevance status is more homogenous the more experienced a teacher is. A comparison of the average rating per person reveals that about half of the more experienced teachers regard the relevance of economics content to be moderately important (rounded values: 55.56%), whilst only 42.55% of their younger colleagues gave it that particular rating.

Whereas on average almost a third (32.98%) of the younger teachers accord economics content a lower relevance ("Low relevance" = 3.19%; "Somewhat low relevance" = 29.78%), the corresponding group of more experienced teachers is only half as large at 15.55% ("Low relevance" = 4.44%; "Somewhat low relevance" =11.11%). The significantly higher rating of an average of 0.4 points supports the assumption that the individual relevance accorded to economics-related topics increases if a teacher has actually taught economics as an autonomous subject. Clearly, a teacher's own experience of teaching the subject of economics influences his or her rating of the relevance of economics content.

A mean comparison to test the impact of having studied business and economics as part of a teaching degree programme on the rating of the relevance of economics content (Hypothesis 2) provides evidence for a differentiated relevance rating for economics content:

With homogeneity of variance (Levene's test: F= .942; Sig.=,333), there is a highly significant rating difference of 0.8 for those teachers who have studied economics themselves (Table 5).

The mean equality of both test groups supports the assumption. Whereas for those teachers who had studied business and economics (n=108; Var.=.53) we have an average value of 3.0, those teachers without a business and economics background the mean is 2.2 (n=30; Var.=.69). A comparison of the average rating given by an individual shows that 51.54% of those teachers with a business and economics academic background rate the relevance of economic content moderately, whereby only 20.0% of those teachers with no economics background did likewise. This specific test group frequently gave lower relevance ratings (69,97%; Low relevance =6.67%; Somewhat low relevance = 63.33%). In contrast, the more experienced colleagues gave lower relevance ratings of 18.69% (Low relevance =2.80%; Somewhat low relevance =15.89%). Thus, the assumption is supported that acceptance of economics content is more likely to be found among teachers who personally had experience of economics during their teaching degree programme.

6 Findings and Deliberations

The fact that the Standing Conference – with the help of subject-related learning fields – delegates the designing of curricula in a top-down process to the individual vocational schools in Germany implies that the vocational schools now have a broadened spectrum of tasks and areas of responsibility as well as more leeway in the framework of context factors for teaching (e.g. materials, equipment, specifications for the final Chamber of Industry and Commerce examination).

Whereas some years ago, the autonomous subject "economics" fulfilled a sort of "safety function" in the framework of curricula for commercial vocational education programmes, economics content in teaching is now subject to human resource determinants. With regard to human resource development, the findings of this study imply heterogeneous competence structures on the part of vocational school students. In particular, the implementa-

Table 5: Group ratings differentiated according to whether teachers studied business and economics as part of their teaching degree

Differentiator	Mean Value (MV)	Standard Deviation (SD)	Standard Error MV
Studied business & economics	3.051	.730	.070
Did not study business & economics	2.197	.840	.153

Table 6: T-Test for mean equality

T	df	Sig. (2-sided)	MV Difference	SD Difference	95% Confidence Level of Difference	
					Lower	Upper
5.482	136	.000	.854	.156	.546	1.162

tion of economics models is made more difficult by the insistence on action oriented teaching structures – potentially resulting in an unwitting implementation of "second-class content" within a framework of career furtherance endeavours. The personal relevance assessments by the teachers provide a measure of the assessed value of economics content in teaching for commercial occupations.

The goal of the Standing Conference, i.e. to achieve action oriented teaching on the basis of a minimum curricular standard involves an increased activity orientation focussed on vocation-specific content and leads to economics content being embedded in integrated learning field and subject-related curricula. The relatively low relevance accorded to economics topics within the framework of the whole analysis provides evidence for a practical oriented loss of "prestige" of economics among teaching staff, which implies a theory-practice gap.

The findings for both correlations indicate a relationship between the relevance of economics content and individual experience of teaching staff with regard to that particular academic discipline, because a high relevance rating correlates with individual tangencies within the teacher's educational biography. In both evaluations, the more experienced group of teachers accords the individual subject-related contents significantly more relevance than does the respective comparison group, so that a teaching degree that incorporated business and economics results in a significantly more highly rated relevance than a teaching degree with other specializations but, however, does not produce noticeably higher ratings for the whole rating measurement. Also with regard to professional experience, there are significantly higher relevance ratings from the more experienced group than for the less experienced group, but no higher rating over the whole rating measurement.

A limitation of the findings of this study is that they only reflect the views of individual persons. Thus, processes that influence consensus finding within a vocational curriculum conference are not depicted. However, it is possible to derive tendencies regarding the handling of vocational curriculum conference results for the teaching of economics. Also, it must be taken into consideration that the reference basis of the survey is not oriented towards the implemented vocational school subject of economics, so that the findings here hold for the subject area of economics rather than for the curricularly specified subject "economic and social processes".

The shifting of lesson content design onto the individual vocational schools in the sense of a "human resource development" approach has resulted in human resource determinant factors coming into force. Apart from a (fully desirable) heterogeneity of content, these factors have also led to a decrease of economics content. The low relevance ratings suggest a practical orientation in line with minimum standards for content, so that the new curriculum structure is tantamount to a quantitative and qualitative decrease in the economics content. However, on account of the scale of measurement applied here, factorial intensity cannot be captured.

Apart from the desired and intended practical orientation, action oriented curricular design is having a side effect: teaching content is, some cases, changing. As a curricular starting point, the reference discipline is losing its significance to the benefit of a situative orientation, whereby both groups in this analysis are being affected by this transformation. On the level of individual teachers, lower relevance is accorded to economics content by those teachers whose teaching degree did not incorporate economics. As the "pro" economics teachers stem from the more experienced group, the demographic change will lead to those teachers who experienced the teaching of the autonomous subject "economics" exiting from the profession. Therefore, it is not likely that a qualitative enhancement of economics content in teaching will occur under the present framework conditions. For the trainees/apprentices, an action-oriented teaching concept goes hand in hand with a decrease in economics content in their vocational education programs. The influence of potential examination content in the final examination held by the German Chamber of Industry and Commerce on the choice of teaching content in vocational school classes remains a topic for future investigation.

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Heterogeno poudarjanje ekonomskih vsebin v poklicnem izobraževanju: izhodišče za poklicno specifičen razvoj človeških virov

Namen: Po postopni uvedbi učnih načrtov v poklicnih in višjih strokovnih šolah v Nemčiji (kot dela dualnega šolskega sistema), se je pričelo izvajati konkretne aktivnosti. Osnovni učni načrt pokriva področje poslovnega sveta v izobraževanju. Prenos omenjenega učnega področja v izobraževanje je naloga kurikularnih konferenc na ravni posameznih šol kar šolam omogoča precejšen manevrski prostor pri oblikovanju učnih vsebin. To pomeni, da lahko posamezne šole - kljub enaki kurikularni podlagi - izberejo različne poudarke vsebin. Z raziskavo predstavljamo povezanost heterogenih poslovnih učnih vsebin in osebnostnih lastnosti kompetentnih učiteljev.
Pristop in metodologija: Za oceno pomembnosti posameznih vsebin učnih načrtov, smo izvedli spletno anketo med učitelji ekonomsko-komercialnega področja. Anketiranci so ocenjevali relevantnost opisnih trditev o pomenu posameznih tem oziroma vsebin.
Rezultati: Ugotovitve kažejo na povezanost med pomembnostjo ekonomskih vsebin in osebnimi izkušnjami učiteljev znotraj akademske discipline, saj sta ocena pomembnosti vsebin in osebne izkušnje ter znanje učiteljev močno povezana.
Zaključek: Spremembe na področju učnih vsebin posameznih poklicnih in višjih strokovnih šol kažejo, da so človeški dejavniki izjemno pomembni pri poučevanju. Poleg (nujne) heterogenosti učnih vsebin nas omenjeni dejavniki peljejo do zmanjševanja obsega ekonomskih vsebin.

Ključne besede: *izobraževanje, izobraževalni program, učna področja, institucija, razvoj kadrov,*

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On-the-Job Training and Human Resource Management: How to Improve Competitive Advantage of an Organization?

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Background: In this paper, the effects of four groups of factors on organizational performance are examined. Those are human resource management (HRM) policies and practices, financial and business indicators, location, and firm characteristics. A review of selected literature confirmed that a similar set of factors, through its positive effects on boosting organizational performance, may significantly improve competitive advantage of firms.
Methods: An empirical analysis using firm-level data is conducted on the sample of enterprises operating in Serbia. A microeconometric approach is employed in order to specify and estimate empirical models. Two statistical models are applied. The ordered probit model is used for investigating organizational performance and the standard binary probit model for examining the decision of a firm to integrate the human resource development (HRD) department into its organizational structure. The goodness of fit measures confirmed the statistical reliability of estimated models.
Results: Estimation results revealed that optimization of the number of employees, sales and revenues, firm age, increased market demand and competitive environment, as well as the 'right decisions' of the top management have significantly positive effects on boosting organizational performance. Significance of on-the-job training for boosting organizational performance was not empirically supported. In the same group of factors are firm size, industry and region. An auxiliary model shown that large- and medium-sized firms, firms with high level of revenues, privately owned, foreign and those located in or near to the capital city are more likely to have HRD departments.
Conclusions: This paper provides a survey of the theoretical literature and explains empirical findings that are relevant for understanding to what extent on-the-job training, managing human resource, as well as some other internal and external organizational and financial factors are important for enhancing competitive advantage of firms.

Keywords: *training, human resource management, competitiveness, organization, employees*

1 Introduction

The transitional path of Serbia differs from the paths of the most of other countries of Central and Eastern Europe. Transition to a market economy, which started at the end of the 1980s, was disrupted almost at its onset due to the considerable political and economic turmoil during the 1990s. This unfavourable development impeded transitional reforms and caused Serbia to lag significantly behind the rest of the European transitional countries (Cerović, 2006). The political change that occurred at the beginning of the 2000s reopened the agenda of extended economic and social reforms. As many other European transitional countries, Serbia lost a significant amount of employment, especially during the privatization phase that was initiated by the adoption of the new privatization regulation in 2001. Beside the decline in the employment, the effects of the privatization have been also manifested through changes in the structure of the corporate sector in Serbia.

Namely, while the number of medium- and large-sized firms was reduced, the number of small-sized privately owned enterprises was increased (Jovičić, 2005). According

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to achievement indicators of the main areas of transitional reforms, Serbia is today rated as an emerging European transitional country together with FYR Macedonia and Montenegro (EBRD, 2013).

The privatization process introduces changes in the organizational structure and the functioning of firms in transitional economies (Cooke, Wood, Psychogios, & Szamosi, 2011); (Horwitz, 2011). Due to competitive pressures, old rigid organizational structures have to be changed into the modern and flexible ones (Zupan & Kaše, 2005). Skills and competences of the labour force became important elements for enhancing competitiveness (European Commission, 2014); (World Economic Forum, 2014) and economic growth (Blundell, Dearden, Meghir, & Sianesi, 1999); (Nelson & Phelps, 1966); (Romer, 1990). This permanent competition among countries is especially visible when comparisons at the national level are observed. Furthermore, some empirical studies conducted at the firm (Dany, Guedri, & Hatt, 2008) and individual level (Grund & Martin, 2012) in advanced western economies confirmed the importance of human resource management (HRM) functions and further training for boosting competitive advantages, in particular, throughout their linkages with organizational performance.

The aim of this paper is to examine the effects of four groups of factors on boosting organizational performance of firms in Serbia. Those are HRM policies and practices, financial and business indicators, location, and firm characteristics. Based on theoretical elaboration (Cooke, Wood, Psychogios, & Szamosi, 2011); (Dany, Guedri, & Hatt, 2008); (Horwitz, 2011); (Judge, Naoumova, & Douglas, 2009); (Sung & Choi, 2014); (Zupan & Kaše, 2005), it is expected that these factors, throughout their positive effects on organizational performance, may significantly improve competitive advantage of firms. In addition, an auxiliary model was estimated. Based on this model, the factors that affect the decisions of firms to integrate human resource development (HRD) departments into their organizational structure are explored. This research question is observed in the light of the fact that the support to business development requires a strategic approach to HRM on the level of an organization (Bahtijarević Šiber, 1999); (Zupan & Kaše, 2005). In order to conduct the firm-level empirical analysis, the microeconometric approach is applied.

The following section provides the theoretical background for the empirical research and the main hypotheses. Section 3 contains the research methodology and describes the data sources and the analytical methods used for research purposes. Estimation results derived by the empirical models are given in section 4, as well as their discussion. The last section recapitulates the main findings and concludes the paper.

2 Theoretical background and hypotheses formulation

There is a body of theoretical and empirical literature that supports the hypothesis that HRM in a broader sense should be considered as an integral part of business strategies in organizations (Becker & Gerhart, 1996); (Dany, Guedri, & Hatt, 2008). This is especially applicable in transitional countries where firms underwent corporate restructuring in order to establish modern and market oriented organizations (Zupan & Kaše, 2005). Following these ideas, we can formulate appropriate hypothesis.

Hypothesis 1: HRM in firms operating in transitional economies have to be changed so that policies and practices related to expansion and reduction of employees, to training and development, as well as to recruitment and retention of skilled and/or unskilled workers positively affect organizational performance.

Human resources are important element of sustained competitive advantage of an organization (Barney, 1995); (Barney & Clark, 2007). Because they form intangible resources 'that are hard to imitate' by other organizations, investment in human capital is expected to stimulate employee commitment and accordingly to improve business performance (Dany, Guedri, & Hatt, 2008, p. 2097). However, the effects of investments can be examined from different perspectives regarding the costs and returns induced by training. Following the standard Mincer's approach, from the perspective of an employee, on-the-job training can be observed as an investment in future wages (Mincer, 1962).

But, from the perspective of the employer, on-the-job training can also be interpreted as an investment and as a cost (Acemoglu & Pischke, 1998); (Bartel, 2000). The theory of human capital also implies that firms cannot expect large benefits from providing their employees with general training (Becker, 1962). In other words, only specific training or on-the-job training can bring certain benefit to the firm. However, this assumption is later relaxed because under the circumstances of pronounced technological change and the intensification of competitive pressures the need for training in firms and of employees is more required than before (Acemoglu & Pischke, 1999); (Grund & Martin, 2012).

Empirical studies provide valuable findings regarding trainings provided by firms (Barron, Berger, & Black, 1999). They have positive effects on productivity increase (Barrett & O'Connell, 2001), provide more benefits to firms if high skilled workers are trained (Mincer, 1994), give 'monopsony power' to those firms that train their workers (Acemoglu & Pischke, 1998, p. 80), etc. Moreover, training opportunities provided by firms are part of 'job resources' that help workers to mitigate 'job demands' (OECD, 2014, p. 104). From some recent comparative research studies one may conclude that returns on firm's investment in training are significant and follow an increasing trend (Bartel, 2000), but also that more research effort is needed in order to improve accuracy and reliability of previous empirical findings (Barrett & O'Connell, 2001).

In this paper, we are thus interested in on-the-job-training or training that is usually organized at the 'trainee's place of work' (Chatzimouratidis, Theotokas, & Lagoudis, 2012). However, the data source, used for conducting the empirical analysis, under the term 'investment in on-the-job-training' considers a broader set of activities, such as participation in training, attending seminars and access to the professional literature. Certain empirical analyses confirm that about half of all trainings are organized in the course of employee's work (Chatzimouratidis, Theotokas, & Lagoudis, 2012, p. 666), whereas the results of the Cranet survey show that firms allocate between 2 and 5 percent of the annual payroll costs on trainings and HRD (CRANET, 2011, p. 60).

It is expected that the majority of firms have some business or development plan. The increased level of market demand for products or services and favourable competitive environment can be considered the factors that have direct implications for financial performance of firms (Sung & Choi, 2014). Furthermore, the motives of top managers to boost business performance are related to the compensations they could expect to receive (Gerhart & Milkovich, 1990); (Jensen & Murphy, 1990), but also profit of firms remains an important goal, as well as the influence their decisions may have on the overall organizational outcomes (Finkelstein & Hambrick, 1990). This view is not new and it is related to the managerial discretion theory (Williamson, 1963) and managers' ability to initiate strategic activities in organizations (Finkelstein & Peteraf, 2007). This can be empirically tested.

Hypothesis 2: The commitment of the top management to implement strategic business policies that lead to the increase in market demand in a competitive environment positively affects overall organizational performance and enhances competitive advantage of an organization.

There are empirical evidences that reveal that geographical location or region can substantially improve competitive advantage of an organization (Judge, Naoumova, & Douglas, 2009). This is why, especially in transitional economies, central regions are better connected with the rest of the territory, have better access to the infrastructure, including both 'hard' and 'soft' infrastructure, have more opportunities to make formal and informal contacts with authorities, etc. This can be posted as a hypothesis.

Hypothesis 3: Geographical location in or near to the capital city positively affects organizational performance.

The fourth group of factors include organizational characteristics, such as firm age, firm size, industry, ownership, and origin of capital. Business performances of the private enterprises are under stronger influence of competitors than those of the state-owned enterprises, because the latter are not lead by profit goals. Consequently, firms in the private ownership, as well as those established by foreign capital are more interested in enhancing business performance. On the other hand, the previous research studies revealed that competitive dynamics of firms vary substantially by the organizational size and economic sector (Judge, Naoumova, & Douglas, 2009). Opportunities for human resource development are more frequent in the service sector (Sung & Choi, 2014). Furthermore, due to organizational capability for change it is assumed that firm age and organizational performance follow a 'u-shaped' relationship. Based on previous elaboration, the hypothesis can be derived.

Hypothesis 4: Organizational characteristics, such as firm age, firm size, industry, ownership, and origin of capital are significantly and positively related to organizational performance.

The final hypothesis, which claims that organizational characteristics, as well as certain financial indicators have statistically significant and positive influence on a firm's decision to integrate a HRD department into its organizational structure, will be empirically tested. In order to conduct this part of the empirical research an auxiliary model will be constructed.

3 Research methodology

3.1 Data

The data used in this analysis result from joint research of the Public Employment Service (PES) of Serbia and the Institute for Economic and Social Policy Research, which was conducted in order to investigate the labour market demand for specific occupations and skills. The data are collected in March (and April) 2009 surveying active firms operating in Serbia. Survey design and the process of data collection are described in detail in a research study (Institute for Economic and Social Policy Research, et al., 2009). The aim of this survey was twofold. On one hand, to increase capacities of managerial and advisory staff of the PES and to make contacts with potential employers in order to have better insights into their needs, and on the other hand, it was a part of activities in the area of the employment policy priorities that are directly related to the European integration process of Serbia.

Strictly speaking, the specific aim of this research was to establish a survey that would have a similar role to Cedefop research for European countries, including Norway and Switzerland (Cedefop, 2010). In both cases, the purpose of these research initiatives was similar. The analysis intends to provide up to date information on the labour market needs so that skills and competencies of the labour force can meet present and future requirements induced by technological change and global competition.

To the best knowledge of the author, the data set used for the empirical analysis in this paper is the only statistically representative data set available at the firm level in Serbia. The fact that survey data come from 2009 does not undervalue the results of the empirical analysis from current perspective. This view can be additionally supported by the assessment of the competitive position of Serbia in the light of the international comparison. While in 2009 Serbia was rated as a country at the second stage of development, i.e. positioned among the efficiency-driven economies (World Economic Forum, 2009, p. 12), this situation has not changed because the Serbian economy stayed at the same group even several years later (World Economic Forum, 2014, p. 11).

In addition, this data set was used because it also includes financial performance data. It is worth emphasizing that beside sections of the questionnaire that were created to gather data about present and future employers' needs for workers of particular occupations and skills, as well as about present job vacancies and employers' opinions regarding difficulties to recruit workers of appropriate competences and abilities, included in the questionnaire was a set of questions on firm business performance. This section included questions about decisions made within firms, such as whether a firm has the HRD department, whether a firm has and applies its HRM strategy or whether a firm invests in the development of human potential and what portion it allocates to training of its employees on an annual basis. More precisely, the data were collected for the year 2008, and so it is assumed that the influence of the 2009-2010 recession was not contained in survey data.

Data resources for empirical studies on HRM practices in Serbia are scarce. Serbia, for instance, does not participate in the European Working Conditions Survey on present practices related to job demands and job resources (Eurofound, 2012), which provides comparative data at the European level, including Member States, candidates and potential candidates. It is a valuable resource for studying the possibilities of employees to participate in on-the-job training and other trainings paid for or organized by their firms. Serbia has participated in the 2008-2010 Cranet survey that provides detailed comparative data on HRM policies and practices in large organizations (CRANET, 2011). However, a low response rate to the Cranet survey diminishes the value of this survey for empirical research in case of Serbia (Svetlik, et al., 2010, p. 822).

Some further research studies on HRM policies and practices will benefit from the new cycle of data collection based on the Cranet survey that has started in 2014, because the sample of firms from Serbia is expanded to 100 large organizations. Also, longitudinal data would be more useful, so that one can observe the changes in HRM policies and practices, in particular having in mind that the Serbian economy is still under transitional reforms pressure.

Survey data used in this paper are based on a stratified random sample of firms drawn from the Statistical Business Register in the Statistical Office of Serbia. A (3x14) matrix of spatial and industrial strata was constructed. Three macro regions were determined, where one of them represented the capital city. In order to avoid skewness in the distribution of enterprises and to mitigate the potential rate of nonresponses, only firms that have 5 and more employees are included in the sample. Both private and public enterprises that provide commercial and public services are inserted in the sample, but civil servants and those employed in armed forces are excluded. Economic activities are represented in the sample based on the prevalent activity of a firm and are determined according to the NACE (Revision 1) codes.

The total number of sample units that were realized throughout the field work consists of 794 firms which form observations for our analysis, i.e. $i=1,\dots,n$, $n=794$. However, some of the variables used in the empirical analysis contained missing data. After deleting missing observations the sample size is accordingly reduced (see Table 1). The response rate to the survey was nearly 60 percent. This response rate can be considered as satisfactory having in mind business uncertainties that may have been induced by the economic crisis effects, as well as by regular activities on preparing the annual financial reports in the first quarter of every year.

Table 1 reports summary statistics for the variables used in the empirical analysis, whereas Table 1A in the Appendix presents a correlation matrix.

In what follows, the empirical models will be specified and the variables used for research purposes will be described.

3.2 Empirical models

The first empirical model is a model on organizational performance which is constructed in a form of ordered probit following the theoretical expression given in Greene (Greene, 2000, pp. 875-878). This model is observed through two empirical specifications. Firstly, we observed the relationship between organizational performance (OP) and HRM policies and practices in terms of the changes in employment, e.g. expansion or reduction of the number of employees (ChEmp), investment in on-the-job training (OJT) and recruitment of both skilled (RecruSkill) and unskilled (RecruUnskill) workers. This model is given in the form:

Table 1: Descriptive statistics. Source: Author's calculation.

Variable	Observations	Mean	Std. Dev.	Min	Max
HRM					
HR Strategy, yes=1	794	0.159	0.366	0	1
HR Department, yes=1	794	0.160	0.367	0	1
On-the-job training	716	0.005	0.025	0	0.360
Change in employment	716	1.046	0.271	0.044	3.000
Recruitment of workers					
Skilled	497	2.669	0.687	1	3
Unskilled	497	2.742	0.594	1	3
Business indicators					
Organizational performance	716	1.626	0.793	1	3
Log of revenues	716	11.997	1.687	7.404	18.369
Market & Competition	716	2.289	1.022	1	5
Management	716	3.754	0.760	1	5
Region					
Capital city	716	0.314	0.464	0	1
Region North	716	0.354	0.479	0	1
Region South (*ref.*)	716	0.331	0.471	0	1
Type of settlement, city=1	716	0.370	0.483	0	1
Characteristics of organization					
Ownership, private=1	716	0.873	0.333	0	1
Origin of capital, foreign=1	716	0.120	0.325	0	1
Age, in years	716	19.788	19.456	2	170
$Age^2/100$	716	7.695	19.579	0.04	289
Size of organization					
Large	716	0.130	0.336	0	1
Medium	716	0.271	0.448	0	1
Small	716	0.443	0.497	0	1
Micro (*ref.*)	716	0.156	0.364	0	1
Industry					
Manufacturing	716	0.229	0.420	0	1
Construction	716	0.147	0.354	0	1
Services	716	0.567	0.496	0	1
Agriculture (*ref.*)	716	0.057	0.233	0	1

Statistical software Stata 11.0 is used for the econometric analysis of data.

$OP_i = \beta_1 ChEmp_i + \beta_2 OJT_i + \beta_3 RecruSkill_i + \beta_4 RecruUnskill_i$+u_i,

$\{OP_i\}^J{}_1$, i=1,..., n, J=1, 2, 3.

(1a)

The previous model is then expanded by adding new explanatory factors as we will explain below:

$OP_i = \beta_1 OJT_i + \beta_2 Size_i + \beta_3 Private_i + \beta_4 Foreign_i + \beta_5 Age_i + \beta_6 Age^2_i + \beta_7 lnRev_i + \beta_8 MarCom_i + \beta_9 Management_i + \gamma_k z_{ik} + \varepsilon_i$,

$\{OP_i\}^J{}_1$, i=1,..., n, J=1, 2, 3.

(1b)

The dependent variable (*OP*) in both empirical specifications (1a) and (1b) is constructed based on the self-assessed organizational performance of interviewed firms. An ordinal scale is used to range the values of the dependent variable from 1 (declining level of business performance) to 3 (increasing level of business performance), while a category 2 denotes those who responded that no changes occurred in their business performance. In other words, these three types of answers stand for 'poor', 'the same' and 'good' business performance of firms reported for the year 2008 in comparison with 2007.

This model is explained by a set of independent variables that include: the share of investments allocated to on-the-job training (*OJT*) in 2008 that indicates does the firm management implement HRM policies on training and development, the dummy variables for firm size (*Size*), firm ownership (*Private*) and origin of capital (*Foreign*), then, firm age in years (*Age*), firm age in years squared (), the log of annual revenues (*Rev*) realized in 2008, as well as two categorical variables that indicate self-assessed influence of market demand and potential competition (*MarCom*) and of the management of firms (*Management*) on business performance in 2008.

The measuring scale for categorical variables *MarCom* and *Management* is ranged from 1 (extremely negative influence) to 5 (extremely positive influence). The contains all other independent variables that may be inserted in the empirical model (1b) during the estimation phase. It is assumed that is *i.i.d.* random variable. This term captures all other unobserved factors and possible uncertainties that can influence organizational performance. Finally, and are unknown regression parameters.

The second empirical model (2) is expressed in the form of a binary probit model (Greene, 2000, pp. 812-816). This econometric specification models the decision of a firm to choose a strategic approach in formulating and implementing HRM policies and practices. More precisely, a binary dependent variable indicates whether the firm has developed a strategy or a plan for managing human resource development in its organizational environment. However, during empirical data modelling, it is found that almost the same firms that have HRD departments also have a plan or a HRD strategy, which can be shown by a high and statistically significant correlation coefficient *r*=0.723, p<0.01 (see Table 1A in the Appendix). Furthermore, the variable that indicates whether the interviewed firm has integrated the HRD department into its organizational structure provides a better fit for the model as we will see in the following section. Thus, this variable will be used as a dependent variable (*SHRM*). The binary probit model is specified as follows:

$SHRM_i = \alpha_0 + \alpha_1 Age_i + \alpha_2 Age^2_i + \alpha_3 Size_i + \alpha_4 Private_i + \alpha_5 Foreign_i + \alpha_6 lnRev_i + \lambda_k z_{ik} + \zeta_i$, i=1,...,n.

(2)

In a standard binary choice model, the dependent variable takes on value 1 if outcome is realized and 0 otherwise. Predictors for this model include independent variables, such as a nonlinear term firm age in years that includes age (*Age*) and age squared (), then organizational size (*Size*) in 2008 (end-of-year data) constructed as a categorical variable that includes four dummies that capture micro, small-, medium- and large-sized organizations defined according to accounting and financial standards, a dummy variable that indicates whether the firm is privately held (*Private*), a dummy variable that denotes whether the firm is founded by foreign capital (*Foreign*), the log of annual revenues (*Rev*) realized in 2008 and the remaining independent variables including, for instance, the sector of economic activity of firms, geographical location of firms and alike. Standard normal results are ensured if the *i.i.d.* assumption about the stochastic term is correct. As before, and are unknown regression parameters to be estimated.

Interacted terms are not included in the empirical model specifications (1a), (1b) and (2) in order to avoid multicolinearity.

The theoretical framework and hypotheses that will be tested based on the empirical analysis are already derived in section 2. In the following section, estimation results for the three econometric specifications are presented.

4 Estimation results and discussion

4.1 Results for the organisational performance model

Estimation results for the ordered probit models are reported in Table 2. Two econometric specifications (1a) and (1b) for the organisational performance model are estimated. For the identification purposes, in both models the intercepts are excluded and the standard deviations of the error terms are set at 1 (Greene, 2000). Three outcomes of the dependent variable are determined as already elaborated in section 3.2. Those three outcomes are relabelled into outcomes 0, 1 and 2. Thus, outcome 0 captures firms with poor business performance; outcome 1 represents firms with stable business performance which is divided by the threshold parameter (or a cut point 1) relabelled as constant 1 in Table 2; and outcome 2 captures firms with growing business performance divided by constant 2 depicted in Table 2. The LR test rejected the null hypothesis of no significant differences between the two constants for both estimated models [$\chi^2(1)=125.28$, $p<0.00$; $\chi^2(1)=198.98$, $p<0.00$], implying that the threshold parameters are different and statistically significant at conventional levels. This test provides a confirmation that the choice to use the ordered probit analysis is valid.

Table 2: Ordered probit estimates (dependent variable: Organizational performance). Source: Author's calculation.

Variable	*Model [1a]*			*Model [1b]*		
	Coefficient	Standard Error	Marginal Effects	Coefficient	Standard Error	Marginal Effects
Change in employment	1.364*	0.396	0.520	1.354*	0.322	0.526
On-the-job training	0.054	0.036	0.021	-0.017	0.022	-0.006
Skilled	-0.072	0.120	-0.027			
Unskilled	0.228***	0.136	0.087			
Urban settlement				-0.414*	0.161	-0.162
Large organization				0.160	0.273	0.061
Medium organization				-0.038	0.181	-0.015
Small organization				-0.090	0.142	-0.035
Micro organization				—	—	—
Private ownership				0.227	0.142	0.089
Foreign capital				-0.165	0.148	-0.065
Age				-0.015**	0.006	-0.006
$Age^2/100$				0.012**	0.006	0.005
Log of revenues				0.207*	0.041	0.081
Market & Competition				0.128*	0.049	0.050
Management				0.200*	0.061	0.078
Constant 1	0.926**	0.478		3.625*	0.596	
Constant 2	1.616*	0.491		4.418*	0.604	
LR test H_0: constants are equal	$\chi^2(1)=125.28$, $p<0.00$			$\chi^2(1)=198.98$, $p<0.00$		
Observations	497			716		
Log Likelihood	-446.355			-616.766		
LR test	$\chi^2(4)=17.87$, $p<0.00$			$\chi^2(18)=138.89$, $p<0.00$		
Pseudo-R^2	0.047			0.120		

Notes: Robust standard errors are reported. The empirical specification [1b] includes regional and industry dummies. The marginal effects are calculated at the means of the independent variables. (, **, ***) denote statistical significance at the 1%, 5% and 10%, respectively, against a two-sided alternative.*

The goodness of fit measures for both estimated models are satisfactory as presented in Table 2. However, the empirical model (1a) is the basic model that values influences of only some of the HRM functions on organizational performance (*n*=497). Following the theoretical and empirical literature on this topic (Chatzimouratidis, Theotokas, & Lagoudis, 2012); (Dany, Guedri, & Hatt, 2008); (Zupan & Kaše, 2005) and the availability of the data used (see Table 1), three HRM policies are extracted for further analysis. Those are policies related to expansion and reduction of employees, to training and development, as well as to recruitment and retention of skilled and unskilled workers.

The first policy is approximated by a change in employment that is measured as a percentage change in the number of employees at the end of 2008 and 2007. This variable is positive and statistically significant ($p<0.01$). On-the-job training variable is positive, but statistically insignificant ($p<0.14$). A variable on recruitment of skilled employees has a negative sign, indicating that the potential shortages of the skilled labour force may negatively influence organizational performance, but this variable is not statistically significant ($p<0.55$). On the contrary, interviewed firms did not report problems with recruitment of unskilled labour. This variable is positive and statistically significant ($p<0.09$).

The econometric specification (1b) was estimated with the expanded sample of firms (*n*=716) that allows for using a broader set of explanatory factors which may determine changes in organizational performance. Four variables, such as employment change ($p<0.01$), sales and revenues ($p<0.01$), market demand and competition ($p<0.01$), as well as the management of firms ($p<0.01$), have statistically significant positive influences on organisational performance of growing firms, whereas location has negative influence ($p<0.01$). Further, it is revealed that firm age has a 'u-shaped' relationship with organizational performance, while, for instance, organizational size is not significant. The joint significance of the terms that capture organizational size is rejected based on the test statistic [$\chi^2(3)=1.86$, $p<0.60$]. On the other hand, firm age terms are jointly significant as confirmed by the test statistic [$\chi^2(2)=6.00$, $p<0.05$]. It is also interesting to notice that an opposite finding related to the influence of on-the-job training on organizational performance is estimated in the expanded model. The sign of the coefficient is negative, but it is statistically insignificant ($p<0.45$).

The discussion of the results obtained by estimating the empirical specifications (1a) and (1b) will be provided in section 4.3.

4.2 Results for the HRD model

Transitional reforms in former socialist countries have induced substantial changes in the organizational structure of firms. Large organizations, in particular, have had a rigid HRD department with 'underdeveloped strategic dimension' of HRM that was not served to 'support business needs' of firms (Zupan & Kaše, 2005, p. 885). After the privatization of enterprises, new dimensions and much better defined functions of HRM were introduced throughout the practices of foreign owned firms, as well as throughout the practices of subsidiaries of multinational companies (MNCs) (Cooke, Wood, Psychogios, & Szamosi, 2011); (Horwitz, 2011). Their involvement into the economy of transitional countries changed the structure of the whole corporate sector. By exploring the specification depicted in Table 3, we are able to examine to what extent the role of HRD departments in the firms operating in Serbia is changing.

The goodness of fit measures reported in Table 3 confirms the reliability of the estimated binary probit model. However, we have started the analysis by estimating a probit model with the dependent variable that indicates whether the firm has developed a strategy or a plan for HRM. This model failed to pass the LM test for normality [$\chi^2(2)= 12.511$, $p<0.002$]. Because of this, we decided to use a new variable that captures those firms that have HRD departments as a dependent variable. The LM test provides satisfactory results for the normality of the residuals [$\chi^2(2)=4.165$, $p<0.125$].

The results confirmed that large- and medium-sized organizations, as well as the scope of revenues, location near to the capital city and foreign ownership significantly determine a firm's decision to establish the HRD department in its organization. All the coefficients are statistically significant at conventional levels. It is also found that the variable firm age is not significant. This result is a bit naive given that the organizations evolve over time (Carley, 1992), but also it cannot be proved by exploring only the cross-section data set. By excluding the terms, age of firm and age of firm squared, the estimation results presented in Table 3 are not substantially changed. For the reestimated model pseudo-$R^2=0.223$, log likelihood=-269.71 and joint explanatory power of predictors [$\chi^2(10)=121.94$, $p<0.00$] have confirmed that the specification reported in Table 3 may be also considered as satisfactory.

4.3 Discussion of estimation results

The theoretical hypothesis that claims that HRM policies – such as the decision to invest in HRD, the decision to optimize the number of employees, as well as the decisions related to recruitment and retention of skilled and unskilled workers – may affect the overall organizational performance, and accordingly enhance competitive advantage of an organization, is partially empirically validated. The marginal effect of the change in employment indicates that this variable increases the probability of experiencing growing organizational performance by 52 percentage points (see column 4, Table 2). This result can be considered overestimated having in mind that the sample threshold was set at 5 and more employees, but this result reveals that optimization of the number of employees is more important from the perspective of

Table 3: Binary probit estimates (dependent variable: HRD, yes=1). Source: Author's calculation

Variable	Coefficient	Standard Error	Marginal Effects
Age	0.003	0.006	0.0006
Age²/100	0.001	0.005	0.0001
Log of revenues	0.156*	0.054	0.030
Large organization	0.960*	0.318	0.258
Medium organization	0.478***	0.258	0.104
Small organization	0.099	0.251	0.019
Micro organization	—	—	—
Private ownership	0.165	0.168	0.029
Foreign capital	0.348**	0.154	0.077
Capital city	0.263**	0.128	0.053
Constant	-4.133*	0.750	
Observations	794		
Log Likelihood	-268.867		
LM test for normality	$\chi^2(2)=4.165$, $p<0.125$		
LR test	$\chi^2(12)=128.41$, $p<0.00$		
Pseudo-R²	0.226		

Notes: Robust standard errors are reported. The empirical specification includes four industry dummies. The marginal effects are calculated at the means of the independent variables. (, **, ***) denote statistical significance at the 1%, 5% and 10%, respectively, against a two-sided alternative.*

employees is more important from the perspective of a firm than all other HRM policies. In part, these findings are in line with trends that were recorded in the overall economy. Namely, the 2008 Labour Force Survey data indicated an increase in the employment rate in the Serbian labour market as well (Ognjenović, 2013). The theoretical expectation that the investment in HRD has statistically significant positive effect on organizational performance of growing firms is not empirically confirmed.

Some empirical studies found that HRD practices observed through 'employee commitment and competence' have strong positive effects on business performance of firms in South Korea (Sung & Choi, 2014, p. 863), whereas some other empirical studies estimated a negative correlation between trainings and business performances of firms, such as turnover, in a developed economy, based on a mathematical simulation approach (Glance, Hogg, & Huberman, 1997). Evidently, recruitment policies have diverse effects on the probability of being in the group of firms with growing organisational performance. More specifically, firms that experienced difficulties to fill job vacancies with skilled labour found this a negative influence on organizational performance, whereas those firms that demanded unskilled workers have not experienced difficulties and rated this as a factor of positive influence on business performance.

We need more clarity with regard to the potential influence of on-the-job training to enhance organizational competitive advantage. Based on the Slovenian case, Zupan & Kaše (2005, p. 889) concluded that the expected effect of training on organizational performance can be considered as negligible, because they do not fill an existing gap in knowledge that would give a competitive advantage to firms in the future. Some preliminary findings for Serbia, obtained from the Cranet survey, show that HRD departments alone are responsible for training and development of employees in their organizations in barely 6 percent of cases. Line managers still retain a major responsibility for this HRM function (Svetlik, et al., 2010, p. 824). In line with previous findings, empirical results presented in this paper lead to the conclusion that the effect of on-the-job training on the probability of being in the group of firms with growing organizational performance is still weak in Serbia.

Firms situated in the urban areas experienced more difficulties than their peers. This variable decreases the probability to belong to the group of firms with growing organizational performance by 16.2 percentage points (see column 7, Table 2). The theoretical hypothesis that being situated near the capital city has a positive effect on organizational performance did not find empirical support. The joint significance of regional dummies, which are not reported in Table 2, was rejected by a result of the test statistic [$\chi^2(2)= 4.27, p< 0.12$]. In contrast, empirical results for the case of Russia, for instance, depicted significantly positive influence of the capital city on firm performance (Judge, Naoumova, & Douglas, 2009, p. 1747). In addition, the joint significance of industry dummies was not confirmed as indicated by the computed test statistic [$\chi^2(3)= 0.87, p< 0.83$].

Furthermore, we tested the hypothesis that firm age follows a ‘u-shaped’ relationship with organizational performance. This hypothesis was empirically confirmed because the joint impact of the firm age terms is statistically significant and increases the probability that a firm belongs to the group of organizations with good business performance by 0.4 percentage points. Namely, this means that firm performance changes over time and depends in part on internal organizational capability for change that would lead to the improvement of competitive advantage of a ‘growing firm’ in the future (Judge, Naoumova, & Douglas, 2009).

A theoretical hypothesis on the positive influence of a set of financial and business indicators on overall organizational performance was empirically tested and accepted. Firms perceived the increasing revenues, market and competitive environment, as well as business decisions of the top management as the factors that unambiguously have supported their growing business performance. Increasing market demand and fostering a competitive environment, for instance, increases the probability of being in the group of firms with growing organizational performance by 0.5 percentage points (see column 7, Table 2).

Finally, it is interesting to notice that the hypothesis that proposed that private ownership, as well as the inflow of foreign capital into the corporate sector in Serbia, increases the probability of being in the group of organizations with growing business performance is not empirically supported. For instance, Cooke, et al. (2011) concluded that the MNCs in Central and Eastern Europe due to the crisis may be more ‘reluctant’ to invest in human resources and accordingly more cautious in providing information about business performance. However, it is assumed in this paper that the post crisis recession did not significantly affect the survey results because the data collection was conducted during the first quarter of 2009.

Examining the estimation results of the second empirical model that brings more knowledge about the strategic approach to HRM functions in organizations in Serbia, one may draw several conclusions. Large- and medium-sized organizations are more likely to have HRD departments and some written strategy or plan that intent to be a ‘framework’ for managing human potential. This result is additionally supported by the significant effect of a variable that measures the realization of firms’ sales and revenues. A very important result is that some modernization in HRM may be expected to be introduced through changes in the ownership structure of organizations.

Namely, private organizations are 2.9 percentage points, whereas those run by the foreign capital are 7.7 percentage points more likely to report that they have HRD departments integrated into their organizational structure (see column 4, Table 3). Geographical location of a firm accordingly becomes significant, because organizations situated in or near to the capital city are 5.3 percentage points more likely to report presence of HRD departments in the organizational structure. Firm age, on the other hand, does not affect the decision of a firm to establish a HRD department. This result is not so surprising bearing in mind that the cross-section data set is used in the empirical analysis and that HRD functions are usually better developed in large organizations. Implicitly, one may conclude that the variable that represents large organizations ‘captures’ the influence of the variable firm age. However, the longitudinal data would be more promising in searching for the answer to the question at which point of organization’s life the organization gets the HRD department.

This paper fulfils the existing gap in research studies on the influence of HRM on the creation of a sustainable competitive advantage through discussing the policies and practices as well as examining the level of the development of organizational structure. The survey of the relevant literature in this field outlines some theoretical implications for boosting organizational performance. Further research is needed in order to check for robustness and reliability of the conclusions drawn in this paper. Some practical implications of the presented results arise from the fact that both the stabile and growing organizations need continuously well trained human resources as well as strategically oriented and integrated business policies. This way they can contribute to creating the knowledge- and innovation-driven economies.

5 Conclusion

The primary goal of this paper is twofold. Firstly, it deals with the impact of factors, such as HRM policies and practices, financial and business indicators, as well as firm characteristics on organizational performance. Then, it examines which factors determine the decisions of firms to integrate HRD departments into their organizational structure. There is a body of literature that provides findings that different HRM approaches may induce some positive internal changes in the organizations which contribute to the improvement of their competitive advantage in the future (Cooke, Wood, Psychogios, & Szamosi, 2011); (Dany, Guedri, & Hatt, 2008); (Judge, Naoumova, & Douglas, 2009); (Sung & Choi, 2014); (Zupan & Kaše, 2005).

A common conclusion, based on the selected literature, is that those firms that are aware of the importance of HRM functions pay more attention to their development.

On the contrary to advanced western economies where human resource outcomes are usually measured by turnover (Glance, Hogg, & Huberman, 1997) and firm performance by the dynamics of 'hard' indicators like financial and accounting indicators of the firm's position in balance sheets, Zupan & Kaše (2005) suggest that balance of 'hard' financial and 'soft' nonfinancial indicators would be more appropriate for measuring organizational performance in transitional countries. Their explanation lies in the fact that these countries are more exposed to transitional shocks, suffer more from illiquidity and low profitability, have higher unemployment, low labour mobility, etc. Due to the effects of the recent economic crisis there are more empirical studies that consider nonfinancial factors very important for organizational performance (Sung & Choi, 2014). In addition, because of the specificities of transitional countries, organizational changes in firms have to be examined systematically based on longitudinal data.

Following the survey of theoretical and empirical literature, several hypotheses are posed and empirically tested. The microeconometric framework includes ordered probit and binary probit statistical models. The data come from the survey based on a representative sample of enterprises operating in Serbia. The effects of four groups of factors, including (*i*) HRM policies and practices, (*ii*) financial and business indicators, (*iii*) location, and (*iv*) firm characteristics, on organizational performance are examined. Factors, such as optimization of the number of employees, sales and revenues, firm age, increasing market demand and competitive environment, as well as the 'right decisions' of the top management are found to be significantly positive for boosting organizational performance. The analysis did not provide empirical evidence that on-the-job training, firm size, industry or region has statistically significant influence on organizational performance. When the basic model of organizational performance is estimated, HRM policies related to optimization of the number of employees and the decision to recruit less skilled workers have significantly positive influence on, while difficulties to find high skilled workers were perceived as negative for boosting organizational performance. Likewise, significance of on-the-job training for boosting organizational performance was not empirically supported in this model. An auxiliary model shown that large- and medium-sized firms, firms with high level of revenues, privately owned, foreign and those located in or near to the capital city are more likely to have HRD departments.

The majority of empirical studies surveyed in this paper are developed in the framework of the multivariate analysis. The approach followed in this research relies on the general probability models and can be considered as a novelty. However, the variables used in the empirical models have been previously determined, and so the determinants selected from the array of HRM policies and practices were already defined, leaving no place for adding new explanatory factors or adjusting the measuring scale of the variables. Another limitation of the empirical research presented in this paper arises from the fact that the current data set represents only enterprises from Serbia. Further research efforts should be oriented towards conducting comparative analyses involving more countries. Also, the longitudinal data sets would be more informative for such types of analyses that would investigate how HRM policies and practices contribute to creating a sustainable competitive advantage of firms through their influence on organizational performance.

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Usposabljanje na delu in upravljanje s človeškimi viri: kako izboljšati konkurenčno prednost organizacije

Ozadje: V članku preučujemo učinke štirih skupin dejavnikov organizacijske uspešnosti: upravljanja človeških virov, finančnih in poslovnih kazalnikov, lokacije ter značilnosti podjetij. S pomočjo izbrane literature smo potrdili, da podoben nabor dejavnikov s svojimi pozitivnimi učinki na organizacijsko uspešnost, lahko pomembno izboljša konkurenčnost podjetij.
Metode: Empirična analiza je bila izvedena s pomočjo podatkov podjetij, ki poslujejo v Srbiji. Uporabili smo dva statistična modela. Urejeni model probit smo uporabili za ugotavljanje organizacijske uspešnosti, standardni binarni probit model pa kot odločitveni model o pomenu integracije HRM oddelka v organizacijsko strukturo. S statističnimi metodami smo ocenili ujemanje obeh modelov.
Rezultati: Rezultati raziskave kažejo, da imajo optimizacija števila zaposlenih, prodaje in prihodkov, starost podjetja, večje povpraševanje na trgu in konkurenčno okolje, kot tudi „prave odločitve“ vrhovnega vodstva signifikantno pozitivne učinke na povečanje organizacijske uspešnosti. Vpliva usposabljanja na delovnem mestu na povečanje organizacijske uspešnosti, z raziskavo nismo potrdili. V isti skupini dejavnikov so velikost podjetja, industrija in lokacija podjetja. Pomožni model kaže, da je večja verjetnost, da imajo v organizacijski strukturi HRM oddelke velika in srednje velika podjetja, podjetja z visoko stopnjo prihodkov, podjetja v zasebni lasti, tuja podjetja in tista, ki se nahajajo v prestolnici ali v bližini prestolnice.
Zaključki: Članek predstavi empirične ugotovitve, ki so pomembne za razumevanje v kolikšni meri usposabljanje, upravljanje človeških virov, kakor tudi nekateri drugi notranji in zunanji organizacijski in finančni dejavniki vplivajo na krepitev konkurenčne prednosti podjetij.

Ključne besede: *usposabljanje; upravljanje s človeškimi viri; konkurenčnost; organizacija; zaposleni*