

Organizacija

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

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

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

Contents/Kazalo

6/2009

RESEARCH PAPERS	211	BLAŽ RODIČ, GOZDANA MIGLIČ, GORAN VUKOVIČ, BRUNO ZAVRŠNIK, ROBERT LESKOVAR	Enhancing the Effectiveness of Training through Information Feedback – The Case of Slovenia's Public Administration
	222	MLADEN TOMAŠIČ	An Analysis of Corruption in Micro-Enterprises
	234	SREČKO ZAKRAJŠEK	The Organisational and Personnel Aspects of Introducing ICT into Grammar Schools
	246	IZTOK KOPRIVA, MOJCA BERNIK	Comparison of Human Resource Management in Slovenian Family and Non-Family Businesses
SUPPLEMENT / DODATEK RAZPRAVE	A233	MARKO ŠETINC, HEDA KOČEVAR, MIRO GRADIŠAR	Optimizacija denarnih tokov pri gradnji cest z genetskim algoritmom
	A241	MARKO RAJTER, ŠTEFAN BOJNEC	Svetovalne storitve in uspešnost poslovanja slovenskih družinskih podjetij
	A252	ANDREJA KRIŽMAN	Dejavniki trženjskih odnosov v modelu izvedbe storitev v zunanji logistični oskrbi: izbor in opredelitve
	A261	MIRO JERAJ, ŽELJKO KRALJ	Model upravljanja življenjskega cikla poslovnega sistema
PREDLOG ZA PRAKSO	A271	MAJA ZAMAN GROFF	Zakonska reguliranost računovodskih poklicev v izbranih državah Evropske unije
POVZETKI / ABSTRACTS	A279		
RECENZENTI / REVIEWERS	A281		
DONATORJI	A283		

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Enhancing the Effectiveness of Training through Information Feedback – The Case of Slovenia's Public Administration

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After the fall of the Berlin wall, the public administrations in Central and Eastern European countries have had to adapt to an enormous number of changes in a relatively short time. Their civil servants are still facing a constantly changing regulatory framework which needs implementation and enforcement, as well as new demands from the growing private sector and the citizens. These challenges can only be met if the civil servants are highly qualified and constantly updating their qualifications. A sound system of in-service training is therefore crucial to keep the public servants on equal footing with the rapidly changing environment. The research presented in this paper analyzed the practices of training evaluation as an information feedback in a branch of Slovene state administration. We analyzed the attitudes of employees towards evaluation with the assumption that there probably are notable differences between the attitudes of public servants depending on their demographic qualities. The results of the research, that 414 public servants have participated in, show that the position in the hierarchy has the strongest influence on their attitude towards evaluation. Empirical data also show that most of the employees are willing to participate in a continuous and objective training evaluation, but the leading public servants are less involved in the evaluation than expected.

Keywords: civil servants, evaluation processes, information feedback, goal oriented systems, public administration, training, training effectiveness

1 Introduction

Since the early 1990's, the Slovenian government has made great efforts to transform the centrally planned economy into a market economy. This process was significantly influenced by a rapid and dynamic development of a modern social system which also required an appropriate adjustment and development of the administrative system. Initially, the public administration reform was focused mainly on the legislative and institutional structure, but it also laid the foundation of a modern and effective public administration. Important parts of the legislation, including the Civil Service Act (CSA), were adopted in 2002 and later amended (Official Gazette of the Republic of Slovenia, no. 56/02).

In fact, the construction a modern and advanced administrative system and the establishment of a professional civil service started with the implementation of the CSA. This Act describes the main elements of the human resources system: the selection of personnel, their employment, the rights and

duties of civil servants, career development, and the assessment of their professional activities. A key element in the application of an efficient human resource management (HRM) policy and development in the administration seems to be the establishment of a system for continuous development of civil servants' professional skills and expertise.

This paper and the research behind it are a response to the requirements of the CSA, connected to the civil servants' training effectiveness.

2 Understanding the Value of Training – Theoretical Framework

Training is a basic concept of HRM. Armstrong (1999: 507) describes training as the systematic modification of behaviour through learning which occurs as a result of education, instruction, development and planned experience. Training also attracts high-quality employees by offering them learning

and development opportunities, improving their competences and skills, resulting in higher job satisfaction, higher rewards and promotion within the organization, and increase the commitment of employees by encouraging them to identify with the mission and objectives of the organization. Training helps organizations manage change by increasing understanding of the reasons for change, providing people with necessary knowledge and skills, helps develop a positive culture in the organization, e.g. an orientation towards performance improvement, and provides higher levels of service to customers.

Planning of training is vital and requires attention to detail and careful organization. Go et al. (1996 in Cassidy, 2001) emphasize that some basic concepts should be involved in organizational training practice. The training system can be viewed as a continuously evolving system that has several phases: training needs assessment (TNA), identification of training objectives, planning, implementation, and evaluation of training. From the perspective of the system theory, training evaluation represents an information feedback loop, a key component of all goal-oriented systems (Škraba et al., 2003). Hamblin (1974, cited by Armstrong, 1999: 531) defines training evaluation as 'any attempt to obtain information (feedback) of the effects of a training programme and to assess the value of the training in the light of that information'. Thus training evaluation is seen as an analytical process that includes collecting and joining of subjective and objective data on all (or selected) phases of the training process coming from various sources and gained by different techniques. Evaluation results in the synthesis of data which includes the summary of results and recommendations referring to the evaluated programme (Stanley, 1987).

Bramley (1996) identified six general approaches to training evaluation, among which goal-based and systems-based approaches are predominantly used in the evaluation of training (Phillips, 1991). Goal-based models of evaluation are especially widely used because of their simplicity. Most of the practitioners (e. g. Bramley, 1996, 2003; Kirkpatrick, 1998) have advocated a series of levels through which an assessment of the effects of individual learning and training activities is made. The activities include:

- learners' reactions to the learning experience,
- the learning achievements of participants,
- changes in job behaviour,
- the organisational effect of specific learning interventions.

Some theoreticians and practitioners (Kearns, 2005; Phillips, 1991) have also suggested a calculation process to determine the economic return on investment (ROI) for individual learning and training processes.

The reasons for incorporating evaluation into the overall programme serve a wide range of purposes. Since the basic purpose of evaluation is to influence the decisions on possible adjustments and improvement, the evaluation should fulfil at least six purposes. As Brinkerhoff (1988: 67) points out, evaluation should determine:

- that an identified problem represents a training need and to determine what the real goals are,
- the most appropriate training strategy,
- if the chosen strategy is successfully implemented,
- if learning occurred and to what extent,

- usage outcomes (at the individual level), and
- impacts and value (at the organizational level).

Despite the importance of evaluation, there is evidence that evaluations of training programmes are often inconsistent or missing (Alliger and Janek, 1989, cited in Goldstein, 1993: 167; Bramley, 1996: 90; Carnevale and Schulz, 1990; Marsden, 1991). Evaluation of training is indeed identified as the most difficult part of the job (Foxon, 1989). This is not surprising since evaluation is poorly defined, having different meanings for different people in many different contexts. Part of the explanation may be that the task of evaluation is complex in itself. Evaluating training with regard to learning, transfer, and organizational impact involves a number of complexity factors. These complexity factors are associated with the dynamic and ongoing interactions of the various dimensions and attributes of organizational and training goals, trainees, training situations, and instructional technologies (Eseryel, 2002).

The issue of complexity is also connected with the limitation of upper level of evaluation (job behaviour changes, organisational results), which is due to several reasons. First, in the arena of human behaviour there are too many variables involved for us to establish absolute causal links between training, given behaviour, and results. Second, evaluation on the upper level demands close cooperation among different actors in the evaluation process, e. g. trainees, their direct superiors, personnel offices, trainers, trade unions, and public service users. Their interest for training evaluation results varies in nature and intensity, and they ask questions based on their own point of view and interest. Third, higher level evaluations take more time than relatively simple evaluation of trainees' reaction and learning achievements. Another problem with higher level evaluation is that it is less convincing when training involves "soft" behaviours such as communications skills or interpersonal sensitivity. Another point is that behavioural change and higher productivity, attributed to training could simply be a result of the attention given by the evaluator.

Possible reasons for inadequate evaluations also include: insufficient budget allocated; insufficient time allocated; lack of expertise; blind trust in training solutions; or lack of methods and tools (Eseryel, 2002).

3 Introducing Training Evaluation in the Slovene State Administration's Training System

Building a modern and advanced administrative system and establishing a professional civil service requires a continuous training of public servants to develop appropriate capacity, new administrative culture and professional ethics. Therefore, developing and implementing an effective training system have become one of the priorities for state administration. Slovenia's state administration under the government of 2004 in particular seemed very eager to climb aboard the new public management wagon, in contrast with bigger Continental-European countries, as described in Pollitt et al. (2007: 20).

One of the findings in a comprehensive study conducted by Saner, Strehl and Yiu (1997), which compared the in-service training within the public administration in several Euro-

pean countries, was that the in-service training of the civil servants in Slovenia was well organized and that need-oriented training concepts play a major role for the development of an efficient and effective administration.

Training as an instrument for change and improvement often does not provide expected results (Saner, Strehl, and Yiu, 1997). Many times, investments in training are not successful and intended objectives are not met leading to disappointments and unhelpful attribution of blame. Training is expensive; therefore it is essential for public managers to make sure that the effectiveness of training is carefully assessed. Present era of fiscal constraints demands that all organizational activities, including training, should be retained on the basis of their relative effectiveness vis-à-vis other programmes (Randma, 2002: 198).

In order to ensure the success of training and to achieve maximum efficiency of the training process, a demand for evaluation of training quality and efficiency was introduced in Slovene public administration training practice. The CSA specifies that the implementation of a training programme must be monitored, reports on the effectiveness of the programme produced and occasional testing of officials' theoretical and practical knowledge provided. As a consequence, the evaluation of training effectiveness is becoming a compulsory part of civil servants' training.

This paper is a complement to the report on research (Vukovič et al., 2008) we have conducted in order to investigate the civil servants' perception of training evaluation. The research was the first of its kind in the Slovene government administration. One of its goals was to identify and clarify the differences in understanding training evaluation between leading and non-leading civil servants. We believe a clearer understanding of the differences between the groups of civil servants will have an important implication for the practice of training evaluation within the Slovene state administration, especially for the design of a reliable and effective evaluation model, tailored to this state administration.

4 Methodology

4.1 Research Questions and Assumptions of the Research

This section presents the background to the four research questions listed in the previous section and the assumptions that the presented research is based upon.

The word evaluation can also trigger a series of defensive emotional reactions. Auluck (2006) noted that one of the obstacles in human resource development in public administration is the presentation and representation of the human resource development function. It often seems that many problems are associated with misunderstanding the role of evaluation, and a lack of awareness that training is a part of the dynamic organizational process and needs to be monitored, amended and improved until the expected results are achieved (Goldstein, 1993). That is why we believe that the influence of various factors on civil servants' attitude towards training

evaluation is worth examining. Therefore we formulated our first question as follows:

Question 1: What is the correlation between respondents' demographic characteristics and their attitude towards training evaluation?

The training system can be viewed as a continuously evolving system with several stages: TNA, identification of training objectives, planning, implementation, and evaluation of training (Stanley, 1987: 14-15). The next research question is concerned with the correlation between TNA and evaluation. In theory, evaluation is strongly connected with TNA. Bramley (1996) and Easterby-Smith (1995) state that the purpose of evaluation is to assess the constant flow of recurring information, which is a starting point for assessing and evaluating the needs for training once again. This means designing a new input for the next level of an individual's professional development. The manner in which training needs are identified is an important factor in the design of evaluation, i.e. the identification of training needs has to include the criteria that the changes in job performance and effectiveness are to be assessed with (Bramley, 1996). This lead us to formulate the second research question as follows.

Question 2: What is the correlation between training evaluation and TNA?

The third question addresses the correlations between evaluation and training effectiveness. For the purpose of this study, Bramley's definition of training effectiveness was used. Bramley (1996: XVI) suggests that training effectiveness should 'imply not only finding out whether the training was well done but also asking what it achieved and whether it was worthwhile for the organization to be sponsoring it'.

Torrington and Hall (1998) believe that the evaluation of the effectiveness of training is one of the most inadequately implemented aspects of training, with many organizations believing that training ends once the delivery of the training programme is complete. This belief has two consequences: it defeats the idea of training as a continuous process lasting throughout an employee's career and, more importantly, it will result in the failure to measure whether training has met the objectives set beforehand and whether it has developed/induced positive behavioural changes.

Torrington and Hall (1998) also believe that evaluation is vital in determining how successful the training programme has been and that it is vital for an organization to be able to demonstrate value for money. Armstrong (1999) states that by implementing an evaluation process the organization will have a degree of control and that it is therefore useful that the entire training programme is evaluated because it is important to assess whether the training programme has met the objectives set out at the planning stage, and to indicate where improvements or changes are required in order to ensure that training will be more effective. We tried to capture the essence of these issues in the third research question.

Question 3: What is the correlation between training evaluation and training effectiveness?

The final issue we were interested in was the correlation between the training evaluation and training results. Kirkpatrick (1998: 23) gives a wide definition of this term and states that 'Results can be defined as the final results that occur-

red because the participants attended the programme'. For research purposes we defined the evaluation results as the new knowledge a participant has exhibited after training. These results form the basis for assessing the training effectiveness. They are obtained by measuring the knowledge, abilities and views that the employees acquire during training (Možina et al., 1998: 500). Easterby-Smith (1995: 18) states that evaluation contributes to the learning process and consequently to training results. Accordingly we have postulated the fourth question as follows.

Question 4: What is the correlation between training progress and training results?

4.2 Research Population and Sample

The population of the study was identified prior to the beginning of the study, so that questions could be postulated according to the population. We focused a lot of attention on defining the subject of research because the topic we had chosen was rather extensive. We narrowed down the subject by only researching the current practice of training evaluation and the civil servants' attitudes toward evaluation, employed only in the Administrative Units (AUs) and not in any other state body, e.g. the ministries, the bodies within the ministries or governmental offices.

AUs are a form of territorial organization of state administration that was established in 1995 (Administration Act, Official Gazette of the Republic of Slovenia no. 67/1994). The main responsibility of AUs is to carry out all administrative tasks and support the competences of state administration that need to be organized and performed territorially. AUs make decisions at the first level of administrative matters and perform other tasks of state competence.

We have focused our research on the AUs because their network covers the entire country, and the organizational structure, scope of responsibilities, working procedures and the management of AUs varies very little from one AU to another, making the AUs comparable one to another.

At the time of research there were 58 AUs in Slovenia. Nine (15.5%) of them were identified and selected to participate in the study, and efforts were made to include representative AUs regarding the existing variations in size and organizational structure. The AUs selected were representative of the all 58 AUs as a whole in size, number of employees and geographic distribution. 502 employees (15.8% of employees in all AUs) were included in the research.

The research sample was divided in two groups. The first group consisted of the leading civil servants in the AUs (heads of internal organizational units) while the other group consisted of non-leading civil servants (clerks). The sample of the leading civil servants included 49 respondents (17.6% of all leading civil servants in all AUs) and the sample of non-leading civil servants included 453 respondents (15.6% of all non-leading employees in all the AUs); the samples were big enough to adequately represent both groups of employees in the AUs. Reliability and validity of the instrumentation was within acceptable limits.

4.3 Development of the Instrument and Data Sources

Initially, nine interviews with the heads of the AUs were performed to present the purpose of the research, acquire their consent for participation and verify the information about the current number of employees in the AUs.

Afterwards, questionnaire was selected as the instrument to gather the answers to the research questions. This instrument was based upon the main dimensions of the Instructional System Development (ISD) Model and it was developed following a review of related literature (Cascio, 1998; Goldstein, 1993) as well as the provisions of the Civil Servants Act. The questionnaire contained 29 items. Five to eight items were included in each of four categories with statements addressing the training practice of AUs. Responses to the instrument were anonymous. Respondents were asked to judge their current practice and the desired or ideal situation in their training system for 24 items. A five-point Likert scale ((1) Strongly Disagree, (2) Disagree, (3) No Opinion, (4) Agree, (5) Strongly Agree) was used. To complete the data gathering, one open-ended question was also used. Demographic data were also included (position, gender, age, level of education, and years of experience in the state administration) to aid in possible statistical comparisons and analyses of the groups. The instrument was validated by a panel of four heads of AUs and field tested with 15 civil servants employed in the AUs.

4.4 Data Collection Procedures

Study instrumentation was personally delivered to every head of an AU or their designee in each AU. Within three weeks, 414 of the 502 surveys were received for a return rate of 82.6% (the response rate of leading civil servants was 83.7% and the response rate of non-leading civil servants was 82.4%).

4.5 Statistical Analysis of the Data

Two surveys were removed from the study because they were not completed. Therefore 412 surveys representing nine AUs were used for data analysis.

The Statistical Package for Social Sciences (SPSS) software application and different statistical methods for analyzing the acquired data were used in the analysis. Descriptive statistics were computed on the demographic variables. Differences between the demographics groups were determined using ANOVA and the *t*-test. Spearman coefficients were computed to test for a relationship between responses on each item.

5 Results and Findings

5.1 Respondent Profile

The primary purpose of this section is to describe the participants in this study who completed the questionnaire with respect to the following demographic variables: position,

gender, age, level of education, and years experience in state administration.

Position. Of the 412 respondents who filled in this question, 49 (11.9%) were at a leading position (heads of department and other internal organizational units), and 363 of the civil servants were at non-leading positions (88.1%).

Gender. There were 93 male respondents (22.6%) and 319 female respondents (77.4%).

Age. The age of the respondents was divided into five categories: (1) under 30, (2) 30-39, (3) 40-49, (4) 50-60, and (5) over 60 years of age. The distribution of respondents into age groups is shown in Figure 1.

Level of Education. Educational level of the respondents was classified into six categories: (1) Doctorate degree, (2) Master's degree, (3) B.A. degree, (4) college degree, (5) secondary school degree, and (6) less than secondary school degree. The distribution of respondents into level of education groups is shown in Figure 2.

Years of experience within state administration. The years of experience of the respondents were divided into five categories: (1) under 5 years, (2) 5-9 years, (3) 10-14 years, (4) 15-20 years, and (5) more than 20 years. The distribution of respondents into years of experience groups is shown in Figure 3.

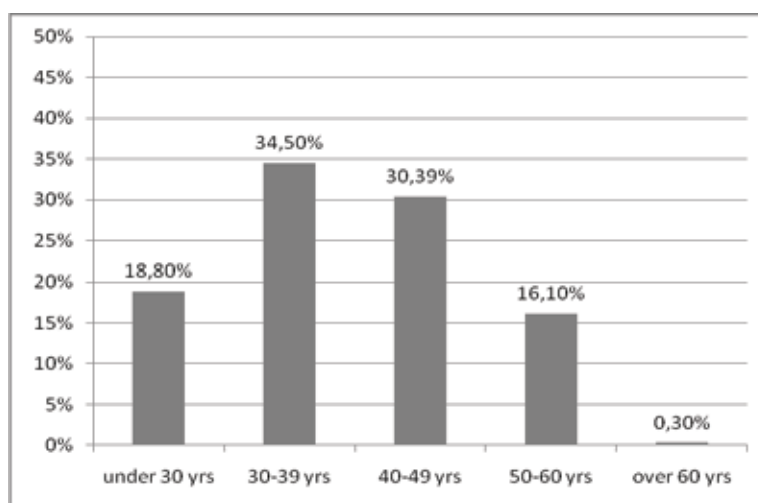


Figure 1: Distribution of respondents in age groups

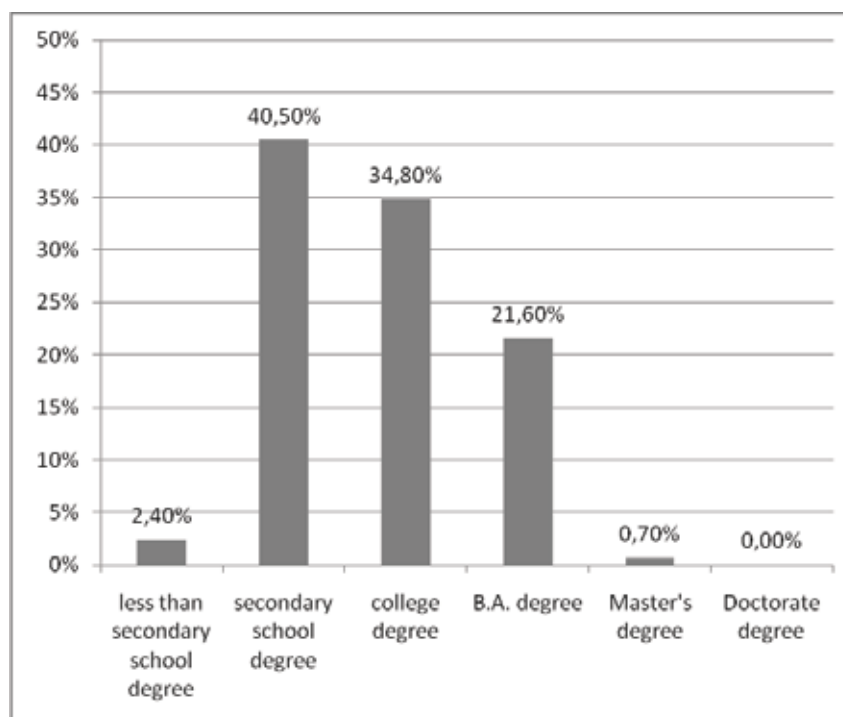


Figure 2: Distribution of respondents into level of education groups

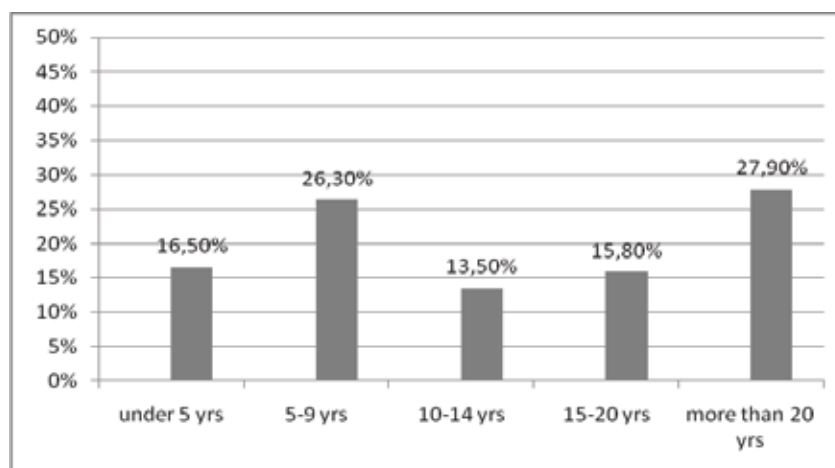


Figure 3: Distribution of respondents into years of experience groups

Taking into consideration the structure of the research participants and the data about the employees in all AUs (obtained from Directorate for Management and Personnel, Ministry of Public Administration of the Republic of Slovenia) we assessed that the representation of the realized research sample was statistically satisfactory and suitable for further analyses.

5.2 Analysis of Training Evaluation Perceptions

Eight items in the questionnaire involved participants' perceptions of training evaluation. These items were developed based

on the review of previous research published. One-way analysis of variance and *t*-test procedures were used to determine differences in the opinions regarding the training evaluation among different demographic groups (Table 1).

The leading and non-leading civil servants' opinions differ in 62.5% of the cases. The participants' position had a low, but statistically significant negative correlation to agreement with the following statements: 'Evaluation increases training effectiveness', 'Evaluation criteria exist', 'Feedback after training exists', and 'Consistent evaluation is performed'. This leads us to a conclusion that the leading civil servants are more likely to believe that existing evaluation procedures improve training effectiveness and that continuous and consistent

Table 1: Correlation between Demographics Variables and Opinions on Training Evaluation

Variables	Position	Gender	Age	Education	Experience
Evaluation increases training effectiveness	-.181*	-.039	.135*	-.096	.083
Evaluation should be based on training objectives	.132*	-.168*	.081	-.218*	.051
Evaluation detects new training needs	-.057	-.092	-.041	-.029	-.087
Evaluation encourages trainees to improve their training results	-.024	-.039	-.077	-.107	-.092
Evaluation criteria exist	-.136*	.007	-.136*	.000	-.045
Feedback after training exists	-.179*	-.042	-.019	-.091	-.020
Testing knowledge after training should be possible	.110*	.142*	-.159*	.133*	-.138*
Consistent evaluation is performed	-.163*	-.104	.001	-.093	-.095

Note.

* $p < .05$

evaluation already exists and that its criteria are defined and known to all employees, than their clerk colleagues.

Participants' position shows a low, but statistically significant positive correlation to 'Evaluation should be based on training objectives', and 'Testing knowledge after training should be possible'. Non-leading civil servants are more likely to believe than the leading civil servants that training goals should serve as the basis for training progress evaluation. They are also more likely to favour knowledge evaluation after training is completed.

Participants' position is not correlated with the statements 'Evaluation detects new training needs', and 'Evaluation encourages trainees to improve their training results'.

The statement 'Testing knowledge after training should be possible' showed the strongest statistically significant correlation with the participants' demographic characteristics. In the theory (Kirkpatrick's Evaluation Model, 1998) testing the knowledge is one of the important levels of measuring training effectiveness. According to the data gathered, the groups most in favour of evaluation are the leading civil servants, women, younger and less experienced civil servants and the civil servants with a high level of education. That is not surprising, as leading civil servants take a successful test of a civil servant's

knowledge as an objective demonstration of knowledge and as a proven capability for work at a particular work post. The younger and less experienced civil servants probably see a professional examination as a chance to prove they meet the conditions for a promotion.

Testing the knowledge in Slovene state administration is in some cases mandatory and defined by legislation. They can be prescribed either by law, executive regulation or general act of the individual state body. On the basis of statutory provisions and the regulations in force, the professional examination for the execution of special duties and authorisations is prescribed for particular titles, official work posts or public tasks, e. g. "Professional examination in administrative procedure", "Professional examination for inspectors", "Professional examination in administrative operations", "Examination for Registrar", "Examination of professional competence for conducting and decision making in administrative violations procedure", "Certification examination for obtaining a licence to conduct the business of real estate brokerage", and "Certification examination in the field of safety and health at work". Officials cannot perform public tasks for which a professional examination is prescribed, unless they pass the prescribed examination.¹

Table 2: Leading and Non-Leading Civil Servants' Opinions on Evaluation - Results of t-Test of Group Means

Variables	Group	N	Mean ^a	SD ^b	t	Sig. (2-tailed)
Evaluation increases training effectiveness	L ^c	48	3.95	.74	2.752	.008
	NL ^d	356	3.58	1.04		
Evaluation should be based on training objectives	L	48	4.00	.40	1.296	.199
	N	354	3.90	.65		
Evaluation detects new training needs	L	48	3.39	.63	-0.910	.128
	N	245	3.62	.74		
Evaluation encourages trainees to improve their training results	L	48	3.41	.63	4.072	.178
	N	345	3.51	.74		
Evaluation criteria exist	L	48	3.51	1.05	-1.541	.003
	N	353	2.80	1.29		
Feedback after training exists	L	45	2.55	.15	3.280	.002
	N	359	1.92	.98		
Testing knowledge after training should be possible	L	48	3.70	.82	7.111	.000
	N	362	3.41	.89		
Consistent evaluation is performed	L	48	2.32	.43	1.162	.006
	N	359	1.67	.40		

Note:

^aMean - 1 – Strongly Disagree, 5 – Strongly Agree

^bSD - Standard deviation

^cL – leaders. ^dN – non-leaders.

p < .05

¹ Professional examination for appointment to title, which was required for entrants in the civil service, has been substituted with mandatory training programme (CAS_OCT4, Article 89). Training primarily covers the following fields of knowledge: constitutional order and the institutions of European Union and its legal system; the system of legislative, executive and judicial powers, and their mutual relationship; local self-government, the system of public finances, the operation of state bodies and the bodies of the local self-governing community administrations, the system of administrative law, administrative procedure and administrative dispute, legislative procedure, and the rules of office operation, including electronic operation, the rules of the protection of personal and other data, and the rules of the production of other materials.

Because significant differences ($p < .05$) were found between leading and non-leading respondents, we examined the opinions of leading and non-leading civil servants about evaluation more closely. To compare their opinions more effectively, the mean scores of both groups were subjected to analysis. Table 2 displays eight items from survey along with the item mean, standard deviation, and number of respondents by position.

The examination of the means obtained for the variables concerning evaluation issues indicate that Slovene civil servants have a positive attitude towards the value of training evaluation although the opinions of both groups differed moderately. Questionnaire item means (M) ranged from 1.67 (non-leaders – for item ‘Consistent evaluation is performed’) to 4.00 (leaders – ‘Evaluation should be based on training objectives’). Standard deviations for items ranged from .15 (leaders – ‘Feedback after training exists’) to 1.29 (non-leaders – ‘Evaluation criteria exist’).

For the purposes of this study, the strength of agreement indicated by each level of response was categorized as low if less than 2.25, moderate if between 2.26 and 3.75, and high if more than 3.76. Low agreement was found with non-leading respondent on two items (‘Feedback after training exists’, and ‘Consistent evaluation is performed’). Non-leaders decidedly agreed that evaluation should be based on training objectives ($M = 3.90$), and in five cases non-leaders showed moderate agreement with the stated items (‘Evaluation increases training effectiveness’, ‘Evaluation detects new training needs’, ‘Evaluation encourages trainees to improve their training results’, ‘Evaluation criteria exists’, and ‘Testing knowledge after training should be possible’). Leaders decidedly agreed on two times (‘Evaluation increases training effectiveness’, and ‘Evaluation should be based on training objectives’), while in six cases their agreement was moderate (‘Evaluation detects new training needs’, ‘Evaluation encourages trainees to improve their training results’, ‘Evaluation criteria exists’, ‘Feedback after training exists’, ‘Testing knowledge after training should be possible’, and ‘Consistent evaluation is performed’).

T-tests were used to determine if significant differences exist between the two groups. Significant differences ($p < .05$) between leaders and non-leaders were found on five occasions. Leaders agreed ($M = 3.95$) more strongly than non-leaders ($M = 3.58$) that ‘Evaluation increases training effectiveness’ ($p = .008$). Leaders rated the item ‘Feedback after training exists’ significantly higher ($M = 2.55$) than non-leading respondents ($M = 1.92$) who more often tended to disagree with the state-

ments ($p = .002$). For the item ‘Evaluation criteria exist’ the average rating by leaders ($M = 3.51$; $p = .003$) was significantly greater than those of non-leaders ($M = 2.80$). Similarly, for the item ‘Consistent evaluation is performed’ the average rating by leaders ($M = 2.32$; $p = .006$) was greater than that of non-leaders ($M = 1.67$). Leaders also rated the statement ‘Testing knowledge after training should be possible’ significantly higher ($M = 3.70$; $p = .000$) than non-leaders ($M = 3.41$).

Non-leading civil servant respondents gave a higher rating ($M = 3.51$) to the statement ‘Evaluation encourages trainees to improve their training results’ than leaders ($M = 3.41$). Similarly, for the item ‘Evaluation detects new training needs’ the average rating by non-leaders ($M = 3.62$) was greater than that of leaders ($M = 3.39$).

For the item ‘Evaluation should be based on training objectives’ the item-level group means were similar ($M = 4.00$ for leaders; $M = 3.90$ for non-leaders).

5.3 Correlations between Training Dimensions

A correlation matrix was constructed in order to show the interrelationships between the five dimensions of training: training effectiveness, TNA, planning, evaluation, and training results. We calculated the Pearson’s coefficient correlation for the variables (Table 3).

The matrix of relationships shows that one of the correlations was in the category of little if any correlation (correlation coefficient between .00 and .30), five of the correlations were in the low positive category (correlation coefficients between .30 and .50), two of the correlations were in the moderate correlation (correlation coefficients between .50 and .70), and one correlation was in the high positive category (correlation coefficient higher than .70). The values of correlation factors were ranked according to Hinkle, Wiersma, and Jurs (1988, cited by Poston, 1997).

Several interrelationships among the dimensions of systematic training cycle were found (significant at the .05 level). The correlation between TNA and evaluation was confirmed ($r = .47$). A significant positive relationship was also found between evaluation and planning ($r = .47$). A high correlation was also calculated between planning and TNA ($r = .71$). In addition, a correlation of .43 was found between TNA and training effectiveness, and a correlation of .65 between planning and training effectiveness.

Table 3: Correlation Matrix for the Five Dimensions of Training

Variables	1	2	3	4	5
1 TNA	1.00				
2 Planning	0.71**	1.00			
3 Evaluation	0.47**	0.47**	1.00		
4 Results	0.15*	0.09	0.47**	1.00	
5 Training effectiveness	0.43**	0.65**	0.53**	0.38**	1.00

Note:

* $p < .05$. ** $p < .01$

These results are in accordance with theory found in literature. Namely, Scriven (1991) suggests that a comprehensive programme evaluation of training should be comprised of three essential components: preformative evaluation, formative (inner) evaluation, and summative (external) evaluation. Preformative evaluation comprehensively assesses individual and organizational needs during the planning process. During this phase, intended goals are clarified and strategies are set for the training pathway. Formative evaluation should be conducted during the training programme. Formative evaluation provides feedback and determines modifications or adjustments that can be made to improve the learning process. The final, closing evaluation phase is summative evaluation, which allows trainees and their superiors to judge the overall value of their experience. An example of summative, i. e. external evaluation are the user satisfaction surveys which have been executed regularly in AUs from 2002 onwards.

A correlation of .53 was found between evaluation and training effectiveness. A significant positive relationship was found between evaluation and training results ($r = .47$), and between training effectiveness and training results ($r = .38$). This fact may be regarded as an instance of the well-known Hawthorne effect: the observations increase the volume of work and learning. People may improve their performance or behavior simply because of all the attention they receive (Bee and Bee, 1995: 83). On the other hand, feedback is one of the chief purposes of evaluation.

On the grounds of the demonstrated correlation between evaluation and training effectiveness we have established that civil servants generally have a positive attitude towards training evaluation.

5.4 Recommendations

We recommend that more quantitative and qualitative research should be conducted to complement the presented survey. The research should include not only AUs but other state bodies, e. g. ministries, bodies within ministries, government offices, as well. More precise information can give better insight in the training practice of the whole state administration.

However, in practice there is a noticeable gap between actual and desired state that is not the result of failing to recognize the importance of training in achieving greater individual and organizational success, but the result of not being informed about the fundamental principles of systematic training. Therefore, training for managers, personnel managers, and trainers on main issues of TNA, planning, and evaluation (including mastering various evaluation models, methods and techniques, statistical methods, etc.) is needed.

On the basis of the research it would be sensible to consider the design and implementation of an evaluation model that would connect the training goals, plans, actions and outcomes, including the transparent and standardized measurements of performance and training effectiveness. Evaluation should have two dimensions. The first dimension refers to evaluation stakeholders. Apart from the civil servants, who are directly involved in the training process, certain other individuals and groups should also have an interest in the training achievements. The close cooperation with the most important actors in

the process evaluation process is recommended, especially the groups and individuals that will utilize the results of the evaluation. Having in mind that the evaluation is a learning and action oriented management tool, this category should include trainers, the management of training institutes, trainees, their supervisors, and top management.

An external evaluator, who can play the role of a “disinterested” professional and therefore execute an unbiased objective evaluation, is also recommended. The external evaluation process – a long term follow-up evaluation – should concentrate on information concerning the training person in the job. Evaluation should also include the users of civil services.

Another dimension refers to the measuring of training, and includes the perception of its quality, suitability and influence as the means for achieving positive changes in employees’ work performance and, last but not least, for the return of the financial investment. Both dimensions together provide information necessary for constant progress of the individual as well as the organization. Therefore, the concept of evaluation would include three phases – analysing training needs and planning of training as a preprogramme evaluation, formative evaluation aimed at a direct monitoring of training process, and summative evaluation focused on consequences and results of training.

We further recommend a wide ranging approach to training, which involves: aligning learning processes and investment to organisational strategic priorities, using a range of methods to assess and evaluate the contribution of learning and finally establishing the most relevant approach(es) to assessing and reporting on the value of learning for the organisation. Knowing training purposes and objectives beforehand is necessary for successful training, and forms the basis for measuring progress. A system of feedback information about the training progress of the individual has a positive influence on the training effectiveness. Exams and knowledge tests are the most favourable method of determining training progress.

6 Conclusions

The assumption of our research was that there probably are notable differences between the attitudes of public servants depending on their demographic qualities. The results of the research, that 414 public servants have participated in, show that the position in the hierarchy has the strongest influence on their attitude towards evaluation. Empirical data also show that most of the employees are willing to participate in a continuous and objective training evaluation, but the leading public servants are less involved in the evaluation than expected. All research questions received positive answers, therefore we can confidently make the final assessment that evaluation is a factor that significantly influences the effectiveness of training of civil servants. Based on the results and findings from data analysis, we can also conclude that:

In general, both groups of respondents agreed that evaluation positively influences training effectiveness.

Civil servants do not oppose the evaluation of training effectiveness. After analyzing the influence of evaluation on the quality of training results especially in the views of non-

leading civil servants there was a moderate correlation, from which we conclude that the civil servants understand the evaluation of training results as stimulation for further training.

Leaders understand evaluation as a management tool to ensure that training is organized efficiently in regard to the use of resources (finances, time, and energy) and effectively in regard to closing the performance gap.

Furthermore, the surveyed were of opinion that TNA, planning of training and evaluation of its effectiveness exerted a substantial impact on training effectiveness. With regard to the level of correlation factors, a significant positive relationship between TNA, planning, and evaluating training effectiveness in AUs was found, even though the correlation between training effectiveness and evaluation was not as strong as we had anticipated. We can probably attribute this to the absence of systematic and consistent evaluation in current practice.

Accurately identifying training needs, planning of training, and evaluating training effectiveness encourages the achievement of better training results;

Regardless of the positive attitudes towards evaluation, the research also uncovered an almost complete absence of evaluation of training effectiveness in the current practice of the AUs. Training effectiveness is monitored only from time to time. Monitoring is not systematically organized but is left up to the self-initiative of the individual heads of the internal units. The weakest connection to evaluation was perceived to be with receiving and giving feedback after training and existence of training criteria. Training evaluation is marked by subjectivism. Objective measuring tools have not been yet implemented in evaluation of training effectiveness in the AUs, making a better use of technology, i.e. computer aided programmes for evaluation, impossible. However, we are aware of the fact that the quality and effectiveness of administrative work, and consequently, the effectiveness of training are very difficult to define. This might be the reason, why generally only the time spent in training is taken into consideration when measuring training effectiveness of the individual. We can confidently say that two biggest hindrances to the introduction of systematic training evaluation in state administration are inadequate qualifications and the lack of experience of those responsible for training and development.

Even though the research proved that there is no lack of positive attitude towards training and awareness of the necessity for training evaluation, and therefore the attitude of civil servants is not an obstacle to a successful realization of principles of systematic training in state administration, including systematic evaluation, many areas and aspects of training evaluation still need more work.

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Izboljšanje učinkovitosti urjenja s pomočjo povratnih informacij – primer slovenske javne uprave

Po padcu berlinskega zidu so se javne uprave v srednji in vzhodni Evropi morale v zelo kratkem času prilagoditi mnogim spremembam. Njihovi javni uslužbenci so še vedno soočeni s stalno spreminjajočim se zakonodajnim okvirjem, ki ga je potrebno vpeljevati v prakso ter novimi zahtevami pravnih in fizičnih oseb. Javna uprava lahko odgovori na te izzive samo, če so njeni uslužbenci visoko kvalificirani in se njihova znanja stalno posodablajo, za ustrezno prilagajanje kompetenc javnih uslužbencev hitro spreminjajočemu se okolju pa je potreben kvaliteten sistem urjenja na delovnem mestu. V pričujoči raziskavi smo analizirali prakse evalvacije izobraževanja kot vira povratnih informacij v delu slovenske javne uprave. Analizirali smo odnos zaposlenih do evalvacije z domnevo, da obstajajo opazne razlike med skupinami javnih uslužbencev z različnimi demografskimi lastnostmi. Rezultati raziskave, v kateri je sodelovalo 414 javnih uslužbencev so pokazali, da ima položaj v hierarhiji najmočnejši vpliv na njihov odnos do evalvacije. Empirični podatki so pokazali tudi, da je večina zaposlenih pripravljena sodelovati v kontinuirani in objektivni evalvaciji izobraževanja, vendar pa se vodstveni javni uslužbenci manj ukvarjajo z evalvacijo, kot smo pričakovali.

Ključne besede: javni uslužbenci, evalvacijski procesi, povratne informacije, ciljno orientirani sistemi, javna uprava, urjenje, učinkovitost urjenja

An Analysis of Corruption in Micro-Enterprises

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The purpose of this study is to present the research work made whilst studying the presence of corruption in the operations of Slovenian micro-enterprises. Our study builds on research which we carried out in 2005 and compares the findings of both studies. We wish to present our findings to public experts for a professional assessment and provide a basis for further work. We hope that in this way we can contribute to the development of new guidelines for the preparation of further analysis, the causes and elimination or at least limitation of corruption in business operations. Notable studies, which address corporate corruption in Slovenia, are non-existent. The results have confirmed the basic research hypothesis that the presence of corruption in the micro-business environment compared to a previous study in the last five years has increased.

Key words: micro-enterprise, micro-entrepreneur, corruption, corruptness

1 Introduction

Corruption is a definite reality in the global market. International research shows that corrupt activities occur in certain patterns which do not differ a great deal from country to country. The mixture of economic and financial flows is increasing, and consecutively so is the private enterprise share in the gross domestic product. Corruption is a social occurrence and is present in both public and private sectors. The unambiguous and universally accepted definition of what corruption is, despite numerous attempts to conceptualise this phenomenon, is still undefined. The word corruption comes from the Latin 'corumpere' and means to break, to tear, to split up. After Hankiss (2002: 243-261) it can be understood as meaning to break the law, rules and norms. Hankiss goes on to state that by the action of corruption, the human persona is also broken, as it degenerates due to untruths and dishonesty.

2 Corruption

In the study we use the working definition of corruption: 'Corruption is each and every violation of obligatory conduct of responsible persons within the private sector, as well as the conduct of persons who are initiators of infringement, or persons who may avail themselves of infringements, whether directly or indirectly, promised, offered, given or demanded,

accepted or expected as a benefit for oneself or for another. It is a fully rational decision made by a natural person for the maximum achievement of his/her desired objectives'.

2.1 Interpretation of the definition of corruption

Corruption in some countries of the world has become a generally accepted part of the national culture and is so widespread that it does not make sense to make any complaint against it (Tanzi, 1997). Sometimes it is so ingrained that it is simply 'business as usual' already. Let us look at some interpretations of corruption:

Corruption is the offering or promising of any rewards, gifts or other benefits to public officials in order to influence their decisions. Promised, offered or given rewards can be explained as a rational decision made by any natural person for the maximum achievement of his/her desired objectives (OECD, 1997)¹.

The first global anti-corruption convention – United Nations Convention against Corruption (UNCAC), was adopted on 9th December 2003. The convention covers 71 Articles covering bribery, illegal enrichment, illicit procurement and dealings, witness protection, non-targeted spending, embezzlement, money laundering, the freezing of financial funds and international cooperation between countries. The convention, which was issued by the UN, defines and dictates preventative

1 OECD – Organisation for Economic Cooperation and Development: Convention on Combating Bribery of Foreign Public Officials in International Business Transactions, London, 1997.

and proactive behaviour in an anti-corruption policy and identifies the establishment of protective anti-corruption bodies. In addition, the convention demands that all member States combat corruption in the private sector and within the frame of judicial authorities, but points to the essential involvement of civil societies.

The active role in the fight against corruption is held by the Council of Europe (GRECO: Groupe d'Etats contre la corruption – Group of States Against Corruption), which define corruption as 'Whichever kind of individual, entrusted with responsibility in the public or private sector, who violates their official duties arising from statutes, whether civil servants, staff in the private sector, independent agencies and any other relationships of this kind, who is directed towards receiving any unearned advantage for him/herself and for others'.

2.2 Manifested forms of corruption, causes and consequences

Studies on the causes and consequences of corruption in the economy have no lengthy history. The few surveys made in the economy could speak only of the past decade. Corruption should be dealt with seriously, professionally, thoroughly and systematically. Transitional economic cycles are ideal opportunities for illicit and unfair enrichment, abuse of authority, power and other advantages for this purpose (Say, 2002). As noted by economists Mrkaić and Pezdir (2009): "Slovenia is not a success story, but a transitional defeat". The detection and prevalence of corruption in Slovenia attributable according to Pečar (2003) above all due to illegality in the transfer of property, privatisation and ownership transformation with no respect to the law, non-verification of property origins, hindering of supervisory functions, expansion of social inequity, irregularities in transactions in privatisation, development funds, investment funds and others, pre-planned bankruptcies in companies, establishment of by-pass and off-shore companies as well as the poorly-supervised outflow of Slovenian capital to foreign markets. After Mendez (2000) bribes may reduce 'queuing' and thus reduce excessive red tape. Mauro (1997) points out that the so-called 'speed money' in the bribery of public officials can stimulate them into better productivity due to 'extra motivation' whereby they carry out their work faster and more effectively. Gray (1998) states that if corruption weakens economic development, then East Asia must be an exception, because it seems that there, where corruption is plentiful, foreign investors are largely present and economic growth is at a premium. After Tanzi (2000), the impact of corruption on businesses is great. Salifu (2008) conducted a study into the extent of all relevant articles on corruption and economic crime in countries undergoing transition during the years 1964 - 2005 and found that countries have a poor control of corruption and allocate minimal resources for its detection. Corruption in the private sector is the most notable form of corruption in the economy, and appears to be in the form of abuse of commercial contracts and violations of busi-

ness ethics in order to obtain economic advantages (Dobovšek, 2000).

3 Structure Research

3.1 Baseline study

In this study we have focused on corruption which is present mainly in the private sector, and indirectly between private and public sectors. The starting point for research is focused on corruption in the business of Slovenian micro-enterprises. We wish to know to what extent and in what form corruption is present in 2009 compared with 2005. We will compare the results obtained with three other studies conducted to date: The agency for public opinion, marketing and applied research called 'Ninamedia' carried out a study on the economic and business environment, business ethics and unofficial payments for small, medium and large enterprises in Slovenia in 2002. A general survey on the attitude to corruption was carried out in 2002 by the Centre for Public Opinion, Research and Mass Communication at the Faculty of Social Sciences, University of Ljubljana. In 2005 a study was carried out on the state of corruptness in financial operations in Slovenian micro-entrepreneurs (Tomašič, 2005). The structure research was based on a comparison of the empirical results of surveys from 2002 and 2005 with the present 2009 study. So far, the studies performed concerned corruption in public administration (Dobovšek, 2003) and corruption in the economy in general (Dobovšek, 2004). Analysis of corruption in the operations of micro-enterprises was not addressed. In the study we handled data obtained from surveys of 213 micro-enterprises²-limited liability companies and self-employed sole traders.

3.2 Working hypothesis, research objectives and intention

The perception of the presence of corruption and weakness of institutional anti-corruption mechanisms in the micro-business environment demands a responsible approach to solving some of the major forms of evidence, which are closely associated with corrupt actions:

- The climate for the growth of micro-enterprises in Slovenia is non-stimulating. Micro-entrepreneurs are dissatisfied with the business environment and the lack of entrepreneurial tradition can be felt.
- Mostly no evidence can be found for acts of corruption. Incorrect and unethical actions are very difficult to detect.
- Corruption is more noticeable in the operations of micro-companies rather than in larger enterprises.
- It is in the interest of all participants concerned that the corruptive acts remain strictly covert. The agreement often takes place 'face to face', or among a very small circle of people without any traces and any subsequent

² Micro-enterprises: number of employees less than 10, financial income from 2 million EUR to 10 million EUR or total assets of up to 2 million EUR.

incriminating evidence. The business documents have the appearance of entirely normal business operations.

- The potential for promoting growth of micro-companies are not sufficiently developed, which under normal operating conditions would be propitious to the growth of investment, employment and a more honest way of doing business. Consequently, this would achieve a lower level of corrupt acts.
- Micro-enterprises usually pay bribes to ensure business between 5% - 10%, which amounts on average to 5% of their annual profits.
- Micro-entrepreneurs often justify and excuse their participation in corrupt acts as a form of "special taxation" and do not feel immoral.

On the basis of the above, we defined a working hypothesis, which assumes that the presence of corruption in the Slovenian micro-business environment has increased. The aim of the study is to determine whether the presence of corruption in the private sector in the operations of micro-enterprises has increased during the period 2005 – 2009. The purpose of the study is to show these results to public experts, give them technical assessment and prepare a basis for further research in analysing the causes of the situation in order to compel the production of established proposals for future control and limitation.

3.3 Research Methods and Survey Methodology

According to Sik (2000) and his study on how to measure corruption, the axiom proposed was that the level of corruption cannot be measured and that among the existing methods there are only 'poor and even poorer' options for measurement. That argument was joined by many experts in the field of measuring corruption. The result of this fact is that there is no universally accepted definition of corruption and due to its illegal nature, the phenomenon is still unknown and a significant proportion remains hidden.

3.3.1 Research methods

In the study we used an appropriate combination of research methods (Zelenika, 2005). By using inductive methods, causal induction and on the basis of the extensive empirical data collected, we came to the conclusions that are given in the final section of this study. The deductive method was used to set the basic hypothesis and its proof. We used methods of qualitative and quantitative analysis and synthesis. The answers of the respondents were obtained as a written survey and they were processed using descriptive statistical analysis techni-

ques according to calculations of basic statistical indicators and frequency distribution. With synthesis methods we used knowledge, insight, information and data from hitherto known heterogeneous research from domestic and foreign authors, from available literature, resources, electronic sources and acquired data proved by this study. Descriptive methods were used to describe issues, objectives, goals, assumptions, structures, methods of formulation and decisions.

3.3.2 Methods of survey

To obtain empirical data, we used the method of survey. We covered the Slovenian business environment evenly and carried out surveys amongst 213 micro-entrepreneurs. Using the model N=213 we designed the framework for a representative sample. We ensured the respondents confidentiality and discretion, and the names of the micro-companies we will not disclose (Law on Personal Data Protection, 2007)³.

4 Interpretation of tabular representations, comparison of impressions and data analysis with the verification of hypotheses

4.1 Tabular representations with comments

Data processing was carried out using SPSS software. We used data from the following research information: CJMMK⁴ 2002, N=914, Ninamedia⁵ 2002, N=300, Tomašič (2005), N=237 and our own study N=213. The collected empirical material was appropriately weighted. Thus, we reduced the impact of bias and error in the results. The weighting system is based on micro-enterprise equalisation according to the criteria established and spatial dispersion. For the sampling procedure (Vehovar and Kalton, 2001) and for weighting, we used methods for creating sample weights. The frequency distributions of responses are shown in a numerical and descriptive form with short comments for each individual table. All questions and criteria are presented in their original form. In line with the model of research, questions are classified into three groups.

The first group, Tables 1 to 4 (see Appendix), includes the results from the survey "Views on Corruption" (CJMMK, 2002) and our own study 'Micro-enterprises' during 2009. In this group there is a general verification of the fairness of adult citizens, and a comparison between the two studies.

The second group, Tables 5 to 8 (see Appendix), includes the results from the survey for small, medium and large companies in the MSVP study "Study on the Economic and

3 Zakon o varstvu osebnih podatkov. (Law on Personal Data Protection) (2007). Uradni List RS (Official Gazette of the Republic of Slovenia), No. 94, 16.10.2007, Ljubljana.

4 CJMMK: The Public Opinion and Mass Communication Research Centre, Faculty of Social Sciences, Institute for Social Sciences, University of Ljubljana.

5 Ninamedia: Agency which specialises in essential, statistical and other computer supported data analysis, market-, product- and customer behaviour research, especially active in public opinion and advanced market research.

Business Environment, Business Ethics and Unofficial Payments in Slovenia” (Ninamedia 2002) and our own study of micro-enterprises in 2009, with a comparison between these two studies.

The third group, Tables 9 to 20 (see Appendix), covers the results of the survey “Analysis of the Situation of Corruptness in the Financial Business of Slovenian Micro-Enterprises” (Tomašič 2005) and our own study ‘Micro-Enterprises’ of 2009, with a comparison between these two studies.

4.2 Analysis of empirical data obtained from the questionnaire and a comparison with the results from the 2005 survey

4.2.1 Survey results in 2009

Corruption is largely based on media reports and is a major problem (Table 1).

The problem of corruption is a major problem in Slovenia (Table 2).

The most important cause of corruption is ineffective law enforcement and too little punishment (Table 3).

The micro-entrepreneur plays a variety of roles in corrupt acts, as an active as well as a passive participant. Both donor and receiver of bribes are equally guilty (Table 4).

The situation of the Slovenian economy is rated as poor (Table 5).

Micro-enterprises usually pay a few extra unofficial payments in order to ensure business continuity or a larger business portion (Table 6).

More than half believe that corruption does not help the growth and development of their business (Table 7).

Corruption does not assist the growth and development of the Slovenian economic system (Table 8).

Three-quarters of respondents had already seen corrupt behaviour in the business environment (Table 9).

The percentage of those who believe that bribery is something normal as compared to the previous study, has increased substantially. On the other hand, the percentage of those with no specified opinion has halved, so that a good third of those surveyed believe exactly the opposite (Table 10).

The micro-entrepreneur cannot remain competitive by acting in a fair manner (Table 11), even though afraid of the consequences on the market (Table 12).

In the private sector there is a lot of corruption (Table 13), the entrepreneur is somewhat afraid that this will lead to long-term consequences that will be felt in the market (Table 14).

The statement that if corruption could be curbed by 20 per cent, then this would mean a half per cent increase in economic growth and a third per cent in investment, are of divided opinion (Table 15).

When it comes to bribery to obtain business, often the other party informs the micro-entrepreneur that it expects a payment in cash, gifts or services (Table 16).

Entrepreneurs are of divided opinion, that corruption has become a regular way of obtaining property (Table 17).

Micro-entrepreneurs make use of illegal methods of earning particularly by non-invoicing, which is de facto moonlighting and tax evasion (Table 18).

The elements of corrupt acts are well-known to micro-entrepreneurs (Table 19) and they are involved in these corrupt acts mainly due to their own existence and the existence of the company (Table 20).

4.2.2 Comparison of survey results in 2009 with those of 2005

The media continues to be the main source of information on the presence of corruption. The number of those whose opinion is based on the experiences of others has doubled (Table 1).

Corruption in Slovenia is still a large or very large problem (Table 2).

In the first study, respondents believed the reasons for the existence of corruption lay above all in understated penalties and ineffective law enforcement; in our study it was, however, due to long-established habits (Table 3).

Recipients of bribes or both recipient and those who give bribes have been given, up until now, the blame for corruption. Our study has now shown a change, as now the fault lies largely with both players (Table 4).

After the initial study almost half were convinced that the economy is neither good, nor bad. In our study two-thirds of entrepreneurs believe that the economic situation is very poor (Table 5).

A third of all respondents acknowledged that occasionally they had to pay an additional informal payment in order to arrange business. One quarter said that they had never ever done this. In the first study, less than half confirmed this (Table 6). The majority of respondents believe that corruption does not help the development or growth of their company. In the study, two-thirds of those surveyed confirmed this opinion. A comparison between the original and our study is similar (Table 7). Corruption is and is not part of the Slovenian economic system. The position between the two studies remains unchanged (Table 8).

After the initial study, more than half of micro-entrepreneurs surveyed knew cases of corruption in their own business environment, while in our survey three-quarters acknowledged this fact (Table 9).

The percentage of those who believe that bribery is a normal action has increased considerably (Table 10).

The entrepreneur is able to operate fairly and remain competitive only up to a certain extent. The percentage of those with similar opinions has increased by a good third (Table 11).

In the original study, half of the respondents answered that they were not afraid of their own dishonesty in gaining results, while a third were somewhat afraid. In our research the result was the reverse. To be dishonest was to a certain degree hazardous (Table 12).

The majority of entrepreneurs believe that there is a great deal of corruption in the private sector (Table 13).

To some extent unfair business will be penalised sooner or later in the market. Entrepreneurs with such a belief are twenty per cent more than in the original survey (Table 14).

In the previous study the interviewed entrepreneurs did not identify their opinions on this issue. Today less than half believe that curbing corruption will not affect the increase of economic growth and the increase in investment (Table 15).

What often happens when it comes to corruption by the micro-entrepreneur in order to get business? The answers to this question lie in the relations between the two parties as per the questions in Table 4, and essentially confirm their readiness for corrupt acts, where the blame lies both with the receiver and the donor of bribes. According to the previous survey, entrepreneurs answer that they know in advance how, in what form and how much will be needed to be given in a bribe. This position has now changed, as entrepreneurs believe that the other side first acknowledges that it expects payment in the form of cash, gifts, services, or that the micro-entrepreneur also offers this type of payment himself (Table 16).

In the previous study, half of the entrepreneurs felt that corruption in Slovenian business will not become a regular method of obtaining undue wealth. Today, a good half of entrepreneurs confirm the contrary. Corruption has increased in recent years (Table 17).

Non-invoicing is still one of the most common forms of financial deals and has increased over the years. Other elements of illegal and illicit indicators have not altered a great deal over the past five years (Table 18).

Micro-entrepreneurs are even more familiar with the elements of corruption such as fictitious companies, fraud, informal economy, nepotism, abuse of inside information, money laundering and tax evasion (Table 19).

Micro-entrepreneurs are even more compelled to participate in active and passive acts of corruption compared to a few years ago, due to their own existence and the existence of their company. This being the opinion of more than one third of those questioned. The rest do not agree or disagree to some extent with this claim (Table 20).

4.3 Verification of the hypothesis

In our survey we took into account the integrity of the approach and understanding of the complete enterprise context, space and human interaction. The results of the survey for the first half of 2009 confirmed the working hypothesis, which presumes that the presence of corruption in the Slovenian micro-business environment has increased as compared to 2005.

5 Conclusion

An analysis of the data obtained showed the different types of deception, such as forms of abuse, infringement of business habits and disregard for regulations and laws. According to this survey we have confirmed that corruption in the micro-business environment exists and is increasing in growth year by year. We expect the results of the research to contribute to progress and development in terms of theory and practise

in solving current corrupt business situations in micro-enterprises, as well as in larger companies. In the future, at least another two surveys will definitely be needed. The first survey should address the causes of corrupt financial management. The second survey should touch the reasons for the elimination or proposals in order to cushion the impact. This survey did not have the purpose to round off or finish the work in this field, nor did we have the intention to make an end and close the door on this topic. Slovenia has no comprehensive or effective anti-corruption strategy for the economy and businesses. We sincerely hope and expect that the debate on this issue will continue.

Slovenian businessmen have three possible choices:

- to operate honestly, with full integrity and be prepared for the slow death of their company,
- to operate illicitly and submit to only one objective – profit at any price or
- to walk the narrow path between the two extremes.

The situation forces the entrepreneur to make a decision between the various levels of irregularity. A remedy for the correct choice does not exist and simply cannot be. There are no objective and subjective reasons for failure in the ruthless, competitive struggles of today. Those who are able, penetrating and resourceful have almost everything. Those less able, less resourceful and more honest are definitely struggling and are all the more on the periphery of business events. We are dealing with the real events of corruption in micro-enterprises. This is a kind of adjustment to a direct landing on corruptive practises. Corrupt practices in the business environment present circumstances which affect and influence so much, that the entrepreneur accepts this as an inevitable part of their business environment.

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Appendix: Summary of responses to survey questionnaire

Table 1: Question: Your opinion regarding corruption is based on:

	CJMMK 2002 ⁶	Micro-enterprises 2009 ⁷
	% (N=914)	% (N=213)
Media reports	30.4	33.1
Rumours	7.7	19.3
Experiences of others	14.3	23.3
Own, personal experiences	18.0	13.7
All of the above	27.4	6.7
Don't know	2.2	3.9
Total	100	100

6 CJMMK 2002: Results of the survey 'Opinions on corruption', which was carried out in 2002 by the Centre for the Research of Public Opinion and Communication, FDV Institute for Social Studies, University of Ljubljana.

7 Micro-enterprise 2009: Results of the survey 'Analysis of corruption in micro-enterprises', made during the first half of 2009.

Table 2: Question: How great a problem is corruption in Slovenia today?

	CJMMK 2002	Micro- enterprises 2009
	% (N=914)	% (N=213)
Very large	25.6	19.5
Large	27.1	41.1
Even	33.3	7.3
Small	5.2	13.1
Very small	1.7	2.7
Don't know	7.2	16.3
Total	100	100

Table 3: Question: What is the most important cause of corruption in Slovenia?

	CJMMK 2002	Micro- enterprises 2009
	% (N=914)	% (N=213)
Penalties are too low	25.0	17.6
Ineffective enforcement	19.8	17.2
Lack of laws	17.0	6.3
Established habits	10.9	25.1
No desire to fight against corruption	9.9	17.3
Complex administration procedures (red tape)	7.5	7.3
Other	3.8	9.2
Total	100	100

Table 4: Question: Who, in your opinion, is more at fault: those who offer bribes, or those who receive them?

	CJMMK 2002	Micro- enterprises 2009
	% (N=914)	% (N=213)
Donor	19.4	26.2
Receiver	38.1	29.2
Both	39.0	41.7
Don't know	3.5	2.9
Total	100	100

8 Small companies: number of employees less than 50, financial income from 10 million EUR to 50 million EUR, or total assets of up to 10 million EUR.

9 Medium-sized companies: number of employees less than 250, financial income from 50 million EUR to 250 million EUR, or total assets of up to 43 million EUR.

10 Large companies: number of employees greater than 250, financial income more than 250 million EUR, or total assets greater than 43 million EUR.

Table 5: Question: How would you assess the current situation in the Slovenian economy?

	Small companies ⁸	Medium sized companies ⁹	Large companies ¹⁰	Total Ninamedia ¹¹ 2002		Micro-enterprises 2009
	% (N)	% (N)	% (N)		%	% (N=213)
Very poor	3	2	2	7	2.3	2
Poor	30	20	14	64	21.3	66
Neither good nor bad	50	60	56	166	53.3	23
Good	15	17	27	59	19.7	7
Very good	-	-	-	-	-	1
Don't know	2	1	1	4	1.3	1
Total	100	100	100	300	100	100

Table 6: Question: Companies in my field of work often have to make some extra, unofficial payments in the form of cash, services or gifts so that business continues?

	Small companies	Medium sized companies	Large companies	Total Ninamedia 2002		Micro-Enterprises 2009
	% (N)	% (N)	% (N)	N	%	% (N=213)
Always	3	4	1	8	2.7	3
Quite often	9	3	6	18	6.0	9
Sometimes	15	11	8	34	11.3	31
Rarely	18	20	19	57	19.0	14
Never	38	40	51	129	43.0	26
Don't know	17	22	15	54	18.0	17
Total	100	100	100	300	100	100

Table 7: Question: Do you believe that corruption can help towards the development and growth of your company?

	Small companies	Medium-sized companies	Large companies	Total Ninamedia 2002		Micro-enterprises 2009
	% (N)	% (N)	% (N)	N	%	% (N=213)
Yes	3	5	1	9	3.0	7
Yes, to a certain extent	34	26	24	84	28.0	27
No	59	61	73	193	64.3	57
Don't know	4	8	2	14	4.7	9
Total	100	100	100	300	100	100

11 Ninamedia 2002: Results of the survey on the economic and business environment, business ethics and unofficial payments within Slovenia, carried out by the agency Ninamedia in 2002.

Table 8: Question: Do you believe that corruption is an unavoidable part of the Slovenian economic system?

	Small Companies	Medium-Sized companies	Large companies	Total Ninamedia 2002		Micro-Enterprises 2009
	% (N)	% (N)	% (N)	N	%	% (N=213)
Yes	51	45	49	145	48.3	51
No	37	43	43	123	41.0	42
Don't know	12	12	8	32	10.7	7
Total	100	100	100	300	100	100

Table 9: Question: Have you met with cases of corruption in your own company environment?

	Micro-enterprises 2005 ¹²	Micro-Enterprises 2009
	% (N=237)	% (N=213)
Yes	54	74
No	46	25
Don't know	-	1
Total	100	100

Table 10: Question: Bribes in financial business in the private sector are a completely normal appearance, and the micro-enterprise wishing to operate normally must administer them?

	Micro-enterprises 2005	Micro-enterprises 2009
	% (N=237)	% (N=213)
True	26	42
False	25	37
Don't know	49	21
Total	100	100

Table 11: Question: Can a micro-entrepreneur operate fairly and remain competitive?

	Micro-enterprises 2005	Micro-enterprises 2009
	% (N=237)	% (N=213)
Yes	22	24
Yes, up to a point	41	61
No	34	13
Don't know	3	2
Total	100	100

¹² Micro-enterprises 2005: Results of the survey "Analysis of the state of corruption in financial operations of Slovenian micro-entrepreneurs (Tomašič 2005).

Table 12: Question: Are you afraid of your own dishonesty in business, if it brings you benefits?

	Micro- enterprises 2005	Micro- enterprises 2009
	% (N=237)	% (N=213)
Yes	6	16
Yes, to a certain extent	35	54
No	53	23
Don't know	6	7
Total	100	100

Table 13: Question: Is there a lot of corruption in the private sector?

	Micro- enterprises 2005	Micro- enterprises 2009
	% (N=237)	% (N=213)
Yes, I agree completely	7	28
Yes, I agree	72	55
No, I do not agree	21	17
Total	100	100

Table 14: Question: Do you believe that unfair dealings will be punished sooner or later on the market?

	Micro- enterprises 2005	Micro- enterprises 2009
	% (N=237)	% (N=213)
Yes	27	17
Yes, to a certain extent	40	51
No	27	25
Don't know	6	7
Total	100	100

Table 15: Question: Do you believe in the statement that if corruption in financial management is curbed by 20% in the Slovenian business area, then economic growth would increase by 0.5% and investment would rise by 0.3%?

	Micro- enterprises 2005	Micro- Enterprises 2009
	% (N=237)	% (N=213)
Yes	13	33
Yes, to a certain extent	14	17
No	27	41
Don't know	46	9
Total	100	100

Table 16: Question: What usually happens when the micro-entrepreneur has to engage in bribery in order to obtain the job?

	Micro- enterprises 2005	Micro- enterprises 2009
	% (N=237)	% (N=213)
The other party shows that it expects a payment in the form of cash, gift, favours, etc.	24	37
It is already known in advance in what form and how much will be needed to be given.	33	17
Micro-entrepreneur offers such payment on his own initiative	19	39
Don't know, I cannot assess	24	7
Total	100	100

Table 17: Question: Do you believe that corruption in the Slovene business environment has become a regular way of obtaining undue property?

	Micro- enterprises 2005	Micro-enterprises 2009
	% (N=237)	% (N=213)
Yes	17	57
Yes, to a certain extent	15	27
No	52	12
Don't know	16	4
Total	100	100

Table 18: Question: Which illegal and unlawful indicators of the following below are most often used by businesses in financial management?

	Micro- enterprises 2005	Micro- enterprises 2009
	% (N=237)	% (N=213)
Non-issuing of invoices	11	17
Virtual conditions- discounts	13	8
Cancelled invoices	10	7
Inadequate capture arrival/departure.	8	9
False/Virtual contracts	3	5
Fictional expenditure	7	5
Falsifying account documents	3	4
Exceptional write-downs	4	2
Pseudo-loss	8	11
Fictitious obligations	9	3
Incorrectly recorded business transactions	3	7
Virtual business – fictional accounts	9	7
Concealment in stocktaking	8	13
None of the above	4	2
Total	100	100

Table 19: Question: Do you agree with the assessment that fictitious companies, fraud, grey economy, nepotism, abuse of inside information, money laundering and tax evasion are all integral elements of corrupt acts?

	Micro- Enterprises 2005	Micro- enterprises 2009
	% (N=237)	% (N=213)
Yes, I agree completely	47	65
No, I do not agree	13	6
I agree to a certain extent	40	29
Total	100	100

Table 20: Question: Do you believe that the Slovenian micro-entrepreneur is often forced into participating in active and passive acts of corruption, mainly due to their personal existence and the existence of the company?

	Micro- enterprises 2005	Micro- enterprises 2009
	% (N=237)	% (N=213)
Yes	32	37
Yes, to a certain extent	34	21
No	21	35
Don't know	13	7
Total	100	100

Analiza korupcije v mikro podjetjih

Namen prispevka je predstavitev raziskovalnega dela v katerem preučujemo prisotnost korupcije pri poslovanju slovenskih mikro podjetij. Naša raziskava nadgrajuje raziskavo, ki smo jo opravili leta 2005 in primerja ugotovitve obeh raziskav. Naše ugotovitve želimo predstaviti strokovni javnosti v presojo in ji dati osnovo za nadaljnje delo. Pričakujemo, da bomo na tak način prispevali k oblikovanju novih usmeritev za pripravo nadaljnjih analiz, vzrokov in odpravo oziroma omejitev korupcije pri podjetniškem poslovanju. Opaznih raziskovanj, ki bi obravnavale podjetniško korupcijo v Sloveniji ni. Rezultati so potrdili temeljno hipotezo raziskave, da se je prisotnost korupcije v mikro podjetniškem okolju v primerjavi s predhodno raziskavo v zadnjih petih letih povečala.

Ključne besede: mikro podjetje, mikro podjetnik, korupcija, koruptivnost

The Organisational and Personnel Aspects of Introducing ICT into Grammar Schools

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This article presents the results of comparisons between investment into ICT and the current state of equipment in Slovenian high schools compared to similar schools in the EU member states. Extensive research is based on surveying and interviews with the headmasters of 10 Slovenian high schools, jointly representing a typical sample of schools, as well as the different aspects of using ICT in their schools. The research results have shown that Slovenian high schools are substantially worse equipped with ICT than similar schools in the developed countries of the EU. This is evident in the lack of modern forms of organization, operation and education based on ICT. Slovenian high schools can only modernize their organization and operations if the Slovenian government starts investing substantially more into purchasing equipment, teacher training and the promotion of the knowledge, skills and competences that can only be developed using ICT.

Key words: ICT, education, high school, schools equipment

1 Introduction

Changes in modern society, where ICT occupies a very strong position and has been implemented in practically all spheres of life, were not followed properly by the formal educational systems. There are many reasons. Besides finances and personnel, there is also another one of great importance, namely that a doctrine of modern education based on ICT has not yet been formed, or in other words, opinions and methods differ highly. The formal approach, particularly the educational system (and this is especially true for the grammar schools), is traditionally conservative and does not accept vague solutions, which are still very common in the relatively new and fast growing field of ICT. Pedagogues and didacticians have especially big dilemmas since their opinion is that the basis should be done first (Rebolj, 2009) and the introduction of technology can only follow after that. In the field of modern education, which is generally referred to as e-education, Slovenia is only in the preliminary stage (Arh et al., 2008), while, in the area of grammar school education, it is even further back in the consideration stage, still considering "what to do" with education of this kind. At the same time, this condition is the result of society's attitude towards these technologies, which is also showed by the results of investment in ICT in the EU for 2006 (Computer usage ..., 2009).

The Information or even the cybernetic society is based on data processing systems and communication systems for transferring and sharing data. The entire technical support for the information society is based on information technology (IT). The introduction of new technologies and new equipment is inevitably connected to major organizational changes, financial and spatial investments and personnel demands – and

this is why it is very hard to find a place for it in the educational system (Gaytan, 2007). However, without adequate technology that exceeds the critical level, it is not possible to fully renovate schools. Especially problematic is the segment of grammar school education, which encompasses a major part of the population, which is the same as general education but has the largest number of teachers of general subjects, who are classically educated and orientated and do not have immediate interest in economy and among the sponsors.

The purpose of this article and the research, on which it is based, is to give an overview of the conditions of ICT in selected Slovenian grammar schools, which, in regard to their size and location in diverse surroundings, present a typical sample. Work was directed mostly towards the organisational and staff aspects of introducing modern technologies to a grammar school. We analysed how well are the schools equipped with ICT, the use of this equipment in school's activity, organisation and in the realization of the teaching process. The purpose of the research was also to estimate the portion of teachers who use ICT equipment and the modern way of working in connection with it. Through a poll and by talking to headmasters, we tried to determine what the visions or plans of individual headmasters or schools were in the field of ICT in the coming years. This data was compared to key documents about the anticipated updating and developing of Slovenian grammar schools (Izhodišča ..., 2007, Republika Slovenija: Nacionalna strategija ..., 2006), which in our opinion do not contain requests and standards of modern ICT schools, nor do they plan the required funding for modernization of grammar schools with ICT equipment. On the basis of the collected data and the comparison of Slovenian grammar school equipment to similar schools in the most developed countries of

the EU, we prepared some evaluations and starting points or suggestions for concrete handling in the processes of updating Slovenian grammar schools.

1.1 The Role and Meaning of ICT in Organization and Work in Educational Institutions

The first research articles on the subject of the dilemmas concerning the new ICT technologies in education, started to appear in the early 1990's. Howard Rheingold, in his well known book *Virtual Community* (Rheingold, 1993), exposed the communicative qualities of the internet, whereas Robert Burnett and P. David Marshall wrote about the possibilities of group and community formation without spatial and temporal limitations (Burnett and Marshall, 2003: 8). That era was especially marked by expansive possibilities in the use of the internet. The internet offered a broad field of activities and improvements: electronic business should enable better business solutions and the internet, as an exceptional information basis of data functions, acted as a highly diverse library that is always at hand for an individual.

New IC technologies and possibilities were pressured towards rapid implementation and integrated into as many fields of everyday life as possible; critics named these approaches »technological rationality« (Burnett and Marshall 2003: 9). In those times, the internet became a trend and the question of what content or structure it would be wise to establish on the internet and in which areas we could use it to maximum effect was less important.

After 1993, we witnessed rapid development in ICT technologies and application, especially in the field of business, while in the educational system, innovations were being put into effect very slowly. In Slovenian grammar schools, as in the business world, ICTs were put into effect in accounting services and libraries, in making schedules and, soon after that, into the working environments of school registries and headmasters. Teachers started using computers mostly for writing texts and for tests, whereas in recent years, mostly e-mail and the use of the internet are being implemented.

Access to new technologies for educational purposes was restricted for educational institutions due to technical, financial, personnel and spatial barriers, which still is the case nowadays to a great extent, whereas ICT accessibility for citizens at home grew much more rapidly (Hirsch, 2006). New technologies and possibilities were used in homes increasingly often, especially by young people. In the field of grammar schools, there were no systematic attempts to use new technologies for educational purposes, save for some attempts by some teachers in certain subjects – that is, in classes on computer or information science and with the use of calculators and computers in mathematics.

After 1997 a lot of research was done on the advantages and potential weaknesses and limitations of computer assisted education, encompassing different aspects of this work system, mostly organizational, socio-psychological and communicational. In the educational system, some elements influence positively and others negatively (at least according

to the comprehension of the pedagogical process), but a very important question is whether individual needs and desires can be realized more effectively with the help of computer transferred communication (Golding, 2006).

Many researchers have examined the efficiency of e-education, but too much research was aimed at specific segments; they started to set definitions for segments of the educational process. Only lately, systems for combined education have begun to be considered, which can only achieve better results in combination with the classical. Exclusive e-education is only suitable in a very narrow range – that is, the lower the age of the participants and the lower their educational level, the less suitable it is.

Discussions on social changes as a result of high technological achievements and changes in the last decade of the twentieth century, especially in the field of ICT, have been very impetuous and opinions differ exceedingly (Haralambos and Holborn, 2004). This still stands today and it strongly affects mostly public education and bigger systems that only want to establish tested and verified solutions.

1.2 The Conditions in EU and Comparative Data

During the dilemmas about ITC in education, the EU accepted a number of documents, handling the education and schooling of young people in the EU as key competences for a successful life and society (Štraus and Repež, 2006) and as one of the most important: interactive use of instruments also includes the ability to interactively use knowledge and information and also new technologies. The ability to interactively use knowledge and information is a key component in the use of information and knowledge, which allows the individual to operate with knowledge and information and use them for understanding further options, for forming opinions, for making decisions and for active cooperation.

The dilemmas that are forming in grammar schools are about more modernized grammar school organization, which functions on many levels and in more spheres and which are mutually co-dependent and dependent on numerous external and internal conditions.

A hierarchical organization is typical of Slovenian grammar schools; it is put into effect through the headmaster and his departmental assistants, the leaders of work groups, subject teachers and assistants. Programs and organizational forms are prescribed, the teachers' obligations are defined in the annual work plan and even more so within the union framework (promotion, teaching obligations, working hours, salary, etc...). This kind of organization consequently creates a rigid grammar school that no one is satisfied with, as the results of the research by Grmek (2006) and the basis for the renovation of grammar schools (Izhodišča ... , 2007) show.

In Slovenia, a number of projects are being conducted on the topic of ICT and e-education as a part of the programme from 2007 until 2013. In 2006, an organized workshop on the subject of ICT in schools took place in Slovenj Gradec and headmasters could get the latest information on this topic (School leadership ... , 2006). A modern basis for the use

of ICT in education were prepared by the committee for the informatisation of education (Čampelj et al. 2007); more was contributed on the possibilities and tasks in the field of ICT in schools by SIRIKT meetings and reviews.

For organizational and content-related renovation of Slovenian grammar schools, it is absolutely necessary to establish a system that would enable this renovation and later enable the system to function. That is why it is of major importance that a strategy is constructed and established, from a technical point of view and on a national level that would enable the whole system to function, especially with suitable internet portals for supporting e-education. On the school level, educational platforms need to be created. In the EU, the most developed countries have prepared complete and effective solutions and a few examples can be seen on internet sites. In this field in particular, there is a lot of ignorance and lack of knowledge and also, maybe consequently, incomprehension. Also, because this is connected to major investments and personnel demands, the processes occur very slowly.

2 Presentation of the Research

In the practical part of the research, we analyzed multiple documents about the condition and the planning to develop Slovenian grammar schools (Izhodišča ... , 2007), as well as other documents from this field in Slovenia (Republika Slovenija Nacionalna strategija ... , 2006), (Čampelj, 2007) and appropriate documents or guidelines from the EU (<http://www.elearningeuropa.info/>, The use of ICT ... , 2009), and some other developed countries in the EU. Some data is from the studies (Gerlič 2005, Senica 2008, Gerlič 2008 and Batagelj 2009). The Ministry of Education and Sport has precise information on equipping schools with ICT equipment.

An important part of the research is the poll that was done among 10 headmasters of Slovenian independent grammar schools (which are not united with school centres) from all around Slovenia; this is how we obtained a good average pattern. The headmasters were asked 87 questions, some of them also including sub-questions, about ICT in grammar schools.

We held an extensive interview with each headmaster. The results of the survey and the interviews were then compared with the data obtained at another Slovenian high school, from which we found that the selected sample presents the situation in Slovenia quite accurately. We are planning to perform research in certain segments at all Slovenian high schools.

2.1 The Results of the Examination of the Situation in the Field of ICT in the EU

We compared investments in ICT. In 2006, the average cost per inhabitant in the EU for ICT was 1340 €, Slovenia was ranked in the 14th place with 828 € per inhabitant. The first two were Sweden and Denmark with over 2450 € per inhabitant. Countries ranked below us included Greece, The Czech Republic, Slovakia, Poland and, in the last place, Romania with 213 € per inhabitant. In Slovenia, the State invested approximately 31 million € in the educational system for ICT equipment in

the period from 2004 to 2008 and bought 18,000 computers for 300,000 scholars and students – or about 6 computers per 100 students. Schools additionally invested 20 to 50% of their additional funds (Computer usage ... , 2006).

Concrete data on the number of computers in schools is also very interesting. Per 100 students in schools of the grammar school type, there were 12.5 computers in 2006 in the EU 25, 15.6 in EU 15, 41 in Norway, 29 in Sweden, 26 in England, 18 in Finland and only 8 in Slovenia, which put us in a very weak 19th place. According to the data from the poll of the headmasters of grammar schools (Raziskava: IKT ... , 2009), Slovenian grammar schools had between 8 and 19 computers per 100 students in January 2009, which is very bad since it has been three years since that data was published by the EU and it shows that Slovenian grammar schools are seriously falling behind.

In 2006, measurements were made of how many teachers use computers for teaching purposes. The EU 25 average in grammar schools is 73% and in EU 15 that average is 76.1% (Computer usage ... , 2006). In 2006 in Slovenia, 54% of teachers used computers, which put them in a very weak 22nd place. According to the poll data (Raziskava: IKT ... , 2009), 60% of grammar school teachers use computers to teach, while the use of an e-platform for teaching (mostly Moodle) is just starting, and even that in only approximately 30% of schools and only with certain teachers.

2.2 The Results of the Research

We selected certain questions from the research, (Raziskava: IKT ... , 2009) that apply to organization of work, and analyzed them. In the tables and graphs, the results of the answers of selected questions and comments on the analysis of the answers, are presented.

In Figure 1, the results are shown for answers to Question number 16, which reads: ICT services should be organized on the level of the Ministry of Education and Sport, so that schools have as few operative tasks and technological concerns as possible, so they can focus all their energy on the use of ICT in class. The results show that the system should be centrally guided but should also allow schools initiatives.

In Figure 2, the results are shown for answers to Question number 44, which reads: In our grammar school, every student has the possibility of using ICT in school. 60% of headmasters strongly agree with this and 40% of them agree.

Comment: Headmasters realize that differences in accessibility to ICT are causing ever larger gaps among students and this is why the possibility of accessing the equipment at schools is being provided for them (from 3 to 48 hours per week on from 4 to 50 computers). There are big differences between grammar schools in this field.

In Figure 3, the results are shown for answers to Question 63, which reads: In Slovenia, we can rapidly increase the use of ICT in grammar schools if it becomes required for classes and especially if it will not be possible to pass GCE without knowledge and usage of ICT.

Comment: It is very important that it is possible to increase the use of ICT in schools, with the help of a modernized GCE.

Table 1: Answers to Question 15: In your opinion, what organizational factors obstruct the faster introduction of ICT in grammar schools?

	1. I strongly disagree	2. I disagree	3. Undecided	4. I agree	5. I strongly agree
Lack of funds for purchasing equipment and software	0	2	3	3	2
Lack of space	1	4	2	2	1
The school does not have adequate personnel to maintain ICT system.	0	2	1	6	1
The high investment and maintenance costs of ICT.	0	1	1	8	0
High school students have plenty of this technology at home and they want more direct contact with the teacher at school.	0	5	3	2	0
It is possible to achieve good results in the present GCE without ICT.	0	3	0	7	0

Comment: The key problems are high investment and maintenance costs, lack of adequate personnel and the fact that ICT is not seen as necessary for school work (success in GCE).

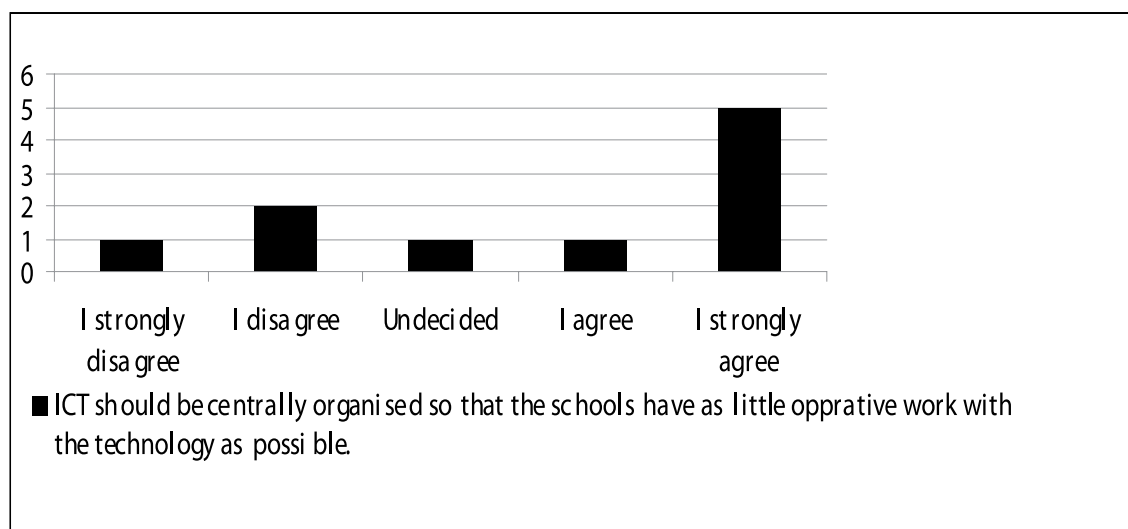


Figure 1: Headmasters' opinions on the organization of ICT in Slovenia

Table 2: Responses to Question 19: In modern society, ICT occupies a very strong position. In grammar schools, we follow these demands and needs

	1. I strongly disagree	2. I disagree	3. Undecided	4. I agree	5. I strongly agree
As fast as the financial means allow	0	1	1	8	0
As fast as pedagogical practice allows	0	4	0	5	1
As fast as recent materials allow it	0	5	2	3	0
As fast as the teachers allow it	0	3	0	4	3
We do not follow these trends because we have too many other obligations	3	4	1	2	0
In the fields where it was most necessary	0	0	2	6	2
Only in subjects where the teachers were interested	1	1	0	7	1

Comment: Grammar schools introduce ICT as fast as the financial means allows, where teachers were interested in it and where it was the most necessary. All other reasons have less influence

Table 3: Answers to Question 25: Introducing ICT into grammar schools is slow and difficult due to:

	1. I strongly disagree	2. I disagree	3. Undecided	4. I agree	5. I strongly agree
Poorly defined solutions, of which there are plenty in the relatively new and fast growing field of ICT.	1	1	1	7	0
Inadequately made study programmes that do not include instructions on the use of ICT.	0	1	1	6	2
An insufficient number of teachers who are qualified to use ICT.	1	0	0	7	2
Resistance on the part of the teachers, who believe that new technology requires everyday work throughout the whole year.	0	1	1	7	1

Comment: Besides the financial and material conditions, inadequate study programmes that do not include the necessity of ICT usage, rigid organization of classes and poorly defined solutions for the use of ICT in schools are also very important inhibitors of the introduction of modern technologies in grammar schools

Table 4: Answers to Question 31: In financing projects and purchasing equipment, we rely on:

	1. I strongly disagree	2. I disagree	3. Undecided	4. I agree	5. I strongly agree
State funds.	1	0	0	4	5
Parental contribution.	0	1	3	6	0
Donations from Slovenian donators.	0	1	2	7	0
Contributions from sponsors.	0	1	2	6	1
Contributions from the grammar school graduates club (alumni).	1	3	2	4	0
Municipality contribution.	0	3	2	5	0
Students will bring computers with them to the school and, in this way, create a completely computerized school.	0	5	4	0	1
Funds from EU projects.	0	0	0	7	3
Donations from foreign foundations looking for young talents.	1	5	2	2	2
Computer companies with interests in the future sale of equipment and who wish to introduce it to young people in schools.	0	1	0	8	1
School reserve funds.	0	3	1	5	0

Comment: headmasters rely on the funds from various sources to purchase ICT equipment, with the main real sources probably being the MES (Ministry for Education and Sport) and parental contributions. In this time of crisis, both could be in even smaller amounts than they have been so far. There are high expectations for EU funds (which, in this case, are practically the same as those from the state) and computer companies, yet this is unrealistic.

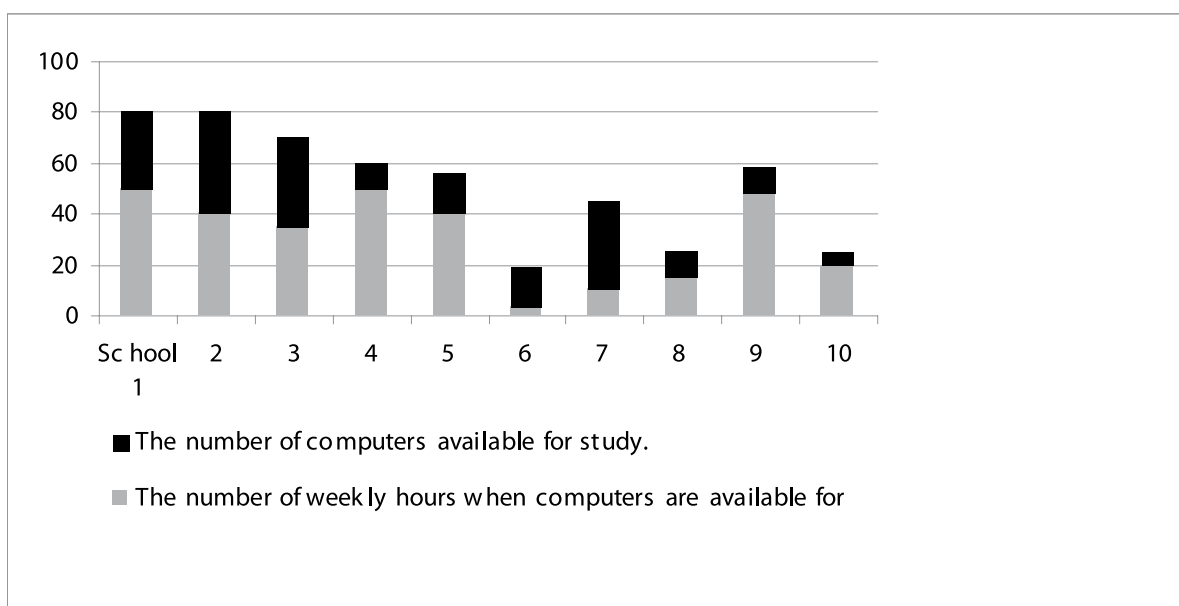


Figure 2: The number of computers which are available to high school students for studying after classes, and how many hours per week

Table 5: Answers to Question 52: Our school has all the necessary information on the intranet for informing students: (please, choose as applicable)

	YES	NO
Weekly school schedule and yearly class calendar	10	0
School events	10	0
Subjects of study	8	2
Teachers – presentation	9	1
Teachers – parent-teacher interview time	10	0
Electronic school grade book	1	9
Teachers – their e-mail addresses	9	1
Headmaster and assistants – their e-mail addresses	10	0
Links to e-materials that were created in the framework of the MES and the European social fund.	8	2
A database of answers to frequent questions about the school and individual subjects.	5	5

Comment: Most of the schools have a well assured system for informing students but all schools should provide at least the above information for more transparent and easy operation. These results were also confirmed by analysis of the web sites of the high schools that participated in the poll.

Table 6: Answers to Question 54: Our school has all the necessary data on the intranet to help the students with studying: (please, choose as applicable)

	YES	NO
An arrangement of topics by individual subjects.	7	3
Teaching material for individual subjects.	8	2
Examples of solved exercises from individual subjects.	8	2
Forums for individual subjects.	6	4
The e-mail addresses of teachers and school management.	9	1
High school students can send questions to teachers.	9	1

Comment: In contrast to the opinions of students and to our analysis of high school internet sites, the headmasters' opinion on this field is highly optimistic. Normally, only a few teachers have matters in good order. The situation of a question service via e-mail is also highly unorganized. Only three schools have a determined time for replying to e-mails (from 20 to 48 hours), while in other schools it can take a few days to get a reply or one is never even sent, as was confirmed by our research.

Table 7: Answers to Question 58. In our grammar school, teaching based on an educational platform (e.g. Moodle) is:

	1. I strongly disagree	2. I disagree	3. Undecided	4. I agree	5. I strongly agree
Highly successful and it has increased interest and the efficiency of classes.	1	0	1	6	1
Introduced experimentally in a couple of subjects.	1	0	0	5	3
Only in the stage of gathering information.	1	3	0	6	5
A part of the program when the MES requests it.	1	2	1	4	1

Comment: The use of e-platforms in grammar schools is only in the preliminary stages and only with some teachers, but it is encouraging that the results are being graded positively.

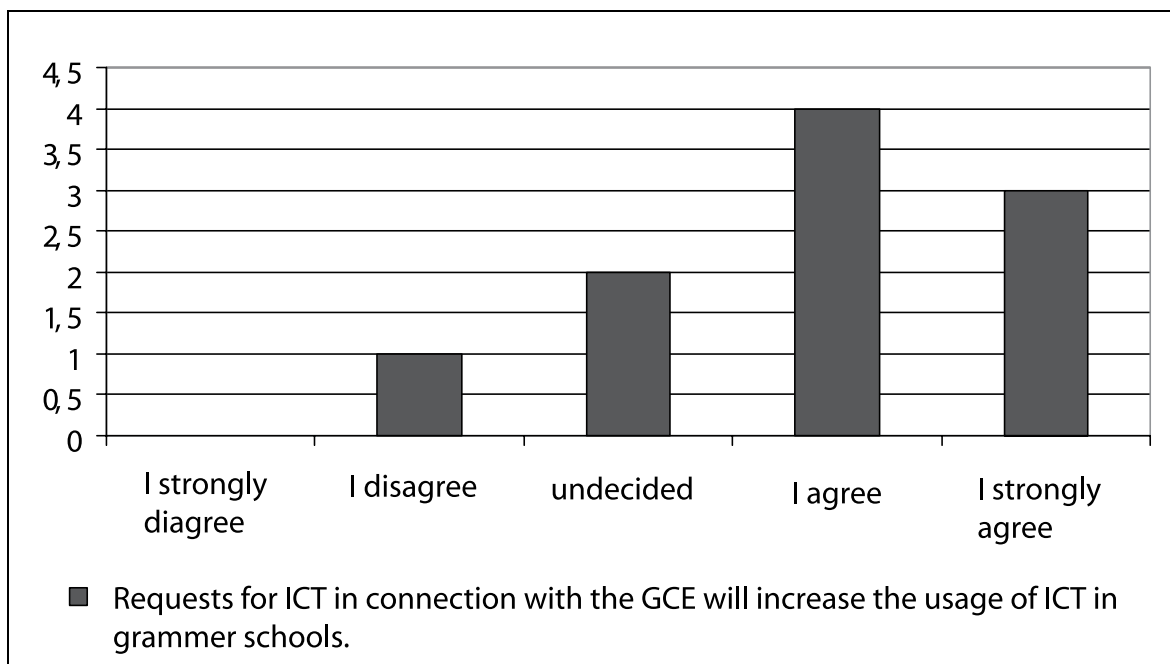


Figure 3: Influence of ICT usage in GCE preparations

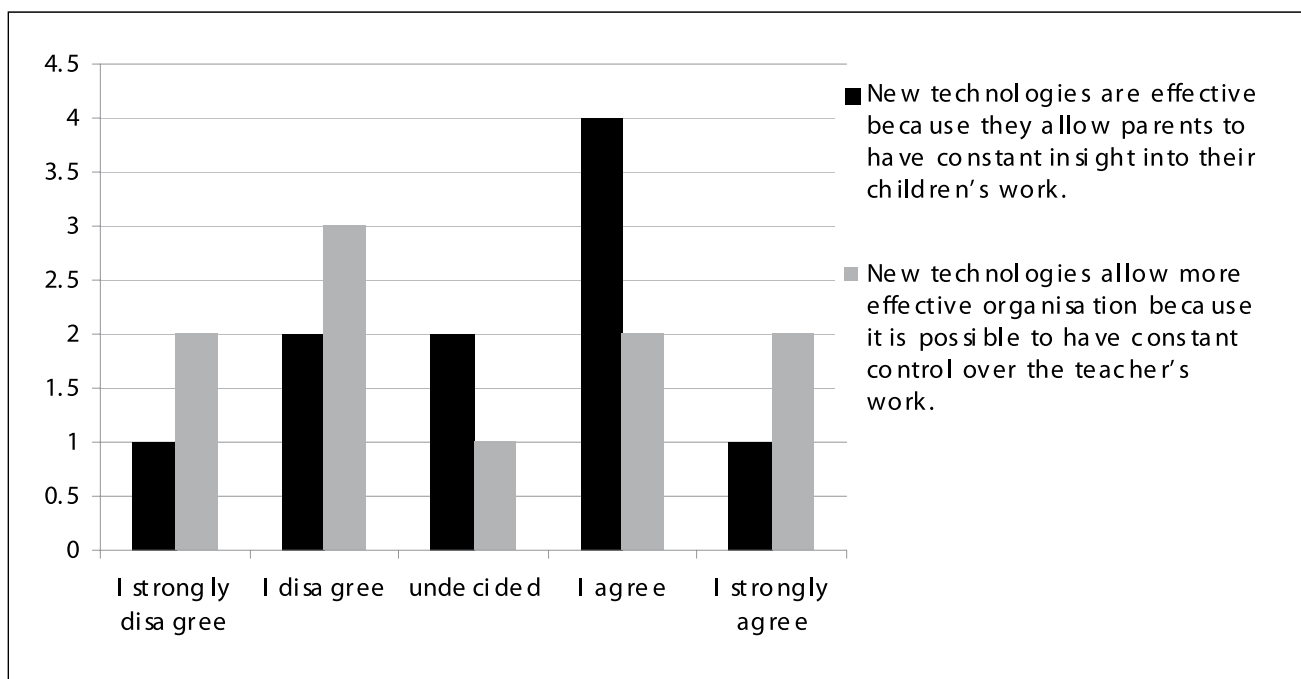


Figure 4: The efficiency of new technologies regarding supervising high school students and teachers

In Figure 4, the results are shown for answers to Question 68, which reads: New technologies allow the more effective organization of work in grammar schools?

Comment: It is interesting to see that headmasters differently value the options about following and supervising the teachers' work, different organization of work and on the parents' possibilities of following their children's results. This is probably, for the most part, the result of a wrong paradigm on teacher autonomy and contradicts the transparency of the system, which is actually supported by the headmasters.

In Figure 5, the results are shown for answers to Question 77, which reads: Too many pedagogues insist that children spend too much of their free time using computers, not caring that they do not have that opportunity in school or that they are not taught how to rationally use modern systems.

Comment: Opinions on the use of computers among young people tend to be very diverse among headmasters and teachers.

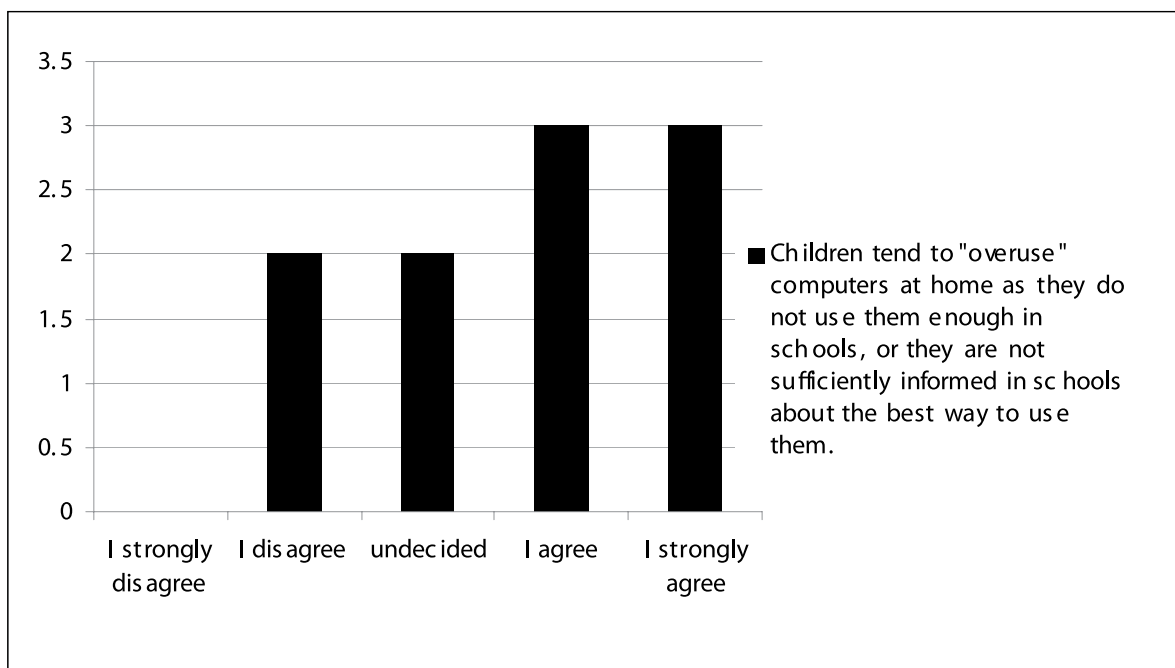


Figure 5: The opinion on excessive computer usage

Table 8: Answers to Question 83: Choose a level of agreement with the following statements:

	3. Undecided	4. I agree	5. I strongly agree
Independent experts, schools, universities, non-profitable and other organization and companies that have a key role in the field of ICT will have to become more united. Only in this way we will be able to assure a proper price per quality unit.	1	5	4
The role of the high school student is shifting from passive to active and, while doing this, the students use all the study forms ICT can offer.	0	5	5
The role of the teacher is changing from one who passes on knowledge into more of a tutor and coordinator of education and a moderator in the evaluation of information.	0	4	6

Comment: It is great that headmasters positively value the paradigms of a modern school. Their positive attitude can also be seen in the everyday use of computers

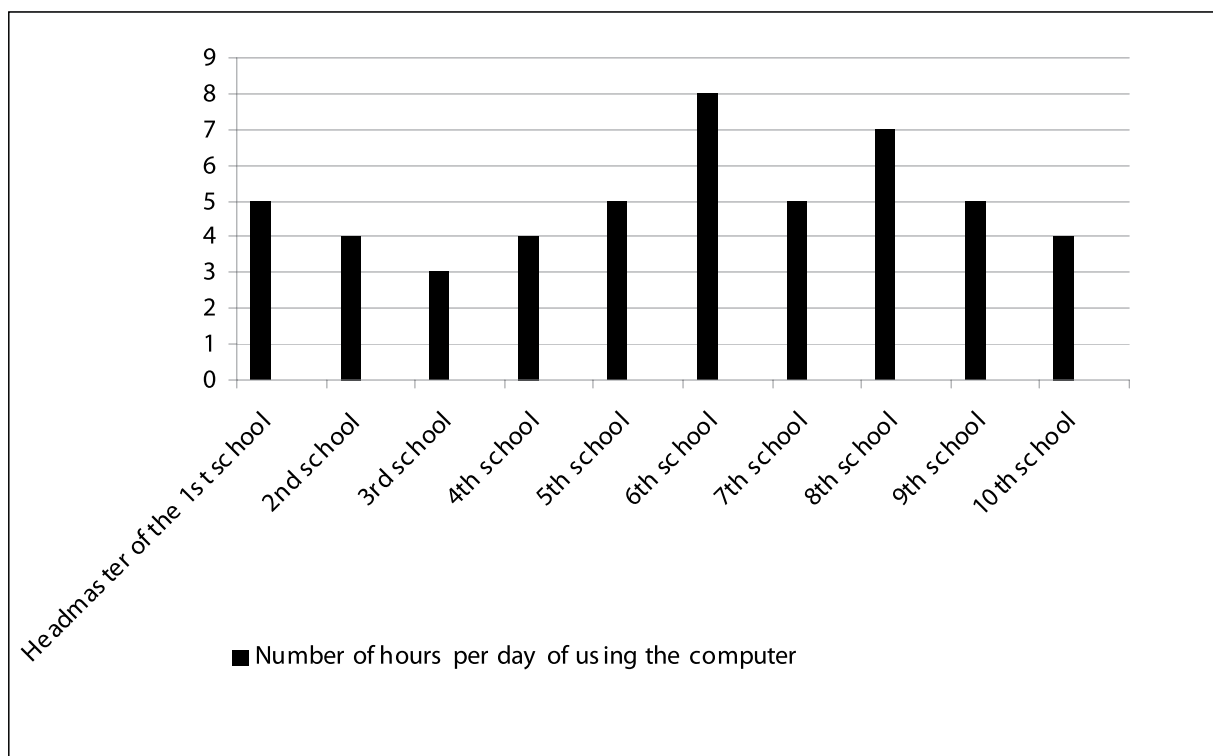


Figure 6: How many hours per work day the headmasters use computers

Table 9: Answers to Question number 85: Choose a level of agreement with the following statements:

	2. I disagree	3. Undecided	4. I agree	5. I strongly agree
The following principle applies: One who does not master ICT cannot perform his profession (a teacher in a school)	2	3	3	2
A centre for expert, methodological and didactical support needs to be created, as well as a system for counselling and guidance for the teachers about gaining new skills.	0	0	6	4
High schools need to include themselves in activities in the Slovenian and European educational network and use services – the results of ICT projects.	0	0	6	4
Subject curricula have to be updated using e-materials in teaching and learning and also legal and financial questions about material copyrights of e-materials have to be solved.	0	0	6	4

Comment: Strategic and concrete aims in the field of introducing ICT are evaluated very positively, which provides realistic possibilities realizing them.

In Figure 6, the results are shown for answers to question number 26, which reads: How many hours per work day the headmasters use computers. Headmasters are arranged by schools corresponding to Figure 2.

3 Conclusion

The main purpose of this article is to show the results of the overview of the situation in the field of ICT in Slovenian grammar schools, from the viewpoint of grammar school equipment as well as the use of technologies in planning and performing the educational process. In our analysis, we used data gathered with the poll and by talking to the headmasters of 10 Slovenian grammar schools that were selected in a way that presented a sufficiently representative sample. The poll contained 87 questions and over 200 sub-questions, however, in this article, only the data that applies to schools' equipment, use of technology, accessibility and use of these technologies in class (for pupils and teachers) and the vision or plans of the headmasters for introducing ICT into their grammar schools in the future, was used. With our analysis and in planning future activities, we also considered the results of other research and compared the situation in Slovenia to those of similar schools in developed countries of the EU.

The use of modern technologies in class is more or less an accessory, supplement or means for increasing student interest – however, to a very small degree (in most developed schools, up to 20%), it is a matter of introducing an overall concept of education, which can only be made possible through working on one of e-platforms, among which Moodle is the most recognized.

Headmasters have a crucially important role in the continuous development of a grammar school and the results of the poll show that over 70% support and are familiar with modern orientations, even though only few (maybe 20%) are familiar with the overall concepts and completely different way of working that a modern school requires and enables. However, this matter can be quickly resolved by introducing this concept on a general level or in some grammar schools and with the well grounded education and qualification of headmasters.

The modern school is based on equipment and technology. The current ICT equipment of our grammar schools is way below the standards of similar schools in the developed countries of the EU, where similar schools have up to two or three times as many computers per 100 students than our schools do. The teachers' equipment presents a special problem, which is solved in only a few schools (less than 20%) by co-funding teachers when they buy computers, which also have to be used for school work. For now, it is important and positive that teachers in 50% of schools have the possibility of using the internet and computer-projection equipment in almost all classrooms. In other schools, they plan to do the same thing in the next two years.

In the last few years, was achieved considerable progress in the area of producing e-materials in Slovenia. E-materials already exist for a lot of subjects, while quality and useful e-materials still need to be made for others. However, it is worth mentioning the current problems with current e-materials, which most of the schools are not even familiar with or know their characteristics.

One of the solutions lies in a Slovenian educational portal, which would systematically interconnect and arrange material and take care of the development of the whole system. The institution for education would have to be included in this endeavour, where it will be able to use its knowledge and experience of the educational system more realistically.

Major problems with introducing modern technologies include financial means and spatial boundaries, because no major increase has been expected in the renovation of grammar schools and headmasters also predict only modest investment in this field in the forthcoming years.

The financial funds required for purchasing, applying and maintaining modern equipment substantially exceed the present investments in this field, where, in grammar school programmes, most of the funds are used for wages and maybe 2% is used for technology. For a modern technologically supported class, at least 10% of total investment must go to equipment and infrastructure. The price of the grammar school program has to be raised by at least that much, otherwise renovation will not be possible. The problem of outsourcing will appear which is only present now in the school system in cleaning and organizing meals but which will become an important item in the school budget in the future.

Personnel are a considerable problem for both organizational and technological renovation, which is especially true for an educational system that limits their work with students to classroom hours, consultations and some activities after class, relatively little time in the workplace and holidays that are the same for the students as for the teachers. Also, the fact that more than 40% of teachers do not use computers for class purposes is not encouraging, especially since the developed countries of the EU practically reached a 100 % qualification rate for teachers in the new technologies years ago.

In grammar schools, it will be necessary to systematize new working positions for qualified personnel or to ensure funds for external services (media technicians and multimedia or media engineers), because a modern grammar school needs complete technical support for the whole system.

It is of the utmost importance that the vision accepted by the Ministry for Education and Sport is as modern as possible and that it also garners general support from the headmasters. A less pleasant notion is that there is no strategy, at least for grammar schools. Also, according to the resolutions of the Council of Experts (Izhodišča ..., 2007) the Ministry for Education and Sport do not provide enough support for modern technology when renovating grammar schools. But a more positive notion is that we have at our disposal excellent institutions, companies and individuals that have demonstrated their skills and competences in the business world and will also help to achieve worldwide standards in the field of education. We still see major problems in developing the concepts, didactics and methodologies, as old concepts prevail and radical action and renewal will be necessary.

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Organizacijski in kadrovski aspekti uvajanja Informacijsko komunikacijskih tehnologij v gimnazije

V članku so predstavljeni rezultati primerjave med vlaganji v IKT v slovenske gimnazije in podobne šole v EU in rezultati obsežne raziskave, ki smo jo opravili z anketo in razgovori z ravnatelji desetih slovenskih gimnazij, ki predstavljajo tipični vzorec za Slovenijo. V raziskavi smo preučevali različne aspekte uporabe IKT v šolah. Raziskava je pokazala, da so slovenske šole slabše opremljene z IKT kot v najbolj razvitih državah EU, kar ne omogoča sodobne organizacije dela in učnega procesa. Stanje se bo izboljšalo le v primeru, ko bo slovenska vlada namenila več sredstev za IKT v izobraževanju (nakup opreme, pripravo e-gradiv, izobraževanje učiteljev itd.) in ko bodo zahteve po IKT kompetencah vključene tudi v cilje programov.

Ključne besede: IKT, izobraževanje, gimnazija, opremljenost šol

Comparison of Human Resource Management in Slovenian Family and Non-Family Businesses

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The room to reach a competitive advantage in today's dynamic world, companies have in unutilized and even unknown human abilities of own employees. Treatment of people at work in large organizations is well analyzed, but little focus is directed at small and medium-sized enterprises. This is particularly true for family businesses. Small and medium-sized enterprises are largely owned by individual families and are an extremely important part of developed economies. Complexity of internal relationships and interplay between the two systems: families and businesses, which often lead to conflicts in interaction, however, is the reason that many managers and professionals are not willing to work in family businesses. It is justified to set the research question; Are we obligate to treated family businesses as a special case when considering the management of people at work? This paper presents the need to address the family businesses as a special case. In a successful and long living family businesses undoubtedly are closely and carefully working with the employees. It is little known about dealing with people in a Slovenian family businesses and how management practices differ from non-family firms. Based on the study of literature and conclusions from a qualitative empirical study the differences are presented in this article. There are also presented differences in practices of dealing with people at work in foreign and Slovenian non-family and family businesses. At the end there are exposed a good practices of each type of business and recommendations for their use.

Key words: Human Resource Management, Employees, Family and Nonfamily Business

1 Introduction

Human resources are nowadays the main competitive advantage of companies in the developed world. Therefore, classical economic capital, such as financial and structural capital, no longer suffices for the objectives of fast flexibility, innovativeness and development. Instead, human and social capital are gaining in importance and, according to the latest research (Luthans & Youssef, 2004; Luthans et al., 2004), the same can be claimed for psychological capital. Human resource management has thus far been analysed predominately in larger organisations, while little attention has been given to small and medium-sized companies. This can be illustrated by the CRANET (Comparative Human Resource Management) research project, which was established in 1989 by five founding countries. The project is coordinated by the Cranfield School of Management from Great Britain (Brewster, Mayrhofer & Morley, 2004). Today, more than 30 countries worldwide participate in the CRANET project; Slovenia has been a part of the network since 2001. CRANET is the largest study in its field, as well as one of the most representative and independent ones. Nevertheless, despite its size CRANET does not include companies with fewer than 200 employees, thus nearly

entirely excluding small and medium-sized companies. This is quite surprising, especially in view of the fact that the average number of employees per company in Europe is less than 10 (Gunnigle, Morley, Clifford & Turner, 1997). The exclusion of such companies is even more surprising when bearing in mind that a considerable 20.15 million enterprises out of 20.45 million are small and medium-sized and employ 2/3 of a 122 million person work force, contributing to 54% of sales in the private sector (European Commission, 2002).

Human resources and its organisational abilities are vital keys to success in small organisations. Most family businesses in Slovenia are small-sized, while some have managed to evolve into medium-sized businesses. In developed economies, family businesses are the most frequently occurring form of companies; some of them even proceed to become large, world-renowned corporations. The mixture of business and emotional motivation can be especially powerful and often creates an impression of invincibility. This can be seen in family corporations such as Levi Strauss & Co., Ford, Benetton, Fiat, Bata, etc.. However, research on family entrepreneurship reveals that business mortality in these cases is very high. The main problem appears to be the handover of ownership and business management from the older to

the younger generation; there is little experience of familial succession in Slovenia. In order to ensure their existence, further development and growth, family businesses will need to employ a systematic approach to the strategy of human resource planning, acquisition, assessment, a reward system, motivation and development. Family businesses are typically characterised by close bonds between the company and the family, a reflection of which can be found both in the policies and general culture (philosophy) of the family business (Syms, 1992). The complexity of internal relationships and the intertwining of familial and business systems, which often leads to conflicts in interaction, are the principal reasons for a number of managers and experts opting not to work in such businesses.

In view of these findings, our main research question is: Should family businesses be perceived as a separate case of human resource management? So far, research (a review of which will be presented further on) has shown family businesses should be dealt with separately due to the complexity and volatility of relationships between ownership and management. Successful family businesses that continue to prosper through several generations undoubtedly treat their employees with great care. How are human resources treated in Slovenian family companies? What practices of human resource management do Slovenian family companies employ?

2 Study objectives

Given the growing importance of good practices in human resource management in relation to gaining a competitive advantage and the growing importance of family businesses for the Slovenian economy, the primary objective of this study is to compare human resource practices in family and non-family businesses in Slovenia. Due to an increasing number of family businesses in the Slovenian economy and the scarcity of research in this field, our study aims to explore the segment of small and medium-sized businesses. In accordance with the main objective of the study, the following aims were established:

- To ascertain whether family businesses differ from non-family businesses with regard to human resource management and how possible differences are expressed
- To recognise good and bad practices of human resource management in family and non-family businesses
- To provide an example of how good practices found in certain types of companies could be applied to human resource management in other business types and in what way bad practices could be eliminated or improved.

3 Research hypotheses

For the purpose of this study, we developed the *main hypothesis* and a number of sub-hypotheses in order to establish whether the findings support or negate the main hypothesis. The main hypothesis was:

H_m: Human resource management in small and medium-sized Slovenian family businesses differs from human resource management in non-family businesses.

Sub-hypotheses were as follows;

H₁: Family businesses are less likely to employ a human resource expert than non-family businesses, the managing director in family businesses being more frequently the one solely responsible for managing human resources.

This hypothesis is based on the assumption that family business owners/managers strive to ensure they maintain control over the family business. Since employees also include their own family members, they can thus prevent other employees from noticing possible examples of unequal treatment of family and non-family members.

H₂: In family businesses, the establishment of human resource management strategy is scarcer and poorer.

The hypothesis is based on the fact that in the majority of cases family business managers are the owners of the business and specialize in fields of entrepreneurship other than human resource management. As entrepreneurs, they are rather spontaneous in action and tend to respond to environmental changes, mostly acting intuitively. Hence, we assume that family business managers are not especially inclined to resort to strategy development, especially in the case of human resource management.

H₃: Family businesses use less formalised approaches to human resource planning, employment and selection than non-family businesses.

Non-family businesses usually have more owners either from the very beginning or resulting from company expansion. As different owners tend to have different interests or different priorities in running the business, a tendency towards process formalisation appears, serving as a basis for the enforcement of mutually consistent interests, launched through management mechanisms. If certain procedures have to be performed in writing, they are available to more people in the same form, thus making it easier to verify the validity of activities. Family businesses, on the other hand, often respond to current and immediate needs, usually quite fast and with less co-ordination between different actors. When on the lookout for new resources, family businesses give greater meaning to information provided by close family members, relatives and acquaintances, as is most likely the case when it comes to employing human resources.

H₄: Compared to non-family businesses, family businesses are more reluctant to use a structured assessment of human resources; therefore, established formalised assessment systems are less common in family businesses.

Due to the reasons explored in our third hypothesis, formal assessment in non-family businesses serves as a means of ensuring transparency, whereas in the case of family businesses, family members might prefer to avoid being assessed and compared to other employees.

H₅: In family businesses, human resource development and career planning are not organised as well as in non-family businesses.

This hypothesis is based on the assumption that the lead employees in non-family businesses attempt to maintain or increase their own employability outside the current place of employment and are consequently more willing to ensure the same options to other employees. Moreover, some recent studies (Levie & Lerner, 2009; Raid and Adams, 2001, and Raid, Morrow, Kelly & McCartan, 2002) have ascertained

that managers in non-family businesses have a higher level of education, which is another reason for our hypothesis that they ascribe higher meaning to human resources development than family business managers.

H₆: In family businesses, reward systems are less formalised and often differ for different types of employees.

In establishing this hypothesis, it was assumed that family members may sometimes be either too generously rewarded or not rewarded enough for their efforts in relation to general market-based evaluation of work. Rewarding of family members depends on the current situation the business is in. It may very well be that family members are rewarded too generously in the majority of cases, as their needs are perhaps deemed a higher priority than business demands. One way or another, family members are hypothesized to dislike rewarding systems that are too formalised and could consequently enable third parties to gain a (better) insight into the rewarding system of family members in the company.

H₇: In family businesses, communication with employees and the public is poorer or not as well-developed as in non-family businesses.

Family businesses were hypothesized to be relatively closed systems that protect confidential information to prevent the leaking of potential special procedures, methods or other business secrets from the company. Families are likely to view family businesses as solely their own and do not expect any intrusions, thus being even less susceptible to outside interference.

4 Methodology

In July and August 2009, a qualitative study was conducted among selected small and medium-sized family and non-family businesses in Slovenia. The technique employed was

the in-depth interview. In light of previous studies on small and medium-sized businesses, it was justifiably assumed that human resource management is not very systematic in the majority of small and medium-sized businesses. The technique of interview therefore made it possible to obtain more comprehensive answers and determine those aspects of human resource management that can otherwise be foreseen. In order to test the accuracy of our hypotheses, in-depth answers based on respondents' experiences were required.

The study is based on the analysis of human resource management on a chosen sample of Slovenian companies. The sample was not random, since the size of the business and the field of operation were taken into account with the purpose of controlling their influence. In-depth interviews were carried out in 16 companies with managing directors, heads of offices (human resource offices, general services) or departments, and human resource managers. In the implementation of interviews, we resorted to the memorandum based on the questions used in the Cranet studies and the study undertaken by Raid and Adams (2001). Several questions were taken from the study by De Kok & J. M. P (2003), and some new questions were added. In addition, some Cranet questions were adjusted for our purpose, as they are primarily intended for larger (more than 200 employees) or large businesses.

5 Study limitations

The main limitations pertain to the methodology, space and time of the study and are related to the fact that the study was based on a relatively small sample. It is thus not possible to generalize our findings for the entire population, as could be done in the case of a statistically representative quantitative study. Moreover, the sampling was not random; however, we did gain some other advantages by not opting for random sam-

Table 1: Basic information about the examined companies

SMALL FAMILY BUSINESS	SMALL NON-FAMILY BUSINESS	MEDIUM-SIZED FAMILY BUSINESS	MEDIUM-SIZED NON-FAMILY BUSINESS
Company A_{FS} construction c. Number of employees: 14 Revenue: 1.5 million € Assets: 1.9 million €	Company A_{NS} construction c. Number of employees: 49 Revenue: 3.0 million € Assets: 3.8 million €	Company A_{Fm} construction c. Number of employees: 67 Revenue: 5.8 million € Assets: 8.3 million €	Company A_{Nm} construction c. Number of employees: 150 Revenue: 12.6 million € Assets: 9.8 million €
Company B_{FS} metalwork c. Number of employees: 20 Revenue: 2.1 million € Assets: 1.2 million €	Company B_{NS} metalwork c. Number of employees: 45 Revenue: 4.5 million € Assets: 3.3 million €	Company B_{Fm} metalwork c. Number of employees: 127 Revenue: 8.5 million € Assets: 6.3 million €	Company B_{Nm} metalwork c. Number of employees: 248 Revenue: 27.5 million € Assets: 25.7 million €
Company C_{FS} trading c. Number of employees: 40 Revenue: 3.2 million € Assets: 4.2 million €	Company C_{NS} trading c. Number of employees: 15 Revenue: 3.4 million € Assets: 3.5 million €	Company C_{Fm} trading c. Number of employees: 43 Revenue: 20.9 million € Assets: 17.2 million €	Company C_{Nm} trading c. Number of employees: 126 Revenue: 17.0 million € Assets: 9.3 million €
Company D_{FS} food processing c. Number of employees: 49 Revenue: 2.3 million € Assets: 1.9 million €	Company D_{NS} food processing c. Number of employees: 36 Revenue: 2.2 million € Assets: 0.9 million €	Company D_{Fm} food processing c. Number of employees: 248 Revenue: 18.0 million € Assets: 18.2 million €	Company D_{Nm} food processing c. Number of employees: 245 Revenue: 13.4 million € Assets: 21.0 million €

pling, since we eliminated the influence of some factors (size, field of operation) and could delve into the matter in more depth while establishing a better context of the information acquired in the qualitative study. Admittedly, certain possible factors, such as those stemming from cultural, social and economic contexts, could not be controlled.

6 Study results

The present study included 16 businesses, 12 of which were active predominately in the field of production, while 6 belonged to the service industry. All selected companies had already existed for more than 5 years, some for even longer, having previously operated in a different legal organisational form and thus having a tradition of ten or more years. The majority of businesses (14) had limited liability, while 2 were public limited companies. In most cases, respondents were managing directors (11), with the remaining 5 employed as either heads of offices or human resource managers. As most companies requested anonymous handling of data, Table 1 presents only basic information without company names.

Responsibility		MANAG. DIRECTOR		DELEGATED		Σ
F A M I L Y	SMALL	4	75 %	25 %	0	4
	MEDIUM	2			2	4
	Σ F	6	66.7 %	28.6 %	2	8
Σ F & N		9	56.2	43.8	7	16
N O N - F A	Σ N	3	33.3 %	71.4 %	5	8
	SMALL	3	38 %	62 %	1	4
	MEDIUM	0			4	4

Figure 1: Study results support H_1

There are fewer human resource experts in family businesses, the managing director being the one solely responsible for this field more frequently than in non-family businesses. It is evident that managing directors in larger companies delegate responsibility to a larger extent than managing directors of other companies. Furthermore, it was expected that small-sized companies would have no employees who would be actively engaged in human resource management. In the case of the small-size non-family business C_{Ns} , head of general services is the one responsible for human resource management; the company in question comes from the trading sector and can be said to have truly exemplary operating activities (including ISO 9001 and 14001) as well as human resource management, which is also reflected in other parts of the study. In medium-sized enterprises, the situation regarding human resource management is different, devolution already having

been carried out in the majority of cases, but more frequently in non-family businesses. A number of respondents stated that the greatest challenge in the next three years was going to be acquiring new employees. This was primarily the case in small family businesses active in the field of construction and metal processing industry that perform rather specialised activities (A_{Fs} , A_{Ns} and B_{Fs}).

Strategy		PRESENT		NOT PRESENT		Σ
F A M I L Y	SMALL	0	25 %	75 %	4	4
	MEDIUM	2			2	4
	Σ F	2	28.6 %	66.7 %	6	8
Σ F & N		7	43.8	56.2	9	16
N O N - F A	Σ N	5	71.4 %	33.4 %	3	8
	SMALL	1	62 %	38 %	3	4
	MEDIUM	4			0	4

Figure 2: Study results support H_2

Family companies with a developed strategy represent just 28.6% of all businesses with a developed strategy, but even in the case of the latter, the strategy is unfortunately not recorded in writing. As expected, larger companies are more likely to have a strategy than small-sized companies. Furthermore, it can be seen that small-sized businesses rarely define their business strategy, company policy (the only small-sized business with a company policy is C_{Ns}) or human resource management strategy, and are not particularly fond of planning in general. Such companies claim that it is nearly impossible to foresee client orders or plan in advance, adding that they adjust to the current situation instead. The same can be said for their human resource management. An example that speaks for itself can be found in the words of the managing director of company B_{Fs} , who reported that the company starts to look for new employees only when they are already urgently needed. In medium-sized companies, non-family businesses typically have their strategies developed and written down, while in family-owned businesses, this is only the case in half of the companies. When we further inquired about the nature of their strategy of human resource management, it was revealed that the strategy was not recorded in writing, nor were they particularly convincing in explaining what the strategy was or what its content was supposed to be.

Family businesses with no formalised procedures represent 66.7% of all businesses without formalised procedures. It was established that companies in general have a relatively high rate of formalisation of human resource seeking and job descriptions. Apart from that, small family businesses primarily lack description of those job positions involving family members. In professional job training, businesses resort to

written plans of professional training, paying great attention to content and implementation of these plans. As was, for example, explicitly stated by company B_{FS}, smaller businesses would like to introduce written professional training plans and enhance their approach to human resource selection. They further stated that they had recently started using psychometric testing, since they realised they were not the strongest in the field of human resource selection. In company A_{FS}, the need for specialised workers is similarly dealt with in co-operation with CCIS (Chamber of Commerce and Industry of Slovenia) in apprenticeship programmes.

Formalised procedures		NO		YES		Σ
F A M I L Y	SMALL	2	25 %	75 %	2	4
	MEDIUM	0			4	4
	Σ F	2	66.7 %	46.2 %	6	8
	Σ F & N	3	18.8	81.2	13	16
N O N - F A	Σ N	1	33.3 %	53.8 %	7	8
	SMALL	1	12 %	88 %	3	4
	MEDIUM	0			4	4
	Σ N	1	33.3 %	53.8 %	7	8

Figure 3: Study results support H₃

Family businesses with established formal assessment systems amount to a mere 16.7% of all such enterprises. Moreover, in family businesses the attitude towards structured employee assessment is not particularly positive, as only a small proportion of family businesses employ such assessment; non-family businesses, on the other hand, seem to be embracing formal assessment to a greater extent. The managing director of company B_{FS} talked about preparing the introduction of assessment and reward systems that would be fair and unified for everyone, including family members. He also stated that he was experiencing some difficulties with relatives employed in his company, who feel that helping the company when the latter is under time pressure entitles them to special privileges. Other employees, however, not noticing the additional effort of these relatives, always notice extra privileges, which can prove disruptive to company function and make organisation that much more difficult. In addition, the owner-manager of company C_{FS} reported that the key to the success of his family company besides entrepreneurship is in fact equal treatment of all employees. In his company, this is maintained with great care and consistency, as family members need to serve as a role model and should not be subject to any privileges.

The family businesses do not attend to the development of employees as much as the non-family businesses do, but the difference between the two is still not very significant. It is, however, quite worrying that the majority of businesses do not

devote a lot of attention to the development of their employees. Promoting the development of employees is worse than was expected, which is especially true of the employees' career development, where practically none of the studied companies devote much attention to it. The companies more or less perform basic statutory training (for example occupational safety) or educational courses for getting to know and introduction of quality standards, environmental protection, food safety, health safety, etc. (ISO, HACCP, OHSAS).

Human resource assessment		PRESENT		NOT PRESENT		Σ
F A M I L Y	SMALL	0	12 %	88 %	4	4
	MEDIUM	1			3	4
	Σ F	3	16.7 %	70.0 %	5	8
	Σ F & N	8	37.5	62.5	8	16
N O N - F A	Σ N	5	83.3 %	30.0 %	3	8
	SMALL	1	62 %	38 %	3	4
	MEDIUM	4			0	4
	Σ N	5	83.3 %	30.0 %	3	8

Figure 4: Study results support H₄

Coordinating this training, the companies do not really have a good review over how much means and how much time is spent on average on such training. On the other hand, there are companies such as C_{Nm}, B_{Ns} in D_{Ds} which have taken great care of the development of their employees, but are still in the last place regarding career development because they believe that the employees have to take care of that themselves. Such a way of thinking was especially strong in the family businesses.

Among all the companies that have formal systems of rewarding employees, only 28.6% of family businesses engage in these systems (salaries, rewards and benefits). As expected, larger companies more often participate in formalized rewarding. A lot of medium-sized companies also participate informal rewarding systems (salaries, reward and benefits); however, this is again not the case in family businesses, where there is no unique formalization for all employees. However, in two medium-sized family businesses a lot of attention is devoted to the reward systems – they do not recognise differences among their employees and say that this is one of the most important factors that has contributed to the growth and success of the business.

In family businesses there is a great deal of communication with the employees – they are informed of the financial status as well as of the organisation, but seldom of the company politics. Even better is their communication with the environment – they are included in associations where they get help and advice. The fact that smaller businesses devote a lot of attention to communication with their employees is a rather positive surprise. It is obvious that they want to create some

sort of “family environment” where there is a constant flow of information and where the employees also feel like a constituent part of the company’s success. Small businesses are more often included in several associations than medium-sized businesses, which is also true of the family (and non-family) businesses. Family businesses are also prone to taking part in local social activities.

Career planning		No		Yes		Σ
F A M I L Y	SMALL	4	88 %	12 %	0	4
	MIDDLE	3			1	4
	Σ F	7	53.8 %	33.3 %	1	8
	Σ F & N	13	81.2	18.8	3	16
N O N - F A	Σ N	6	46.2 %	66.7 %	2	8
	SMALL	4	75 %	25 %	0	4
	MIDDLE	2			2	4
	Σ N	6	46.2 %	66.7 %	2	8

Figure 5: H_5 the results confirm the research

According to the results of the testing of auxiliary hypotheses where six out of seven (from H1 to H6) were confirmed and one was disproved (H7), the main hypothesis can be confirmed: H_m : *Human resource management in small and medium-sized Slovenian family businesses differs from human resource management in non-family businesses.*

Rewarding of employees		EXISTENT		NON-EXISTENT		Σ
F A M I L Y	SMALL	0	25 %	75 %	4	4
	MIDDLE	2			2	4
	Σ F	2	28.6 %	66.7 %	6	8
	Σ F & N	7	43.8	56.2	9	16
N O N - F A	Σ N	5	71.4 %	33.3 %	3	8
	SMALL	1	12 %	88 %	3	4
	MIDDLE	4			0	4
	Σ N	5	71.4 %	33.3 %	3	8

Figure 6: H_6 the results confirm the research

There were certainly a few very obvious differences between human resource management in both types of businesses, but the intention of this research was not to determine if these family businesses are more or less successful due to their specific forms of human resource management. However, a few recommendations can be given about what these businesses can do to improve their operations.

Communication		NO or little		YES or a lot		Σ
F A M I L Y	SMALL	1	12%	88%	3	4
	MIDDLE	0			4	4
	Σ F	1	25.0%	58.3%	8	8
	Σ F & N	4	25.0%	75.0%	13	16
N O N - F A	Σ N	3	75.0%	41.7 %	5	8
	SMALL	1	38%	62 %	3	4
	MIDDLE	2			2	4
	Σ N	3	75.0%	41.7 %	5	8

Figure 7: H_7 the results do not confirm the research

The forms of human resource management in family and non-family businesses differ in several significant ways:

- In family businesses 75% of human resource management is covered by the director of the business, whereas in non-family businesses only 38% are covered by the director. In similar research in Ireland, this field was also covered by the director of the company in 48% of family and in only 16% of non-family businesses, which is not necessarily bad news because if the director of a family business wants to exercise control over this field, they most likely agree that this field is rather important. Since this field should be treated with accuracy and attentiveness (Leach, 1991), a question arises: how much time, energy and expert knowledge can they really devote to it regarding all the other engagements they might have?
- A much smaller percentage, namely 25% of family businesses, has a defined mission and business strategy (including a strategy of human resource management). On the other hand, 62% of non-family businesses have such determinations. This was also one of the first signs for Ward (1987) to conclude that family businesses would have to start operating with a higher degree of strategy.
- In conversations with the directors and owners of family businesses, one cannot fail to observe that they do not devote much of their attention to planning, which is especially true of the planning of specialised people and of required qualification training. Herle (2003) also concluded that strategic planning is not a distinctive factor in the success of Slovenian family businesses.
- Family businesses also rarely provide position descriptions, especially the descriptions for family members;

they also rarely look for new employees until they are desperately needed, which is a very good example of poor planning. This means that they also cannot rightly devote themselves to choosing and integrating new employees (Florjančič, Ferjan and Bernik 1999).

- A considerably smaller percentage (12%) of family versus non-family (62%) businesses use so-called evaluation systems. Moreover, in the majority of family businesses these evaluation systems do not apply to all employees. Family businesses also do not use these evaluation systems (other than rewarding) for defining needs after individual qualification training or for work organisation. This fact confirms the results of Astrachan and Kolenko (1994) stating that a lack of organisational skills is one of the characteristics of family businesses.
- There is, however, only a small difference in caring for career development (of managers or other employees), which is extremely low in both business types; an incredible 88% of family and 75% of non-family businesses do not participate in career planning for their employees. They believe this is the responsibility of each individual.
- In family businesses – particularly in the small ones – a special atmosphere can be noted which is reflected as a great care for the employees, the reputation of the business, survival in critical moments as well as a great affiliation of employees and pride to be a part of the business. In this way some sort of “family atmosphere” is created, where the mutual care for everyone’s benefit is reflected. This is also the case in bigger businesses, where – despite the fact that the “family atmosphere” is no longer very present – a very typical characteristic is the excellent level of information of all employee categories (management, administration and manufacture) and the possibility of mutual communication where each individual has direct access to the top representatives of the business. Considering the strong activity of the trade unions in the media, it is rather surprising that none of the businesses in question cite the influence of trades unions, and they only rarely said identified that their employees were members of a trade union. Not even the workers’ councils were supposed to be present, but they do report that they have several short meetings where the management informs them about the operation and work organisation as well as where they can express their own opinions.
- The transfer of the management of the family business to the next generation is carried out in 37% of the businesses in our study. Transfer of the ownership of the business, however, is only performed in 25% (majority share) and 12% (minority share) of all businesses. In other businesses only the founding generation has majority shares. In businesses where the management is transferred but not the ownership share (or where this share is very small), several problems concerning interference in the management of the company or tensions stemming from different views or values of both generations were reported. This is also confirmed by the results of Višnar (2006) and Herle (2003), Lovšin Kozina (2006) and by the results of Raid and Adams (2001).

7 Discussion and recommendations for further research work

Table 2 represents the summary of some strengths, weaknesses, opportunities and threats when dealing with employees in family businesses. When analyzing the external environment, the owners and the management of family businesses should consider the business potentials and dangers that can fall upon the business from the employees’ point of view or due to a labour shortage. When performing an internal analysis of human resource management they should also consider the possible advantages and disadvantages of family businesses that can occur when looking for or building competitive advantages on people.

This research unequivocally proves that certain family companies have to bring in better ways of human resource management, become more professional, especially in terms of involving family members in the management of the business. The following suggestions should be taken into consideration:

- Businesses should provide a clear distinction between the owner’s and the manager’s duties, competencies, defined tasks, functions and responsibilities
- Businesses should implement planning, looking for and a formal choice when employing, evaluating and paying the employees
- The distinction between rewards coming from the ownership and rewards for performance in the business should be clear and unambiguous. It also needs to be clarified that family members who are not employees of the company should only benefit by the share that belongs to the owners of the company. Those family members who are employed in the company, however, should be paid in accordance with the ruling prices and relations the same as other employees. Any additional compensation should be also gained directly from the owner’s share. This will prove to be very helpful when establishing a defined and safe structure that will positively influence the disburdening of tensions that can appear in family businesses. This is also the suggestion alleged by Lansberg et al. (1988) and Ward (1987)
- The understandable aspirations of family members for promoting their own needs must be carried out realistically and carefully, since they should set a good example to the others. In order to develop a successful business, they have to be ready to make every effort, keep good discipline and adaptability and generally set a good example for non-family members
- The owners of those family businesses that have not yet solved the ownership – management relations issue should be warned that it can create great problems when trying to establish unique managerial work that is essential in achieving healthy organisational skills.

8 Conclusions

The results of this research also support the findings of some foreign studies, namely that the practices of human resource

Table 2: SWOT analysis of human resource management in family businesses

STRENGTHS	WEAKNESSES
• Great affiliation and devotion of family members • A special "family atmosphere" is formed among the employees as trust and mutual care for the benefit of the family, business and all employees • Protecting business secrets – trusting the family members • Long-term vision of employed family members • Adaptability, patience and persistence of employees, especially family members • Key members of the organisation do not often change, resulting in a positive influence on relations with business partners.	• The wish of the owner/director to control the field is too great, often resulting in a possible lack of attention and expert knowledge due to overwork. • Non-existing or defective strategic planning and limited organisational skills • The privileges of family members can result in decreased motivation of non-family employees (evaluation and substitutions) • The generation gap, concerning company as a space for power measurement • Sudden illness or death of the owner and unpreparedness, inability or a fight for predominance among the remaining employees.
OPPORTUNITIES	THREATS
• Seeing family business as a guarantee for reliability and quality because the reputation of the company in the society (among buyers or all clients – also employees and potential employee candidates) depends on it • The concentration of power can result in quick decisions and reactions to the environmental changes that occur more and more often. • Above average results can be achieved through well-conceived and strictly performed systems of evaluation, rewards and promotion that are the equal for all employees and through planning, investing and caring for the development of the employees in combination with quick and unique decision making.	• Problems occur when looking for non-family managers or experts who are motivated enough to work in a most likely conflicted family business and who are competent and honest at the same time. • Not enough stress on strategic planning and analysis can result in a labour shortage, in a lack of necessary knowledge and skills for the current labour resources and consequently a rushed and therefore deficient search and selection of new employees. • Limited possibilities of promotion in a family business are generally unattractive to qualified people.

management in family businesses differ from those performed in non-family businesses. It is extremely important for the counsellors and performers of qualification training to be aware of this fact when trying to initiate better practices of human resource management into the complex and introverted natures of family businesses. Some family members are only the stakeholders of the business; some are stakeholders and employees; the others, again, might only be managers, etc. This is why one has to realize that each of them has their own different perspectives.

In comparison with the other developed countries, the field of family business is still pretty non-researched in Slovenia. The development of this field is significantly related to expert development, education research and mostly closely to the practice and experience that these family businesses are soon to gain in the future. According to the rising importance of family businesses in the economy, this field should receive several organised forms of support:

- Establishing a family businesses association with the intention to educate, inform and advise their members

- Licence education and training of the counsellors from the field of family business
- Organisation of regular meetings, conferences; special publications etc.
- Developing programmes of family business at universities with stress on business examples from the most successful family businesses

Further detailed expert research work of this field.

In this way, the experience of independent problem solving will be made easier or even spared for many family businesses.

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Primerjava ravnanja z ljudmi pri delu v slovenskih družinskih in nedružinskih podjetjih

Manevrski prostor za pridobitev konkurenčnih prednosti podjetja v današnjem dinamičnem svetu je v neizkoriščenih in celo neznanih človeških zmožnostih. Ravnanje z ljudmi pri delu v velikih organizacijah je dobro analizirano, majhen fokus pa je usmerjen na majhna in srednje velika podjetja. To še posebej velja za družinska podjetja. Majhna in srednje velika podjetja so v svetu v veliki meri v lasti posameznih družin in so izredno pomemben del razvitih gospodarstev. Zapletenosti notranjih razmerij in prepletanja dveh sistemov: družine in podjetja, ki nemalokrat v interakciji povzročata konflikte, pa je vzrok, da mnogi managerji in strokovnjaki niso pripravljeni delati v družinskih podjetjih. Tako je upravičeno postaviti raziskovalno vprašanje; Ali naj družinska podjetja obravnavamo kot poseben primer pri proučevanju ravnanja z ljudmi pri delu? V prispevku je predstavljeno, da je potrebno obravnavati družinska podjetja kot poseben primer. Uspešna ter skozi več generacij živeča družinska podjetja nedvomno skrbno ravnaajo z zaposlenimi. Malo pa je znanega, kako ravnaajo z ljudmi v slovenskih družinskih podjetjih in kako se prakse ravnanja razlikujejo od nedružinskih podjetij. Na podlagi študija literature ter opravljene empirične kvalitativne raziskave so v prispevku predstavljene razlike v praksah ravnanja z ljudmi pri delu v tujih in v slovenskih družinskih in nedružinskih podjetjih ter izpostavljene dobre prakse tako enega kot drugega tipa podjetja in priporočila za njihovo uporabo.

Ključne besede: ravnanje z ljudmi pri delu, zaposleni, družinsko in nedružinsko podjetje

Optimizacija denarnih tokov pri gradnji cest z genetskim algoritmom

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V članku je prikazan primer optimizacije denarnih tokov pri gradnji in upravljanju cestnega omrežja. Na osnovi podatkovne baze iz zadnje uradne posodobitve Nacionalnega programa izgradnje avtocest (NPJA) v letu 2004 sta bila izdelana metodologija in računalniški program, ki omogočata simulacijo in optimizacijo denarnih tokov z genetskim algoritmom. V okviru računalniškega programa sta bila izdelana model, ki simulira denarne tokove, in optimizacijski algoritem, ki je na model navezan preko zamika gradnje posameznih cestnih odsekov. Za kriterija sta bila uporabljena maksimizirana neto sedanjo vrednost (NSV) in minimizirano časovno odstopanje od prvotnega načrta. Optimizacijski algoritem vključuje večkriterijsko optimizacijo z uporabo različnih uteži. Rezultat optimizacije so vrednosti izbranih finančnih in časovnih parametrov. Optimalne rešitve z uporabo različnih uteži oz. razmerij med NSV in časovnim odstopanjem od prvotnega načrta so prikazane s Paretovo krivuljo.

Ključne besede: Sistem za podporo odločanju, simulacija, optimizacija, denarni tok, gradnja cest

1 Uvod

Vsaka človekova odločitev vsebuje določeno stopnjo tveganja, kar ima lahko za posledico nepravilno odločitev. Osnovna naloga sistemov za podporo odločanju je, da proizvajajo informacije, ki zmanjšujejo tveganje in omogočajo učinkovitejše sprejemanje odločitev (Kovačič, 2004). Na voljo je široka paleta metod, tehnik in orodij za podporo odločanju na področju gradnje in obnove cestnega omrežja (Cundrič et al., 2008; Morcous in Lounis, 2005; Šelih et al., 2008; Lamptey et al., 2008; Higgins et al., 2008) ter na področju optimizacije denarnih tokov posameznih gradbenih projektov (Lui in Wang, 2008; Li, 1996). Po navedbah Iassinovskega et al. (2003) so metode pogosto preveč usmerjene bodisi v metodologijo modeliranja, bodisi v reševalna orodja. Vsaka zase so uporabne za svoj namen, vendar pa je glavni problem njihova medsebojna nezdružljivost. Zaradi nezdružljivosti orodij poteka razvoj na področju integriranih orodij, kjer se vključuje metode in orodja iz dveh ali več področij.

Običajno se ljudje pri odločanju zanašajo na razna poslovna poročila in nacionalne programe (Uradni list RS, št. 13/96¹, 41/98², 50/2004³), ki so lahko zastareli že v trenutku, ko so napisani. Ti zaradi svoje oblike ne omogočajo nadaljnega poizvedovanja. V nasprotju s tiskanimi poročili so sistemi za

podporo odločanju narejeni v obliki računalniških programov, ki omogočajo sprotno posodabljanje in spremljanje dogajanja oz. poslovanja. To je pomembno takrat, ko potrebujemo kakovostne informacije za sprejemanje odločitev.

Primer, kjer se kaže potreba po sistemu za podporo odločanju je nacionalni program izgradnje avtocest, ki je bil pripravljen v obdobju od leta 1993 do leta 1995 in objavljen v Uradnem listu RS, št. 13/96¹. V njem so vse ocene in predpostavke (investicijske vrednosti in časovni okviri) temeljile na dejstvih, podatkih in razmerah v tistem času. Že v letu 1998 so bile sprejete Spremembe in dopolnitve Nacionalnega programa izgradnje avtocest v Republiki Sloveniji (Uradni list RS, št. 41/98²), s katerimi so bila upoštevana nova dejstva in vključeni tudi nekateri novi odseki. S to posodobitvijo naj bi dobili bolj realno sliko izvedbe programa. A po nekaj letih se je pokazalo, da tudi spremenjeni in dopolnjeni program ni mogoče izvajati po predvideni dinamiki in s predvidenimi stroški. V letu 2004 je bila zato izdelana Resolucija o Nacionalnem programu izgradnje avtocest v Republiki Sloveniji (Uradni list RS, št. 50/2004³), za katero so bile izdelane nove strokovne podlage za gradnjo avtocest.

Nacionalni program izgradnje avtocest (NPJA) je živ projekt in se zaradi tehničnih, finančnih in političnih razlogov, spreminja že med samo realizacijo. Podvržen je različnim vplivom, kot so: omejen proračun, preoptimistična ocena

1 Nacionalni program izgradnje avtocest v Republiki Sloveniji (NPJA), Ur.l. RS, št. 13/1996.

2 Spremembe in dopolnitve nacionalnega programa izgradnje avtocest v Republiki Sloveniji (NPJA-A), Ur.l. RS, št. 41/1998.

3 Resolucija o Nacionalnem programu izgradnje avtocest v Republiki Sloveniji (ReNPJA), Ur.l. RS, št. 50/2004.

stroškov, politični in lokalni pritiski na pospešitev gradnje ali spremembo trase, sprememba cestninskega sistema ter dodatni avtocestni program. Pred sprejetjem sprememb je pomembno, da se preveri posamezne predloge s podatki, ki ustrezajo dejanskemu stanju in določi vpliv, ki ga imajo spremembe na celotni NPJA.

Na osnovi zadnje posodobitve NPJA (Uradni list RS, št. 50/2004³), je bil zato izdelan sistem za podporo odločanju, ki deluje na podlagi simulacije in optimizacije denarnih tokov pri gradnji in upravljanju avtocestnega omrežja in torej omogoča tako modeliranje kot tudi reševanje problemov. Za avtomatsko izvedbo optimizacije smo razvili prilagojeno optimizacijsko metodo in določili kriterije po katerih se optimizacija izvaja. Prikaz te optimizacijske metode in optimizacijskih kriterijev je namen tega prispevka.

Prispevek je sestavljen iz šestih delov. Uvodu sledi opis modela, v katerem je predstavljena osnovna zgradba podatkovnega modela. V naslednjem poglavju so opredeljene optimizacijske metode, opis optimizacije z genetskim algoritmom in povezava algoritma z modelom. Sledijo izračuni z uporabo različnih kriterijev v optimizaciji in diskusija, kjer so izračuni interpretirani. Na koncu je zaključek, ki povzame glavne ugotovitve.

2 Opis modela

Pri odločanju potrebujemo model problemskega stanja. Model v splošnem ne zajame vseh parametrov in lastnosti realnosti, ampak je zaradi poenostavitve le njen približek. Pomembno je, da kljub temu vsebuje vse ključne elemente, ki vplivajo na odločitev in da ga je možno, zapisati v obliki matematičnih funkcij ali algoritmov.

V obravnavanem primeru so osnovni gradniki modela cestni odseki, ki skupaj predstavljajo celotno obravnavano

avtocestno omrežje. V modelu smo zajeli denarne tokove pri gradnji in upravljanju avtocestnega omrežja, ki vključujejo glavne prilive, odlive in časovno dinamiko (slika 1).

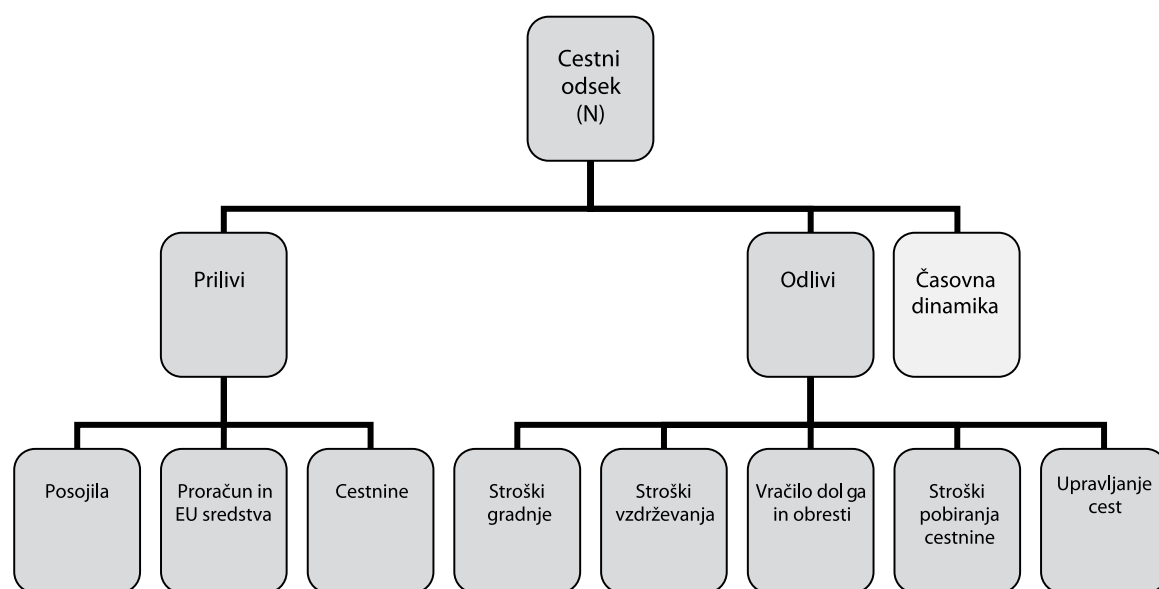
Med prilive denarnega toka v modelu so zajeta najeta posojila, sredstva iz proračuna oz. namenska sredstva, sredstva iz evropskih skladov in sredstva dobljena s pobiranjem cestnine. V odlivih denarnega toka pa so bili upoštevani stroški novogradnje, stroški vzdrževanja, vračilo glavnice kreditov in obresti, stroške pobiranja cestnine in stroške upravljanja cest.

Časovni dinamiki sta dve. Prva je relativna časovna dinamika posameznega odseka. To pomeni, da se določen odsek gradi N let in zato se v vsakem letu porabi določena količina sredstev. Druga dinamika pa je absolutna, saj pove, v katerem letu se projekt izgradnje odseka dejansko začne izvajati. Absolutna dinamika vpliva na razporeditev projektov po letih in je predmet optimizacije prilivov in odlivov.

Model je bil izdelan z naslednjimi predpostavkami:

- odlivi investicij in relativna časovna dinamika gradnje so fiksni;
- odlivi vzdrževanja in upravljanja so funkcija dolžine in posebnosti odseka;
- v denarnem toku so upoštevana posojila in njihovo vračilo;
- prilivi od cestnin so funkcija prometa in dolžine odseka.

V modelu je uporabljena predpostavka, da je cestnina v funkciji prometa in dolžine odseka, kljub temi, da se od sredine leta 2008 cestnina na slovenskih avtocestah za vozila z največjo dovoljeno maso pod 3,5 t plačuje z vinjeto, za vsa ostala vozila pa še vedno neposredno na cestninskih postajah. Z načrtovano uvedbo satelitskega cestninjenja in odpravo vinjet se bo zelo verjetno zopet uporabljalo sistem, pri kateri je priliv od cestnin funkcija prometa in dolžine odseka, zato smo v modelu te predpostavke obdržali.



Slika 1: Prilivi, odlivi in časovna dinamika cestnega odseka

3 Metoda

V zadnjih treh desetletjih je bilo razvitih mnogo matematičnih programskih metod za reševanje optimizacijskih problemov (Rangel-Merino et al. 2005). Primerna metoda za optimizacijo je odvisna od problema oz. modela optimizacije. Model lahko vsebuje eno ali več spremenljivk, je diskreten ali zvezen, statičen ali dinamičen, z omejitvami ali brez (Haupt in Haupt, 2004). Dinamičen model z več spremenljivkami, ki je zapisan kot diskretna funkcija z določenimi omejitvami in ima poleg globalnega minimuma še več lokalnih, je izmed naštetih možnosti najzahtevnejši.

Tak model je potreben tudi za simulacijo denarnih tokov pri gradnji cest, saj je to problem reševanja diskretnega modela, kjer usklajujemo večje število projektov (spremenljivk) v času pri določenih omejitvah tako, da dosežemo optimum na nivoju nacionalnega programa. Za tak izračun lahko uporabimo točne, interaktivne, hevristične ali kombinirane metode. Točne metode so računsko zelo zahtevne, saj poleg vrednosti funkcije potrebujejo tudi odvod funkcije, ki se razmeroma enostavno izračuna pri zveznih funkcijah, pri diskretnih funkcijah pa se z večanjem števila spremenljivk kompleksnost izračunavanja zelo poveča, zato te metode za naš primer niso primerne. Hevristične metode (požrešni algoritmi, nepopolno sestopanje in dekompozicija) pogosto končajo v lokalnem minimumu, interaktivne pa zahtevajo interaktivno delo uporabnika. Zato so za obravnavani primer primerne le metahevristične metode, kot so tabu iskanje (Waligora 2008), simulirano ohlajanje, logično programiranje z omejitvami in genetski algoritem (Dreo et al., 2006; Morcoux in Lounis, 2005; Cheng et al., 1999; Rangel-Merino et al. 2005).

Odločili smo se za metodo genetski algoritem, ker je robustna, praktična in splošno uporabna optimizacijska tehnika, ki v primerjavi z ostalimi konvencionalnimi tehnikami dosega primerljivo natančnost in večjo učinkovitost (Morcoux in Lunis, 2005). Razvil jo je Holland (1975) v zgodnjih 70-ih letih, med pomembne reference pa sodita tudi Goldberg (1989) in Haupt in Haupt (2004). Genetske algoritme se uporablja na znanstvenih in inženirskih področjih. Članki in disertacije, kot na primer (Channon in Damper, 2000) potrjujejo, da je to učinkovita in kredibilna metoda pri globalni optimizaciji problemov. Optimizacija z genetskim algoritmom je računsko bolj učinkovita predvsem zato, ker drugi algoritmi izberejo eno samo rešitev in jo naključno spreminjajo toliko časa dokler ne dosežejo najboljše rešitve. To zahteva veliko ponovitev.

Genetski algoritmi pa obravnavajo več rešitev (populacijo) in z upoštevanjem postavljenih verjetnostnih pravil ustvarijo novo boljšo populacijo. Ponavljanje tega postopka zveča verjetnost, da bo v krajšem času najdena optimalna rešitev. Poleg tega genetski algoritem za izračun uporablja le vrednost funkcije in ne njenega odvoda, kar močno poenostavi izračune (Goldberg, 1989; Morcoux in Lounis, 2005).

V prispevku smo metodo optimizacije, ki temelji na genetskem algoritmu, povezali s simulacijo denarnih tokov pri gradnji avtocestnih odsekov. V tem primeru gre za študijo primera, v katerem smo pokazali, kako metodo reševanja vpeljati v novo različico problema (optimizacija denarnih tokov pri gradnji cestnega omrežja). Glavni doprinos prispevka je izvedba povezave genetskega algoritma z modelom ter izbor in preveritev ustreznih finančnih in časovnih kriterijev.

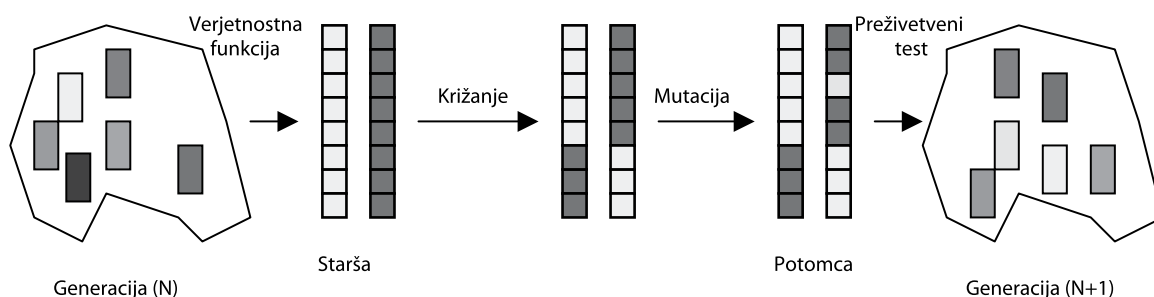
3.1 Genetski algoritem

Genetski algoritem je iskalni algoritem, ki temelji na načelih naravne selekcije. Čeprav genetski algoritem temelji na poskusih, ti niso naključni, ampak so usmerjeni v iskanje vedno boljše rešitve. Osnovni princip genetskega algoritma je simulacija procesov, podobnih tistim, ki se odvijajo pri reprodukciji v naravi in deluje po principu preživetja najboljših. Tako kot v naravi, kjer poskrbi boj za omejene vire prevlado bolj primernih posameznikov, pri genetskih algoritmi ohranjamo vedno boljšo množico rešitev. Genetski algoritem je sestavljen iz naslednjih procesov:

- naključno generiranje posameznikov,
- preverjanje uspešnosti posameznikov,
- izbiranje,
- križanje,
- mutiracija,
- testiranje preživetja.

Delujejo na principu evolucijskih modelov. V teh modelih se potencialno rešitev zapiše v obliki kromosoma, to je niza števil, ki predstavlja rešitev problema. Evolucija populacije običajno izhaja iz naključno generiranih posameznikov. Posamezniki so testirani z oceno primernosti. Ocena primernosti določa kakovost oz. uspešnost rešitve. Nanjo vpliva izbor kriterijev, ki je lahko maksimalni dobiček, minimalni strošek, maksimalna neto sedanja vrednost (NSV), minimalno porabljen čas za dokončanje projektov, ali kombinacija naštetega.

Definicija ocene primernosti je zelo pomembna za iskanje novih rešitev. Na osnovi te ocene poteka izbor posameznikov,



Slika 2: Delovanje genetskega algoritma

ki se med seboj križajo in nato mutirajo. Če prestopajo test preživetja oziroma, če zadoščajo postavljenim omejitvam, preidejo v novo generacijo. Ta proces se ponavlja, dokler rešitve ne dosežejo željene vrednosti, ali presežejo določenega števila iteracij (Haupt in Haupt, 2004). Grafično je proces je prikazan na sliki 2.

Generacija (N) predstavlja kromosome oz. rešitve za posamezno različico celotnega obravnavanega omrežja. Starša predstavljata dva izbrana kromosoma, ki sta sestavljena iz genov (na sliki 2 so predstavljeni s kvadrati, ki predstavljajo rešitev za posamezni odsek). Pri križanju si kromosoma del rešitev izmenjata. Pri mutaciji kromosoma se vrednost naključno izbranega gena lahko naključno spremeni. Novo nastale kromosome imenujemo potomci. Če ti ustrezajo vsem določenim omejitvam jih vključimo v naslednjo generacijo (N+1). Pri optimizaciji z genetskim algoritmom se z usmerjenim kombiniranjem predstavnikov populacije razvijajo vedno boljše rešitve.

3.2 Navezava modela na genetski algoritem

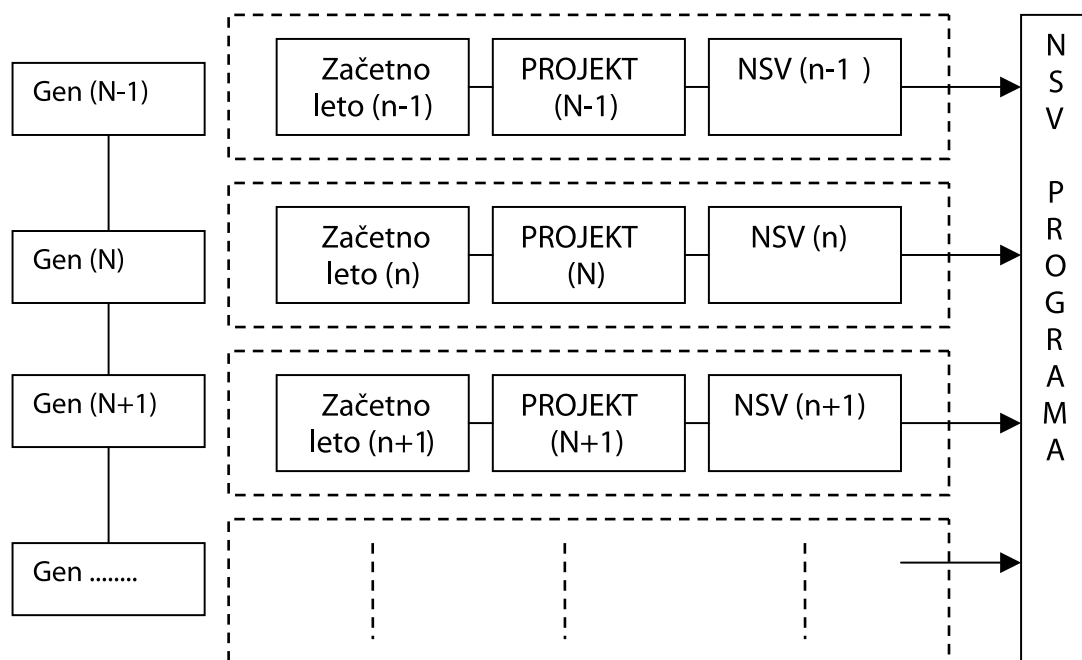
Posamezni odseki so del celotnega nacionalnega programa. Povezava med posameznim investicijskim odsekom in celotnim programom je, če se navežemo na genetski algoritem, kot povezava med genom in kromosomom. Vsak posamezni investicijski odsek je funkcija prilivov, odlivov in časovne skale, kot je prikazano na sliki 1. Shema na sliki 3 prikazuje, kako so posamezni investicijski odseki povezani v celoten nacionalni program.

Posamezni investicijski odseki so določeni z modelom. Določeni členi v modelu so denarni tokovi za posamezen odsek in predviden začetek investicije. Nedoločen člen je zamik gradnje posameznega odseka (v letih), ki je na sliki

3 prikazan kot gen oz. rešitev za posamezni odsek. Zamik gradnje je celo število, ki pove za koliko let se zamakne gradnja posameznega odseka. Ta določa začetno leto gradnje in neto sedanjo vrednost posameznega investicijskega odseka. Gene vseh obravnavanih odsekov cestne mreže predstavlja kromosom, ki zajema vse tiste spremenljivke v modelu, ki jih optimiziramo z genetskim algoritmom. Iz posameznega kromosoma, ki ga optimiziramo z genetskim algoritmom, kot je prikazano na sliki 2, lahko izračunamo simulacijski model in določimo neto sedanjo vrednost celotnega avtocestnega programa.

4 Optimizacijski kriteriji

V tem razdelku je predstavljen izbor finančnih in časovnih kriterijev za posodabljanje sistema pri optimizaciji denarnih tokov in potek optimizacije katere izidi predstavljajo osnovno informacijsko podlago za odločanje. Model je bil izveden tako, da spremenljivke pri gradnji avtocestnega programa predstavljajo zamiki let gradnje posameznih odsekov. Če se na primer leto gradnje nekega odseka zamakne za dve leti, je »rešitev« za ta odsek 2. Rešitve za vse odseke pa je skupek genov, ki predstavlja celoten kromosom. Posamezen kromosom se preveri s testom preživetja, kar pomeni, da so parametri in rešitev ustrezni glede na predhodno določene omejitve. Tem rešitvam se določi uspešnost, ki pove kako dobra je posamezna različica. Ta je v obravnavanem primeru neto sedanjo vrednost (NSV) celotnega programa in povprečen zamik gradnje posameznih odsekov, pri čemer večja NSV in manjši zamik gradnje predstavljata boljše rešitev. Uspešnost rešitve je povezana z verjetnostjo, da bo posamezen kromosom izbran proces za izdelave naslednje generacije.



Slika 3: Niz investicijskih odsekov (genov) povezanih v celotni nacionalni program

Ker NSV in zamik gradnje nista primerljiva, smo za primerjavo uporabili indekse. V ta namen so bili najprej določeni kromosomi z maksimalno in minimalno NSV ter z maksimalnim in minimalnim zamikom let ($zLet$). Nato je bil indeks za vsak NSV in zamik let izračunan po naslednjih enačbah:

$$(a) \text{INDEX}(NSV)_n = (NSV_n - NSV_{min}) / (NSV_{max} - NSV_{min}) + \text{faktor}$$

$$(b) \text{INDEX}(zLet)_n = 1 - (zLet_n - zLet_{min}) / (zLet_{max} - zLet_{min}) + \text{faktor}$$

Vrednost indeksa je med vrednostjo faktorja in vrednostjo faktorja + 1. Če je faktor enak 0, se izloči najslabši kromosom, če pa je večji od 1, je le majhna razlika med posameznimi kromosomi. Da ne bi takoj izločili najslabših rešitev, hkrati pa ohranili čim večjo razliko med rešitvami smo dali faktorju vrednost 0,1.

Skupni indeks je bil določen glede na faktor vpliva (A in B). A ima vrednost med 0 in 1:

$$(c) B = 1 - A.$$

$$(d) \text{INDEX}(skupni) = A \times \text{INDEX}(NSV)_n + B \times \text{INDEX}(zLet)_n$$

Verjetnost, da bo kromosom izbran v procesu izdelave naslednje generacije, je izračunana po naslednji enačbi:

$$(e) \text{Verjetnost}_n = \text{INDEX}_n / \sum \text{INDEX}_n$$

INDEX_n je za posamezen kromosom je izračunan po enačbi (d), $\sum \text{INDEX}_n$ pa je vsota indeksov celotne populacije kromosomov. Pri višji izračunani verjetnosti ima kromosom večji potencial, da postane starš v genetskem algoritmu.

Po izboru dveh staršev se izvede križanje kromosomov. Križanje se lahko izvede enkrat ali večkrat. V našem primeru je bila 50 % verjetnost, da se križanje izvede le enkrat, ter 50 % verjetnost, da se izvede dvakrat. Po križanju je bila izvedena še mutacija kromosomov. Uporabili smo 10 % verjetnost

mutacije na naključno izbranem genu v določenem območju vrednosti. Če je nova rešitev prestala test preživetja, se je uvrstila v naslednjo generacijo in iteracija se je ponovila.

Pri križanju smo ohranili elitne kromosome. To pomeni, da se najboljših n - kromosomov prenese v naslednjo generacijo. S tem smo preprečili odmik od najboljše najdene rešitve.

5 Rezultati in diskusija

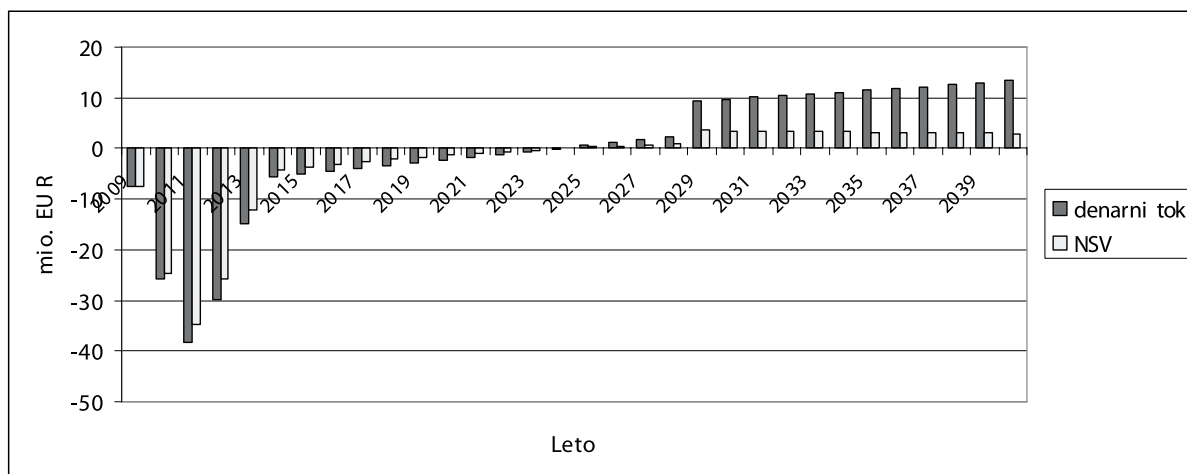
Optimizacija je bila izvedena na zadnji posodobitvi NPJA (Uradni list RS, št. 50/2004³), pri čemer so bili optimizirani odseki in projekti, katerih izgradnja se v nastanku posodobitve še ni začela. Optimizacijo smo izvedli na primeru, kjer smo predpostavili, da se posamezen odsek kreditira v višini 50 %. Rezultati modela za tipični odsek so prikazani na sliki 4. Iz slike je razvidna primerjava NSV in dejanskega denarnega toka.

Iz slike 4 je razvidno, da je v letih gradnje denarni tok negativen, medtem ko je po izgradnji, po določenem času pozitiven, če se uporaba avtocest cestnini tako, da so prilivi večji od odlivov. Daljši negativni tok je posledica odplačevanja kreditov. Ob točki preloma, kjer preide negativni denarni tok v pozitivnega prične odsek prinašati pozitivni denarni tok. Iz slike 4 je tudi razvidno, da so prilivi v prihodnosti bistveno manjši z vidika neto sedanje vrednosti (NSV), kot pa je dejanski denarni tok.

Simulacija denarnih tokov in optimizacija z genetskim algoritmom je bila izdelana v programu Microsoft Visual Basic s podporo Microsoft Access podatkovno bazo. Ena iteracija na računalniku Intel Core Duo 2.4 GHz je trajala okoli 1 sekunde. Izvedenih je bilo 1500 iteracij za vsak izračun, rešitev pa se je običajno izoblikovala po okrog 800 iteracijah.

Prednost razvitega sistema za podporo odločanju z optimizacijsko metodo je, da omogoča poleg iskanja globalnega optimuma določenega sistema tudi iskanje optimumov sistema pri različnih kriterijih in primerjavo med njimi. To smo prikazali z uporabo sedmih različnih kriterijev za optimizacijo:

- indeks maksimalne neto sedanje vrednosti,



Slika 4: Denarni tok in NSV za tipičen odsek

- indeks minimalnega povprečnega zamika let gradnje avtocestnih odsekov (zLet),
- pet uteženih indeksov maksimalne NSV in minimalnega zamika let v razmerjih (A:B) (90:10, 75:25, 50:50, 25:50 in 10:90).

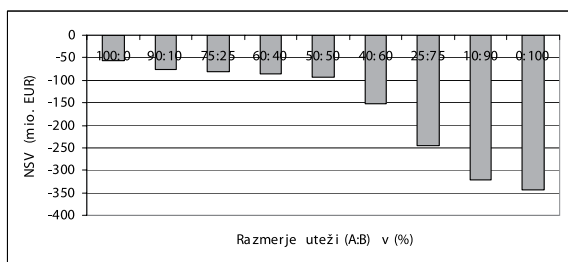
Kriteriji, ki bi jih bilo možno še dodatno vključiti v optimizacijo, so tudi: promet, cestninjenje, prometna varnost, investicija in prometna ekologija (Žura in Srdić, 2002). Pri posodabljanju ti kriteriji niso več tako pomembni kot pri sami zasnovi programa. Pomembno je, da se pri posodabljanju denarnih tokov na večletnem nivoju kot kriterij upošteva NSV in povprečen zamik začetka gradnje odsekov, ki sta prikazana v tem prispevku. Oba kriterija pomembno vplivata na časovno dinamiko gradnje in denarni tok. V nasprotnem primeru lahko pride do previsoke ocene upravičenosti projekta in nerealne optimizacije, če se na primer primerja odlive v sedanosti in prilive v daljni prihodnosti kot enakovredne ali pa pride do prevelikega odstopanja od prvotno zasnovanega programa.

Tako zasnovan model ni več zgolj orodje za ekonomsko optimiranje denarnih tokov ampak tudi orodje, ki omogoča preveritev različnih scenarijev in omogoča argumentirano odločanje v političnem okolju. Za ocene razmerij po različnih kriterijih je rezultat optimizacije prikazan na slikah 5a in 5b. Na sliki 5a je prikazana NSV, na sliki 5b pa povprečen zamik začetka gradnje (zLet) v odvisnosti od razmerja indeksov med NSV in zLet.

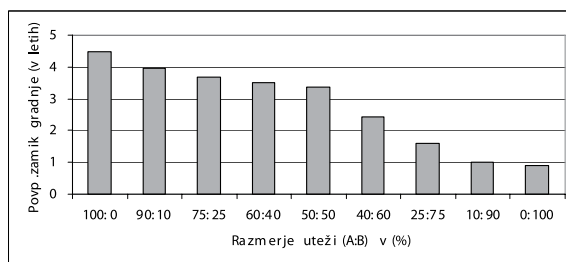
Na sliki 5a je najboljša rešitev (100:0) z vidika NSV, na sliki 5b pa rešitev (0:100) z vidika čim hitrejšega začetka in s tem tudi dokončanja izgradnje avtocestnega programa. Cilj optimizacije je najti tako rešitev, ki bo ob čim višji NSV omogočila najhitrejšo dokončanje avtocestnega programa. To lahko naredimo tako, da NSV in zamik let spremenimo v indeks od 0,1 do 1,1, in ju seštejemo. Rezultat je prikazan na sliki 6, kjer je razvidno, da je na podlagi te metode in kriterijev optimalno razmerje A:B med 75:25 in 25:75 z vrhom pri 40:60.

To je zgolj ena od možnosti. Dejansko pa pri optimizaciji združujemo dve lastnosti, ki nista neposredno primerljivi, zato obstaja veliko rešitev, kar najbolje ponazorimo grafično (slika 7). Temne točke so rešitve, dobljene z optimizacijo pri različnem razmerju uteži (A in B), ki ležijo na t.i. Paretovi krivulji (Martinez et al., 2009). Za vse točke na tej krivulji je značilno, da izboljšanje ene lastnosti poslabša drugo. Pri tem vse te točke predstavljajo najboljše rešitve glede na izbran kriterij (Kočevár in Šetinc, 2007). Svetle točke predstavljajo naključne rešitve, ki smo jih uporabili za vhod v optimizacijo z genetskim algoritmom.

Iz slike 7, kjer je prikazan primer optimizacije NPIA pri različnih razmerjih uteži A in B, je razvidno, da izbira najugodnejše rešitve ni enostavna in samo matematično opredeljiva. Dejansko je to »politična« odločitev, saj se moramo odločiti, koliko nam pomeni posamezen kriterij, ki je v obravnavanem primeru na eni strani cena (NSV) programa, na drugi pa pov-

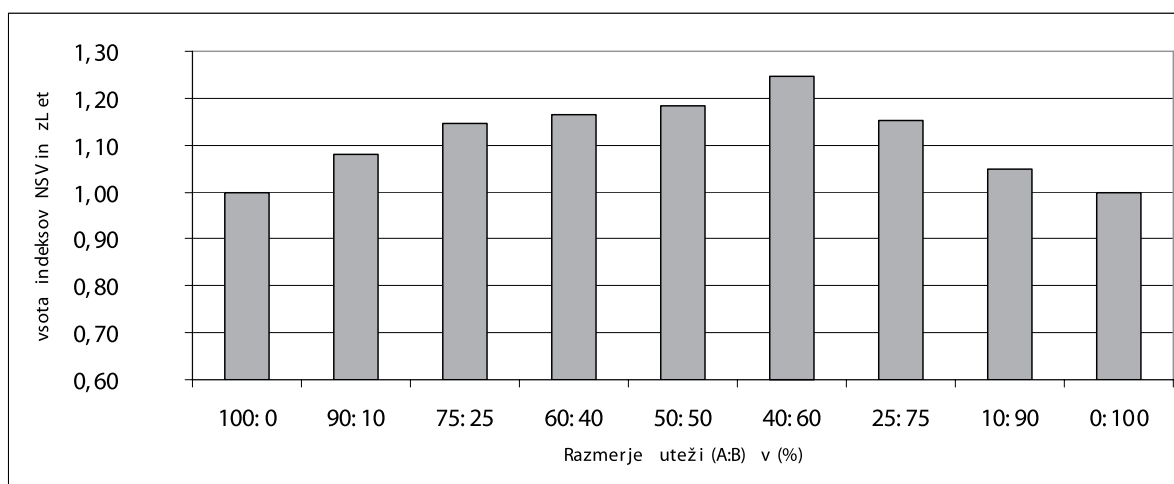


a

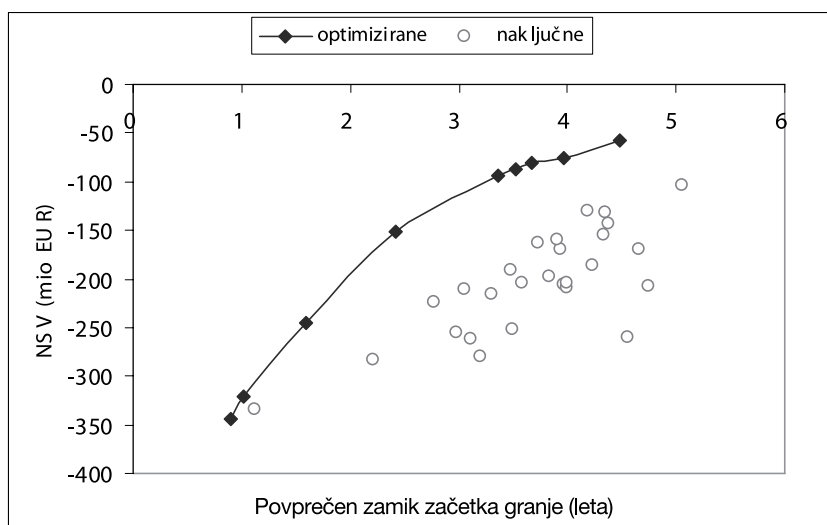


b

Slika 5: Optimizacija pri različnih razmerjih uteži (A in B) za NSV in povprečen zamik začetka gradnje



Slika 6: Vsota indeksov NSV in povprečnega zamika let gradnje (zLet) v funkciji uteži A in B



Slika 7: NSV proti povprečnemu zamiku začetka gradnje (Paretova optimizacijska krivulja)

prečen zamik gradnje. Prikazana metoda omogoča preveriti možnosti in pokazati razlike v scenarijih, če želimo čim bolj ugodno finančno izvedbo, čim hitreje dokončanje avtocestnega programa ali nek kompromis med njima. Končna izbira je »politična« odločitev, ki je strokovno in objektivno utemeljena, glede na relativno pomembnosti NSV na eni in povprečnega zamika gradnje na drugi strani.

6 Zaključki

Sistem za simulacijo in optimizacijo denarnih tokov je primeren za izvedbo optimizacije denarnih tokov, ki nastajajo oz. se porabljajo pri gradnji, vzdrževanju in upravljanju večjega števila cestnih odsekov ali projektov, ki se zaradi tehničnih, finančnih in političnih razlogov med izvajanjem spreminjajo. Genetski algoritem, ki smo ga uporabili za optimizacijo denarnih tokov, se je izkazal kot primeren za optimizacijo predstavljenega problema. Izdelana povezava med simulacijskim modelom in optimizacijskim algoritmom, ki predstavlja zamik gradnje posameznih odsekov, se je izkazala kot ustrezna. Razvit sistem za podporo odločanju z optimizacijo simulacijskega modela omogoča iskanje optimuma sistema pri različnih kriterijih ter primerjavo med izidi, kar je pokazano na sedmih različnih kriterijih: maksimalna neto sedanja vrednost, minimalni povprečen zamik gradnje avtocestnih odsekov in 5 skupnih uteženih faktorjev maksimalne NSV in minimalnega zamika let v različnih razmerjih A in B (90:10, 75:25, 50:50, 25:50 in 10:90). Cilj optimizacije je bil najti rešitev, ki bo ob čim višji NSV omogočila najhitrejšo dokončanje avtocestnega programa. Ker pri optimizaciji združujemo dve lastnosti, ki nista neposredno primerljivi, smo več najboljših rešitev, ki so odvisne od kriterija optimizacije, ponazorili grafično s Paretovo krivuljo. Pri tem vse te optimizirane točke predstavljajo enakovredne rešitve. Končna izbira je »politična« odločitev, ki mora biti strokovno in objektivno utemeljena, glede

na relativno pomembnosti NSV na eni in povprečnega zamika začetka gradnje na drugi strani.

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Heda Kočever je doktorirala leta 1996 na Univerzi v Ljubljani in postala doktorica geoloških znanosti. Delovno pot je nadaljevala na več področjih, predvsem kot raziskovalka na različnih projektih. V njeno delo sodi strokovno-raziskovalno delo na področju cest, prometa, varstva okolja in prostora, raziskovalno pedagoško delo na področju geologije in delo na področju projektnega managementa. Trenutno je vodja projektne pisarne za velik projekt, sofinanciran s sredstvi kohezijskega sklada.

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Svetovalne storitve in uspešnost poslovanja slovenskih družinskih podjetij

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Z empirično analizo smo ugotavljali povezanost med uporabo storitev poslovnega svetovanja in uspešnostjo poslovanja slovenskih malih in srednje velikih družinskih podjetij. Anketni podatki na izbranem vzorcu družinskih podjetij so bili uporabljeni v kvantitativni raziskavi. S statističnimi metodami, korelacijsko in faktorsko analizo je raziskava pokazala, da ima uporaba storitev poslovnega svetovanja statistično značilen pozitiven vpliv na uspešnost poslovanja slovenskih družinskih malih in srednje velikih podjetij. Na uspešnost poslovanja vpliva predvsem z ugotovljenim zadovoljstvom podjetnikov s svetovalčevim delom, kakovostjo svetovalčevega dela in z upoštevanjem prejetih nasvetov in njihovo implementacijo v praksi. Dobljeni rezultati analize kažejo možnosti izboljšanja vpliva poslovnega svetovanja na uspešnost poslovanja malih in srednje velikih družinskih podjetij.

Ključne besede: podjetništvo, mala in srednje velika podjetja, družinska podjetja, podjetnik in družina, poslovno svetovanje, uspešnost poslovanja družinskih podjetij

1 Uvod

Družinska podjetja so eden od gonilnih dejavnikov ustvarjanja proizvodnje, gospodarske rasti in zaposlenosti v razvitih tržnih gospodarstvih. V Sloveniji, podobno kot v drugih nekdanjih socialističnih državah, je bil naravni proces nastajanja in rasti družinskih podjetij prekinjen po drugi svetovni vojni. Od konca osemdesetih let prejšnjega stoletja pa so družinsko podjetništvo in družinska podjetja dobila nov zagon s procesom prehoda v tržno gospodarstvo. Zaradi pomanjkanja znanj in podjetniške tradicije so v tem času številna slovenska družinska podjetja koristila najete svetovalne storitve. Raziskave o svetovalnih storitvah, družinskih podjetjih in njihovi medsebojni povezanosti na uspešnost poslovanja družinskih podjetij so zelo redke. To posebej velja za slovenska družinska podjetja in literaturo, kar je bil motiv za našo raziskavo, v kateri želimo odgovoriti na vprašanje kako so najete svetovalne storitve vplivale na uspešnost poslovanja slovenskih družinskih podjetij.

V družinskih podjetjih imajo večinski lastniški delež in ključno vlogo pri upravljanju in vodenju podjetja člani ene ali več družin, ki s svojim lastniškim deležem obvladujejo poslovanje podjetja (Ward 1987, Gibb Dyer 2006). Vplivi na eni strani poslovnega in na drugi strani družinskega sistema ter prepletanje poslovnega in zasebnega življenja v družinskih podjetjih pogosto privedejo do različnih poslovnih in osebnih omejitev in težav, zlasti zaradi možnosti konfliktov med družinskimi člani in težavnega procesa nasledstva teh podjetij (Cater in Schwab 2008). Kot tradicionalno zaprti sistemi

družinska podjetja večinoma ne poiščejo pravočasne zunanje pomoči, kar lahko tako v podjetju kot v družini privede do resnih čustvenih, socialnih in ekonomskih posledic, kar so dokazale obstoječe raziskave (PRIMA 2002, Glas 2005).

Družinsko podjetje je zahtevna lastniško-poslovodska struktura, predvsem v smislu lastniškega vplivanja, vodenja in upravljanja podjetja, zaposlovanja in prenosa lastništva na naslednjo generacijo (Rutherford, Muse in Oswald 2006). Vse značilnosti poslovnega sistema, ki je oziroma bi moral biti racionalen, in osebnega oziroma družinskega sistema, ki je veliko bolj vezan na čustveno področje, se združijo v podjetju in družini in s seboj prinašajo veliko pozitivnih lastnosti, hkrati pa tudi veliko vplivov, ki za vse vpletene pomenijo težave (Rajter 2005, 2008). Družinska podjetja, ki delujejo v tržnem sistemu, se soočajo s podobnim okoljem podjetja ter s podobnimi težavami in izzivi kot vsa druga podjetja (Jaskiewicz idr., 2005). Kljub temu bi si zaradi posebnosti v začetnem razvoju zaslužila več pozornosti in podpore v obliki specializiranih strokovnih storitev in svetovalne podpore. Pomanjkanje tovrstne podpore in strokovnjakov v Sloveniji je predvsem posledica pomanjkanja podjetniške tradicije, slabega zavedanja oziroma obveščenosti družinskih malih in srednjih podjetij (MSP) o koristnosti ustrezne svetovalne podpore, pomanjkanja kompetentnih svetovalcev in neurejenosti področja na sistemski ravni (Rajter 2008). Navedeno stanje je tudi eden izmed motivov za pričujoči prispevek.

Družinska podjetja so specifičen segment podjetij in družinskega podjetništva tudi zaradi nekaterih značilnosti, ki so večinoma posledica tradicionalne zaprtosti teh struktur. Glavne odlike teh podjetij so predvsem velika pripadnost poslu

in družini, veliko strokovnega znanja, prilagodljivost v času in denarju, zanesljivost in dolgoročno razmišljanje (Leach 1991). Med slabosti družinskih podjetij pa lahko štejemo predvsem težjo dostopnost ali celo nedostopnost lastništva in zaposlenosti nedružinskim članom, nenaklonjenost modernizaciji vodenja in upravljanja, specifičen način pridobivanja kapitala in podobno (Leach 1991). Ravno iz teh značilnosti in zlasti slabosti izvira večina težav, s katerimi se soočajo družinska podjetja, ki jih z lastnimi viri običajno niso sposobna odpraviti.

Zaskrbljujoče je, da družinska podjetja kot tradicionalno zaprti sistemi, kot kažejo že opravljene raziskave in dostopni podatki, tudi v današnjem času še niso pripravljena na sprejem svetovalnih storitev oziroma menijo, da ne dobijo ustreznih svetovalnih rešitev (PRIMA 2002), ki bi jim omogočile boljše poslovanje in hkrati tudi ureditev specifičnega področja družinskih vplivov. To je zlasti pomembno pri prenosu lastništva. Rajter (2008) ugotavlja, da v Sloveniji še ni dovolj ustrezno usposobljenih, izobraženih in izkušenih poklicnih svetovalcev, specializiranih za družinsko podjetništvo. Zato je namen prispevka ugotoviti, kako uporaba svetovalnih storitev vpliva na uspešnost poslovanja družinskih podjetij. V nadaljevanju najprej predstavimo in obrazložimo temeljno tezo in testirani hipotezi. Nato je prikazan potek raziskave in uporabljene metode analize ter rezultati empirične raziskave in sklepe ugotovitve.

2 Predstavitev in obrazložitev hipotez

V Sloveniji se veliko družinskih podjetij sooča s težavami in z dilemami na poslovnem in družinskem področju, saj tudi zaradi pomanjkanja tradicije in zaprtih lastniško-poslovodskih struktur ter specifične zaposlitvene politike ta podjetja nimajo osnovnih izkušenj in kadrovskega potenciala za reševanje težav na področju vodenja in upravljanja podjetja, zaposlovanja in ravnanja z zaposlenimi, priprave in upravljanja procesa prenosa lastništva na naslednjo generacijo, financiranja poslovanja ter tudi na področju ločevanja in povezovanja poslovnega in družinskega sistema (Rajter 2008). Hkrati pa ta podjetja načeloma ne uporabljajo zunanjih svetovalnih storitev. *Temeljna teza, ki jo obdelujemo in testiramo, je, da lahko slovenska družinska MSP z najemanjem kakovostnih svetovalcev izboljšajo učinkovitost poslovanja in s tem uspešnost podjetja in družine.* Temeljno tezo bomo empirično testirali s pomočjo dveh hipotez (H):

(H1) *slovenska družinska MSP, ki sama nimajo dovolj finančnih in človeških virov in ki ne najemajo strokovne svetovalne pomoči, imajo več težav na poslovnem in družinskem področju ter dosegajo slabše poslovne rezultate kot primerljiva podjetja, ki najemajo svetovalno pomoč.*

V slovenski literaturi podobna hipoteza še ni bila testirana. Rajter (2008) ugotavlja, da velik delež družinskih podjetij v Sloveniji se sooča s težavami na poslovnem in družinskem področju. Zaradi pomanjkanja podjetniške tradicije in deloma tudi omejenih virov znanja družinska MSP pogosto ne izvedejo potrebnih poslovnih ukrepov za rešitev nastale situacije. Omenjena podjetja v premajhni meri najemajo ustrezne poslovne svetovalce, ki bi lahko s svojim znanjem in z izkušnjami pripomogli k izboljšanju poslovnih

rezultatov podjetja in v povezavi z uspešnostjo podjetja tudi k premoženjskemu stanju družine.

Družinska podjetja so, tako kot tudi vsa druga podjetja nedružinskega tipa, izpostavljena vsem vplivom in zakonitim delovanjem na trgu in v poslovnem okolju podjetja, vendar so družinska podjetja zaradi določenih specifičnih značilnosti bolj izpostavljena negativnim posledicam. Zaradi svoje tradicionalne zaprtosti pa družinska podjetja načeloma ne poiščejo ustrezne zunanje strokovne pomoči. Empirično želimo potrditi testirano hipotezo, da se zaradi nezadostnih virov, tako v obliki finančnih sredstev kot tudi poslovnega znanja, pomanjkanje dovzetnosti za najemanje zunanjih strokovnjakov velikokrat pokaže v slabših poslovnih rezultatih družinskih MSP.

(H2) Slovenska družinska podjetja, ki so sodelovala s poslovnimi svetovalci, ki imajo ob strokovnem znanju tudi specifično znanje, potrebno za svetovanje družinskim podjetjem, dosegajo boljše poslovne rezultate kot v obdobju, ko s svetovalci niso sodelovala

To pojasnujemo s tem, da so svetovana podjetja bistveno bolj pripravljena na procese prestrukturiranja in zlasti na proces prenosa lastništva, ki je eden izmed najzahtevnejših procesov v življenjskem ciklu družinskega podjetja in ki lahko vodi v velike poslovne in posledično tudi osebne težave podjetja in družine. S hipotezo, ki jo empirično testiramo, opredelimo, da so slovenska družinska MSP, ki so sodelovala s specializiranimi svetovalci, med obdobjem svetovanja ali po njem dosegala boljše poslovne rezultate kot pred obdobjem svetovanja, s čimer se je izboljšalo stanje podjetja, prav tako pa so tudi bolj pripravljena na proces prenosa lastništva na naslednjo generacijo.

Svetovalci, ki so ustrezno usposobljeni in razpolagajo z relevantnim znanjem in izkušnjami ter poznajo specifične lastnosti družinskih podjetij, lahko s svojim delom odločilno pripomorejo k izboljšanju poslovnih rezultatov v družinskih podjetjih. Hkrati lahko zagotovijo vso ustrezno pomoč pri izvajanju procesov in pri prestrukturiranjih, ki so značilni za družinska podjetja.

3 Potek raziskave in uporabljene metode analize

V prispevku želimo z lastno izvedeno kvantitativno raziskavo prispevati k razvoju teorije in znanosti na področju družinskega podjetništva. Raziskava je vezana na specifičen segment MSP in lahko v drugih okoljih služi kot prikaz ali primerjava stanja (Easterby-Smith, Thorpe in Lowe 2005). Za pridobivanje in obdelavo podatkov, potrebnih za raziskavo, so bile uporabljene naslednje metode: izvedena anketa z anketnim vprašalnikom, metode opisne statistike, korelacijska analiza in faktorska analiza (Kachigan 1991, Hatcheson in Sofroniou 1999).

3.1 Anketni vprašalnik in definiranje nabora podjetij

Anketni vprašalnik je sestavljen iz več tematskih sklopov, ki so smiselno razvrščeni glede na vsebino posameznega področja. Osnovni tematski sklopi so: podatki o podjetjih,

vezani na splošne značilnosti podjetij; podatki, vezani na lastništvo, tranzicijo lastništva in upravljanje podjetja; podatki o financiranju podjetij; izbrani podatki o poslovnih rezultatih podjetij; podatki o potrebnosti in dejanski uporabi poslovnega svetovanja; podatki, vezani na uporabo poslovnega svetovanja in s tem povezano uspešnostjo poslovanja. Vprašanja so jasna, kratka, deloma zaprtega tipa, deloma pa z opredelitvijo odgovorov »da«, »ne«, »ne vem« in »drugo«. Uporaba anketnega vprašalnika je bila izbrana zaradi smotnosti glede na standardizirana vprašanja, hkrati pa ta oblika anketiranja zagotavlja anonimnost anketirancev, izključuje vpliv anketarja, omogoča tudi stroškovno učinkovito izvedbo, ki je bila opravljena deloma po klasični in deloma po elektronski pošti (z izrecno navedbo zagotavljanja anonimnosti).

Glede na usmerjenost raziskave na slovenska družinska MSP so kot merila ustreznosti za uvrstitev podjetij v možno populacijo uporabljeni naslednji kriteriji: da je podjetje v lasti ene ali več družin oziroma da je lastniški delež družine tudi kontrolni delež podjetja; da sta v družinskem podjetju zaposlena vsaj dva družinska člana; glede na zastavljena izhodišča raziskave je zajeto tudi ustrezno število primerljivih družinskih podjetij, ki so uporabljala storitve poslovnega svetovanja, in tistih, ki tovrstnih storitev niso uporabljala.

3.2 Metode obdelave podatkov

Pridobljeni podatki so bili analizirani; spremenljivke so najprej predstavljene z *opisnimi statistikami* (minimalna, maksimalna in povprečna vrednost). S *korelacijsko analizo* oziroma metodo Spearmanovega koeficienta se ugotavljajo linearne povezanosti med izbranimi spremenljivkami. S *faktorsko analizo* smo ugotavljali, ali lahko definiramo skupne faktorje, s katerimi lahko pojasnimo vpliv poslovnega svetovanja na uspešnost poslovanja podjetij. Cilj factorske analize je ugotoviti, ali lahko pojasnimo povezave med opazovanimi spremenljivkami z manjšim številom faktorjev.

3.3 Statistična populacija malih in srednjih podjetij (MSP)

Za namen izdelave analize kot statistično populacijo obravnavamo vsa slovenska mikro-, mala- in srednje velika podjetja, ki so v družinski lasti. Celotna populacija mikro-, malih- in srednje velikih podjetij je obsegala 98.157 podjetij za leto 2006 (SURS 2006). Glede na ocene (Glas 2005; Vadnjal 2005), da je med vsemi podjetji vsaj 60 do 80% podjetij družinskega tipa, torej opazovana statistična populacija družinskih podjetij obsega približno 59.000 do 78.000 pod-

jetij. Celotna populacija MSP, glede na število zaposlenih, je prikazana v preglednici 1.

Znotraj statistične populacije podjetij je bilo izbranih v vzorec 350 podjetij, kar predstavlja 0,36 % najnižje predvidene ocene celotne populacije družinskih podjetij.

3.4 Vzorčenje in vzorec

Za vzorčenje velike populacije je najprimernejša tehnika enostavnega naključnega vzorčenja. Temeljna značilnost enostavnega naključnega vzorčenja je enaka možnosti izbire v vzorec za vsako podjetje v populaciji. V skladu s statistično teorijo mora biti vzorčenje izvedeno slučajno, saj le tako lahko zagotovimo objektivnost ocen. Vzorec je bilo izvedeno slučajno, tako, da je vzorec reprezentativen. Da bi zagotovili slučajnost vzorčenja, smo izbrali podatkovne baze Statističnega urada Republike Slovenije (SURS), Agencije Republike Slovenije za javnopravne evidence in storitve (AJPEŠ), Gospodarske zbornice Slovenije (GZS) in BMR d.o.o. Izbrane baze podatkov o podjetjih so primerne za pridobivanje podatkov in vzorčenje predvsem zaradi ažurnosti, omogočanja selekcije podjetij glede na velikost in lokacijo v smislu statističnih regij ter v primeru baze podatkov podjetja BMR d.o.o., tudi v specializiranosti za družinska podjetja.

Pri iskanju ustreznih podjetij in oblikovanju velikosti vzorca smo v populaciji vseh slovenskih družinskih mikro, malih in srednje velikih podjetij z iskanjem po javnih bazah (SURS, AJPEŠ, GZS) in zasebni bazi (BMR, d.o.o.) oblikovali vzorec 350 slovenskih podjetij in jim poslali anketne vprašalnike (Rajter 2008). V prvi fazi smo dobili vrnjenih 42 izpolnjenih anketnih vprašalnikov, po dodatnem posredovanju oziroma prošnji smo dobili še 38 vprašalnikov. Skupno število vrnjenih anket je bilo 80 in izračunana odzivnost je tako 22,85%. Izločiti smo morali deset vprašalnikov (pet zaradi nezadostnih podatkov, dodatnih pet iz skupine podjetij, ki niso uporabljala svetovanja, pa zaradi izrazitega odstopanja navedenih podatkov). Ustreznih je ostalo 70 popolno izpolnjenih anketnih vprašalnikov. Med podjetji, ki so vrnila ustrezno izpolnjene vprašalnike, je 35 podjetij takšnih, ki svetovanja niso uporabljala, in 35 takšnih, ki so uporabljala storitve poslovnega svetovanja. V teh podjetjih je bil navezan osebni stik, da se je pridobilo dodatne relevantne odgovore. To pomeni, da je v nadaljevanju poteka raziskave izvedba ankete potekala z intervjujem in odgovarjanjem na pisni anketni vprašalnik. Anketiranci v raziskavi so predvsem lastniki družinskih podjetij in vodilni zaposleni, saj drugi ne poznajo razmer v zadostni meri, da bi lahko zagotovili ustrezne odgovore. Podjetja, ki so zajeta v reprezentativni vzorec, imajo naslednje značilnosti: so v družinski lasti, zaposlujejo

PREGLEDNICA 1: Število malih in srednjih podjetij v Sloveniji glede na število zaposlenih oseb

	Skupaj	Mikro	Mala	Srednja
Število zaposlenih		0–9	10–49	50–249
Skupaj podjetja	98.157	91.306	5.597	1.254

Vir: SURS 2006.

povprečno šest ljudi, od tega so trije družinski člani, ki ta podjetja tudi vodijo in upravljajo. Podjetja so bila ustanovljena med letoma 1991 in 1994. Pravna oblika vseh zajetih podjetij je družba z omejeno odgovornostjo in samostojni podjetnik (podjetnik posameznik).

4 Rezultati empirične raziskave

Samo svetovalci, ki imajo zadostno strokovno in specifično znanje, ki je potrebno za uspešno in kakovostno svetovanje (torej specializirani svetovalci), bi lahko bili obravnavani pri ocenjevanju druge hipoteze. Glede na odgovore anketiranih podjetij je bilo takšnih svetovalcev vsega v treh podjetjih (slabih 8%), zato smo se odločili, da pri obravnavi tega vprašanja za podatke uporabimo tudi tiste odgovore, kjer so podjetniki ocenili strokovnost in zadovoljstvo s svetovalcem z ocenami dobro, zelo dobro in odlično, kar je bilo v primeru strokovnosti v šestnajstih podjetjih (dobrih 45% anketiranih podjetij) in v primeru zadovoljstva z delom svetovalca v štirih podjetjih (slabih 12%). Predvidevamo namreč lahko, da so svetovalci, ki so delovali strokovno, vsaj delno pripomogli k reševanju poslovnih problemov v podjetjih. Kljub nizkemu deležu ocenjenega celotnega zadovoljstva s storitvami svetovalcev smo se odločili, da različna pričakovanja podjetnikov in svetovalcev kot pogost razlog medsebojnega nerazumevanja uvrstimo v obravnavo. Zadovoljstvo s svetovanjem se odraža tudi v podatkih o količini svetovalnih ur, saj so v prvi skupini podjetja s podanimi ocenami dobro, zelo dobro in odlično uporabljala med 88 in 96 svetovalnih ur, kar je relativno

veliko glede na velikost podjetij, in pri tem upoštevala med 70 in 100% napotkov svetovalca ter v praksi udejanjila med 60 in 80% prejetih nasvetov. V drugi skupini je devetnajst podjetij strokovnost svetovalca ocenilo z nezadovoljivimi ocenami (zelo slabo, slabo in srednje), zadovoljstvo z njegovim delom pa je kot nezadovoljivo ocenilo kar 31 podjetij. V tej skupini so podjetja uporabljala med 35 in 52 ur svetovalnih storitev in upoštevala med 40 in 60% prejetih nasvetov ter jih v praksi udejanjila med 20 in 50%. Kot pozitiven učinek svetovanja je storitev ocenilo 14 podjetij (40%), in sicer podjetja iz skupine 1, ki so zadovoljivo ocenila strokovnost svetovalca. Hkrati so to tudi podjetja, ki so koristila bistveno nadpovprečno število svetovalnih ur in so tudi upoštevala in v prakso implementirala nadpovprečno število predlaganih rešitev oziroma prejetih nasvetov. Da svetovanje ni prineslo pozitivnega učinka, je ocenilo 21 podjetij (60%), vsa podjetja so iz skupine 2. To so tudi podjetja, ki so koristila podpovprečno število ur in upoštevala ter implementirala podpovprečno število nasvetov oziroma predlaganih rešitev.

Pri primerjavi gibanja poslovnih parametrov in njihovih indeksov (preglednica 2) lahko ugotovimo, da so vsa podjetja iz obravnavanega vzorca, ki so koristila storitve poslovnega svetovanja, v obdobju koriščenja svetovalnih storitev ali po njem poslovala bolje kot v obdobju, ko teh storitev še niso uporabljala. Vsa gibanja indeksov namreč izkazujejo uspešnejše poslovanje, hitrejšo rast, boljše obvladovanje stroškov oziroma odhodkov in višje gibanje doseženega dobička. Podjetja, ki so navajala pozitiven vpliv svetovanja in so uvrščena v skupino 1¹ (14 podjetij), izkazujejo bistveno višje vrednosti indeksov tako od povprečja kot tudi od podjetij iz skupine 2² (21

PREGLEDNICA 2: Gibanje povprečnih indeksov po skupinah (N=35)

<i>Gibanje poslovnih parametrov</i>				
	vsa podjetja		pozitiven učinek	ni bilo pozitivnega učinka
	povprečje indeksa 2005/2003	povprečje indeksa 2002/2001	povprečje indeksa 2005/2003	povprečje indeksa 2005/2003
ČPP	1,075	1,035	1,117	1,047
PO	1,47	1,028	1,025	1,061
DiP	1,037	1,009	1,048	1,030
DpD	1,046	1,007	1,053	1,041
Število podjetij po skupinah	35		14	21

Opomba: navadno povprečje; vsi podatki v času so deflacirani z ustreznim indeksom cen; ČPP – čisti prihodki iz prodaje, PO – poslovni odhodki, DiP – dobiček iz poslovanja, DpD – dobiček z davki. Poudariti velja, da gre za absolutne kazalnike uspešnosti poslovanja, ki so povezani tudi z velikostjo podjetja. Zato se pogosto uporabljajo tudi relativni kazalniki uspešnosti kot so proizvodnost, gospodarnost in donosnost. Nekatere raziskave tudi argumentirajo (na primer Cooper in Artz, 1995), da ekonomski kazalniki niso edini pokazatelji podjetniškega uspeha.

1 Podjetja s podanimi ocenami dobro, zelo dobro in odlično ter z opredeljenim pozitivnim učinkom svetovanja.

2 Podjetja s podanimi ocenami srednje, slabo in zelo slabo ter brez opredeljenega pozitivnega učinka svetovanja.

podjetij). Iz navedenega lahko sklepamo, da podjetja, ki so koristila večje število ur svetovanja in so svetovanje opredelila kot kakovostno ter so upoštevala in implementirala v prakso večje število predlogov oziroma nasvetov, poslujejo bolje in dosegajo boljše rezultate od tistih podjetij, ki so svetovanje opredelila kot neakovostno, uporabljala manjše število ur in upoštevala ter implementirala manjše število nasvetov.

4.1 Statistična analiza

Uspešnost poslovanja podjetja merimo z naslednjimi indikatorji: čisti prihodki od prodaje, čisti prihodki od prodaje na domačem trgu, čisti prihodki od prodaje na tujem trgu, poslovni odhodki in dobiček iz poslovanja. Podatki, ki smo jih pridobili z anketiranjem, se nanašajo na isto časovno obdobje. V primeru uporabe časovnih serij podatkov pa so nominalni agregati deflacionirani z indeksom cen življenjskih potrebščin s stalno bazo, da smo na ta način prišli do njihovih realnih vrednosti. Korelacijska matrika povezanosti med kazalniki uspešnosti poslovanja je prikazana v preglednici 3.

Čisti prihodki od prodaje predstavljajo vsoto čistih prihodkov od prodaje na tujem in na domačem trgu. Zato je kazalnik čistega prihodka od prodaje v analizi manj smiselno uporabiti. Poleg tega je (pričakovana) zelo visoka korelacija

med celotnimi prihodki od prodaje in prihodki od prodaje na domačem trgu ($r = 0,994$), ker družinska podjetja v našem vzorcu veliko večino svoje prodaje ustvarijo prav na domačem trgu. Nadalje so poslovni odhodki močno povezani s čistimi prihodki od prodaje, kar kaže relativno zelo visok korelacijski koeficient ($r = 0,991$), in s čistimi prihodki od prodaje na domačem trgu ($r = 0,995$). Tako visoki korelacijski koeficienti kažejo tesno povezanost med kazalniki uspešnosti poslovanja, kar bomo upoštevali v nadaljevanju zlasti pri izvedbi faktor-ske analize. V posamezni faktorski analizi bomo uporabili le en izbrani kazalnik uspešnosti poslovanja kot odvisno spremenljivko. Zato smo izvedli več faktorskih analiz, kjer smo posamezen kazalnik uspešnosti poslovanja podjetja obravnavali posamično.

Hipotezo (1), da imajo slovenska družinska MSP, ki sama nimajo dovolj finančnih in človeških virov in ki ne najemajo strokovne svetovalne pomoči, več težav na poslovnem in družinskem področju ter dosegajo slabše poslovne rezultate kot primerljiva podjetja, ki najemajo svetovalno pomoč, smo preverjali s Spearmanovim koeficientom korelacije rangov, kjer smo vrednost 0 določili za nesvetovana podjetja, vrednost 1 pa za svetovana. V kolikor se izkaže, da je Spearmanov koeficient statistično značilno večji od 0, pomeni pozitivno korelacijo, torej da so bila podjetja, ki so svetovana, uspešnejša

PREGLEDNICA 3: Korelacijska matrika povezanosti med kazalniki uspešnosti poslovanja podjetja (N=70)

		Čisti prihodki od prodaje	Čisti prihodki od prodaje na domačem trgu	Čisti prihodki od prodaje na tujem trgu	Poslovni odhodki	Dobiček iz poslovanja
Čisti prihodki od prodaje	Pearsonova korelacija	1	0,994**	0,636**	0,991**	0,816**
	Pom. (dvostranski)	.	0	0	0	0
Čisti prihodki od prodaje na domačem trgu	Pearsonova korelacija		1	0,551**	0,995**	0,769**
	Pom. (dvostranski)		.	0	0	0
Čisti prihodki od prodaje na tujem trgu	Pearsonova korelacija			1	0,556**	0,834**
	Pom. (dvostranski)			.	0	0
Poslovni odhodki	Pearsonova korelacija				1	0,730**
	Pom. (dvostranski)				.	0
Dobiček iz poslovanja	Pearsonova korelacija					1
	Pom. (dvostranski)					.

** Statistično značilno pri 1 % intervalu zaupanja.

PREGLEDNICA 4: Spearmanov korelacijski koeficient ranga

		Ali je bilo podjetju svetovano?	Čisti prihodki od prodaje	Čisti prihodki od prodaje na domačem trgu	Čisti prihodki od prodaje na tujem trgu	Poslovni odhodki	Dobiček iz poslovanja
Ali je bilo podjetje svetovano?	Korelacijski koeficient	1	0,146	0,134	0,281*	0,108	0,250*
	Pom. (dvo stranski)	.	0,229	0,27	0,019	0,373	0,037

* Statistično značilno pri 5 % intervalu zaupanja.

PREGLEDNICA 5: Opisne statistike uspešnosti podjetij glede na to, ali so bila svetovana ali ne (v evrih)

	Ali je bilo podjetju svetovano?	N	Sredina	Standardni odklon	Standardna napaka
Čisti prihodki od prodaje	Ne	35	94270,9	56795,465	9600,186
	Da	35	106869,1	57811,978	9772,008
Čisti prihodki od prodaje na domačem trgu	Ne	35	90772,0	54049,388	9136,014
	Da	35	99080,9	52286,638	8838,055
Čisti prihodki od prodaje na tujem trgu	Ne	35	3498,9	4106,5816	694,139
	Da	35	7788,1	8886,8097	1502,145
Poslovni odhodki	Ne	35	86672,6	49627,306	8388,546
	Da	35	94320,3	47531,058	8034,215
Dobiček iz poslovanja	Ne	35	7598,3	8842,7973	1494,706
	Da	35	12548,7	13146,531	2222,169

od podjetjih, ki niso bila. Spearmanov korelacijski koeficient ranga je prikazan v preglednici 4.

Podjetja, ki so bila svetovana, imajo večje čiste prihodke od prodaje na tujem trgu ($r = 0,281$, $p < 0,05$) in večji dobiček iz poslovanja ($r = 0,25$, $p < 0,05$). Svetovanje ni povezano z ostalimi finančnimi kazalci, to so čisti prihodki od prodaje, čisti prihodki od prodaje na domačem trgu in poslovni odhodki, čeprav se povezanost nakazuje. Našo hipotezo lahko torej potrdimo v primeru čistih prihodkov od prodaje na tujem trgu in dobička iz poslovanja.

Hipotezo (1) preverimo še s t-testom za neodvisna vzorca. Opisne statistike podjetij glede na uporabo svetovanja so prikazane v preglednici 5.

Za vse finančne kazalce lahko rečemo, da so v povprečju višji pri svetovanih podjetjih kot pri nesvetovanih. Dobljeni rezultati bi lahko kazali tudi na različno velikost podjetja in ne izključno na uspešnost poslovanja podjetja. Zato smo v nadaljevanju izvedli analizo t-testa, katere rezultati so prikazani v preglednici 6.

S t-testom preverimo, ali se povprečne vrednosti finančnih kazalcev med podjetji, ki so bila svetovana, in podjetji, ki niso bila, med seboj razlikujejo. Najprej preverimo, ali velja hipoteza enakosti varianc, ki jo merimo z Levenovim F-testom. Izkaže se, da le v primeru čistih prihodkov od prodaje na tujem

trgu ta predpostavka ne velja, tako pri tem kazalcu upoštevamo t-test v primeru neenakosti varianc (druga vrstica), pri ostalih pa t-test v primeru enakosti varianc (prva vrstica).

Le za čiste prihodke od prodaje na tujem trgu lahko rečemo, da je povprečna vrednost za svetovana podjetja višja od povprečne vrednosti za nesvetovana podjetja ($t = -2,592$, $p < 0,05$). Navedimo še, da se precejšnja razlika med svetovanimi in nesvetovanimi podjetji kaže tudi glede dobička iz poslovanja, saj imajo svetovana podjetja skoraj dvakrat več dobička kot nesvetovana. Da bi potrdili razliko med skupinama podjetij, pa je tveganje nekaj več kot pet odstotno ($t = -1,849$, $p = 0,069$). Našo hipotezo lahko torej z dovolj veliko gotovostjo potrdimo le v primeru čistih prihodkov od prodaje na tujem trgu.

Hipotezo (2), da so slovenska družinska MSP, ki so sodelovala s specializiranimi svetovalci, med obdobjem svetovanja ali po njem dosegala boljše poslovne rezultate kot pred obdobjem svetovanja, s čimer se je izboljšalo stanje podjetja ter so tudi boljše pripravljena na proces prenosa lastništva na naslednjo generacijo, preverimo na manjšem vzorcu vseh svetovanih podjetij. S χ^2 testom za deleže preverimo, ali je delež svetovanih podjetij, ki so zaznala pozitiven učinek svetovanja, večji od deleža svetovanih podjetij, ki tega učinka niso zazna-

PREGLEDNICA 6: Analiza t-testa

		Levenov preizkus enakosti varianc		t-test Enakovrednosti sredin		
		F	Pom.	t	Df	Pom. (dvostranski)
Čisti prihodki od prodaje	Predpostavljeno enakovredne variance	0,003	0,957	-0,92	68	0,361
	Predpostavljeno neenakovredne variance			-0,92	67,979	0,361
Čisti prihodki od prodaje na domačem trgu	Predpostavljeno enakovredne variance	0,183	0,67	-0,654	68	0,516
	Predpostavljeno neenakovredne variance			-0,654	67,925	0,516
Čisti prihodki od prodaje na tujem trgu	Predpostavljeno enakovredne variance	15,841	0	-2,592	68	0,012
	Predpostavljeno neenakovredne variance			-2,592	47,887	0,013
Poslovni odhodki	Predpostavljeno enakovredne variance	0,144	0,705	-0,658	68	0,512
	Predpostavljeno neenakovredne variance			-0,658	67,874	0,513
Dobiček iz poslovanja	Predpostavljeno enakovredne variance	2,755	0,102	-1,849	68	0,069
	Predpostavljeno neenakovredne variance			-1,849	59,538	0,069

PREGLEDNICA 7: Porazdelitev svetovanih podjetij glede na to, ali so zaznala pozitiven učinek ali ne

	Opazovano N	Pričakovano N	Preostalo
Ni bilo pozitivnega učinka	21	17,5	3,5
Je bil pozitiven učinek	14	17,5	-3,5
Skupaj	35		

PREGLEDNICA 8: χ^2 test za delež

	Pozitiven učinek svetovanja
χ^2	1,4
Stopinj prostosti	1
Stat. pom.	0,237

χ^2 statistika znaša 1,4, tveganje, da bi trdili, da je delež podjetij, ki so zaznala pozitiven učinek svetovanja v poslovnih rezultatih, pa znaša 23,7 % (preglednica 8). Hipoteze torej ne moremo potrditi, čeprav izračun pokaže, da je 40 % podjetij navedlo pozitiven učinek, zaradi majhnosti vzorca pa je ta delež vseeno premajhen.

la. Porazdelitev podjetij glede na zaznan učinek svetovanja je predstavljena v preglednici 7.

Število podjetij, ki so med svetovanjem ali po njem zaznala pozitiven učinek, ki se je izražal v boljših poslovnih rezultatih, znaša 14, kar predstavlja 40-odstotni delež.

4.2 Faktorska analiza

Kot izbrana pokazatelj uspešnosti poslovanja podjetij smo izbrali dva kazalnika, ki smo ju ocenili kot najpomembnejša. To sta prihodki od prodaje in dobiček iz poslovanja. Z izbrano

PREGLEDNICA 9: Ocena komunalitete

Spremenljivka	Izhodišče	Ekstrakcija
Čisti prihodki od prodaje	1,000	0,991
Čisti prihodki od prodaje na domačem trgu	1,000	0,968
Čisti prihodki od prodaje na tujem trgu	1,000	0,770
Poslovni odhodki	1,000	0,957
Dobiček iz poslovanja	1,000	0,860
Ocena strokovnosti svetovalca	1,000	0,870
Ocena zadovoljstva z delom svetovalca	1,000	0,979
Upoštevanje nasvetov svetovalca v %	1,000	0,914
Udejanjanje nasvetov v praksi v %	1,000	0,949

Metoda glavnih osi

PREGLEDNICA 10: Pojasnitev skupne variance

Faktor	Izhodiščne lastne vrednosti			Ekstrakcija seštevnikov kvadratov		
	Skupaj	% variance	% skupaj	Skupaj	% variance	% skupaj
1	4,484	49,821	49,821	4,484	49,821	49,821
2	2,697	29,966	79,787	2,697	29,966	79,787
3	1,078	11,976	91,764	1,078	11,976	91,764
4	0,448	4,977	96,740			
5	0,148	1,644	98,384			
6	0,116	1,292	99,676			
7	0,029	,324	100,000			
8	0,000	0,000	100,000			
9	-0,000	-0,000	100,000			

Metoda glavnih osi

PREGLEDNICA 11: Komponentna matrika

Spremenljivka	Komponenta		
	1	2	3
Čisti prihodki od prodaje	0,933	-0,292	-0,187
Čisti prihodki od prodaje na domačem trgu	0,899	-0,296	-0,269
Čisti prihodki od prodaje na tujem trgu	0,780	-0,162	0,368
Poslovni odhodki	0,880	-0,340	-0,258
Dobiček iz poslovanja	0,919	-0,057	0,109
Ocena strokovnosti svetovalca	0,432	0,147	0,814
Ocena zadovoljstva z delom svetovalca	0,372	0,910	-0,115
Upoštevanje nasvetov svetovalca v %	0,396	0,866	0,080
Udejanjanje nasvetov v praksi v %	0,308	0,883	-,274

Metoda glavnih osi (izločitev treh komponent)

PREGLEDNICA 12: Ocena komunalitete

Spremenljivka	Izhodišče	Ekstrakcija
Čisti prihodki od prodaje	1,000	0,597
Ocena strokovnosti svetovalca	1,000	0,648
Ocena zadovoljstva z delom svetovalca	1,000	0,977
Upoštevanje nasvetov svetovalca v %	1,000	0,906
Udejanjanje nasvetov v praksi v %	1,000	0,925

Metoda glavnih osi

metodo smo ugotovili, da lahko s sedmimi skupnimi faktorji v celoti pojasnimo povezanost med izbranimi kazalniki. Preizkusili smo še model z dvema in s tremi skupnimi faktorji ter ugotovili, da lahko z dvema skupnima faktorjema pojasnimo 80%, s tremi pa 92% variance izbranih kazalnikov. Na osnovi dobljenih rezultatov lahko ugotovimo, da je pojasnjevanje uspešnosti poslovanja neposredno povezano z oceno zadovoljstva s svetovalcem, z upoštevanjem nasvetov svetovalca in z udejanjanjem svetovalčevih nasvetov v praksi (preglednice 9 do 17).

Pri preizkusu spremenljivke »čisti prihodek od prodaje« kot samostojne spremenljivke smo ugotovili, da lahko s petimi skupnimi faktorji v celoti pojasnimo povezanost med izbranimi kazalniki. Z dvema faktorjema pojasnimo 81% variabilnosti izbranih kazalnikov. Na osnovi dobljenih rezultatov lahko ugotovimo, da je pojasnjevanje uspešnosti poslovanja, merjeno skozi čiste prihodke od prodaje, neposredno povezano z oceno zadovoljstva s svetovalcem in udejanjanjem nasvetov v praksi.

Pri preizkusu spremenljivke »dobiček iz poslovanja« kot samostojne spremenljivke smo ugotovili, da lahko s pe-

timi skupnimi faktorji v celoti pojasnimo povezanost med izbranimi kazalniki. Z dvema faktorjema pojasnimo 84% variabilnosti izbranih kazalnikov. Na osnovi dobljenih rezultatov lahko ugotovimo, da je pojasnjevanje uspešnosti poslovanja, merjeno skozi dobiček iz poslovanja, neposredno povezano z oceno zadovoljstva s svetovalcem in z udejanjanjem nasvetov v praksi, kar potrjuje našo drugo postavljeno hipotezo.

5 Sklep

Prvo postavljeno hipotezo smo uspeli potrditi v celoti, saj vsi empirični podatki o obravnavanih družinskih podjetjih kažejo, da se ta podjetja dejansko soočajo s težavami tako na poslovnem kot tudi na družinskem področju. Težave na poslovnem področju so pogosto tudi posledica specifičnih značilnosti družinskih podjetij na vseh poslovnih področjih (vođenju, upravljanju, zaposlovanju, financiranju in podobno), zaradi katerih podjetjem pogosto primanjkuje ustreznih virov. Ker ta podjetja pravočasno ne poiščejo ustrezne pomoči, imajo več težav in slabše poslovne rezultate kot podjetja, ki

PREGLEDNICA 13: Pojasnitev skupne variance

Komponenta	Izhodiščne lastne vrednosti			Ekstrakcija seštevnikov kvadratov		
	Skupaj	% variance	% skupaj	Skupaj	% variance	% skupaj
1	2,866	57,322	57,322	2,866	57,322	57,322
2	1,187	23,746	81,068	1,187	23,746	81,068
3	0,785	15,694	96,762			
4	0,132	2,638	99,401			
5	0,030	0,599	100,000			

Metoda glavnih osi

PREGLEDNICA 14: Komponentna matrika

Spremenljivka	Komponenta	
	1	2
Čisti prihodki od prodaje	0,189	0,749
Ocena strokovnosti svetovalca	0,335	0,732
Ocena zadovoljstva z delom svetovalca	0,977	-0,148
Upoštevanje nasvetov svetovalca v %	0,952	-0,001
Udejanjanje nasvetov v praksi v %	0,926	-0,261

Metoda glavnih osi (izločitev dveh komponent)

PREGLEDNICA 15: Ocena komunalitete

Spremenljivka	Izhodišče	Ekstrakcija
Dobiček iz poslovanja	1,000	0,646
Ocena strokovnosti svetovalca	1,000	0,754
Ocena zadovoljstva z delom svetovalca	1,000	0,979
Upoštevanje nasvetov svetovalca v %	1,000	0,896
Udejanjanje nasvetov v praksi v %	1,000	0,943

Metoda glavnih osi

PREGLEDNICA 16: Pojasnitev skupne variance

Komponenta	Izhodiščne lastne vrednosti			Ekstrakcija seštevnikov kvadratov		
	Skupaj	% variance	% skupaj	Skupaj	% variance	% skupaj
1	2,983	59,652	59,652	2,983	59,652	59,652
2	1,235	24,702	84,355	1,235	24,702	84,355
3	0,621	12,417	96,772			
4	0,132	2,633	99,405			
5	0,030	0,595	100,000			

Metoda glavnih osi

PREGLEDNICA 17: Komponentna matrika

Spremenljivka	Komponenta	
	1	2
Dobiček iz poslovanja	0,448	0,667
Ocena strokovnosti svetovalca	0,380	0,781
Ocena zadovoljstva z delom svetovalca	0,964	-0,223
Upoštevanje nasvetov svetovalca v %	0,945	-0,062
Udeležanje nasvetov v praksi v %	0,903	-0,356

Metoda glavnih osi (izločitev dveh komponent)

svetovalno pomoč najemajo. Zanimivo je tudi, da imajo boljše poslovne rezultate vsa podjetja, ki so sodelovala s svetovalci, tudi tista, ki so svetovanje in svetovalce ocenila kot neustrezne in so upoštevala oziroma izvajala relativno malo svetovalčevih ugotovitev oziroma nasvetov. Precej boljše rezultate imajo namreč podjetja, ki so svetovalne storitve ocenila kot kakovostne in so pridobila spoznanja v zelo veliki meri upoštevala in jih implementirala v prakso. Glede na nepripravljenost anketiranih podjetij za temeljitejšo raziskovanje družinskega področja eksplicitnih podatkov sicer nismo uspeli pridobiti, vendar lahko glede na značilnost družinskih podjetij (vpletenost in eksistenčna odvisnost od rezultatov poslovanja in s tem povezan status družine) z veliko verjetnostjo predvidevamo, da je premoženjski status družine neposredno povezan s premoženjskim stanjem in z rezultati podjetja, torej se v primeru izboljšanja poslovanja podjetja status družine ni poslabšal, ampak je ostal vsaj na isti ravni oziroma se je sorazmerno izboljšal.

Tudi pri drugi hipotezi ugotavljamo, da so bolje poslovala vsa podjetja, ki so uporabljala storitve poslovnega svetovanja. Zaradi ugotavljanja vpliva kakovosti izvedenih storitev smo dodatno opravili tudi primerjavo med obema obravnavanima skupinama, razdeljenima glede na oceno kakovosti svetovanja, in ugotovili, da je kakovost v povezavi s količino svetovalnega dela sorazmerna stopnji doseganja poslovnih rezultatov. Na poslovnem področju smo torej hipotezo uspeli potrditi. Vendar pa naših predvidevanj nismo uspeli potrditi v celoti, saj na področju procesa prenosa podjetja na naslednjo generacijo, ki velja za enega ključnih in najbolj zahtevnih dejanj v življenjskem ciklu podjetij in ki se pri mnogih podjetjih (predvsem pri prehodu iz prve na drugo generacijo) kaže tudi v propadu podjetij, rezultati niso tako zanesljivi, da bi lahko z gotovostjo trdili, da so ta podjetja bistveno bolj pripravljena

na obravnavani proces. Obravnavanje tega področja je glede na ugotovitve presplošno oziroma podjetja nimajo v zadostni meri izdelanih aktov in sistema oziroma načrta prenosa lastništva podjetja. Prav tako nimajo izdelanih načrtov za sedanjo generacijo po umiku, med tistimi, ki to problematiko že imajo urejeno oziroma jo urejajo, pa mnogim ne koristi v zadostni meri, da bi lahko z gotovostjo trdili, da je področje kot rezultat sodelovanja s poslovnim svetovalcem ustrezno urejeno. Tega dela hipoteze torej z dovolj veliko gotovostjo ne moremo ne potrditi ne ovreči.

Kot omejitev raziskave in možnost za nadaljnje raziskovanje posebej izpostavljam merjenje ekonomske uspešnosti poslovanja kot pokazatelja podjetniškega uspeha. V naši raziskavi so uporabljeni absolutni ekonomski kazalniki uspešnosti poslovanja podjetja, ki imajo določene omejitve, posebej, ker so povezani z velikostjo podjetja, kar bi bilo možno odpraviti z uporabo relativnih kazalnikov uspešnosti poslovanja podjetja. Nekateri avtorji (Cooper in Artz, 1995) pa tudi navajajo, da ekonomski kazalniki uspešnosti poslovanja podjetja niso nujno pravi pokazatelji podjetniškega uspeha, kar predstavlja poseben izziv za nadaljnje raziskovanje.

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Dejavniki trženjskih odnosov v modelu izvedbe storitev v zunanji logistični oskrbi: izbor in opredelitve

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Prispevek obravnava dejavnike trženjskih odnosov v zunanji logistični oskrbi. Z opredelitvijo dejavnikov trženjskih odnosov, kot so zaupanje, zavezanost, komuniciranje, sodelovanje, inovativno obnašanje, skupno izvajanje in učenje, oportunitizem in konfliktnost, predstavimo tiste ključne dejavnike, ki so pomembni tudi za ohranjanje dolgoročnih partnerstev v zunanji logistični oskrbi. Na osnovi ugotovitev iz opravljenih raziskav podamo odgovor na vprašanje, katere dejavnike v odnosu naj raziskovalec upošteva in vključi v raziskavo, da bo zadostil potrebam raziskovalnega vprašanja, kako različni trženjski dejavniki vplivajo na odnos med partnerjema. Pred postavitvijo medsebojnih povezav med dejavniki in oblikovanjem modela, s katerim želimo izmeriti njihov medsebojni vpliv, najprej postavimo izbrane opredelitve trženjskih dejavnikov na osnovi pregleda obstoječe literature o trženjskih dejavnikih v odnosih zunanje logistične oskrbe. Z izbranimi opredelitvami dejavnikov trženjskih odnosov, značilnih za logistične povezave med podjetji v zunanji logistični oskrbi, opravimo prvi korak pri nadaljnjem raziskovanju za potrebe empirične preverbe modela vpliva dejavnikov na uspešnost izvedbe zunanje logistične oskrbe.

Ključne besede: odnosi v zunanji logistični oskrbi, dejavniki trženjskih odnosov, izvedba zunanje logistične oskrbe, zaupanje, zavezanost, sodelovanje, komuniciranje, oportunistično obnašanje, konfliktnost

1 Uvod

Med odjemalci in dobavitelji se običajno vzpostavijo trženjski odnosi, ki jih le-ti usmerjajo v partnerske dogovore z namenom ustvariti visoko konkurenčnost v oskrbovalnih verigah (Stank et al., 2001). Ta prispevek je usmerjen prav na takšne, dolgoročne trženjske odnose v zunanji logistični oskrbi, kjer je za raziskovalca pomemben izbor tistih dejavnikov trženjskih odnosov, ki vplivajo na izvajanje zunanje logistične oskrbe. Na osnovi pregleda relevantne literature s področja trženja s poudarkom na odnosih v logistiki ugotavljamo, da pri pojasnitvi kompleksnosti trženjskih odnosov sodeluje več teorij (npr. teorija družbene menjave, teorija zavezanosti in zaupanja, teorija transakcijskih stroškov), kjer vsaka od njih pomaga razjasniti vpliv trženjskih odnosov na trženje. Raziskave, kjer so vključeni dejavniki trženjskega odnosa, na osnovi katerih bomo za potrebe tega prispevka in za morebitne nadaljnje raziskave naredili izbor dejavnikov, ki se najpogosteje pojavljajo v raziskavah o trženjskih odnosih in so primerni tudi za raziskovanje v zunanji logistični oskrbi, vključujejo eno ali več prej omenjenih teorij. Goliceva in Mentzer (2006: 81–82) trdita, da je dobro poznati strukturo odnosa (glede obsega in glede vrste odnosa), da bi lažje razpoznali njegovo resnično vrednost. Na obseg in na vrsto odnosa vplivajo dejavniki v odnosu, predvsem zaupanje, zavezanost in soodvisnost. Ker je dejavnikov trženjskih odnosov še več, bomo v nadaljevanju najprej

predstavili izsledke dosedanjih raziskav s tega področja, nato pa izbrali in opredelili tiste dejavnike trženjskih odnosov, ki pomembno vplivajo na izvedbo zunanje logistične oskrbe pri odjemalcih v Sloveniji, česar na področju zunanje logistične oskrbe pri nas še ni bilo narejeno.

2 Dejavniki trženjskih odnosov v zunanji logistični oskrbi

2.1 Dosedanje raziskave s področja dejavnikov trženjskih odnosov

Na osnovi pregleda literature smo ugotovili, da je kompleksnost odnosov v zunanji logistični oskrbi takšna, da zahteva vključitev več teorij (Bowersox et al., 1989; LaLonde in Cooper, 1989; Moore, 1998; Hoyt in Huq, 2000; Skjøtt-Larsen, 2000; Engelbrecht, 2004; Golicic in Mentzer, 2006; Deepen, 2007; Cahill, 2007; Panayides, 2007). Za naše potrebe najbolj prideta v poštev teorija socialne izmenjave (angl. *Social exchange theory*) in teorija zavezanosti in zaupanja (angl. *Commitment-trust theory*). Oboje bomo aplicirali na odnose v zunanji logistični oskrbi. Učinek izvedbe zunanje logistične oskrbe pa pojasnjujemo na osnovi teorije transakcijskih stroškov, katere namen je pojasniti, zakaj se podjetja odločajo

opravljati določene procese v lastni režiji, določene pa prepustijo v izvajanje drugim. Izvajanje zunanje logistične oskrbe najprej merimo s tem, ali oskrbovalci dosegajo cilje, ki so si jih zadali v zunanji logistični oskrbi za svoje odjemalce. Ti cilji pokrivajo tako stroškovno kot tudi kakovostno raven zunanje oskrbe. Nato pa je za partnerski odnos, ki zavezuje obe strani dolgoročno, pomembno tudi, da se prvotno postavljeni cilji presegajo. Dejavniki, ki vplivajo na preseganje ciljev, so dolgoročnost in pristnost sodelovanja ter vzajemno zadovoljstvo v odnosu, kjer sta prisotna inovativno obnašanje in spodbujanje k napredku. Izvajanje zunanje logistične oskrbe

torej predstavlja dvo-dimenzionalni konstrukt doseganja in preseganja postavljenih ciljev.

Teorija socialne izmenjave izhaja iz medsebojnih povezav med posamezniki in nudi ogrodje za razlago, zakaj želi posameznik sodelovati v izmenjavi. Čeprav ima teorija svoje korenine v ekonomski znanosti, psihologiji obnašanja, sociologiji in antropologiji, vse povezuje ista ideja: odnosi v socialni izmenjavi, od katerih sodelujoče stranke pričakujejo nagrade na eni in stroške na drugi strani. Teorija socialne izmenjave obsega številne pristope k razlagi obnašanj strank, vključenih v trženjske odnose. Cilj je pojasniti zgradbo odnosa in razlo-

Tabela 1: Dejavniki trženjskih odnosov, ki so pogosto uporabljeni v raziskavah o odnosih

Avtorji	zaupanje	zavezanost	odvisnost	sodelovanje	komuniciranje	norme	zadovoljstvo	ostalo
Anderson in Narus (1984)				*	*		*	*
Anderson in Narus (1990)	*		*	*	*		*	*
Anderson, Hakansson in Johanson (1994)	*	*		*		*		*
Anderson in Weitz (1989)	*				*			*
Anderson in Weitz (1992)		*			*			*
Cahill (2007)*	*	*					*	*
Čater (2006)*	*	*		*	*		*	*
Deepen (2007)*	*	*			*			*
Dwyer, Schurr in Oh (1987)	*	*	*		*	*		*
Frazier (1983)			*	*			*	*
Gundlach in Murphy (1993)	*	*				*		*
Golicic in Mentzer (2006)*	*	*	*					
Kolar (2003)*	*						*	*
Knemeyer, Corsi in Murphy (2003)	*	*	*		*			*
Knemeyer in Murphy (2004)	*				*		*	*
Lambert, Emmelhainz in Gardner (1999)	*	*			*			*
Moore (1998)	*	*			*			*
Morgan in Hunt (1994)	*	*		*	*			*
Panayides (2007)*		*						*
Smith in Barclay (1997)	*				*		*	*
Wilson (1995)	*	*	*	*			*	*
Skupaj 21	17	14	6	7	13	3	9	-

*Dopolnjeno z lastno raziskavo.

Vir: Dopolnjeno in prirejeno po (Deepen, 2007: 67–68).

žiti, zakaj se posamezni odnos nadaljuje (Dwyer et al. 1987: 11–27).

Teorija zaupanja in zavezanosti ima svoje korenine v delu Morgana in Hunta (1994). Sorazmerno mlada teorija temelji na teoriji socialne izmenjave in postavlja zaupanje in zavezanost pri vprašanju trženjskih odnosov v center razmišljanja. Predvsem zaupanje in zavezanost odnosu sta spoznana kot najpomembnejša dejavnika trženja s poudarkom na odnosih. Poleg zaupanja in zavezanosti pa se v raziskavah pojavljajo tudi drugi dejavniki, kar prikazujemo v tabeli 1.

Tabelo z raziskavami dejavnikov trženjskih odnosov je izdelal Deepen (2007: 67–68); sami smo dodali še nekatere vplivnejše raziskave z logističnega področja in nekatere domače avtorje, ki so obravnavali tematiko trženjskih odnosov v zadnjih letih, kar je v tabeli 1 posebej označeno z zvezdico. Iz tabele 1 je razvidno, da so najpogostejše uporabljeni dejavniki trženjskih odnosov zaupanje, zavezanost in komuniciranje. Ker so mnoge od zgoraj citiranih raziskav ravno s področja logistike, pomeni, da so ti dejavniki primerni tudi za raziskovanje trženjskih odnosov v zunanji logistični oskrbi.

Pri iskanju najprimernejših spremenljivk proučevanja odnosov v zunanji logistični oskrbi ne moremo prezreti dejstva, da je namen graditve trženjskih odnosov v čim uspešnejši izvedbi zunanje oskrbe s strani oskrbovalca in njen pozitivni vpliv na logistično oskrbo, ki jo odjemalec ponuja svojim odjemalcem. Ob tem je pomembno, da z graditvijo in vzdrževanjem učinkovitih trženjskih odnosov zmanjšujemo tveganja v zunanji logistični oskrbi. Kompleksnost trženjskih odnosov ni nič manjša v zunanji logistični oskrbi v primerjavi z ostalimi področji trženja in kot takšna zahteva primerne načine merjenja. Ker so trženjski odnosi samo del drugih dejavnikov, ki vplivajo na učinkovitost izvajanja logistične oskrbe (med drugim so pomembni še tehnične in procesne značilnosti ter stroški in kakovost zunanje oskrbe), so avtorji raziskav postavljali različne modele, s katerimi so merili zunanjo logistično oskrbo z več vidikov. Če se osredotočimo predvsem na vidik trženjskih odnosov in dejavnikov, ki vplivajo na trženje s poudarkom na odnosih, je skupna značilnost pregledanih raziskav usmerjena v iskanje trženjskih dejavnikov, ki povečujejo zadovoljstvo v zunanji oskrbi in zmanjšujejo tveganja. Ob upoštevanju tega dejstva bi bilo v empirične meritve vplivov dejavnikov trženjskih odnosov na izvajanje storitev v zunanji logistični oskrbi primerno vključiti naslednje dejavnike: sodelovanje, komuniciranje, nagnjenost k inovacijam, zaupanje, zavezanost odnosu, oportunistično obnašanje, konfliktnost, vključenost v izvajanje, skupne vrednote in organizacijsko učenje.

2.2 Izbor in opredelitve dejavnikov trženjskih odnosov v zunanji logistični oskrbi

2.2.1 Sodelovanje

Sodelovanje med partnerji je pomembna tema v graditvi dolgoročnih odnosov. Bowersox (1990) je opredelil zaveznitvo v logistiki kot poslovni dogovor, kjer se pričakujejo sinergijski učinki zaradi sodelovanja. Odnosi so med ostalim odvisni od stopnje zaupanja in sodelovanja. O sodelovanju v odnosih med odjemalcem in dobaviteljem so raziskovali Morgan in

Hunt (1994), Wilson (1995), Lambe et al. (2001). Anderson in Narus (1990: 45) opredeljujeta sodelovanje kot skupne koordinirane akcije med podjetji z namenom, da se pridobi skupna korist. O sodelovanju so avtorji že v poznih sedemdesetih letih prejšnjega stoletja pisali kot o »skupnem prizadevanju za doseg individualnih ali vzajemnih ciljev« (Schermhorn, 1975: 847; Stern in Reve, 1980: 57; Brown, 1981: 7). Poudarjali so željo po pridobitvi koristi, ki jih dosežemo le s sodelovanjem obeh strani. Takšno sodelovalno obnašanje, po prepričanju Lamba et al. (2001: 23), razvija in promovira večje koristi za partnerja v odnosu. Knemeyer in Murphy (2005b: 711) v trženjskem odnosu logistične oskrbe namesto izraza sodelovanje uporabita povezanost, ki se lahko doseže le, če imata partnerja podobno organizacijsko kulturo.

O pomenu sodelovanja oz. še več, o graditvi norm v sodelovanju, pišeta Cai in Yang (2008). Nadaljujeta razmišljanja mnogih drugih avtorjev, da je za uspešnost v oskrbovalnih verigah sodelovanje ključnega pomena (Mohr in Spekman, 1994; Montzka et al., 1998; Johnston et al., 2004). O postavitvi norm v sodelovalnih povezavah sta pisala že Cannon in Perreault (1999) in ugotovila, da so norme pomembne pri vodenju odnosov med partnerji. Mnogi avtorji postavljajo oblikovanje norm kot predhodnik ostalih dejavnikov trženjskih odnosov (npr. Mohr in Sohi, 1995; Cannon et al., 2000). Nenazadnje pa bo sodelovanje odvisno tudi od obsega storitev, ki se oddajajo v zunanjo oskrbo (podobno o tem piše Williamsson, 1985 v Cai in Yang, 2008, str. 59–60), in od časa, ki sta ga partnerja preživela skupaj v odnosu. V sodelovanju med partnerjema se vzpostavijo vezi, ki so lahko močnejše, če je sodelovanje dolgoročno.

Sodelovanje je za potrebe te raziskave opredeljeno kot skupno prizadevanje podjetij v odnosu za doseganje postavljenih ciljev in z namenom, da se pridobi skupna korist, kot sta sodelovanje opredelila Anderson in Narus (1990: 45).

2.2.2 Komuniciranje

O komuniciranju in vplivu učinkovitih komunikacij na trženje so pisali mnogi avtorji (Dwyer et al., 1987; Anderson in Narus, 1990; Morgan in Hunt, 1994; Moore, 1998; House in Stank, 2001; Knemeyer et al., 2003; Knemeyer in Murphy, 2004; Engelbrecht, 2004; Deepen, 2007; Panayides, 2007). Komuniciranje pomeni pravočasno izmenjavo pomembnih informacij med podjetji na formalen ali neformalen način (Anderson in Narus, 1990: 44). S to opredelitvijo avtorja opozarjata na učinkovitost izmenjave informacij in ne na količino izmenjanih informacij. Po prepričanju Mohra in Nevina (1990: 36) je komuniciranje »lepilo, ki drži skupaj distribucijske poti«. Pogoste formalne ali neformalne osebne komunikacije spremenijo odnos iz transakcijskega odnosa v partnerstvo (House in Stank, 2001). House in Stank (2001: 20) sta prepričana, da komunikacija »gradi most med organizacijami. Ko je most enkrat zgrajen, se lahko začne razvijati partnerski odnos, ki temelji na zaupanju«. Anderson in Weitz (1992: 21) trdita, da z dvosmerno komunikacijo udeleženci na distribucijskih poteh dosežejo medsebojno koordinacijo. Komunikacija pa tudi pospešuje zaupanje v odnosu in zmanjšuje negativne konflikte (Anderson in Weitz, 1989; Anderson in Narus, 1990; Dwyer et al., 1987). Barnes, Naudé in Michell

(2006: 663–664) poudarjajo, da je komuniciranje pomemben dejavnik socialnih odnosov, v katerih uspešna podjetja nameenjajo vedno več časa komuniciranju s partnerji in izmenjavi tehničnih in komercialnih informacij.

Komuniciranje je povezano z zaupanjem, saj dobra komunikacija podpira zaupanje in obratno, če si partnerji zaupajo, je komunikacija uspešnejša (Denize in Young, 2007: 969). Informacije se tradicionalno razumejo kot pomemben vir organizacije. Avtorici trdita, da izmenjava vseh vrst informacij pomaga graditi trženjske odnose, tako v pogledu večje stopnje zaupanja kot v pogledu zmanjševanja oportunističnega obnašanja. Uspešna partnerstva so nagnjena k učinkovitemu komuniciranju. Qureshi, Kumar in Kumar (2007: 693) so prepričani, da skupen dostop do informacij (z izmenjavo pomembnih podatkov na vseh ravneh) pomaga povezati vrzeli med podjetjema in omogoča oskrbovalcu sprejeti korekturne ukrepe v zahtevanih izvedbah aktivnosti med podjetjema. Komuniciranje bomo opredelili kot izmenjavo pomembnih informacij, ki si jih partnerja pravočasno izmenjata (Anderson in Narus, 1990).

2.2.3 Nagnjenost k inovacijam in napredku

Inovativnost v poslovanju ima pomembno vlogo v današnjem svetu. Drucker (1954 v Calantone et al., 2002: 517) je o pomenu inovativnosti pisal med prvimi in pri tem poudaril, da je njena vloga v raziskavah dokaj zanemarjena. Medtem ko mnogi avtorji inovativnost razumejo kot zgodnje uvajanje novosti oz. odprtost za nove ideje, jo Calantone et al. (2002: 517) opredelijo kot razvijanje, sprejemanje in uvajanje novih idej, procesov, izdelkov ali storitev. Ta opredelitev je sorodna Rogersovi opredelitvi (1995: 11), ki jo povzemajo mnogi kasnejši avtorji (npr. Panayides & So, 2005; Calantone et al., 2002; Deepen, 2007), in pravi: inovativnost je opredeljena kot ideja, praksa ali izdelek, ki jih posamezniki ali širše privzemamo kot nove.

Uspešna podjetja posvečajo inovacijam veliko časa in virov. Flint et al. (2005: 113) so ji pripisali velik vpliv na zunanjo logistično oskrbo, predvsem na poslovno uspešnost oskrbovalca. O inovativnosti v logistiki so v zadnjem času največ pisali Engelbrecht (2004), Deepen (2007) in Cahill (2007). Engelbrecht v empiričnem delu raziskave celo dokaže, da je nagnjenost k inovacijam pomemben dejavnik trženjskih odnosov. Knight in Tavusgil (2004: 127) ugotavljata, da primerna inovacijska kultura pomaga pridobiti znanje, ki vodi do uspešnega poslovanja. V tem pogledu ima inovativnost vpliv na doseganje ciljev organizacije.

Zaradi pomembnosti inovativnega delovanja podjetij upoštevamo ta dejavnik tudi v svoji raziskavi. Zdi se, da je vloga inovativnosti v odnosih predvsem neposredno povezana s stroški zunanje logistične oskrbe, zanemariti pa ne smemo tudi njenega ugodnega vpliva na kakovost storitev logistične oskrbe. V tej raziskavi bomo inovativnost in nagnjenje k napredku razumeli kot obseg in intenzivnost aktivnosti, ki so usmerjene v razvijanje, sprejemanje in uvajanje novih idej, procesov, izdelkov ali storitev (Calantone et al., 2002), ki jih oskrbovalec v zunanji logistični oskrbi izvaja za svojega odjemalca v želji po izboljšanju njegove celotne logistične oskrbe.

2.2.4 Zaupanje

Zaupanje je skupaj z zavezanostjo odnosu najpogosteje uporabljena spremenljivka pri proučevanju trženjskih odnosov (Blomqvist, 2002, v Seppänen et al., 2007: 249). O njem so pisali Dwyer et al. (1987), Anderson in Weitz (1989), Moorman et al. (1992), Morgan in Hunt (1994), Moore (1998), če omenimo samo nekaj vplivnih avtorjev o odnosih med kupci in prodajalci. Opredelitev zaupanja je veliko; večina avtorjev zaupanje razlaga kot prepričanje ene strani v odnosu, da bo druga stran (partner) delovala v njegovo največjo korist (Wilson, 1995: 337). Morgan in Hunt (1994: 23) pravita, da zaupanje obstaja, če ena stran verjame v zanesljivost in poštenje drugega partnerja v odnosu. Podobno o zaupanju mislijo Moorman et al. (1992: 315), kjer je zaupanje opredeljeno kot »pripravljenost verjeti drugi strani v odnosu in ji zaupati«. Opredelitev Moorman et al. je skoraj identična opredelitvi Ganesana (1994: 3), ki prav tako vključuje kredibilnost in dobrohotnost partnerja. V glavnem velja, da zaupanje zmanjšuje stroške izvedbe trženjskih aktivnosti (Dwyer et al., 1987; Morgan in Hunt, 1994) in vpliva na transakcijske stroške v odnosu (Jarillo, 1988). Ker je bilo merjenje zaupanja v dosedanjih raziskavah res veliko, o njih v nadaljevanju ne bomo pisali, bralce pa napotimo na obsežno raziskavo merjenja zaupanja na medorganizacijskih trgih, ki so jo opravili Seppänen et al. (2007) in v kateri so podali svoj kritični pogled na raziskave o zaupanju.

Vpliv zaupanja kot dejavnika trženjskih odnosov na izvajanje aktivnosti v zunanji logistični oskrbi je bil obravnavan v raziskavah Moora (1998), Knemeyerja in Murphyja (2004) ter Deepena (2007). Na osnovi njihovih empiričnih rezultatov lahko povzamemo, da ima zaupanje neposreden in pozitiven vpliv na aktivnosti v zunanji logistični oskrbi.

Opredelitev zaupanja, ki smo jo privzeli za potrebe te raziskave in je najprimernejša za področje zunanje logistične oskrbe, je opredelitev Moorman et al. (1992: 315) ter Doney in Cannona (1997: 36), kjer bomo upoštevali dvoje: kredibilnost (verodostojnost) partnerja, na katerega se lahko zanesemo, in dobrohotnost (naklonjenost) partnerja v iskanju skupnih koristi v odnosu. V zunanji logistični oskrbi to pomeni, da obstaja zaupanje odjemalca v sposobnosti in učinkovitost oskrbovalca (kar kaže na verodostojnost) in hkrati zaupanje, da bo opravil storitve v njuno skupno korist.

2.2.5 Zavezanost odnosu

Zavezanost odnosu je skupaj z zaupanjem najpogosteje uporabljena spremenljivka v odnosu kupec – prodajalec (Wilson, 1995). Med avtorji, ki so se ukvarjali s tematiko trženjskih odnosov, so zavezanost bolj ali manj podrobno proučevali sledeči: Dwyer et al. (1987), Anderson in Weitz (1992), Morgan in Hunt (1994), Grundlach et al. (1995), Wilson (1995), Moore (1998), Knemeyer et al. (2003), Wallenburg (2004), Čater (2006), Deepen (2007), Cahill (2007).

Morgan in Hunt (1994: 23) sta zavezanost odnosu opredelila kot prepričanje, da je odnos dovolj pomemben, da je treba vložiti maksimalna prizadevanja za njegovo nadaljevanje. Njuna opredelitev je skoraj identična opredelitvi Moorman et al. (1992: 316), ki pravijo: »Zavezanost odnosu je opredeljena

kot dolgotrajna želja ohraniti dragocen odnos.« »Dragocen odnos« za Morgana in Hunta pomeni odnos, ki je pomemben.

Dwyer et al. (1987) trdijo, da je zavezanost odnosu pomembna, saj zagotavlja, da bodo partnerji vložili trud in potrebne naložbe, da bi dosegli skupen želen rezultat. Anderson in Weitz (1992: 19) opredelita, da zavezanost odnosu vzbuja željo po razvijanju stabilnega odnosa, pri katerem smo pripravljeni na kratkoročne žrtve za ohranitev odnosa in zaupanje v stabilen odnos. V svoji raziskavi bomo upoštevali opredelitev Morgana in Hunta (1994) ter Moorman et al. (1992).

2.2.6 Konfliktnost v odnosu

O konfliktnosti v trženjskih odnosih so med drugimi pisali Morgan in Hunt (1994), Anderson in Narus (1990), Dwyer et al. (1987), Moore (1998), Bradfort et al. (2004), Deepen (2007), Leonidou et al. (2008), Levy-Mangin et al. (2008). Konfliktnost v odnosih predstavlja zaviralno obnašanje v odnosu, ki stranki odvrne od doseganja virov ali aktivnosti, ki vodijo k uspehu (Anderson in Narus, 1990: 45). Konflikt običajno opredelimo kot nestrinjanje, nestrpnost ali razočaranje med prodajalcem in odjemalcem zaradi različnih razlogov (npr. zaradi tekmovalnosti za vire in dosego prevlade, različnih ciljev in pričakovanj, slabo opredeljenih medsebojnih vlog v odnosu) (Leonidou et al., 2008: 94). Dwyer et al. (1987: 24) konfliktnost opredelijo kot nesoglasnost v ciljih in prednostnih vlogah, ki lahko ima resne razdiralne posledice. Avtorji so konfliktnost v raziskavah pojmovali nekoliko različno. Medtem ko ga Dwyer et al. (1987) ter Morgan in Hunt (1994) razumejo kot razdiralno komponento za odnos, ga Anderson in Narus (1990: 45) sprejemata kot »samo drugačen način opravljanja poslov«. Takšne vrste konfliktnosti imenujeta funkcionalni konflikt, ki ga obe stranki sprejemata na prijateljski način, kar pomeni, da se morata o težavah pogovoriti in jih znati razrešiti s primernim obnašanjem, na sodelovalen način. Morgan in Hunt (1994: 26) povezujeta funkcionalni konflikt z zaupanjem. Zaupanje je tisto, ki vodi partnerja k zaznavi, da bo naslednja konfliktna situacija lahko delovala v pozitivni smeri, torej k funkcionalnemu konfliktu. Pretekle dobre izkušnje s sodelovanjem in v komunikaciji vodijo k povečanju pozitivnega dejavnika konflikta zaradi povečanja zaupanja.

Po prepričanju Moora (1998) je raven konfliktnosti v logističnih povezavah med podjetji tista, ki vpliva na odjemalčevo zaznavo zunanje logistične oskrbe, do katere je manj zaupljiv, zato je takšna povezava manj učinkovita. Konfliktnost v odnosu ovira odjemalca pri vzpostavitvi zaupanja v partnerja in ga ne zavezuje k nadaljevanju odnosa. Konfliktnost bomo v svoji raziskavi opredelili kot razdiralno komponento v odnosu med odjemalcem in oskrbovalcem v zunanji logistični oskrbi, kot so to storili Dwyer et al. (1987), Morgan in Hunt (1994) ter Moore (1998).

2.2.7 Obojestranska vključenost v aktivnosti zunanje logistične oskrbe

Zunanja logistična oskrba s svojimi vplivi sega do strateških odločitev pri poslovanju podjetij. Ker logistika s svojimi aktiv-

nostmi usodno vpliva na ključne sposobnosti odjemalčevega podjetja, mora oskrbovalec svojo vlogo kar najbolj izvesti. Engelbrecht (2004: 203) poudarja, da je za uresničevanje ciljev logistične oskrbe odjemalca, vpliva na različne procese znotraj odjemalčevega podjetja in medsebojnih dogovorov, sprejetih v pogodbi o zunanji logistični oskrbi, najbolj osnovati tim strokovnjakov iz obeh podjetij, odjemalca in oskrbovalca. Vloga tima ni toliko v izvedbenih aktivnostih, temveč predvsem pri pripravi in uvajanju strategije zunanje oskrbe pri odjemalcu. Obojestransko vključenost partnerjev v zunanji logistični oskrbi opredelimo kot razsežnost, do katere mere je oskrbovalec vključen v proces priprave in uvajanja zunanje logistične oskrbe.

Posredno lahko iz raziskav zunanje logistične oskrbe razumemo, da je pomembno sodelovanje med obema partnerjema tudi v pogledu postavljanja strategij (Bowersox et al., 2003). Posamezni avtorji še posebej izpostavijo trženjske odnose, ki temeljijo na medsebojnih aktivnostih (npr. Boyle et al., 1992; Panayides, 2007). Dejavnik obojestranske vključenosti v zunanji logistični oskrbi pa se sicer le redko pojavlja v raziskavah; še redkeje pa se meri njegov vpliv na odnose. Mi ga bomo zaradi pomembnosti vključili v svojo raziskavo.

2.2.8 Oportunistično obnašanje

Oportunistično obnašanje je zavzelo pomembno mesto v teoriji transakcijskih stroškov (Williamson, 1995 v Wathne in Heide, 2000: 36). Williamson ga opredeli kot »iskanje lastnih interesov s pomočjo prevare«. Wathne in Heide (2000) sta obširno pisala o oportunističnem obnašanju v medorganizacijskih odnosih. O oportunistizmu so sicer pisali predvsem v pogledu vpliva oportunističnega obnašanja med partnerji na poslovanje (Anderson in Weitz, 1992; Dwyer et al., 1987). Morgan in Hunt (1994) za oportunistično obnašanje sprejemata Williamsovo (1995) opredelitev in dodajata, da če ena stran v odnosu verjame v oportunistično obnašanje druge strani, bo takšno dojemanje vodilo k zmanjšanju zaupanja. John (1984: 279) opredeli bistvo oportunistizma kot »v prevaro usmerjeno prekršitev naznačenih ali izrečenih obljub o primernem ali zahtevanem obnašanju«. V trženjski praksi se pojavi veliko tipov obnašanj, za katere bi sprejeli razlago, da gre za oportunistem (npr. prikrivanje stroškov prodaje, prelom pogodb o dobavi, zmanjševanje kakovosti izdelkov ali storitev) (Wathne in Heide, 2000: 36). V zunanji logistični oskrbi so primeri oportunističnega obnašanja npr. neizpolnjene ali nepravilno izpolnjene obljube o dostavi ali razhajanje med odjemalčevimi pričakovanji in oskrbovalčevimi izvedbami logističnih aktivnosti (Knemeyer in Murphy, 2005: 712).

Po prepričanju Wathna in Heida (2000: 36) je za njiju najsprejemljivejša razlaga prisotnosti oportunistizma med organizacijami, da je oportunistem obnašanje, »ki se ne pojavlja povsod, ni pa neobičajen«. Sam pojav ima pomembne praktične posledice. Če je tveganje, da se bo oportunistično obnašanje izrazilo v posameznem odnosu, veliko, potem je potrebno vložiti več sredstev v nadzorovanje odnosa, ki bi se lahko veliko produktivneje porabila.

Oportunistično obnašanje v tej raziskavi zajema Johnovo (1984) opredelitev, da gre za v prevaro usmerjeno prekršitev

danih obljub o primernem oz. dogovorjenem načinu obnašanja v odnosu.

2.2.9 Skupne vrednote

Koncept skupnih vrednot so proučevali Morgan in Hunt (1994), Dwyer et al. (1987), Heide in John (1992), Deepen (2007). Opredelitev skupnih vrednot Morgana in Hunta (1994: 25), ki jo je povzel tudi Deepen (2007: 100–101), pravi, da so skupne vrednote prepričanje partnerjev o tem, kakšno obnašanje, skupni cilji in strategije v odnosih so pomembni oz. nepomembni, primerni oz. neprimerni ter pravi ali napačni.

Skupne vrednote vplivajo na koncept zavezanosti odnosu in zaupanja (Dwyer et al., 1987; Morgan in Hunt, 1994). Heide in John (1992: 34) pa sta upoštevala norme, ki jih sicer nista imenovala skupne vrednote, vendar se iz konteksta lahko razbere, da sta imela v mislih prav to. Govorita namreč o pričakovanjih v obnašanju partnerjev, ki bodo vsaj delno skupne obema stranema pri odločanju. Skupne vrednote predstavljajo temelj organizacijske kulture podjetja (Wiener, 1988: 534). Če se organizacijski kulturi med podjetjema preveč razhajata, torej podjetji ne delita skupnih vrednot, je nemogoče vzpostaviti dalj časa trajajoči odnos oz. partnerstvo.

V tej raziskavi bomo privzeli opredelitev Morgana in Hunta (1994), saj si dolgoročnega sodelovanja ne moremo

zamisliti brez poenotenja ciljev, strategij in primernosti obnašanja med partnerji.

2.2.10 Organizacijsko učenje

Dejavnik trženjskega odnosa, ki smo ga imenovali organizacijsko učenje, je bil v dosedanjih raziskavah redkeje uporabljen. Organizacijsko učenje se nanaša na aktivnosti podjetja pri ustvarjanju in uporabi znanja za doseganje konkurenčnih prednosti (Panayides, 2007: 136). Obsega pridobivanje in vzajemno posredovanje informacij o tržnih dogajanjih med odjemalci, spremembah na trgih in delovanju konkurence. Teorija s področja organizacijskega učenja razlaga, da je za razvoj novega znanja potrebno izpolniti določene pogoje in da so pri tem uspešnejša tista podjetja, ki v svoji organizacijski kulturi ne vzdržujejo rutinskih opravil, ki bi jih morali v inovativnem okolju opustiti (Autio et al., 2000; Cohen in Levinthal, 1990).

Vpliv organizacijskega učenja na izvajanje zunanje logistične oskrbe s strani oskrbovalca je meril Panayides (2007). Pojem organizacijskega učenja (angl. *organizational learning*) je opredelil kot prisotnost notranje organizacijske kulture, v kateri tudi vrhnji menedžment vrednoti učenje, mu je zavezan, odprt za spremembe, nove ideje, skupne vizije in delitev skupnega znanja (Panayides, 2007: 136). Pred njim o organizacijskem učenju kot dejavniku v trženjskem odnosu na področju logistične oskrbe še niso raziskovali. Njegova raziskava je

Tabela 2: Spremenljivke trženjskih odnosov in njihov vpliv na zunanjo logistično oskrbo
Vir: Dopolnjeno po (Deepen, 2007: 89)

Spremenljivka	Upoštevana teorija	Vpliv na izvajanje	
		Neposreden	Posreden
Sodelovanje	TSI; TZZ; TTS	+	-
Komuniciranje	TSI; TZZ		+
Nagnjenost k inovacijam	TSI	+	
Zaupanje	TSI; TZZ		+
Zavezanost odnosu	TSI; TZZ		+
Konfliktnost–funkcionalni konflikt*	TZZ	+	-
Vključenost v izvajanje	TTS		+
Oportunizem	TTS, TZZ		-
Skupne vrednote	TZZ		+
Organizacijsko učenje	TTS		+

Legenda: Teorija socialne izmenjave – TSI
Teorija zavezanosti in zaupanja – TZZ
Teorija transakcijskih stroškov – TTS
(+) Pozitiven vpliv, (–) Negativen vpliv

* Obstajajo razlike med avtorji o vplivu spremenljivke na izvajanje.

Lastne dopolnitve se nanašajo na opredelitev vplivanja spremenljivk in opredelitev za spremenljivki konfliktnost in organizacijsko učenje.

skozi empirične podatke dokazala vpliv organizacijskega učenja na kakovost izvajanja zunanje logistične oskrbe. Pomen organizacijskega učenja na trženjski poti sta med drugim dokazovala Anderson in Weitz (1992). Na pomanjkanje raziskav s tega področja pa so opozarjali avtorji tako s področja medorganizacijskih trženjskih odnosov v logistiki kot tudi v oskrbovalnih verigah. Panayides (2007), Stank et al. (1999), Wisner (2003), Lambert et al. (2004), Lambert et al. (2005) so se odzvali in vključili v svoje raziskave dejavnik organizacijskega učenja.

Za potrebe te raziskave bomo proučili organizacijsko učenje v pojmovanju, kot ga je postavil Panayides (2007), in ugotavljali vpliv tega dejavnika na graditev trženjskih odnosov v zunanji logistični oskrbi.

2.2.11 Pregled spremenljivk in vpliv teorij na njihovo oblikovanje

V tabeli 2 podajamo pregled vseh desetih spremenljivk, ki smo jih na osnovi pregleda literature obravnavali in zanje ugotovili, katere teorije so imele vpliv pri njihovem opredeljevanju. Za našo raziskavo je pomembno predvsem, kakšen vpliv na izvajanje zunanje logistične oskrbe se jim predpisuje: posreden ali neposreden, pozitiven ali negativen. Na osnovi tega pripravimo model vpliva dejavnikov trženjskih odnosov na izvajanje zunanje logistične oskrbe, kjer so komuniciranje, vključenost v izvajanje, organizacijsko učenje, oportunitizem in konflikti eksogene spremenljivke. Zaupanje, zavezanost, sodelovanje in inovativnost so mediacijske, doseganje in preseganje ciljev pa so endogene spremenljivke, ki predstavljajo rezultat delovanja ostalih spremenljivk – dejavnikov trženjskih odnosov. Neposredni vpliv na izvajanje zunanje logistične oskrbe v našem modelu imata sodelovanje in inovativnost.

Lastne dopolnitve se nanašajo na opredelitev vplivanja spremenljivk in opredelitve za spremenljivki konfliktnost in organizacijsko učenje.

3 Sklep

Podjetja si v iskanju višje konkurenčnosti v zunanji logistični oskrbi prizadevajo vzdrževati dolgoročne trženjske odnose z oskrbovalci, skozi katere si z večanjem zaupanja in ostalimi pomembnimi dejavniki trženjskih odnosov gradijo zmogovalno pozicijo. Z združitvijo potencialov bosta oba partnerja izboljšala učinkovitost, dobičkonosnost in ponudila kupcem boljše storitve.

Zaradi kompleksnosti področja je v raziskavo dejavnikov trženjskih odnosov vključenih več teorij (teorija družbene menjave, teorija zavezanosti in zaupanja ter teorija transakcijskih stroškov). Na podlagi ugotovitev relevantnih raziskav z obravnavanega področja smo najprej identificirali tiste dejavnike trženjskih odnosov, ki se najpogosteje pojavljajo v trženjskih odnosih. Na osnovi opredelitev posameznih dejavnikov (konstruktov) smo nato pojasnili, kakšen je njihov teoretični vpliv na trženje in izvajanje logističnih storitev v zunanji oskrbi. Pregled najznačilnejših opredelitev posameznih dejavnikov trženjskih odnosov in odločitve o tem, katere opredelitve

sprejemamo za potrebe oblikovanega modela vpliva trženjskih odnosov na izvajanje zunanje logistične oskrbe, smo za nadaljnje raziskovanje omogočili izvedbo operacionalizacije konstruktov; oblikovanje merskih lestvic in kasnejše merjenje vplivov spremenljivk na izvedbo storitev v zunanji logistični oskrbi. Pri operacionalizaciji konstruktov se lahko opiramo na merske lestvice obstoječih raziskav trženjskih odnosov v zunanji logistični oskrbi ter na ugotovitve, ki jih pridobimo iz poglobljenih pogovorov s predstavniki oskrbovalcev in odjemalcev v zunanji logistični oskrbi v nekem prostoru. Nove merske lestvice prilagodimo posebnostim oskrbovalcev in njihovih odjemalcev zunanje logistične oskrbe z izbranega območja delovanja, npr. v Sloveniji.

Natančni pregled obstoječe teorije raziskovalnega področja in argumentirane prilagoditve, ki so potrebne zaradi specifičnosti v konkretni raziskavi, so predpogoj za zadostno resnost v kvalitativnem in kvantitativnem raziskovanju, kar smo na kratko z izborom in opredelitvami dejavnikov trženjskih odnosov v zunanji logistični oskrbi prikazali v tem prispevku.

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Andreja Križman je diplomirala (1986) in magistrirala (1992) na Univerzi Maribor - EPF s področja poslovne logistike. Njene izkušnje izhajajo s področja raziskovanja transporta in logistike za potrebe slovenskega gospodarskega prostora, ki jih je pridobila z delom v Inštitutu za transport in poslovno logistiko EPF Maribor. Ima večletne izkušnje v šolstvu; trenutno je zaposlena kot predavateljica za strokovne predmete iz logistike, ekonomike in oskrbovalnih verig na Višji prometni šoli Maribor. Njeno raziskovalno področje je usmerjeno na trženje s poudarkom na odnosih v logistiki in oskrbovalnih verigah in na področje kakovosti storitev. Kot doktorandka na UL - EF Ljubljana, Katedra za trženje, je zaključila doktorsko disertacijo s področja trženjskih odnosov v zunanji logistični oskrbi in uspešno opravila njen zagovor aprila 2009.

Model upravljanja življenjskega cikla poslovnega sistema

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Model organiziranosti poslovnega sistema, ki temelji na standardu ISO/IEC 15288, nam natančno določa kompozicijo usklajenih procesov. Ta model je možno uporabiti za povezovanje med poslovnim sistemom in drugimi organizacijami tako, da izberemo glavne skupine dejavnosti, ki naj bi jih vsaka organizacija izvajala. Te skupine dejavnosti so ustanovitev in kontrola programov življenjskega cikla sistema (v nadaljevanju ŽC), vzpostavitev sistema ŽC, podpora uporabi sistema ŽC in odstranitev ali reciklaža sistema. Model ne definira zaporedja, po katerem naj bi se izvajale dejavnosti, vendar prikazuje izhodišča za zgodnje (v fazi koncepta ali najkasneje v fazi razvoja) definiranje usklajenih odnosov med poslovnim sistemom ter drugimi podjetji in znanstvenimi ustanovami pri praktični uporabi predlaganega modela organiziranosti. To zgodnje definiranje skupine dejavnosti (procesov) bo prispevalo k zmanjšanju stroškov v življenjskem ciklu in povečanje učinkovitosti sistema med uporabo, poslovni sistem pa prisililo v mednarodna povezovanja in združevanja ter zmanjšalo odvisnost podjetja od domačega trga.

Ključne besede: organizacija, projekt, sistem, poslovni sistem, znanstvena ustanova, proces, življenjski cikel, sinergija, kompozicija

1 Uvod

Vstop in vključevanje Republike Slovenije (RS) v Evropsko Unijo je za RS sprememba in hkrati priložnost za njeno gospodarstvo. Te spremembe vplivajo tudi na preoblikovanje poslovnega sistema, z njim povezanega gospodarstva in znanstvenih ustanov ter posledično procesa opremljanja oziroma zagotavljanja novih proizvodov.

Tem spremembam in ciljem razvoja ter izdelave novih proizvodov se moramo prilagajati z uvedbo novih inovativnih organizacijskih oblik in metod dela, novih tehnologij, inovativnih načinov financiranja ter z dodatnim usposabljanjem in izobraževanjem, zlasti pa s pridobivanjem strateških znanj.

Trend, ki postaja vse močnejši, je uporaba resursov zunaj poslovnega sistema. To so druga podjetja, znanstvene ustanove, zavodi in laboratoriji, raziskovalne agencije ali individualni svetovalci - posamezniki.

Za večino podjetij v RS to vključevanje predstavlja nov izziv za uvajanje novih tehnologij in posledično razvoj novih proizvodov, delne ali popolne integracije z drugimi podjetji na sorodnih področjih ter priložnost za nove trge.

Ta proces ustvarjanja nove celote bo imel nove značilnosti višje od elementov (podjetij, znanstvenih ustanov, zavodov in laboratorijev, svetovalcev – posameznikov idr.), iz katerih je sestavljena. Z ustvarjanjem nove celote bo spremenjena oziroma dosežena višja kakovost njenih elementov, ki izhajajo iz nove povezanosti v dano celoto. Ta razlika med novo in staro kakovostjo, ki bo ustvarjena s kompozicijo, bo predstavljala pozitivno sinergijo gospodarstva RS in bo rezultirala v novih

organizacijskih oblikah, skupnih projektih in sistemih znotraj posameznih organizacij.

Pri sinergiji gospodarstva RS mora vsako podjetje in ustanova pri opredeljevanju sinergijske politike upoštevati interese vseh svojih udeležencev. To velja za lastnike in upravljavce, za strokovne in druge izvajalne kadre, velja tudi za kupce in dobavitelje ter za financirje, za državo in njene ustanove ter celo za konkurente.

Sinergija gospodarstva RS mora temeljiti na uvajanju, vzdrževanju ter pospeševanju širjenja upravljanja ŽC, kot ključnega elementa za uspeh.

Model upravljanja ŽC teži k vzpostavitvi splošnega okvira za opisovanje ŽC organizacije, projekta ali sistema znotraj organizacije tako, da se vzpostavi cel niz dobro definiranih procesov. Procese lahko apliciramo skozi ves ŽC (ISO/IEC 15288, 2008) na:

- KONCEPT - upravljanje in izvajanje celotne zamisli
- RAZVOJ - določanje sistemskih zahtev, ustvarjanje in opis rešitve, izgradnja sistema in verifikacija ter validacija sistema
- PRODUKCIJO - proizvodnja, nadziranje in testiranje
- UPORABO - upravljanje s sistemom z namenom zagotavljanja potreb uporabnikom
- PODPORO - omogoča trajno zmožnost sistema
- ODSTRANITEV - hrani, odlaga ali odstrani sistem.

2 Procesi upravljanja življenjskega cikla v poslovnem sistemu

Predno začnemo uvajati model upravljanja ŽC, je potrebno razmisliti o najpomembnejšem elementu, in sicer organizacij-

ski strukturi, ki bo uvedla in zagotovila razvoj upravljanja ŽC v poslovnem sistemu. Pomembnost vpliva te organizacijske strukture poslovnega sistema v vseh fazah ŽC je prikazan na diagramu slike 1. Poleg integrirane narave organizacijske strukture in vključevanja vseh udeležencev je pomembno vključevanje najvišjega vodstva, ki ima možnost vplivanja na celoten poslovni sistem, ki je vključen v proces upravljanja ŽC. S tem bodo premagana protitelesa, ki zavračajo spremembe. Na začetku razvoja modela upravljanja ŽC je treba oblikovati skupino vodstvenih delavcev, ki naj ji predseduje vodja organizacije, odgovorne za uvajanje modela upravljanja ŽC ali njegov namestnik. Prva naloga skupine je, da pripravi in objavi vizijo in postopke oziroma načine doseganja sprememb vedenja v poslovnem sistemu ter poslanstvo oziroma naloge skupine.

Nadaljnji korak k uresničevanju vizije je prepričevanje o nujnosti uvedbe modela upravljanja ŽC, kar je bistveni pogoj za njegovo uspešno uvajanje v organizacijo, za doseganje motivacije ter za sodelovanje med posamezniki znotraj poslovnega sistema. To prepričanje mora ljudi spodbuditi za delovanje, brez njega se upravljanje ŽC ne more premakniti iz začetka. Z logično argumentacijo je treba upravičiti napor in strošek, kar je naloga skupine najvišjih vodstvenih delavcev.

Vizija in strategija naj bosta določeni s pojmi, ki so usmerjeni na uporabnika. Vzbuditi morata pozornost pri najvišjih vodstvenih delavcih poslovnega sistema, ti pa se morajo zavzeti za upravljanje ŽC in to zavezo posredovati svojim organizacijskim enotam. Dejanja in besede najvišjih vodstvenih delavcev poslovnega sistema naj bi pomagala preoblikovati kulturo sodelovanja in privedla organizacijo oziroma poslovni sistem do zastavljenih ciljev.

Za uresničitev tega cilja je potrebno organizirati in izvesti konferenco o upravljanju ŽC, ki se je udeležijo vodilni delavci poslovnega sistema. Na tej konferenci mora najvišji manage-

ment predstaviti vizijo upravljanja ŽC in udeležence seznanimi s tehniko in metodologijo uvajanja ŽC.

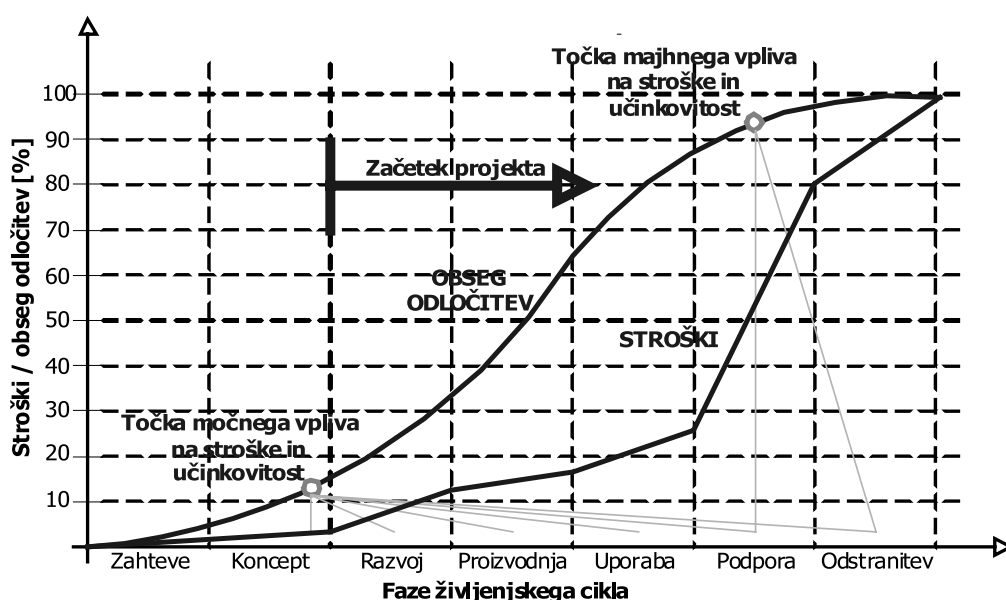
V naslednjem koraku mora poslovni sistem ustvariti možnosti za podporo uvajanju modela upravljanja ŽC, ki morajo izhajati iz preoblikovanja organizacijske strukture, nalog, sistematičnega in metodičnega usposabljanja ter razvijanja (usposabljanja) osebja, ki mora pridobiti potrebne spretnosti in vedenje v novem okolju. Problem nastopi, če možnosti za spremembe ni, in to zaradi pomanjkanja vodstvenih delavcev, ki vodijo te spremembe, premalo tehničnega znanja ter neprimerno zastavljenih odgovornosti in zadolžitvev.

Upravljanje življenjskega cikla temelji na procesih. Uporaba procesnega pristopa vodi k naslednjim dejanjem:

- določanje procesa z namenom doseganja željenih rezultatov
- identifikacija in merjenje vložka (vhoda) in učinka (izhoda) procesa
- identifikacija vmesnikov procesa s funkcijami organizacije
- ocena mogočih tveganj, posledic in vplivov procesov na proizvajalce, dobavitelje in druge udeležence procesa
- vzpostavljanje jasnih zadolžitvev, avtoritete in odgovornosti za upravljanje procesa
- identifikacija notranjih in zunanjih udeležencev, dobaviteljev in drugih sodelujočih v procesu.

Pri oblikovanju procesov je potrebno upoštevati procesne korake, dejavnosti, tokove, kontrolne meritve, potrebe po usposabljanju, opremo, metode, informacije, materiale in druge vire, ki so nujni za doseganje željenega rezultata.

Za uskladitev organizacijskih funkcij s procesi je smotno uporabljati mednarodni standard ISO/IEC 15288. Ta bo zagotovil minimalno prekrivanje med organizacijskimi enotami poslovnega sistema. Vodstveni delavci poslovnega sistema morajo zagotoviti sprejemljive procese ŽC, ki se uporabljajo



Slika 1: Prikaz vpliva udeležencev v procesih in fazah ŽC (Kralj, 2004: 39)

v projektih, učinkovito porazdelitev in uskladitev virov, informacij in tehnologij.

Za uspešnost uvajanja modela ŽC v poslovnem sistemu je zelo pomembno sistematično in metodično izobraževanje sodelujočih, da bi dosegli zahtevane veščine in dopolnjevali vedenje.

Med uvajanjem modela ŽC je potrebno najti pravo ravnovesje med tem, kar želimo doseči, in tem, česa je poslovni sistem zmožen. To ni lahko in potrebne bodo dodatne izboljšave. Če zahtevamo preveč, lahko načrt uvajanja upravljanja ŽC propade in povzroči nasprotja med organizacijskimi enotami poslovnega sistema. Če pa je področje delovanja preveč omejeno, se lahko zgodi, da z rezultatom ne bomo zadovoljni, ker bo doseženega zelo malo.

V naslednjem koraku je potrebno določiti jasen niz dejanj, ki jih bo mogoče implementirati s pomočjo razvojnih projektov in organizacijskih enot poslovnega sistema. Kot temelj za določanje takšnih dejanj je mogoče uporabiti več pomembnih korakov in sicer:

- poslovni sistem uskladiti s strateškim odgovorom
- imenovati lastnika procesa
- definirati in preoblikovati merila učinkovitosti
- razviti in izobraziti delovno silo
- sporočati zavezanost najvišjega vodstva
- vključiti udeležence in doseči zavezanost k spremembam
- razviti sistem za spremljanje prednosti
- komunicirati z vsemi udeleženci.

3 Poslovni model življenjskega cikla

Predlagani poslovni model, ki temelji na upravljanju ŽC sistema, predstavlja kompozicijo osnovnih dejavnosti, potrebnih

za uresničitev modela organiziranosti. Ta model ne definira zaporedja, po katerem naj bi se izvajale dejavnosti. Pri praktični uporabi predlaganega modela organiziranosti podjetja mora program upravljanja ŽC prirediti model tako, da bo prikazoval odnose med poslovnim sistemom in znanstvenimi ustanovami. Ta model organiziranosti je možno uporabiti za povezovanje med poslovnim sistemom in drugimi organizacijami tako, da izberemo glavne skupine dejavnosti (prikazane v okvirju na slikah v nadaljevanju tega poglavja), ki naj bi jih vsaka organizacija izvajala. Pri tem pa je potrebno upoštevati poti, ki presegajo organizacijske meje.

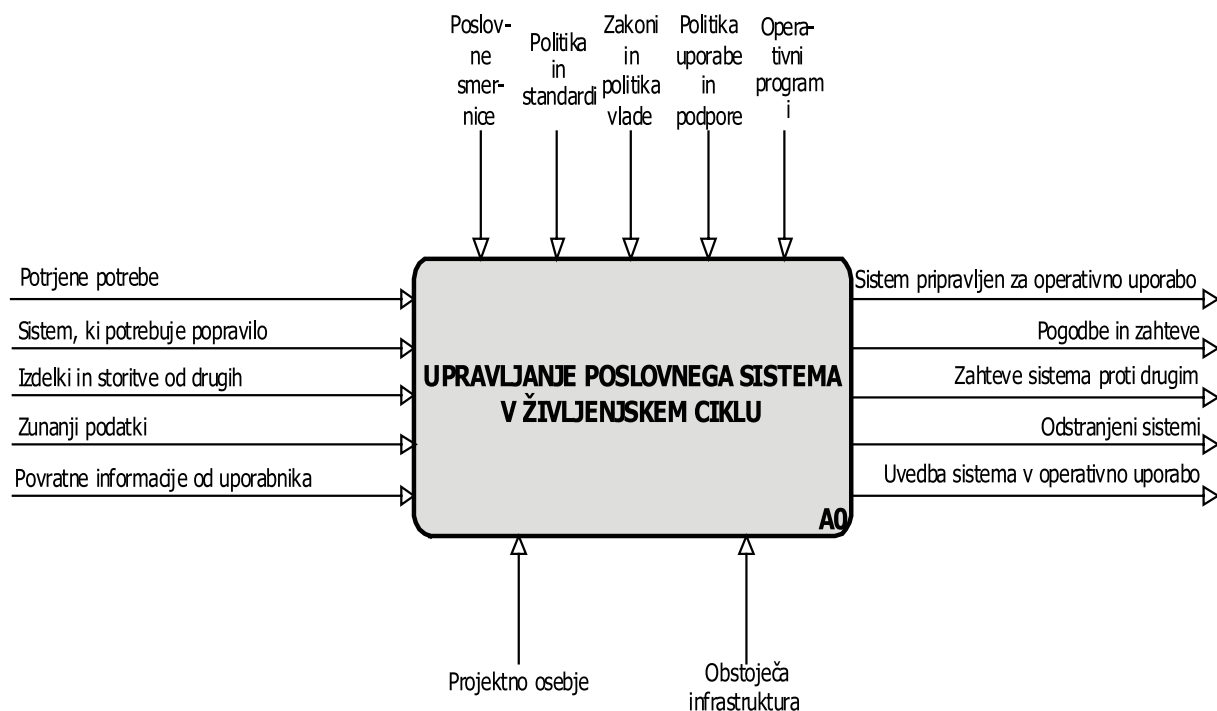
Osnovni namen predlaganega poslovnega modela se lahko razdeli v tri skupine, in sicer v:

- podporo strateškemu načrtu poslovnega sistema
- izboljšanje poslovnih procesov za upravljanje sistemov skozi ŽC z zagotavljanjem potrebnih informacij iz okolja in
- ravensko videnje glavnih dejavnosti v ŽC sistema z zagotavljanjem informacij iz okolja.

Poslovni model strukturira dejavnosti, povezane z življenjskim ciklom sistema za potrebe razvoja in sicer od definicije, potrditve potreb in razpolaganja z njim pa vse do odstranitve sistema iz operativne uporabe. Predstavlja referenčni model in povezovalno pozitivno sinergijo ter orodje za razumevanje modela upravljanja pri razvoju novih sistemov za potrebe razvoja v celotnem življenjskem ciklu.

Principi predlaganega poslovnega modela življenjskega cikla so:

- **Usklajena tehnična izhodišča**; model upaja globalne spremembe pri oblikovanju in vodenju tehničnih informacij.



Slika 2: Prikaz vhodov in izhodov modela upravljanja življenjskega cikla sistema (NATO CALS, 2000: 44)

- **Integriran življenjski cikel;** vsaka dejavnost se pojavi samo enkrat. Model zahteva razvoj in vzdrževanje povezanih in skladnih strategij in politik za ključne procese in sicer: pridobitev, upravljanje s tveganji, integralna logistična podpora, upravljanje s konfiguracijo, zagotavljanje kvalitete in upravljanje z informacijami.
 - **Uporaba podatkov iz okolja;** predstavljajo temelj priprav za novo okolje. Ustvarja podatkovne zbirke dejanskih in pomembnih zmogljivosti znotraj in zunaj programa upravljanja sistema v celotnem ŽC. Zato morajo imeti te podatkovne zbirke odprto zgradbo in biti prilagodljive za spremembe v času.
 - **Multidisciplinarne skupine** ali integralne projektne skupine; predstavljajo ključni mehanizem v verigi poslovnega modela ŽC. Te morajo imeti potrebne veščine in vire za upravljanje in obvladovanje kompleksnih organizacij znotraj industrije za rešitev programskih izzivov pri razvoju sistemov preko njegovega celotnega ŽC. Sestava, delo in vloga teh skupin se bo prilagajala skladno s pogodbeno strategijo in sprejetimi ravnmi poveztljivosti.
 - **Informacija kot pridobitev;** predstavlja korist za sistem stalne nabave in podpore v času življenjske dobe. Model podpira in spodbuja pridobivanje in obvladovanje podatkov za nadaljnjo uporabo sistema v celotnem ŽC. To zahteva razvoj in zgradbo podatkovnih zbirk.
 - **Namišljene organizacijske oblike;** model ne bo prikazal mnogih organizacijskih oblik in mej. Kot tak bo uporaben za raziskovanje posledic različnih meja in identificiral kritična področja, kjer bodo te meje ustvarjene.
- Slika 2 prikazuje osnovne vhode in izhode modela upravljanja ŽC sistema za potrebe razvoja.

3.1 Prva raven modela življenjskega cikla

Na prvi ravni (slika 3) so prikazane štiri velike skupine dejavnosti (A1 – A4), ki skupaj spreminjajo *potrjene potrebe* in program *poslovnih smernic* v celotno servisiran sistem, *pripravljen za operativno uporabo*. Po operacijah (delovanju) sistem *potrebuje popravilo* oziroma podporo sistema vzdrževanja, ta pa *povratne informacije od uporabnika*. Te povratne informacije dopuščajo oceno, ali je delovanje sistema skladno s *trenutnimi zahtevami* in *pogodbenimi pogoji*. Izhod iz procesa pa so podatki o sistemu, ki jih potrebujejo drugi. *Zunanji podatki* zagotavljajo informacije o drugih sistemih.

Proces A1 združuje štiri skupine upravljaljskih usmeritev, s katerimi nadzorujemo model ŽC. Dva tipa sta namenjena upravljanju dejavnosti znotraj modela, druga dva pa upravljanju izven modela. Prvo notranje navodilo je *trenutna zahteva*, ki utrjuje in širi *potrjene potrebe* in *poslovne smernice* na raven podrobnosti, kot jih potrebuje sam sistem. Ta *trenutna zahteva* se vzdržuje skozi celoten ŽC in se uporablja za sporočanje dejanskih in možnih sprememb. *Trenutna zahteva* se od *potrjenih potreb* lahko razlikuje, če je na primer sprejeta odločitev, da sprejmemo raven delovanja sistema, ki se razlikuje od začetne ravni. Razlog za to pa je lahko v razpoložljivih virih, ki ne zagotavljajo odprave pomanjkljivosti. Druga oblika notranjih navodil so *programske smernice*, ki se uporabljajo za upravljanje dejavnosti, ki so pod direktno kontrolo lastnika modela ŽC. Upravljanje dejavnosti izven

modela zagotavljajo zunanja navodila. *Navodilo za delovanje* definira omejitve pri uporabi sistema, ki izhaja iz materialnega pomanjkanja. *Pogodbe in zahteve* povprašujejo po *izdelkih in storitvah od drugih (zunanjih!)* kot vhod v proces ŽC. Do zahteve za pogodbo pride delno zaradi analize znotraj A1 in zaradi povratnih informacij od *zahtevanih postavk* iz A2 in A3. Informacije, potrebne za opazovanje delovanja sistema, se vrnejo v A1, da bi se preveril celotni proces in izdalo *poročilo o delovanju*. A1 oskrbuje tudi *program vpliva podatkov iz okolja* in *informacijske storitve* kot vire, ki ga uporabljajo vsi udeleženci programa.

Proces A2 se ukvarja z delom, potrebnim za pridobitev sistema in z zagotavljanjem podporne zmožnosti. To delo je lahko zelo obsežno in vključuje naloge, potrebne za vzpostavitev koncepta sistema, dizajn, produkcijo, testiranje in namestitev samega sistema ter dizajn, razvoj in naročanje specializiranega podpornega sistema in sistema za odstranjevanje, z namenom zagotavljanja notranje podpore. Funkcija *pridobivanja* združuje sistem, pripravljen za uporabo ter njegova specializirana orodja in zmogljivosti ter tudi vse potrebne rezervne dele in komponente. Izhod iz procesa omogoča tudi - idealno preko *vpliva podatkov iz okolja* - vse podatke, potrebne za podporo pri uporabi sistema, vključno s predvidenim delovanjem v njegovem ŽC. A2 prevzame tudi obnovo postavk, ki se vrnejo iz A4.

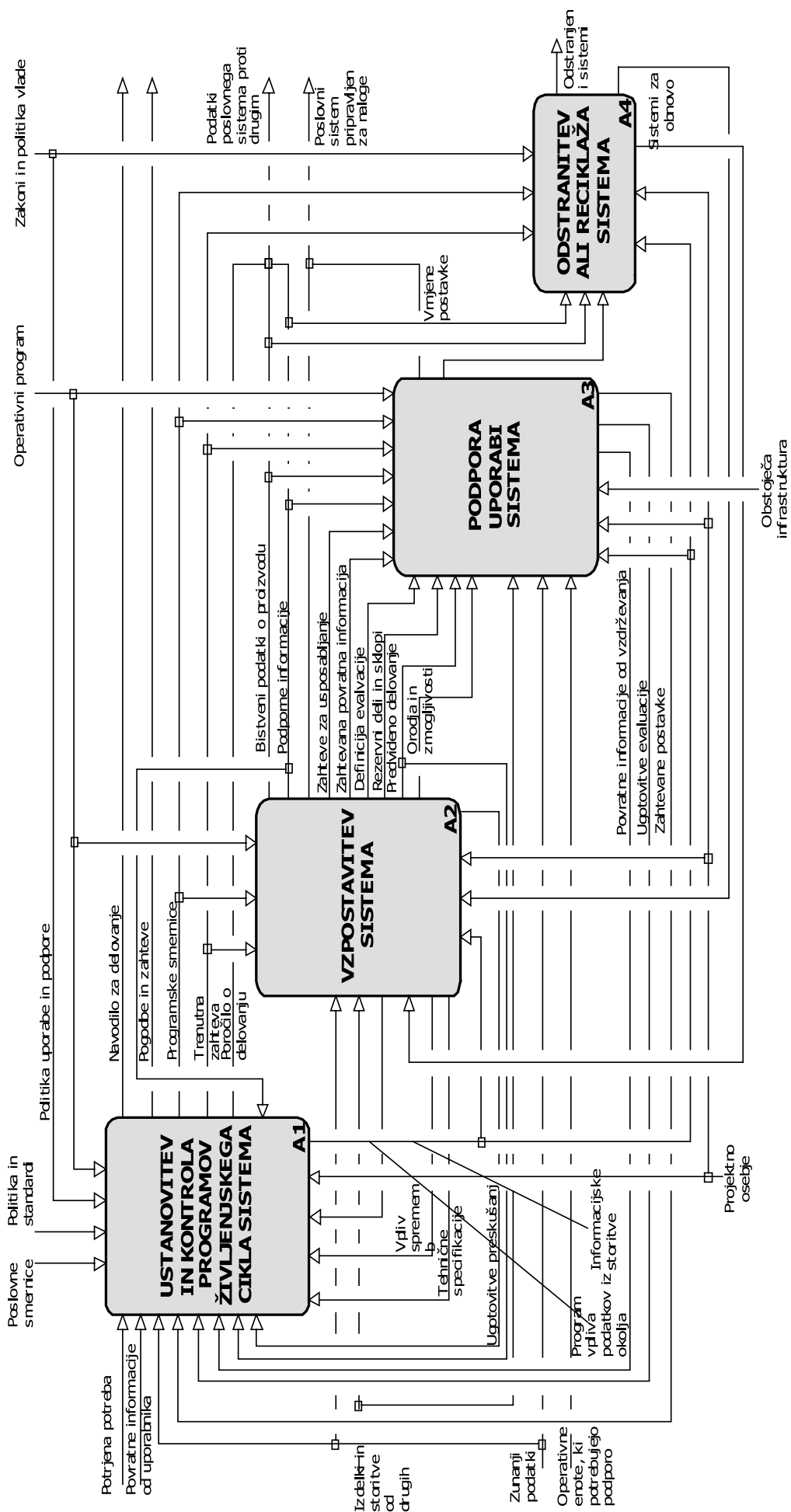
Proces A3 zagotavlja podporo, ki je potrebna, da se sistem ohrani na ravni operativne uporabe. Delo se načrtuje in izvaja skladno z zahtevami *operativnega programa*. Vsa za to potrebna orodja, zmogljivosti, rezervni deli in informacije se pridobijo iz A2 ali iz *obstoječe infrastrukture*. Postavke, ki niso več potrebne, se vrnejo v A4 na *odstranitev ali reciklažo*. Povratne informacije iz procesa vzdrževanja se vrnejo v A1.

Proces A4 sprejme odstranjeni sistem ter elemente tega sistema, ki so odstranjeni iz delovanja in so namenjeni odpisu ali obnovi. Elementi, namenjeni obnovi, se vrnejo v A2. Elementi, ki jih več ne potrebujemo, dokončno odstranimo.

3.2 Uvajanje in kontrola zahtev programa življenjskega cikla

Proces A1 (slika 4) je kontrolni mehanizem za upravljanje modela ŽC sistema preko širih povezanih aktivnosti.

Proces A11 spreminja in razvija *potrjene potrebe*, *poslovne smernice*, *politiko uporabe* in *podpore* ter druge omejitve, ki jih programu vsiljujejo zunanje avtoritete, v program *trenutnih zahtev*. Te *trenutne zahteve* vpeljujejo karakteristike delovanja in vzdržljivosti in to je tisto, kar si skupina, ki se ukvarja s programom ŽC, prizadeva doseči. Te zahteve se vzdržujejo skozi življenje sistema v natančni in sodobni obliki, zato da ne pride do komunikacijskih težav pri uvajanju odobrenih sprememb. *Trenutne zahteve* vključujejo vse zahteve glede podpore ŽC, in tukaj govorimo o karakteristikah, ki se nanašajo na življenje, pripravljenost, vzdržljivost in dostopnost. Vključujejo informacije o tem, kako se naj sistem uporablja in vzdržuje. *Podporne informacije* se vrnejo iz A2, da pomagajo pri razvoju zahtev. Predlagane spremembe glede zahtev se vrnejo iz A14. Odobrene spremembe postanejo posodobljeni deli *trenutnih zahtev*.



Slika 3: Prva raven modela življenjskega cikla (Kralj, 2004: 85)

Proces A12 poudarja potrebo po razvoju in vzdrževanju nepretrganega niza politik in strategij za učinkovito upravljanje sistema v njegovem ŽC. Te so potrebne za zagotavljanje doslednosti pristopa k določenim ključnim funkcijam in procesom zaradi prihodnjih sprememb v organizaciji ali dodelitvi novih odgovornosti (npr. predaja strojne opreme) od pridobitve do notranjega upravljanja oziroma določijo ogrožje, znotraj katerega se razvijejo *programske smernice*.

Proces A13 vzpostavlja in vodi organizacijo, ki je sposobna vzpostaviti sistem za potrebe razvoja, ki izpolnjuje *trenutne zahteve*. Trije od petih izhodov odobravajo nadaljevanje dela. *Programske smernice* osebju, ki je pod direktno kontrolo lastnika ŽC, zagotovijo vire in navodila, potrebna za izvajanje nalog. Pogodbe in zahteve vključenih podjetij, ki jim naloge izda lastnik ŽC, dodelijo enako funkcijo. A13 se loteva tudi dela, ki je potrebno, da se ustvari in ohranja program *vpliva podatkov iz okolja*, ki predstavlja vir vsem ostalim dejavnostim. Tudi *informacijske storitve* so vzpostavljene zato, da se zadovoljijo potrebe po informacijah, ki jih sami uporabniki skozi *vpliv podatkov iz okolja* ne morejo zadovoljiti.

Proces A14 primerja in ocenjuje, ali sistem dosega cilje, ki jih predvidevajo *trenutne zahteve*, *poslovne smernice* in *operativni programi* z namenom identifikacije potreb po spremembi. Ta primerjava obsega tehnični in poslovni vidik. Primerjava lahko pripelje do uvedbe predloga za spremembo, kar vpliva bodisi na zgradbo sistema ali program sistema. Lahko pride tudi do predlogov za spremembo bodisi direktno ali pa po oceni in zavrnitvi delovanja predlaganih sprememb. Predvideno delovanje sistema je določeno v A2. Informacije o dejanskem delovanju sistema dobivamo iz *operacij*, *vzdrževanja* ter podpornih elementov. Te lahko identificirajo potrebe po spremembi. Sama dejavnost ocenjevanja generira poročilo o delovanju, kjer se zabeležijo vse pomanjkljivosti in lahko pripelje do predlogov za spremembe, ki vplivajo na zahteve, poslovni sistem ali program poslovnega sistema. Ta aktivnost se ukvarja tudi s sprejemljivostjo zahtev za opustitev koncesij za komponente, ki ne izpolnjujejo pogojev.

3.3 Vzpostavitev sistema

Pridobitev sistema (slika 5) kot element ŽC pokriva vse dejavnosti, potrebne za pridobitev operativnega sistema in z njim povezane podporne zmogljivosti. Vključuje štiri procese: integriran razvoj proizvodov, proizvodnjo, testiranje in distribucijo, ki se v enaki meri in hkrati nanašajo na operativni sistem in z njim povezano podporo.

Proces **razvoja sistema A21** na ustrezni stopnji v podrobnosti razvija možne uresničljive rešitve glede *trenutnih zahtev*. Dejavnosti tega procesa se ponavljajo proti vedno večji stopnji podrobnosti (medtem, ko se rešitev razvija iz predlaganega koncepta sistema) do popolne definicije, kakšen sistem naj se razvija. Rešitev glede sistema se mora nanašati na predvideni operativni sistem in ureditev glede upravljanja podpore, ki je potrebna za ohranjanje sistema v uporabi. Sem spadajo tudi specializirana orodja, zmogljivosti ter podpora oprema, ki jo za ta namen potrebujemo.

Proces **proizvodnje sistema** za potrebe razvoja **A22** obsega testiranje operativnega sistema, ki se nanaša na izdelavo, sestavo in proizvodnjo, testiranje pripadajočih rezervnih

delov in komponent, testiranje inženirskih testnih modelov in prototipov ter s tem povezanih posebnih orodij, zmogljivosti in testne opreme. Tudi prenova elementov, vrnjenih iz uporabe na originalni proizvodni standard, je vključena v ta proces, saj potrebuje podobne zmogljivosti in podatke, razen če je definirano drugače.

Proces **preskušanja delovanja A23** vseh elementov sistema (vključno s programsko in strojno opremo in človeškimi povezavami) se izvaja zaradi usklajevanja sistema s trenutnimi zahtevami, definicijami in načrtom preskušanja. Funkcija preskušanja se nanaša tudi na podporne značilnosti, procese in opremo (npr. testiranje postopkov vzdrževanja in orodij). Navadno proizvodno preskušanje, rutinsko vključeno pri vsaki novi postavki, je vključeno v A22 (proizvodnja).

Dejavnosti, potrebne za sprejetje, procesiranje in transport novega operativnega sistema in podporne opreme ter elementov od proizvajalca do lokacije, od koder bodo operirali ali kjer bodo hranjeni, so prikazane s procesom **namestitve A24**.

3.4 Podpora uporabi sistema

Podpora uporabi sistema (slika 6) omogoča podporo, ki je potrebna, da se posamezne sisteme pripelje do stanja, primerne za operacije.

Na podlagi *operativnega programa*, *programskih smernic* in podpornih postopkov znotraj podpornih podatkov **proces A31** dejavnosti definira, ki jih je potrebno opraviti. A31 določa tudi zahteve za postavke, ki jih je potrebno kupiti in se uporabljajo v podpornih dejavnostih. Pri sistemih, ki so na vrsti za podpora dejanja, proces odloči o vsebini del, ki se bodo izvajala, in zaporedje postopkov. Načrt za vsak posamezen sistem vključuje specifikacijo zahtevane konfiguracije.

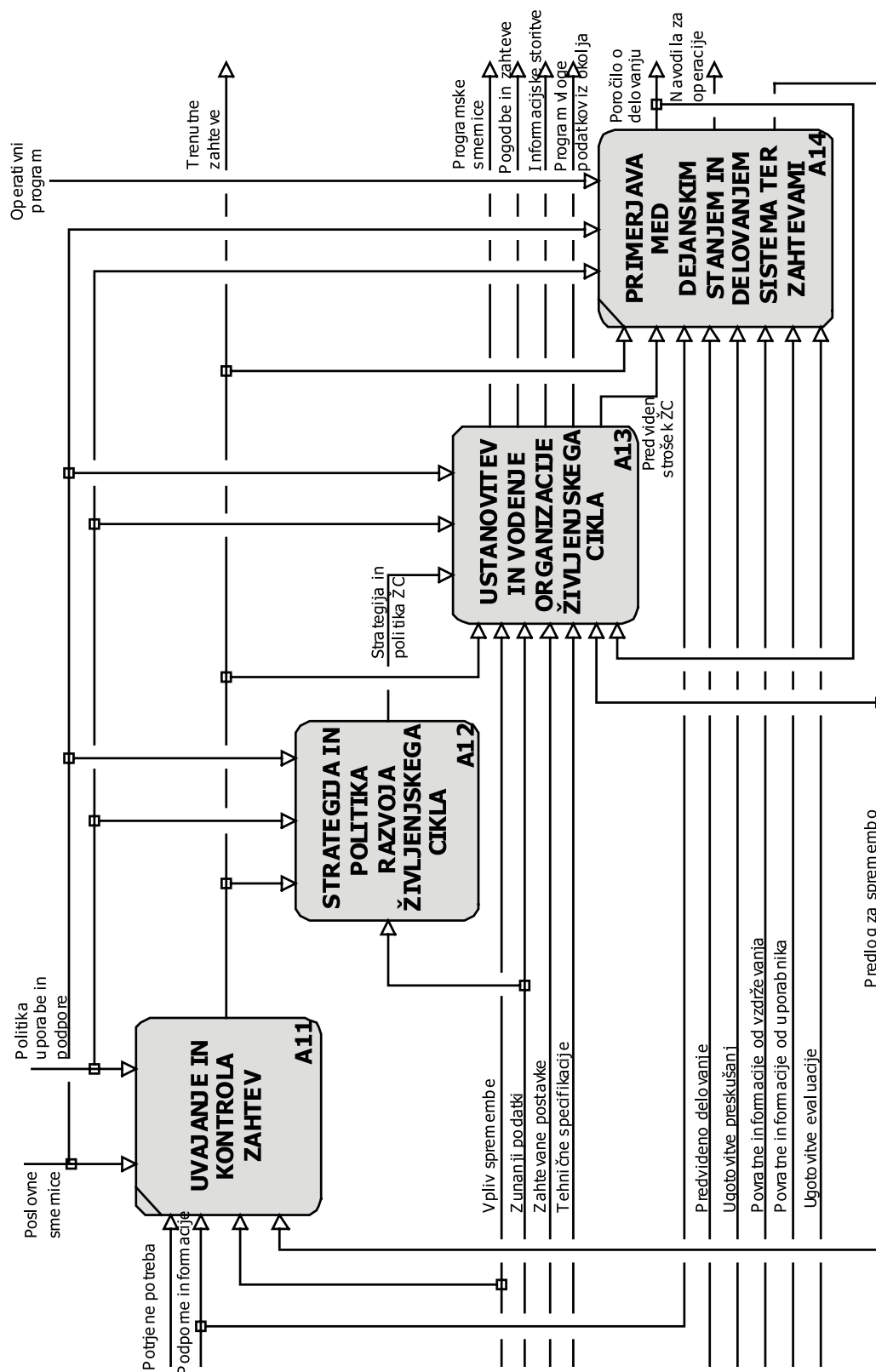
Proces A32 omogoča skladiščenje ter transport in izdajo rezervnih delov. Omogoča ostale postavke, potrebne za vzdrževanje, ki temeljijo na dostavi iz A2. A32 vzdržuje zahtevan način hrambe in izdaje postavk, potrebnih za vzdrževanje ali podporo sistema pri operativni uporabi.

Proces A33 izvaja vzdrževanje, potrebno za ponovno vzpostavljanje sistema v stanje, ki omogoča izvajanje naslednje predvidene operacije. To vključuje dejavnosti diagnoze, popravila, testiranja in umerjanja postavk, skladno s podatki o proizvodu in podpornimi podatki. Ta dejavnost vključuje tudi naloge, potrebne za vključevanje odobrenih sprememb v sistemsko konfiguracijo. Povratne informacije iz vzdrževanja pridejo, kot je določeno, s strani zahtevanih IS podatkov in to tako, da se zabeležijo ugotovitve, izvršena dejanja, uporabljeni rezervni deli in sprotna vprašanja, ki se pojavljajo. Trenutno konfiguracijo se sporoči v A31 (ali drugam, kjer je to potrebno) zato, da prikaže dejavnosti, ki se odvija. Odstranjene ali odvečne postavke gredo v A4 na odstranitev, reciklažo ali obnovo.

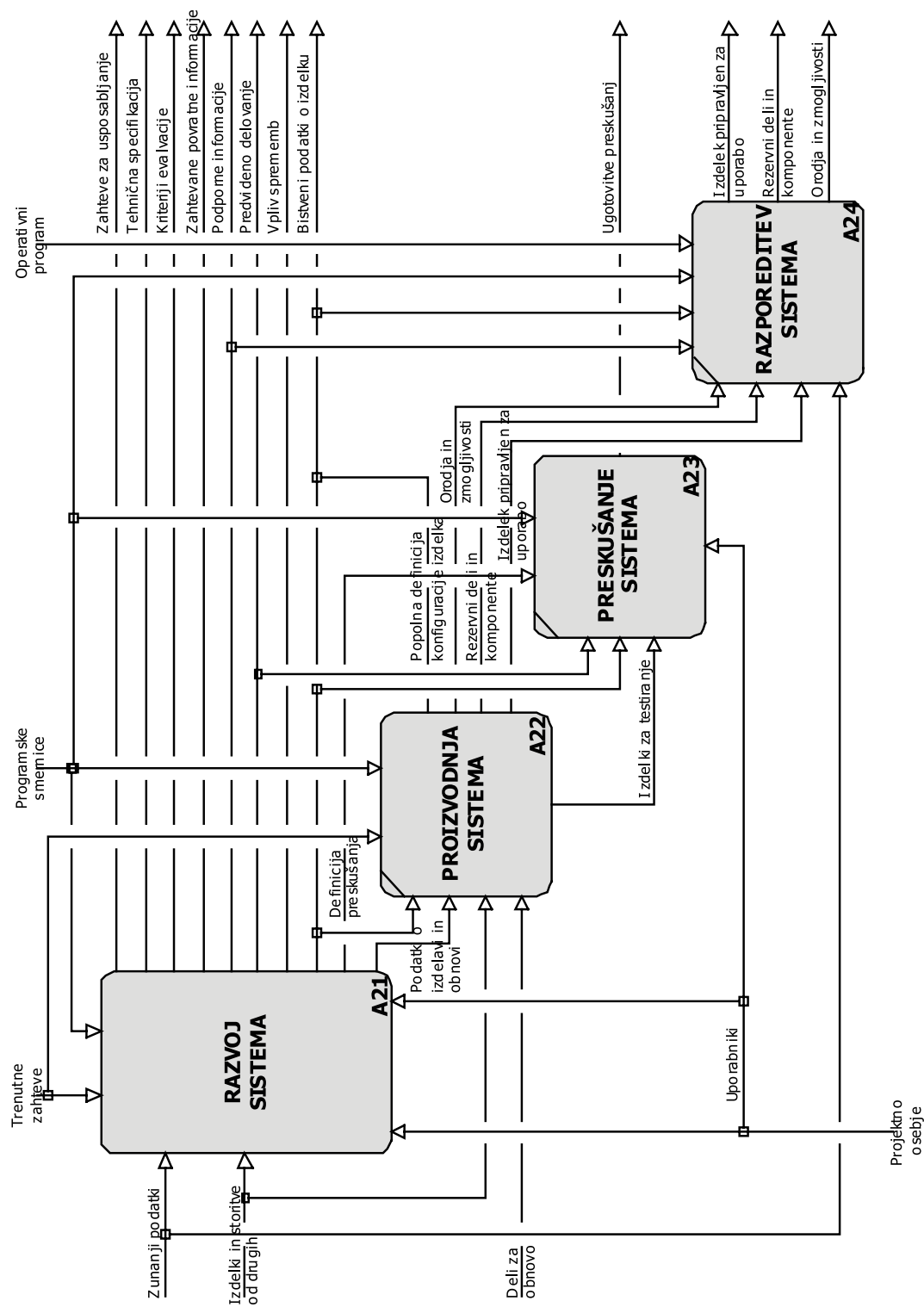
Proces A34 se ukvarja z vsemi dejavnostmi, ki so potrebne za pripravo sistema na operacije in ki niso povezane z vzdrževanjem.

Proces **upravljanja zmogljivosti A35** vzdržuje podporne zmogljivosti in orodja v stanju, ki vedno omogoča uporabo.

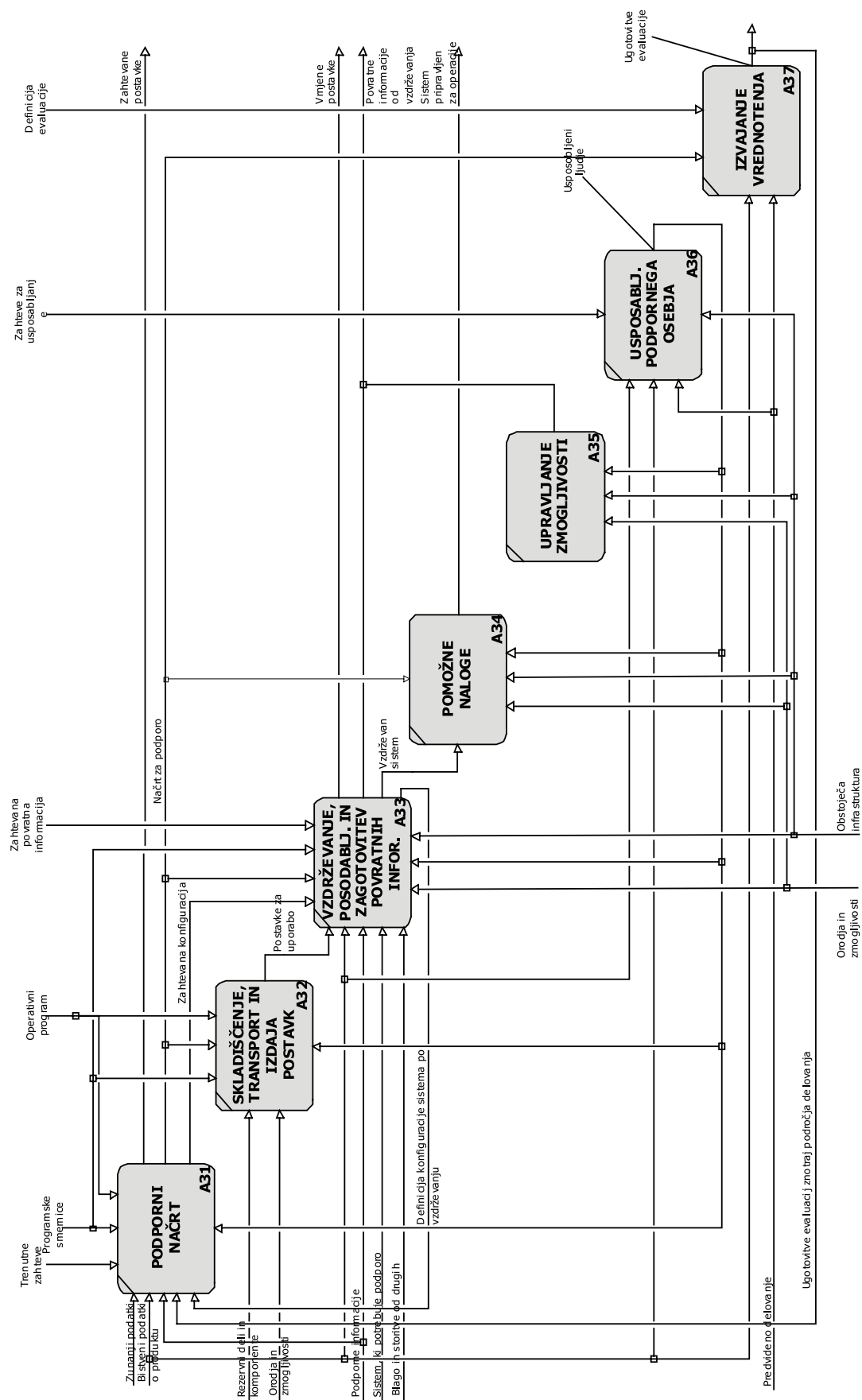
Proces **usposabljanja podpornega osebja A36** zagotavlja usposabljanje za operaterje in vzdrževalce.



Slika 4: Uvajanje in kontrola zahtev programa življenjskega cikla (Kralj, 2004: 87)



Slika 5: Pridobitev sistema (Kralj, 2004: 95)



Slika 6: Podpora uporabi sistema (Kralj, 2004: 100)

Proces **ovrednotenja** operativne in podporne **zmogljivosti sistema A37** temelji na obeh vnaprej določenih kriterijih in potrebah, ki se razvijajo iz operativnih izkušenj. A37 ocenjuje delovanje podpornega sistema v primerjavi s predvidenim delovanjem. Ta vrednotenja vključujejo analizo obstoječih podatkov, pridobljenih iz operacij in na drugi strani zbiranje in analizo podatkov za podporo posameznim potrebam. Zaključki in priporočila se dokumentirajo kot rezultati ovrednotenja.

4 Sklep

Pogosto ugotavljamo, da se spremembe dogajajo veliko hitreje kot v preteklosti. Tega se moramo zavedati in to sprejeti kot realnost ter priložnost za usmeritve v prihajajoče izzive.

Vstop RS v EU spodbuja in narekuje spremembe njenega gospodarstva in poslovnih sistemov. Te spremembe vplivajo na njegovo preoblikovanje, ki ga moramo prilagajati z uvedbo novih oblik in metod dela.

Proces ustvarjanja nove organizacijske celote predstavlja kompozicijo organizacijskih enot poslovnega sistema, drugih podjetij in znanstvenih ustanov, ki bo imela nove značilnosti, višje od elementov, iz katerih je sestavljena. Z ustvarjanjem kompozicije bo spremenjena oziroma dosežena večja kakovost njenih elementov, ki izhajajo iz nove povezanosti. Razlika med novo in staro kakovostjo, ki bo ustvarjena s kompozicijo, bo predstavljala pozitivno sinergijo gospodarstva.

Sinergija gospodarstva mora temeljiti na uvajanju, vzdrževanju ter pospeševanju širjenja predlaganega modela upravljanja ŽC kot najpomembnejšega elementa za uspeh. Ta model organiziranosti gospodarstva nam natančno določa kompozicijo usklajenih procesov, in sicer poslovnih procesov, procesov upravljanja in tehničnih procesov, ki predstavljajo temelj upravljanja poslovnih zmogljivosti.

Podlago za organizacijo dejavnosti znotraj poslovnega sistema in ustvarjanje pozitivne sinergije med poslovnim sistemom, drugimi podjetji in znanstvenimi ustanovami predstavlja poslovni model ŽC. Ta podaja skupine dejavnosti (procesov) za upravljanje sistemom v ŽC, uvajanje in kontrolo tega poslovnega modela ter pridobitev in podporo uporabi sistema za potrebe razvoja.

Predlagani model organiziranosti poslovnega sistema, nam natančno določa kompozicijo usklajenih procesov na prvi in drugi ravni poslovnega modela življenjskega cikla. Na prvi ravni prikazanega poslovnega modela so prikazani vhodi in izhodi ter povezave (odvisnosti) med posameznimi procesi in sicer vzpostavitev in kontrola programov življenjskega cikla (proces A1), vzpostavitev sistema (proces A2), podpora uporabi sistema (proces A3) in odstranitev ali reciklaža sistema (proces A4). Na drugi ravni prikazanega poslovnega modela so prikazani vhodi in izhodi ter povezave (odvisnosti) med posameznimi podprocesi prej omenjenih glavnih procesov (A11-A14, A21-A24, A31-A37).

Ta model predstavlja izhodišče za definiranje in implementacijo poslovnih procesov, ki temeljijo na principih življenjskega cikla v poslovnem sistemu in z njim povezanih organizacij ali znanstvenih ustanov. V praksi je možno predlagani model prikazati na več ravneh in to predvsem v odvisnosti od zahtevnosti samega sistema. Bistvo pa je, da model nastane v

zgodnji fazi nastanka sistema in sicer v fazi koncepta ali v fazi razvoja ter s tem prispeva k zmanjšanju stroškov v življenjskem ciklu in povečanju učinkovitosti sistema med uporabo.

Poslovni sistem s predlaganim modelom lahko vzpostavi pogoje za postopen razvoj in prodor na nove trge. Hkrati pa bo globalizacija – mednarodna konkurenčnost prisilila poslovni sistem v mednarodna povezovanja in združevanja, odvisnost podjetja od domačega trga pa se bo zmanjšala.

Potrebe RS so razmeroma majhne, vendar ne nepomembne. Predstavljajo referenco domači industriji in domačim proizvodom, ki je pogoj za prodor na tuje trge, hkrati pa omogočajo gospodarstvu vključevanje v večje projekte opremljanja v tujini, ker se na ta način – tudi s protidobavami – vključuje v mednarodne proizvodne procese in trgovino.

Takšna politika bo dala gospodarstvu možnost, da izkoristi sedanje komercialno znanje in tehnologije ter pridobi nove, kar bo lahko uporabila za proizvodnjo proizvodov visoke kakovosti ter zagotovila najvišjo raven razpoložljivosti in operativnosti poslovnih zmoglosti nacionalnega poslovnega sistema.

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Željko Kralj je 1987 končal Fakulteto za strojništvo Univerze Džemal Bijedić v Mostarju ter pridobil izobrazbo univerzitetni diplomirani inženir strojništva letalske smeri. Izkušnje, ki si jih je nabral v svoji dolgoletni praksi, je Željko Kralj nadgradil s teoretičnimi znanji na podiplomskem študiju Fakultete za organizacijske vede. Željko Kralj je uspešno opravil javni zagovor magistrske naloge dne 16. novembra 2004. V svoji dolgoletni praksi je Željko Kralj vodil več raziskovalno-razvojnih in tehnološko razvojnih projektov s področja razvoja oborožitve in vojaške opreme ter več projektov opremljanja. Ti projekti so integrirali znanja slovenskih znanstvenih ustanov in podjetij obrambne industrije ter znanja iz obrambnega sistema. Rezultati teh projektov so bili tudi predstavljeni strokovni javnosti z objavami v Biltenu Slovenske vojske. Željko Kralj je bil več let član uredniškega odbora Biltena Slovenske vojske in je član strokovnega sveta za raziskave in razvoj Slovenske vojske.

Zakonska reguliranost računovodskih poklicev v izbranih državah evropske unije

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Članek se osredotoča na različne pristope izbranih držav Evropske unije k zakonskem reguliranju treh z računovodstvom povezanih poklicev: poklic računovodje, revizorja in davčnega svetovalca. Med vsemi tremi je le poklic revizorja tesno povezan z javnim interesom, zato je tudi v krovni evropski zakonodaji podrobneje regulirana zgolj dejavnost revidiranja, medtem ko je reguliranje drugih dveh dejavnosti popolnoma prepuščeno posameznim državam članicam. V članku so države Evropske unije razvrščene v štiri skupine, pri čemer vsaka skupina vključuje države, ki so izbrale soroden pristop k reguliranju z računovodstvom povezanih poklicev. Iz vsake skupine je izbrana po ena država, za katero je prikazana podrobnejša analiza nacionalne zakonodaje na področju regulacije obravnavanih računovodskih poklicev.

Ključne besede: računovodstvo, revizija, davčno svetovanje, zakonodaja, Evropska unija

1 Uvod

Računovodstvo je staro toliko kot civilizacija. Čeprav je vloga računovodstva skozi zgodovino pogosto prezrta, lahko rečemo, da gre za enega najpomembnejših poklicev v zgodovini človeštva, saj je tesno povezan z gospodarskim in kulturnim razvojem. Računovodje so igrali pomembno vlogo v razvoju trgovine in koncepta blaginje, prispevali so k uveljavitvi denarne menjave in bančništva. Iznajdba dvostavnega knjigovodstva (Kotruljević 1458; Pacioli 1494), ki so ga prvi pričeli uporabljati beneški trgovci, je prispevala k razcvetu italijanske renesanse in doprinesla k izvedbi industrijske revolucije. Prav tako je računovodstvo odigralo pomembno vlogo pri razvijanju zaupanja v kapitalske trge, potrebne za razvoj modernega kapitalizma (Giroux, 1999). Pomen računovodstva za kapitalske trge se zrcali tudi v izjavi ameriškega ministra za finance, Henryja M. Paulsona, ki je dejal: »Kapitalski trgi so kot kri našega gospodarstva - združujejo ljudi, ki potrebujejo kapital, z ljudmi, ki ga vlagajo, in tako igrajo pomembno vlogo pri razvoju podjetništva v udejanjanju novih zamisli in ustvarjanju novih delovnih mest. Računovodstvo pa je kri, ki poganja kapitalske trge« (Paulson, 2006).

Vzporedno z nekaterimi zgodovinskimi mejniki in prelomnicami gospodarskega razvoja, so se v okviru računovodske stroke razvijala specializirana področja, na katerih se je oblikovalo več poklicev, povezanih z računovodstvom. Razvoj takšnih poklicev (npr. finančni računovodja, davčni svetovalec, revizor) je sledil potrebam po specializiranih računovodskih storitvah, po katerih sta povpraševala tako javni kot tudi gospodarski sektor. Ob primerjavi različnih, z računovodstvom povezanih dejavnosti, je pomembno poudariti, da večino teh, kot so na primer finančno (pa tudi stroškovno ali

poslovodno) računovodstvo in davčno svetovanje, že od samega začetka usmerja zasebni interes. V svoji zgodnji zgodovini je to pravilo veljalo tudi za poklic revizorja.

Obdobje industrijske revolucije in visoke gospodarske rasti v Evropi (obdobje med letoma 1750 in 1850) je bilo obdobje preoblikovanja uspešnih podjetnikov ter malih družinskih podjetij v velike industrijske družbe. Obdobje, ki je sledilo industrijski revoluciji in z njo povezanemu ločevanju funkcije poslovanja od funkcije (lastniškega) upravljanja, predvsem druga polovica 19. stoletja, je bilo obdobje strmega vzpona revizorjev in revizijske dejavnosti. V tem času so revizorji postali pomembni akterji pri reševanju problema agenta, ki se je pojavil zaradi nasprotujočih si interesov lastnikov (principalov) in njihovih poslovođij (agentov). Delovali so v interesu lastnikov in jim redno poročali o opravljenih revizijah. Šele pozneje, v začetku 20. stoletja, se je glavni cilj revizije postopoma začel spreminjati v smeri poročanja o dejanskem finančnem stanju podjetja (Brief history of auditing, 2008). Z nadaljnjim razvojem finančnih trgov je glavni cilj revizije postal izdajanje neodvisnega mnenja o računovodskih izkazih, ki je v prvi vrsti namenjeno široki javnosti. Od tega mejnika dalje velja, da revizorji delujejo primarno v interesu široke javnosti.

Med vsemi računovodskimi poklici je še danes le poklic revizorja tesno povezan z javnim interesom in je zato tudi med vsemi poklici najbolj zakonsko reguliran in nadziran. Glede na to, da se nadzor nad kakovostjo izvajanja računovodskih poklicev, ki jih usmerja zasebni interes, izvaja na trgu prek ponudbe in povpraševanja, je potrebno nadzor nad kakovostjo opravljanja revizijske dejavnosti zakonsko regulirati, da bi zagotovili in ohranili delovanje v javnem interesu. Potreba po strožjem nadzoru nad revizijsko dejavnostjo je postala še bolj izrazita v času velikih finančnih škandalov na prelomu tisoč-

letja, ko je postalo jasno, da je dejavnost, ki naj bi delovala v javnem interesu, postopno skrenila z začrtane poti in pričela delovati v zasebnem interesu s ciljem maksimiziranja dobička. Žal pa je bilo soglasje o nujnosti takojšnjega ukrepanja v smislu korenitih sprememb z dejavnostjo revidiranja povezane zakonodaje doseženo prepozno, da bi še lahko preprečili škodo na finančnih trgih in posledice, povezane z izgubo zaupanja v dejavnost revidiranja. Želja po obnovitvi zaupanja javnosti v revizorjevo delo, po večji zanesljivosti javno razpoložljivih finančnih informacij in po ponovni stabilizaciji finančnih trgov, je privedla do temeljite zakonodajne reforme na področju revizijske stroke v Evropi, ZDA in drugod. Reforme na področju revizijske dejavnosti so se v ZDA uveljavile s sprejetjem Sarbanes-Oxleyevega zakona leta 2002, v Evropski uniji pa s sprejetjem Direktive Evropskega parlamenta in Sveta 2006/43/ES o obvezni reviziji letnih in konsolidiranih računovodskih izkazov (v nadaljevanju: Direktiva) leta 2006.

V Sloveniji že dalj časa potekajo pogajanja o ureditvi delovanja računovodskih servisov, ki do sedaj niso pripeljala dlje kot do oblikovanja predloga Zakona o računovodski dejavnosti, ki bi tudi pri nas, tako kot v nekaterih državah članicah Evropske unije, predpisal zahtevano izobrazbo, pridobitev strokovnega naziva in ustrezne delovne izkušnje za osebe, ki želijo ustanoviti lasten računovodski servis in nuditi računovodske storitve. Cilj raziskave je proučiti obstoječe pristope držav članic k reguliranju računovodskih poklicev in jih smiselno razvrstiti v skupine s sorodnimi karakteristikami. Pomen takšne razvrstitve je dvojen: na eni strani pokaže, katere pristope uporabljajo države članice, s katerimi se najpogosteje primerjamo in po katerih se tudi sicer zgledujemo, po drugi strani pa tudi, kateri izmed pristopov so na tem področju prevladujoči. Namen članka tako ni oblikovanje predloga, na kakšen način naj bi bila dejavnost računovodstva v Sloveniji regulirana, temveč je namen seznanitev s pristopi, kakršni so se uveljavili v izbranih državah EU. Omejitev dela je predvsem ta, da prispevek ne temelji na uradni raziskavi, pri kateri bi bili podatki zbrani s strani pristojnih organov posameznih držav članic, pač pa na lastnem raziskovanju relevantne literature, internetnih virov in razgovorov, zaradi česar ni izključena možnost, da je bil uporabljen manj zanesljiv vir ali pa da je v času priprave prišlo do kakršnihkoli sprememb na področju, na katerega se prispevek osredotoča.

V članku najprej predstavljam krovno evropsko zakonodajo na področju revizijske dejavnosti in ugotavljam glavne vzroke, zakaj podobna krovna zakonodaja na ravni EU za druge računovodske poklice ne obstaja. Na podlagi nekaterih objavljenih del s področja mednarodnega računovodstva (Radebaugh in Gray, 2006; Choi in Meek, 2004; Nobes in Parker, 2008), opravljenih razgovorov z računovodskimi strokovnjaki iz nekaterih držav članic EU, predvsem pa obsežnega raziskovanja dostopnih virov na Internetu (proučevanje spletnih strani strokovnih zbornic, inštitutov in pomembnejših povezav, iskanje in proučevanje relevantne zakonodaje v posameznih državah članicah), v naslednjem delu izbrane države članice razvrščam v štiri skupine v odvisnosti od tega, katere dejavnosti posamezne države članice zakonsko regulirajo. Vsaka izmed štirih skupin tako združuje države članice s sorodnim pristopom k reguliranju obravnavanih računovodskih dejavnosti. V zadnjem delu zaradi potrebe po omejitvi

obsega rezultatov analize izberem iz vsake skupine po eno državo, predstavnico skupine, za katero podrobneje predstavljam pristop k zakonskem reguliranju obravnavanih računovodskih poklicev. V zaključku podajam sklepne ugotovitve, ki izhajajo iz opravljene raziskave zakonske reguliranosti računovodskih poklicev v izbranih državah Evropske unije.

2 Z računovodskimi poklici povezana krovna zakonodaja Evropske unije

Preden se v nadaljevanju posvetim reguliranosti posameznih računovodskih poklicev v izbranih državah Evropske unije (EU), na kratko predstavljam krovno zakonodajo EU, povezano z temi poklici.

Kot pričakovano, pozornejši pregled evropske krovne zakonodaje pokaže, da je med vsemi računovodskimi poklici z zakonodajo EU regulirana le revizijska dejavnost (Direktiva Evropskega parlamenta in Sveta o obveznih revizijah - 2006/43/ES). Glede na rezultat, ki ga je potrebno doseči, je direktiva, kot vrsta evropskega pravnega akta, zavezujoča za vse države članice. Z direktivo so določeni zgolj cilji, ki morajo biti doseženi, izbor oblike in metod za doseganje teh ciljev pa je prepuščen zakonodajni oblasti posamezne države članice. Direktive torej nimajo neposrednega učinka, ki bi bil popolnoma primerljiv z nacionalno zakonodajo držav članic, vendar pa morajo države članice udeležiti prenos ciljev direktive v nacionalno zakonodajo v roku, določenem v posamezni direktivi.

Revizijska dejavnost je obravnavana v II. poglavju Direktive. Glede dodeljevanja pooblastil zakonskim revizorjem in revizijskim družbam Direktiva določa, da morajo države članice imenovati pristojne organe, ki so lahko tudi strokovna združenja, vendar morajo biti vključena v sistem javnega nadzora nad dejavnostjo revidiranja.

Direktiva natančno določa kriterije na področju zahtevane formalne izobrazbe, preverjanja strokovnih znanj in zahtevanih delovnih izkušenj, ki so potrebne za pridobitev naziva oziroma dovoljenja za opravljanje nalog zakonitega revizorja. Še posebej podrobno so predstavljene zahteve glede preizkusa teoretičnih znanj, saj navaja kar 10 obveznih predmetov, katerih vsebine naj bi bile vključene v proces izobraževanja za pridobitev strokovnega naziva, poleg teh pa je navedenih še nadaljnjih 9 predmetov, ki naj bi jih kandidati poznali v obsegu, v katerem so povezani z dejavnostjo revidiranja.

Poleg zahtev, povezanih s pridobitvijo strokovnega naziva, so dodatne zahteve v Direktivi povezane s stalnim izobraževanjem, ki je pogoj, da revizor pridobi pravico za podaljšanje dovoljenja za delo in da ostaja vpisan v javnem registru zakonskih revizorjev. Direktiva določa, da revizor lahko obnavlja svoje dovoljenje za delo le v primeru, da se redno izobražuje po programu dodatnega strokovnega izobraževanja. Za neupoštevanje zahtev po dodatnem strokovnem izobraževanju so določene stroge kazni, vključno z nezmožnostjo nadaljnega izvajanja revizijskih storitev.

Kot kaže ta kratek povzetek relevantnih členov Direktive, so vsi vidiki revizijske dejavnosti regulirani prek krovne evropske zakonodaje in hkrati nadzirani s strani organov jav-

nega nadzora nad dejavnostjo revidiranja posameznih držav članic.

V nasprotju z dejavnostjo revidiranja pa za druge dejavnosti, povezane z računovodstvom, krovna ureditev področja v EU ne obstaja. Razlog za takšno razlikovanje med dejavnostmi je jasen: namen dela, ki ga opravljajo revizorji, se nedvomno razlikuje od namena dela, ki ga izvajajo strokovnjaki drugih, z računovodstvom povezanih poklicev. Medtem, ko računovodje (bodisi specialisti za finančno ali stroškovno računovodstvo) in zunanji davčni svetovalci delujejo predvsem v interesu podjetij, ki najemajo njihove storitve, so revizorji zavezani k delovanju v javnem interesu. Vrednost informacij ter zanesljivost računovodskih izkazov se poveča, če računovodske izkaze revidira neodvisen revizor, katerega kakovost storitev preverjajo posebne komisije strokovnih združenj za nadzor nad kakovostjo dela revizijskih družb in revizorjev ter organi javnega nadzora.

Pregled evropske zakonodaje s področja računovodenja, še zlasti Direktive o letnih računovodskih izkazih (78/660/EGS) in prenovljene Direktive Evropskega parlamenta in Sveta o letnih in konsolidiranih računovodskih izkazih nekaterih vrst družb, bank in drugih finančnih institucij ter zavarovalnic (2003/51/ES), ne razkriva nobenih posebnih zahtev glede strokovne usposobljenosti oseb, odgovornih za pripravo računovodskih izkazov. Računovodska direktiva ne določa nobenega cilja v povezavi z zahtevano formalno izobrazbo ali zahtev po pridobitvi strokovnih nazivov za osebe, ki se ukvarjajo s pripravo letnih in konsolidiranih računovodskih izkazov. Prav tako ne nalaga zakonodajnim organom držav članic kakršnihkoli zahtev po specifičnem urejanju tega področja. Ker računovodje in davčni svetovalci ne delujejo predvsem v interesu javnosti, je urejanje tega področja v celoti prepuščeno državam članicam. Prav tako se države članice lahko same odločijo, ali bodo izvajanje teh poklicev regulirale ali ne.

Zato seveda ni presenetljivo, da je v nacionalnih predpisih posameznih držav članic prišlo do velike raznolikosti na področju reguliranja teh poklicev. Ena najbolj očitnih razlik je ta, da nekatere države članice dejavnost računovodenja in davčnega svetovanja zakonsko regulirajo in določajo standarde, ki jih je za opravljanje dejavnosti potrebno izpolniti, medtem ko se druge države za takšno možnost niso odločile in dejavnosti zakonsko ne regulirajo. Nadaljnje razlike najdemo na področju strokovnih nazivov, zahtevanih za opravljanje dejavnosti, na področju kvalifikacij, zahtevanih za pridobitev teh nazivov ter na področju institucij, odgovornih za izvajanje izobraževalnih programov in preverjanje strokovnih znanj kandidatov. Kot posledica omenjenih nacionalnih razlik lahko v državah članicah, v katerih ti dve dejavnosti nista zakonsko regulirani, vsakdo (ne glede na stopnjo dosežene formalne izobrazbe, strokovne izkušnje, pridobljen strokovni naziv, dovoljenje za opravljanje dejavnosti ali članstvo v strokovnih organizacijah) opravlja poklic računovodje ali davčnega svetovalca. V državah, kjer sta dejavnosti zakonsko regulirani, pa lahko dejavnost izvajajo le strokovnjaki, ki izpolnjujejo postavljene kriterije. Tako na primer v nekaterih državah oseba brez strokovnega naziva ne sme biti odgovorna za pripravo računovodskih izkazov. Prav tako tudi ne more opravljati samostojne dejavnosti na področju računovodenja ali davčnega svetovanja.

3 Zakonska reguliranost računovodskih poklicev v izbranih državah EU

V nadaljevanju so izbrane države EU razvrščene v štiri skupine (Tabela 1). V prvi skupini so države, ki v svojih zakonodajah regulirajo le revizijsko dejavnost, medtem ko drugi

Tabela 1: Skupine izbranih držav EU s sorodnim pristopom k reguliranju računovodskih poklicev

Skupina 1		Skupina 2		Skupina 3		Skupina 4	
Revidiranje	✓	Revidiranje	✓	Revidiranje	✓	Revidiranje	✓
Davčno svetovanje	×	Davčno svetovanje	✓	Davčno svetovanje	×	Davčno svetovanje	✓
Računovodenje	×	Računovodenje	×	Računovodenje	✓	Računovodenje	✓
Velika Britanija Irska Španija Švedska Grčija Estonija Latvija Litva Danska Nizozemska Slovenija		Nemčija Poljska Češka Slovaška		Portugalska Luksemburg		Avstrija Italija Belgija Francija Madžarska Malta	

dve dejavnosti, povezani z računovodstvom, nista regulirani. Kljub odsotnosti takšne regulative, so bili tudi v teh državah kot posledica praktičnih potreb članov po stalnem izobraževanju in izmenjavi strokovnih izkušenj, ustanovljeni številni strokovni inštituti. Druga skupina vključuje države, kjer je poleg poklica revizorja zakonsko urejen tudi poklic davčnega svetovalca. V tretjo skupino so uvrščene države, v katerih sta regulirana poklic revizorja in poklic računovodje. Četrto skupino pa predstavljajo države, katerih nacionalne zakonodaje urejajo vse tri računovodske poklice.

Z namenom čim podrobnejše predstavitve različnih pristopov k zakonski reguliranosti računovodskih poklicev, so pristopi posameznih izbranih držav opisani v nadaljevanju. Zaradi potrebe po omejitvi obsega rezultatov raziskave, je iz vsake skupine izbrana po ena država, predstavnica skupine. Odločitev za izbor Velike Britanije in Nemčije je temeljila na kriteriju, da izberem iz vsake skupine tisto državo, za katero menim, da v svoji skupini predstavlja »idejnega vodjo« torej pomembno državo, ki jo računovodska stroka priznava za tipično predstavnico bodisi anglo-saksonskega ali kontinentalnega računovodstva. Zaradi izredno zanimivih rešitev in nekaterih odstopanj od nemškega pristopa, je bila v izbor vključena tudi Avstrija. Menim, da bo zaradi geografske bližine in gospodarske povezanosti s to državo ta primer še posebej zanimiv za slovenske računovodske strokovnjake. Pri izboru predstavnice skupine, v katero sta vključeni le dve državi, od katerih nobena ni posebej pomembna za računovodsko stroko, pa sem se za izbor Luksemburga odločila predvsem zaradi jezikovnih ovir pri podrobnem proučevanju zakonskih določil in virov s področja organiziranosti stroke na Portugalskem.

3.1 Reguliranost računovodskih poklicev v Skupini 1: primer Velike Britanije

V Veliki Britaniji posebna zakonodaja, s katero bi bila uravnavana poklica računovodje ali davčnega svetovalca, ne obstaja. V nasprotju s tema dvema poklicema, pa je poklic revizorja strogo urejen in v skladu z Direktivo 2006/43/ES.

V Veliki Britaniji je bilo ustanovljenih večje število strokovnih združenj, v katera se revizorji združujejo, zato obstajajo tudi različne poti za pridobitev strokovnega naziva in dovoljenja za opravljanje nalog revizorja v Veliki Britaniji. V vsakem primeru mora kandidat izpolnjevati dva osnovna pogoja: 1) pridobiti mora revizijski certifikat, ki ga izda t. i. *Recognised Supervisory Body* in 2) pridobiti mora potrdilo o priznanih strokovnih kvalifikacijah, ki ga izda t. i. *Recognised Qualifying Body*.

Revizijski certifikat lahko izda katerikoli izmed štirih strokovnih inštitutov, ki jim je bil podeljen status *Recognised Supervisory Body*. Za pridobitev tega statusa morata delovanje inštituta pregledati britansko Ministrstvo za trgovino in gospodarstvo ter britanski Odbor za javni nadzor nad revidiranjem (*Professional Oversight Board for Accountancy*). Pridobljeni status priznanega nadzornega organa zagotavlja, da ima inštitut postavljena jasna in stroga pravila, ki zagotavljajo najvišjo strokovno usposobljenost revizorjev, ki so v ta inštitut včlanjeni. Poleg tega mora imeti inštitut s tem statusom vzpostavljene tudi primerne disciplinske postopke, ki zagotavljajo ustrezne

ukrepe v primerih, ko revizor pri svojem delu ne upošteva pravil strokovnega ravnanja. Štirje britanski inštituti, katerim je bil podeljen opisani status, so (The Companies House, 2009): *the Institute of Chartered Accountants of Scotland* (ICAS: www.icas.org.uk), *the Institute of Chartered Accountants in England and Wales* (ICAEW: www.icaew.co.uk), *the Institute of Chartered Accountants in Ireland* (ICAI: www.icaei.ie) in *the Association of Chartered Certified Accountants* (ACCA: www.accaglobal.com).

Potrdilo o priznanih strokovnih kvalifikacijah lahko izda eden izmed strokovnih inštitutov, ki so pridobili status *Recognised Qualifying Body*. Trenutno ima veljaven status priznanega kvalifikacijskega organa šest inštitutov in sicer (The Companies House, 2009): *the Institute of Chartered Accountants of Scotland* (ICAS: www.icas.org.uk), *the Institute of Chartered Accountants in England and Wales* (ICAEW: www.icaew.co.uk), *the Institute of Chartered Accountants in Ireland* (ICAI: www.icaei.ie), *the Association of Chartered Certified Accountants* (ACCA: www.accaglobal.com), *the Chartered Institute of Public Finance and Accountancy* (CIPFA: www.cipfa.org.uk) in *the Association of International Accountants* (AIA: www.aia.org.uk). Da bi pridobil potrdilo o priznanih strokovnih kvalifikacijah, mora kandidat opraviti vsaj 144 tednov praktičnega usposabljanja, od tega vsaj 96 tednov pod neposrednim nadzorom osebe, ki je že pridobila potrdilo o priznanih strokovnih kvalifikacijah. Dodatna zahteva, ki jo mora izpolnjevati kandidat, ki želi pridobiti potrdilo o priznanih strokovnih kvalifikacijah, je vsaj 48 tednov delovnih izkušenj v revizijski družbi.

Na področju opravljanja storitev računovodenja in davčnega svetovanja v Veliki Britaniji ne obstajajo posebne zakonske zahteve. Ti dve dejavnosti zakonsko nista regulirani, kar pomeni, da se z dejavnostma lahko ukvarja vsakdo, ki to želi. Prav tako se naziva »računovodja« in »davčni svetovalec« lahko prosto uporabljata za vse osebe, ki ti dve dejavnosti opravljajo, ne glede na to, ali so pridobile katerega izmed strokovnih nazivov ali ne. Kljub dejstvu, da dejavnosti nista regulirani, v Veliki Britaniji obstaja vrsta kvalitetnih strokovnih inštitutov, ki so bili ustanovljeni kot posledica praktičnih potreb po stalnem izobraževanju in izmenjavi izkušenj članov. Različni izobraževalni programi, ki jih ponujajo ti inštituti, dajejo kandidatom možnost za pridobitev različnih strokovnih nazivov, kot so na primer preizkušeni poslovodni računovodja (*Chartered Management Accountant*; CIMA – the Chartered Institute of Management Accountants: www.cimaglobal.com), računovodski tehnik (*Accounting Technician*; AAT – the Association of Accounting Technicians: www.aat.co.uk), finančni računovodja (*Financial Accountant*; IFA – the Institute of Financial Accountants: www.ifa.org.uk), preizkušeni javni finančni računovodja (*Chartered Public Finance Accountant*; CIPFA – the Chartered Institute of Public Finance and Accountancy: www.cipfa.org.uk), davčni tehnik (*Tax Technician*; ATT – the Association of Tax Technicians: www.att.org.uk) ali preizkušeni davčni svetovalec (*Chartered Tax Adviser*; CIOT – the Chartered Institute of Taxation: www.tax.org.uk).

Kljub temu, da za izvajanje dejavnosti računovodenja in davčnega svetovanja nazivi niso obvezni, imajo v praksi pri iskanju zaposlitve prednost kandidati, ki so pridobili katerega izmed strokovnih nazivov. Iz tega lahko sklepamo, da trg

priznava višjo vrednost storitvam, ki jih nudijo certificirani strokovnjaki in s tem potrjuje, da programi dodatnega strokovnega izobraževanja zagotavljajo višjo kakovost storitev računovodenja in davčnega svetovanja.

V Veliki Britaniji je za področje upravljanja družb in zaupanja v računovodsko poročanje zadolžen neodvisen regulator - Svet za finančno poročanje (*Financial Reporting Council* - www.frc.org.uk), ki svoje naloge opravlja prek specializiranih delovnih teles. Na področju računovodstva in z računovodstvom povezanih poklicev pod okriljem Strokovnega nadzornega odbora (*Professional Oversight Board* - www.frc.org.uk/pob) deluje neodvisna Enota za nadzor nad revidiranjem (*Audit Inspection Unit*), ki prek izvajanja javnega nadzora nad dejavnostjo revidiranja skrbi za visoko raven kakovosti opravljanja revizijskih storitev v Veliki Britaniji. V skladu z evropsko Direktivo 2006/43/ES Strokovni nadzorni organ izvaja štiri glavne naloge (www.frc.org.uk/pob): 1) neodvisen nadzor nad dejavnostjo revidiranja in delovanjem priznanih nadzornih in kvalifikacijskih organov (*Recognised Supervisory and Qualifying Bodies*), 2) nadzor nad kakovostjo revidiranja družb, ki kotirajo na organiziranih trgih, 3) neodvisen nadzor nad dejavnostjo računovodenja in strokovnih inštitutov ter 4) neodvisen nadzor nad aktuarsko dejavnostjo in strokovnih inštitutov s področja aktuarstva.

3.2 Reguliranost računovodskih poklicev v Skupini 2: primer Nemčije

V Nemčiji dejavnost računovodenja zakonsko ni regulirana, kar pomeni, da pridobitev strokovnega naziva ni obvezna za izvajanje dejavnosti. Področje davčnega svetovanja in dejavnost revidiranja pa ureja nacionalna zakonodaja. Evropska direktiva o obvezni reviziji letnih in konsolidiranih računovodskih izkazov (2006/43/ES) ni povzročila pomembnejših sprememb, saj je bila večina novosti v primerjavi s prejšnjo direktivo že pred njenim sprejetjem vključena v nemško zakonodajo s področja revidiranja (Volmer, Werner in Zimmermann, 2007).

V Nemčiji mora oseba, ki želi opravljati revizijsko dejavnost, pridobiti enega od dveh strokovnih nazivov: pooblaščen revizor (*Wirtschaftsprüfer*) in računovodja oz. revizor z licenco (*Vereidigter Buchprüfer*). Temeljni zakon, ki ureja področje revidiranja in delovanja revizorjev v Nemčiji, je Zakon o pooblaščenih revizorjih (*Wirtschaftsprüferordnung*). Zakon je bil sprejet že leta 1961 (Volmer, Werner in Zimmermann, 2007), od tedaj pa je bil že večkrat prenovljen in dopolnjen. Pristojnosti in odgovornosti poklica revizorja in davčnega svetovalca nadalje urejajo predpisi s tega področja, t. i. *Berufssatzungen*, izhodišče vsem preostalim predpisom pa predstavlja nemški Trgovinski zakonik - *Handelsgesetzbuch*. Pristojnosti revizorjev, ki so pridobili različna naziva, se med seboj razlikujejo predvsem v tem, da pooblaščen revizorji (*Wirtschaftsprüfer*) lahko izvajajo revizije računovodskih izkazov vseh vrst družb, ne glede na njihovo velikost. Poleg revizijskih storitev lahko nudijo tudi računovodske in svetovalne storitve in opravljajo naloge zastopnikov strank v davčnih postopkih. Računovodje oz. revizorji z licenco (*Vereidigter Buchprüfer*) pa so licencirani strokovnjaki, ki lahko opravljajo le revizije računovodskih

izkazov malih in srednje velikih družb. V prihodnosti se bo vloga pooblaščenih revizorjev v Nemčiji še okrepila, saj se izobraževanje za računovodje oz. revizorje z licenco ne izvaja več, zadnji strokovni nazivi pa so bili podeljeni v letu 2005.

Kandidati za pridobitev naziva pooblaščen revizor (*Wirtschaftsprüfer*) morajo izpolnjevati kriterije, povezane tako s formalno izobrazbo (univerzitetna diploma ali dokazilo o vsaj desetletnih delovnih izkušnjah v revizijski družbi ali vsaj pet let delovnih izkušenj kot računovodja oz. revizor z licenco) kot tudi s strokovnimi delovnimi izkušnjami (vsaj tri leta ustreznih delovnih izkušenj od tega vsaj dve leti pretežno na področju revidiranja računovodskih izkazov vključno s pripravljanjem revizijskih poročil v revizijski družbi). Kandidati, ki izpolnjujejo vse predpisane pogoje, se lahko vključijo v program preverjanja znanj za pridobitev naziva pooblaščen revizor (www.wpk.de).

Nemška zbornica pooblaščenih revizorjev (*Wirtschaftsprüferkammer*; www.wpk.de) je organizacija, v katero se včlanjujejo vsi nemški revizorji (tako *Wirtschaftsprüfer* kot tudi *Vereidigte Buchprüfer*) in revizijske družbe in ima preko 20.000 članov. Njeno delovanje nadzirata Komisija za nadzor nad revizorji in zvezno Ministrstvo za ekonomijo in tehnologijo. Članstvo v zbornici pooblaščenih revizorjev je obvezno za vse osebe, ki so pridobile enega izmed obeh strokovnih nazivov in želijo izvajati storitve revidiranja. Zbornica pooblaščenih revizorjev opravlja predvsem naslednje naloge: nadziranje članov z vidika usklajenosti njihovega delovanja s strokovnimi standardi, izrekanje disciplinskih kazni, sodelovanje in nudenje podpore sistemu neodvisnega zunanjega nadzora nad kakovostjo revidiranja ter vodenje javnih registrov revizorjev in revizijskih družb. Čeprav je zbornica pooblaščenih revizorjev v osnovi zadolžena tudi za izdajanje revizijskih standardov, je že v preteklosti del te odgovornosti prenesla na nemški Inštitut pooblaščenih revizorjev (*Institut der Wirtschaftsprüfer* - www.idw.de/idw) (Volmer, Werner in Zimmermann, 2007), ki med drugim redno objavlja prispevke s področja pojasnjevanja zakonskih določil (Born, 2002). Državni organ, ki je v Nemčiji zadolžen za opravljanje nalog javnega nadzora nad dejavnostjo revidiranja in nad delovanjem zbornice pooblaščenih revizorjev je komisija *Abschlussprüferaufsichtskommission* (APAK: www.apak-aoc.de), ki je pričela delovati v letu 2005. Kot določa Zakon o pooblaščenih revizorjih (*Wirtschaftsprüferordnung*), je Komisija zadolžena za preverjanje strokovnih znanj kandidatov za pridobitev strokovnih nazivov, izvajanje preizkusov usposobljenosti, ki so podlaga za izdajo dovoljenja za opravljanje nalog revizorja zakonskim revizorjem iz drugih držav članic, izdajanje dovoljenj za opravljanje nalog revizorja, izdajanje dovoljenj za izvajanje dejavnosti revidiranja revizijskim družbam ter zagotavljanje kakovosti opravljanja revizijskih storitev prek izvajanja neodvisnega zunanjega nadzora nad revidiranjem.

Za strokovnjake, ki v Nemčiji nudijo storitve davčnega svetovanja, je zakonsko obvezno članstvo v Zbornici davčnih svetovalcev (*Bundessteuerberaterkammer*). Zvezna zbornica davčnih svetovalcev, ki združuje člane enaindvajsetih regijskih zbornic, ima skupno prek 77.000 članov in je krovna organizacija nemških davčnih svetovalcev. Zbornici zakon podeljuje pristojnosti za razvijanje in zagotavljanje kakovosti davčnega svetovanja. Kakovost storitev, ki jih opravljajo njeni

člani, zbornica zagotavlja s programi stalnega izobraževanja s področja davčne zakonodaje in davčnega svetovanja.

3.3 Reguliranost računovodskih poklicev v Skupini 3: primer Luksemburga

V Luksemburgu nacionalna zakonodaja natančno ureja poklic revizorja in poklic računovodje, medtem ko dejavnost davčnega svetovanja zakonsko ni regulirana.

Kandidat, ki želi pridobiti naziv *réviseur d'entreprises* (gospodarski revizor) in tako pridobiti dovoljenje za izvajanje revizij računovodskih izkazov vključno z izdajanjem revizijskih poročil, mora imeti zaključeno vsaj štiriletno univerzitetno izobrazbo ustrezne usmeritve. Kot pogoj za sprejem v organizirano izobraževanje so navedeni predmeti, ki naj bi jih kandidat že opravil v okviru rednega dodiplomskega izobraževanja. Kandidat, ki teh predmetov še ni opravil, mora pred vpisom v strokovno izobraževanje opraviti diferencialne izpite iz vseh manjkajočih predmetov. Kandidat mora predložiti potrdilo o minimalno treh letih delovnih izkušenj v revizijski družbi in t.i. potrdilo o usposobljenosti (*Certification de Formation Complémentaire*). Potrdilo kandidat pridobi po uspešnem zaključku organiziranega izobraževanja, v okviru katerega posluša in opravlja izpite iz devetih predmetov. Zadnja in najzahtevnejša faza v procesu pridobitve strokovnega naziva *réviseur d'entreprises* pa je zaključni vseobsegajoči izpit (*Diplôme d'aptitude professionnelle*), ki obsega ustno in pisno preverjanje znanja in zagotavlja, da je kandidat dosegel najvišji nivo strokovnosti (*Devenir réviseur d'entreprises*, 2009). Krovna strokovna organizacija, ki skrbi za skupno zastopanje interesov revizorjev ter za dosledno spoštovanje zakonskih določil in načela neodvisnosti na področju opravljanja revizijskih storitev, je Inštitut za revizijo (*Institut des Réviseurs d'Entreprises – IRE* - www.ire.lu). Članstvo v Inštitutu je obvezno za vse revizorje, ki so pridobili dovoljenje za izvajanje zakonskih revizij v Luksemburgu.

Poklic računovodje v Luksemburgu ureja Zakon o organiziranosti poklica računovodskega strokovnjaka, ki je bil sprejet leta 1999 (*Organisation de la profession d'expert-comptable*), v katerem je predstavljeno delovanje, dolžnosti in obveznosti strokovnjakov, ki so pridobili naziv *expert-comptable*. Zakon opredeljuje računovodskega strokovnjaka kot osebo, ki je zadolžena za pripravo računovodskih izkazov in za analiziranje stanja in poslovanja družbe in njenih organizacijskih enot. Kandidat za pridobitev naziva mora imeti dokončan vsaj triletni univerzitetni ali strokovni študijski program. Dodatne zahteve za pridobitev naziva *expert-comptable* določa Uredba o določitvi oblike in vsebine preizkusa usposobljenosti za pridobitev naziva računovodskega strokovnjaka (*Règlement grand-ducal fixant les modalités du test d'aptitude pour l'accès à la profession d'expert-comptable*, 2009), ki v 2. členu določa, da mora kandidat uspešno opraviti izpite iz poznavanja luksemburške davčne, delovne in trgovinske zakonodaje, posebnosti s področja socialne varnosti ter etike. Za vse računovodske strokovnjake, ki so v Luksemburgu pridobili naziv *expert-comptable* in želijo izvajati storitve računovodenja, je obvezno članstvo v Zvezi računovodskih strokovnjakov (*Ordre des experts-comptables* – www.oec.lu).

Dejavnost davčnega svetovanja v Luksemburgu ni zakonsko regulirana, te storitve pa nudijo predvsem strokovnjaki, ki sicer delujejo v eni izmed reguliranih dejavnosti in sicer pravniki, pooblaščen revizorji, računovodski strokovnjaki in notarji. Čeprav uradna statistika o izvajanju dejavnosti davčnega svetovanja ne obstaja, Zveza računovodskih strokovnjakov ocenjuje, da navedene skupine strokovnjakov izvedejo največji del storitev davčnega svetovanja v Luksemburgu (Poročilo o računovodskih poklicih, 2006).

3.4 Reguliranost računovodskih poklicev v Skupini 4: primer Avstrije

V Avstriji se izraz *Wirtschaftstreuhänder* uporablja kot splošni izraz za vse strokovnjake, ki se ukvarjajo z računovodskimi poklici: za revizorje, računovodje in za davčne svetovalce. Vsi računovodski strokovnjaki lahko izvajajo dejavnost le, če so izpolnili vse kriterije, potrebne za pridobitev enega izmed štirih strokovnih nazivov (www.kwt.or.at): pooblaščen revizor (*Wirtschaftsprüfer*), revizor (*Buchprüfer*), davčni svetovalec (*Steuerberater*) ali samostojni knjigovodja (*Selbstständiger Buchhalter*). Poleg pridobitve enega izmed omenjenih nazivov je za opravljanje dejavnosti potrebna tudi uradna odobritev s strani avstrijske Zbornice pooblaščenih revizorjev, davčnih svetovalcev in samostojnih knjigovodij (*Kammer der Wirtschaftstreuhänder*; www.kwt.or.at). Brez ustreznega naziva in članstva v Zbornici, ki je hkrati tudi uradni predstavnik vseh z računovodstvom povezanih dejavnosti, ni dovoljeno izvajanje nobene izmed obravnavanih dejavnosti.

Kandidat, ki želi pridobiti naziv samostojni knjigovodja, mora imeti univerzitetno diplomu in vsaj tri leta ustreznih delovnih izkušenj kot računovodski pripravnik. Avstrijski Zakon o revidiranju, davčnem svetovanju in sorodnih dejavnostih (*Wirtschaftstreuhänderberufsgesetz - WTBG*) opredeljuje samostojnega knjigovodjo kot računovodskega strokovnjaka z dovoljenjem za samostojno opravljanje dejavnosti in za izvajanje naslednjih nalog: finančno računovodstvo in obračun plač, sestavljanje računovodskih izkazov, stroškovno računovodstvo, zastopanje v davčnih zadevah in priprava obračunov davka na dodano vrednost. Za kandidate, ki želijo izvajati storitve davčnega svetovanja, Zbornica pooblaščenih revizorjev, davčnih svetovalcev in samostojnih knjigovodij izvaja izobraževalne programe in programe strokovnega usposabljanja, s čimer jih pripravlja na izpit za pridobitev strokovnega naziva davčni svetovalec. WTBG opredeljuje davčnega svetovalca kot računovodskega strokovnjaka, ki lahko samostojno opravlja dejavnost ter lahko poleg vseh nalog, ki jih izvaja samostojni knjigovodja, nudi tudi svetovalne storitve na davčnem in računovodskem področju, svetovalne storitve pri sestavljanju računovodskih izkazov in celo izvajanje nekaterih storitev revidiranja (ki se ne zaključijo z izdajo uradnega revizijskega poročila). Kriteriji za pridobitev nazivov revizor in pooblaščen revizor so izredno zahtevni, saj je za pristop k izpitu za pridobitev naziva potrebno izkazati dodatna tri leta delovnih izkušenj po pridobitvi naziva davčni svetovalec. Poleg vseh nalog, ki jih lahko opravljajo davčni svetovalci, revizorji in pooblaščen revizorji lahko opravljajo še dodatne storitve, za katere WTBG določa, da jih lahko opravljajo zgolj osebe s

tema strokovnima nazivoma, predvsem revidiranje letnih in konsolidiranih računovodskih izkazov družb in nudenje drugih revizijskih storitev.

Področje javnega nadzora nad dejavnostjo revidiranja je v Avstriji urejeno z Zakonom o nadzoru nad kakovostjo obveznih revizij (*Abschlussprüfer – Qualitätssicherungsgesetz; A-QSG*). Kot določa A-QSG, je odgovornost za javni nadzor nad revizorji in revizijskimi družbami v pristojnosti Odbora za nadzor nad kakovostjo revidiranja (*Qualitätskontrollbehörde*). Vsi revizorji in revizijske družbe so vključene v sistem nadzora, ki se delno pojavlja kot nadzor, ki ga organizira in spremlja neodvisna institucija, izvajajo pa ga aktivni revizorji (peer review), delno pa kot nadzor, ki ga neodvisna institucija opravlja z lastnim, pri njej zaposlenim osebjem (monitoring). Slednjo vrsto nadzora izvaja Odbor za nadzor nad kakovostjo revidiranja, kateremu je dano zakonsko pooblastilo za nadzor vseh zakonskih revizorjev in revizijskih družb, ki v Avstriji izvajajo storitve revidiranja (*Ownership rules of audit firms and their consequences for audit market concentration, 2007*).

4 Sklep

Med tremi obravnavanimi računovodskimi dejavnostmi (računovodenje, revidiranje in davčno svetovanje) je zgolj dejavnost revidiranja tesno povezana z javnim interesom. Posledično je ta dejavnost tudi najbolj zakonsko regulirana in nadzirana. Potreba po učinkovitem nadziranju revidiranja se v EU izraža v prenovljeni Direktivi Evropskega parlamenta in Sveta 2006/43/ES o obvezni reviziji letnih in konsolidiranih računovodskih izkazov, ki je bila sprejeta kot odgovor na velike finančne škandale v ZDA in Evropi na prelomu tisočletja. V nasprotju z dejavnostjo revidiranja pa krovna evropska zakonodaja, ki bi urejala preostali obravnavani dejavnosti, ne obstaja. Ker strokovnjaki, ki izvajajo storitve na področju računovodenja in davčnega svetovanja, ne delujejo primarno v javnem interesu, Direktiva Evropskega parlamenta in Sveta o letnih in konsolidiranih računovodskih izkazih nekaterih vrst družb, bank in drugih finančnih institucij ter zavarovalnic (2003/51/ES) ne postavlja nikakršnih zahtev po pridobivanju strokovnih nazivov in ciljev, povezanih s tema dejavnostma, ki bi jih morale države članice vključiti v svojo nacionalno zakonodajo.

V odvisnosti od tega, katere dejavnosti posamezne države članice zakonsko regulirajo, sem izbrane evropske države razvrstila v štiri skupine, pri čemer vsaka skupina združuje države članice s sorodnim pristopom k reguliranju obravnavanih računovodskih dejavnosti. V prvi skupini so države, ki v svojih nacionalnih zakonodajah regulirajo le revizijsko dejavnost, medtem ko drugi dve dejavnosti, povezani z računovodstvom, nista regulirani. Večina proučevanih evropskih držav (Velika Britanija, Irska, Španija, Švedska, Grčija, Estonija, Latvija, Litva, Nizozemska, Danska in Slovenija) se uvršča v to skupino. Druga skupina vključuje države, kjer je poleg poklica revizorja zakonsko urejen tudi poklic davčnega svetovalca. Države, predstavnice te skupine, so Nemčija, Poljska, Češka in Slovaška. V tretji skupini, ki jo zastopata Luksemburg in Portugalska, se nahajajo države članice, v katerih sta regulirana poklica revizorja in računovodje. Četrto skupino pa pred-

stavljajo države, katerih nacionalne zakonodaje urejajo vse tri računovodske dejavnosti. Vse tri dejavnosti so zakonsko regulirane v Avstriji, Italiji, Belgiji, Franciji, na Madžarskem ter na Malti.

Kot pričakovano, je raziskava zakonske urejenosti obravnavanih dejavnosti v izbranih evropskih državah pokazala, da je dejavnost revidiranja med vsemi najbolj regulirana in nadzirana, da bi zagotovili in ohranili njeno delovanje v javnem interesu. Pri končni odločitvi o tem, katere dejavnosti (poleg revidiranja) je smiselno zakonsko regulirati, je potrebno upoštevati različne argumente, ki jih podajajo tako zagovorniki kot tudi nasprotniki reguliranosti obravnavanih računovodskih poklicev. V primeru delujočega trga, na katerem imamo veliko število ponudnikov storitev, je močan argument, da bo selekcijo med ponudniki naredil trg. Ponudniki s prenizko kvaliteto ali pa s previsoko ceno storitev bodo odpadli s trga in dejavnost bo tudi brez zakonske regulative dosegla želeno kakovost. To pa hkrati pomeni, da je lahko v začetnem obdobju delovanja, dokler kvaliteta posameznega ponudnika strankam še ni poznana, strankam povzročena (tudi materialna) škoda zaradi slabe kvalitete računovodskih storitev. Na drugi strani bi zakonska reguliranost omejila tovrstne probleme, saj se manj kvalitetni ponudniki v smislu prenizke dosežene izobrazbe, strokovnega znanja in delovnih izkušenj ne bi pojavili na trgu. Zavedati pa se moramo, da kakršnokoli omejevanje prostega dostopa na trg storitev lahko povzroči neskladje s krovno evropsko zakonodajo, ki zagovarja prost pretok blaga, kapitala, ljudi in storitev.

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**Blaž Rodič, Gozdana Miglič,
Goran Vukovič, Bruno Završnik,
Robert Leskovar**

Enhancing the Effectiveness of Training through Information Feedback – The Case of Slovenia's Public Administration

After the fall of the Berlin wall, the public administrations in Central and Eastern European countries have had to adapt to an enormous number of changes in a relatively short time. Their civil servants are still facing a constantly changing regulatory framework which needs implementation and enforcement, as well as new demands from the growing private sector and the citizens. These challenges can only be met if the civil servants are highly qualified and constantly updating their qualifications. A sound system of in-service training is therefore crucial to keep the public servants on equal footing with the rapidly changing environment. The research presented in this paper analyzed the practices of training evaluation as an information feedback in a branch of Slovene state administration. We analyzed the attitudes of employees towards evaluation with the assumption that there probably are notable differences between the attitudes of public servants depending on their demographic qualities. The results of the research, that 414 public servants have participated in, show that the position in the hierarchy has the strongest influence on their attitude towards evaluation. Empirical data also show that most of the employees are willing to participate in a continuous and objective training evaluation, but the leading public servants are less involved in the evaluation than expected.

Key words: civil servants, evaluation processes, information feedback, goal oriented systems, public administration, training, training effectiveness

Mladen Tomašič

An Analysis of Corruption in Micro-Enterprises

The purpose of this study is to present the research work made whilst studying the presence of corruption in the operations of Slovenian micro-enterprises. Our study builds on research which we carried out in 2005 and compares the findings of both studies. We wish to present our findings to public experts for a professional assessment and provide a basis for further work. We hope that in this way we can contribute to the development of new guidelines for the preparation of further analysis, the causes and elimination or at least limitation of corruption in business operations. Notable studies, which address corporate corruption in Slovenia, are non-existent. The results have confirmed the basic research hypothesis that the presence of corruption in the micro-business environment compared to a previous study in the last five years has increased.

Key words: micro-enterprise, micro-entrepreneur, corruption, corruptness

Srečko Zakrajšek

The Organisational and Personnel Aspects of Introducing ICT into Grammar Schools

This article presents the results of comparisons between investment into ICT and the current state of equipment in Slovenian high schools compared to similar schools in the EU member states. Extensive research is based on surveying and interviews with the headmasters of 10 Slovenian high schools, jointly representing a typical sample of schools, as well as the different aspects of using ICT in their schools. The research results have shown that Slovenian high schools are substantially worse equipped with ICT than similar schools in the developed countries of the EU. This is evident in the lack of modern forms of organization, operation and education based on ICT. Slovenian high schools can only modernize their organization and operations if the Slovenian government starts investing

substantially more into purchasing equipment, teacher training and the promotion of the knowledge, skills and competences that can only be developed using ICT.

Key words: ICT, education, high school, schools equipment

Iztok Kopriva, Mojca Bernik

Comparison of Human Resource Management in Slovenian Family and Non-Family Businesses

The room to reach a competitive advantage in today's dynamic world, companies have in unutilized and even unknown human abilities of own employees. Treatment of people at work in large organizations is well analyzed, but little focus is directed at small and medium-sized enterprises. This is particularly true for family businesses. Small and medium-sized enterprises are largely owned by individual families and are an extremely important part of developed economies. Complexity of internal relationships and interplay between the two systems: families and businesses, which often lead to conflicts in interaction, however, is the reason that many managers and professionals are not willing to work in family businesses. It is justified to set the research question: Are we obligated to treat family businesses as a special case when considering the management of people at work? This paper presents the need to address the family businesses as a special case. In a successful and long living family businesses undoubtedly are closely and carefully working with the employees. It is little known about dealing with people in a Slovenian family businesses and how management practices differ from non-family firms. Based on the study of literature and conclusions from a qualitative empirical study the differences are presented in this article. There are also presented differences in practices of dealing with people at work in foreign and Slovenian non-family and family businesses. At the end there are exposed a good practices of each type of business and recommendations for their use.

Key words: Human Resource Management, Employees, Family and Nonfamily Business

**Marko Šetinc, Heda Kočevar,
Miro Gradišar**

Cash Flow Optimization by Genetic Algorithm in a Road Network Building

In this paper a method for optimization of cash flows in the construction and management of road network is presented. On the basis of the last official National highway Construction Program (NPIA) update, in 2004, the methodology and a computer program that simulate and optimize the cash flow with genetic algorithm were designed. The computer program contains the model that simulate the cash flows, and the optimization algorithm, which runs through the delayed construction of individual road sections. For criteria the maximized net present value (NPV) and minimized the time deviation from the original plan were used. Multi-criteria optimization is discussed by using different weights. The optimization results were the optimal values of selected financial and time parameters, which are shown on the Pareto curve.

Key words: decision support system, simulation, optimization, cash flow, roads construction

Marko Rajter, Štefan Bojnec

Advisory Services and Economic Efficiency of the Slovenian Family Enterprises

We have empirically analysed connection between the use of business advising services and the efficiency in business performances of the Slovenian small- and medium-sized firms. The empirical evidence is gathered with surveys using the written questionnaire. The obtained dataset is used in the quantitative empirical analysis. With the statistical methods, correlation and multivariate factor analysis we have shown a strong positive influence of business advising services on business efficiency in the sample of the Slovenian small and medium-sized family firms. The economic efficiency of the analyzed family firms is determined strongly by entrepreneur's satisfaction considering consultant's work, quality of gained advisory solutions,

consideration and implementation of gained advices into professional family run businesses. The obtained results of the quantity analyses show opportunities for the greater impact of the business advising services assisting small and medium-sized family business to improve economic efficiency.

Key words: entrepreneurship, small and medium-sized enterprises, family business, entrepreneur and family, business consulting services, efficiency of family businesses

Andreja Križman

Relationship Marketing Variables in the Logistics Outsourcing Performance Model: Selection and Definitions

The article deals with the variables of logistics outsourcing relationships. Variables such as trust, commitment, communication, cooperation, proactive improvement, organizational learning, opportunism, and conflicts are crucial for developing successful partnerships in logistics. A substantial body of research has made contributions to the question of which variables should be included in relationship research between partners. First, definitions of chosen marketing variables are introduced on the basis of the existent literature in the logistics outsourcing. Then, by offering the most useful definitions, the first step for the research and the empirical testing in logistics outsourcing performance model is set.

Key words: logistics outsourcing relationships, relationship marketing variables, logistics outsourcing performance, trust, commitment, cooperation, communication, opportunism, conflicts

Miro Jeraj, Željko Kralj

Model of Life Cycle Management in a Business System

The model for the business system organization, which is based on ISO/IEC 15288 standard specifically defines the composition of coordinated processes. This model can be used in order to create connection between a business system and

other organizations by choosing the main activity groups, which should be carried out by an individual organization. These activity groups create and control the programmes of the life cycle system, establish the life cycle system, support the life cycle system and remove or recycle the system. This model does not define the sequence according to which these activities should be implemented, however, it does present the starting points for the early (in the concept phase or latest in the development phase) classification of coordinated relations between the business system and other companies and scientific institutions when using the proposed organization model in practice. This early definition of the activity groups (processes) will contribute to the cost reduction during the life cycle and increase the system efficiency during the usage, whereas the business system shall be forced into international integration and grouping and shall lower the reliance of the company on domestic market.

Key words: Organization, project, system, business system, scientific institution, process, life cycle, synergy, composition.

Maja Zaman Groff

Regulation of Accounting-Related Professions in Selected European Union Countries

The article focuses on different approaches of selected European Union countries to regulate the three accounting-related professions: accountancy, auditing and tax consulting. Among these professions only auditing is closely related to public interest. As the result, the common EU regulation only relates to the auditing profession, whereas the regulation of other accounting-related professions is left entirely to the Member States. In the article, the EU countries are classified in four distinctive groups, each group representing the EU countries with similar regulation of the three professions. From each group, one representative country is selected and an analysis of its national regulation of the three professions is demonstrated.

Key words: accountancy, auditing, tax consulting, regulation, European Union

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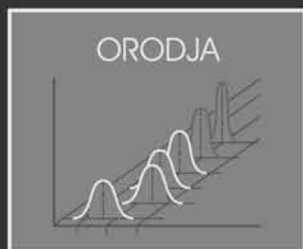
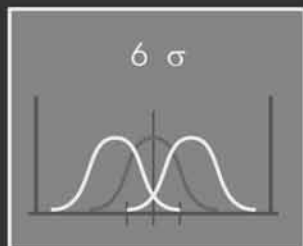
Kadrovanje

VESNA NOVAK



Založba Moderna organizacija

UNIVERZA V MARIBORU - FAKULTETA ZA ORGANIZACIJSKE VEDE



Janez Marolt
Boštjan Gomišček

Management kakovosti



Založba Moderna organizacija

Navodila avtorjem prispevkov

V Organizaciji objavljamo razprave (znanstvene članke, rezultate raziskovalnega dela avtorjev, ali pregledne članke), predloge za prakso (strokovne članke, na primer prikaze in ocene pristopov in metod in njihove uporabe v praksi), razmišljanja (krajši prispevki), informacije in knjižne ocene. Občasno vključujemo tudi odmeve na objavljene prispevke, enciklopedične razlage, intervjuje s strokovnjaki s predmetnega področja revije in druga besedila. Približne omejitve dolžine prispevkov so naslednje:

- razprave: največ 45.000 znakov, vključno s presledki
- predlogi za prakso: do 30.000 znakov
- razmišljanja, informacije: do 10.000 znakov
- knjižne ocene, odmevi: do 5.000 znakov.

V reviji objavljamo prispevke v angleščini in slovenščini. Razprave in predloge za prakso ocenita vsaj dva recenzenta, druge prispevke pa uredniški odbor ali urednik. Na osnovi mnenja recenzentov uredniški odbor ali urednik sprejmejo prispevek, zahtevajo manjše ali večje popravke ali ga zavrnejo. Če urednik oziroma recenzenti predlagajo večje popravke, se prispevek praviloma ponovno pošlje v recenzijo. Urednik lahko sprejeti prispevek pošlje v lektoriranje. Lektorirana besedila se lahko vrnejo avtorju v pregled.

Besedilo naj bo oblikovano za tiskanje na papirju formata A4 s presledkom med vrsticami vsaj 1,5 levo poravnano. Razpravam in predlogom za prakso naj bo dodan povzetek (izvleček) dolg 10-20 vrstic, ključne besede, v končni – sprejeti verziji članka pa na koncu prispevka tudi kratek strokovni življenjepis vsakega od avtorjev (do 10 vrstic) in letnica rojstva (zaradi vnosa podatkov v knjižnični informacijski sistem COBISS, v reviji letnica ne bo objavljena). Na prvi strani besedila naj bodo napisani le naslov prispevka, imena in (poštni in elektronski) naslovi avtorjev članka, po možnosti tudi telefonska številka enega od avtorjev. Da bi zagotovili anonimnost recenziranja, naj se imena avtorjev ne pojavljajo v besedilu prispevka.

Članek naj bo razčlenjen v oštevilčena poglavja. Naslovi članka, poglavij in podpoglavij naj bodo napisani z malimi črkami, da so razvidne kratice. Povzetek naj na kratko opredeli temo, ki jo obravnava prispevek, predvsem pa naj na kratko, jasno in čimbolj preprosto povzame poglavitne rezultate, zaključke, ugotovitve..., prispevka. Splošne ugotovitve in misli ne sodijo v povzetek; uvrstite jih v uvod. Povzetek je namenjen predvsem bralcem, ki listajo po reviji (ali pregledujejo izbrane povzetke iz baza podatkov) z namenom, da rezultate Vašega članka uporabijo pri svojem delu, na primer v raziskavi, pri pisanju diplome, magistrerja,

doktorata, ... Na osnovi povzetka naj bi bralec presodil, ali se mu splača prebrati (ali kopirati, natisniti, ...) cel članek. Povzetek zato ne sme biti neke vrste »preduvod«.

Povzetek, naslov članka in ključne besede naj bodo tudi prevedene v angleščino.

Slike in tabele v elektronski obliki vključite kar v besedilo. Besedilu so lahko priložene slike in/ali tabele na papirju v obliki pripravljeni za preslikavo. V tem primeru naj bo vsaka slika na posebnem listu, oštevilčene naj bodo z arabskimi številkami, v besedilu naj bo označeno, kam približno je treba uvrstiti sliko: na tem mestu naj bo številka slike/tabele in njen podnaslov. Slike bomo praviloma pomanjšali in jih vstavili v članek. Upoštevajte, da morajo biti oznake in besedila na vseh slikah dovolj velika, da bodo čitljiva tudi pri velikosti slike, kot bo objavljena v reviji. Vse slike naj bodo črno-bele z belim ozadjem; barvnih slik ne moremo objaviti.

Pri sklicevanju na literaturo med besedilom navedite le primere prvega avtorja, oziroma prvega in drugega (glej vzorec), letnico izdaje, lahko tudi stran. Popolni bibliografski podatki naj bodo v seznamu literature in/ali virov na koncu prispevka, urejeni po abecednem redu (prvih) avtorjev, literatura istega avtorja pa po kronološkem redu izida; če navajate dve ali več del nekega avtorja oziroma avtorjev, ki so izšla v istem letu, uporabite črkovno oznako pri letnici, na primer 2003a, 2003b, V seznamu literature in/ali virov ne navajajte del, ki jih ne omenjate v besedilu članka. Ne uporabljajte opomb za citiranje; eventualne opombe, ki naj bodo kratke, navedite na dnu strani. Označite jih z arabskimi številkami.

V seznamu lahko ločite literaturo (članki in revijah, knjige, zborniki konferenc, doktorske disertacije, ...) in viro (dokumenti, zakoni, standardi, interni viri, ...). Pri citiranju literature uporabite enega naslednjih načinov, ki so prikazani na naslednjih primerih:

- "... v nasprotju z (Novak in Vajda, 1996:123) raziskava (Wilkinson et al., 2001:234) nakazuje, da ..."
- "... kot poročata Smith (2003) in Jankowski (2004) metodo uporabljajo za ..."
- "... kot ugotavljajo nekateri drugi avtorji (Zima 1999; Novak in Vajda, 1996; Wilkinson et al., 1993), številna podjetja"

Bibliografske podatke v seznamu literature navajajte na "harvardski način", kot to kažejo vzorci v nadaljevanju:

Članek v reviji:

- Novak, A. & Vajda, B.M. (1996). Effect of surface runoff water on quality measurement, *European Journal of Information Systems*, 31(4): 31 - 39. Zraven letnika v oklepaju navedite številko v letniku le, če se vsaka številka začne s stranjo 1. Če revija nima letnika, lahko navedete mesec ali drugo ustrezno oznako, na primer Poletje 1999.

Članek v elektronski reviji:

- Lynch T. & Szorenyi Z. (2005). Dilemmas surrounding information technology education in developing countries, *The Electronic Journal of Information Systems in Developing Countries*, 21(4): 1-16, dosegljivo na: <http://www.ejisd.org> (22.8.2005).

Knjiga:

- Smith, S.I. (2003). *Interpreting Information Systems in Organizations*, Elsevier Publishing, New York.

Poglavje v knjigi:

- Zupan, N. & Leskovar, R. (2002). Pričakovanja v zvezi z elektronskim poslovanjem v malih organizacijah. *Organizacija in management – izbrana poglavja*. Uredila: Florjančič J., & Paape, B. Kranj: Založba Moderna organizacija.

Referat objavljen v zborniku konference:

- Wilkinson, K.J., Kumar, R. & Kumar, S. (2001). We can do better: integrating theories of novel organizations, *Proceedings of the Twelfth European Conference on Information Systems*. Uredil: Johnson, M. Bled 12-14 Jun. 2001. Berlin: Springer Verlag.

Diploma, magisterij ali doktorat:

- Zima, B. (1999). Analiza potrebnih znanj diplomiranih informatikov v Sloveniji, magistrsko delo, Univerza v Mariboru, Fakulteta za organizacijske vede.

Poročila, interni dokumenti, zakoni:

- ACM (1994) ACM SIGCHI Curricula for Human-Computer Interaction, The Association for Computing Machinery, New York.
- Zakon o elektronskem poslovanju in elektronskem podpisu (ZEPEP), Ur.l. RS, št. 57/2000, 30/2001
Pri internetnih virih / literaturi naj bo poleg (eventualnega avtorja in) naslova besedila naveden tudi internetni naslov vira (URL) in datum dostopa do dokumenta.
- Banka Slovenije, Basel II – Nov kapitalski sporazum, dosegljivo na: <http://www.bsi.si/html/basel2/default.htm> (6.4.2005).

V literaturi ne navajajte internetnih naslovov (URL) brez drugih podatkov. Lahko pa se nanje sklicujete v besedilu ali v opombah na dnu strani. Podrobnejša navodila glede citiranja in navajanja literature so na <http://versita.com/science/business/organizacija/authors/>.

Predloženi prispevki naj bodo lektorirani. Prispevke v angleščini naj pregleda in jezikovno uredi lektor ali lektorica, ki mu/ji je angleščina materin jezik. Uredništvo s soglasjem avtorja lahko posreduje prispevek v lektoriranje. Stroške lektoriranja krije avtor.

Avtor mora predložiti pisno izjavo, da je besedilo njegovo izvirno delo in ni bilo v dani obliki še nikjer objavljeno. Z objavo preidejo avtorske pravice na Organizacijo. Pri morebitnih kasnejših objavah mora biti Organizacija navedena kot vir.

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