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Strateška uloga profesionalnog računovođe u javnom sektoru: stub transparentnog i odgovornog upravljanja

Strateška uloga profesionalnih računovođa u javnom sektoru sve više se prepoznaje kao ključna za obezbeđivanje transparentnog, odgovornog i na učinku zasnovanog upravljanja. Javne institucije – zadužene za pružanje javnih dobara, regulaciju tržišta i promovisanje socijalne jednakosti – zahtevaju snažne finansijske okvire koji su usklađeni sa širim društvenim ciljevima.

Ta potreba podstakla je globalni zaokret ka računovodstvu na obračunskoj osnovi, koje trenutno primenjuje oko tri četvrtine zemalja članica OECD-a, često uz podršku IFAC-a, MMF-a i Evropske unije. Paralelno s tim, jača i značaj izveštavanja o održivosti, posebno kroz inicijative koje vodi IPSASB, čime se naglašava potreba za integrisanim pristupom, podacima zasnovanim na dokazima i međusektorskom saradnjom. Razvoj veštačke inteligencije dodatno transformiše ovu oblast, automatizujući rutinske zadatke i otvarajući prostor za napredne analize javnih finansija.

U takvom dinamičnom okruženju, visokoškolske ustanove imaju ključnu ulogu u obrazovanju budućih računovođa u javnom sektoru, osposobljenih kako za tehničke veštine, tako i za sistemsko razmišljanje neophodno za izradu i sprovođenje javnih politika. Ipak, u brojnim nacionalnim kontekstima – poput Srbije – računovodstvo javnog sektora još uvek nije sistematski zastupljeno u akademskim programima, ukazujući na potrebu za reformom kurikuluma koja bi uskladila obrazovanje sa zahtevima prakse.

Editorial

Strategic Role of the Professional Public Sector Accountant: A Pillar of Transparent and Accountable Governance

The strategic role of professional accountants in the public sector is increasingly recognized as pivotal to ensuring transparent, accountable, and performance-based governance. Public institutions—charged with delivering public goods, regulating markets, and upholding social equity—require robust financial management frameworks aligned with their broader societal objectives.

This imperative has driven global momentum toward accrual-based accounting, now adopted by approximately three-quarters of OECD countries, often with support from IFAC, the IMF, and the European Union. Concurrently, the expansion of sustainability reporting, particularly under the guidance of IPSASB, signals a paradigm shift that demands integrative thinking, data competency, and cross-sectoral collaboration. The emergence of artificial intelligence further transforms the landscape by automating routine tasks and enabling advanced public finance analytics.

In this evolving context, higher education institutions play a critical role in cultivating future public sector accountants equipped not only with technical skills but also with a systems-thinking mindset essential for evidence-based policymaking. Yet, in many national contexts—such as Serbia—public sector accounting remains underrepresented in curricula, highlighting the need for curriculum reform that bridges academic training with the competencies required in public service.

Radojko Lukić[1]

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Performance Analysis of Public Enterprises in Serbia Based on PIPRECIA-S and MARCOS Methods

Summary: *By their nature, the operations of public enterprises are specific, as they provide services to both citizens and other entities. Evaluating their performance is a challenging, complex, and significant task. This study analyzes the performance of public enterprises in Serbia using two multi-criteria decision-making methods: PIPRECIA-S and MARCOS. The results indicate that the top five public enterprises in terms of performance are: JP Putevi Srbije Beograd, JP Srbijagas Novi Sad, JP Pošta Srbije Beograd, Javno preduzeće za gazdovanje šuma "Srbijašume" sa p.o. Beograd, and JKP Beogradski vodovod i kanalizacija Beograd. The best-performing company is JP Putevi Srbije Beograd, while the lowest-ranked is JVP Srbijavode Beograd. The performance of public enterprises in Serbia can be improved through more efficient management of business assets, capital, losses, revenues, net results, and human resources. This requires adequate adaptation to the highly dynamic and complex business environment.*

Keywords: *public enterprises, performance analysis, PIPRECIA-S, MARCOS, Serbia*

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INTRODUCTION

In every country, including Serbia, public companies play an important role. They have a specific character. They provide public services to entities (enterprises and institutions) and citizens. The assessment of the quality of their business is given by the entire society. That is why the analysis of the performance of public companies is very challenging (1, 19). In this study, the performance of public companies in Serbia is analyzed based on the PIPRECIA-S and MARCOS methods. The study aims to rank public companies in Serbia as realistically as possible to improve the positioning, especially of the lower-ranked ones, and to improve the quality of public services provided to entities and citizens at affordable prices. Multi-criteria decision-making methods play a significant role in this (5, 11). The main research hypothesis is also reflected in the defined aim of the study.

Two types of literature were used in this study: literature related to public enterprises and literature dealing with the optimization problem. All relevant literature in this study serves as a theoretical, methodological, and empirical basis for the most complex research of the analyzed problem (16, 22, 3).

Relevant original empirical data for the analysis of the performance of public companies in Serbia were collected from the Agency for Economic Registers of the Republic of Serbia. The data is internationally comparable.

METHODOLOGY

The research methodology used in this study, in line with the subject, goal, and defined hypothesis, is based on the application of multi-criteria decision-making methods, specifically PIPRECIA-S and MARCOS, the characteristics of which are shown below.

PIPRECIA-S method

This method originates from the PIPRECIA (PIvot Pairwise Relative Criteria Importance Assessment) method (24), which improves the computational aspects. Contrary to the PIPRECIA method, the comparison with the simple PIPRECIA-S method is made only for the first criterion, thereby facilitating the decision-making process. Like the PIPRECIA method, the simple PIPRECIA-S method does not involve prior sorting of criteria according to expected importance, which makes it suitable for application in the case of group decision-making. The simple PIPRECIA-S method is used to define the weight of criteria and solve decision-making problems in various areas of business (2, 22, 15, 21). The calculation procedure of the PIPRECIA-S method takes place through the following steps (24, 13):

Step 1: Defining a set of evaluation criteria.

Step 2: Calculation of the relative importance s_j of each criterion, except the first one, as follows:

$$s_j = \begin{cases} 1\ if\ c_j > c_1 \\ 1\ if\ c_j = 1 \\ 1\ if\ c_j < 1 \end{cases} \tag{1}$$

Where $j \neq 1$. Similar to the PIPRECIA method, the value of s j is equal to 1, while the values of c_j belong to the interval (1, 1.9] when $c_1 > c_j$, and to the interval [0.1, 1) when $c_1 < c_j$.

Step 3: Determining the value of the coefficient k_j as follows:

$$k_j = \begin{cases} 1 \quad if\ j = 1 \\ 2 - s_j\ if\ j > 1. \end{cases} \tag{2}$$

Step 4: Calculating the weight of the coefficient q_j again as follows:

$$q_j = \begin{cases} 1\ if\ j = 1 \\ \dfrac{1}{k_j}\ if\ j > 1. \end{cases} \tag{3}$$

Step 5: Define the relative weight of the criteria as follows:

$$q_j = \frac{q_j}{\sum_{k=1}^{n} q_k} \tag{4}$$

Step 6: In the case of group decision-making, the total weight coefficient of each criterion is determined using the following equation:

$$GM_j = \left(\prod_{k=1}^{K} w_j^k\right)^{1/k}, \tag{5}$$

$$w_j = GM_j \Big/ \sum_{l=1}^{n} GM_l \tag{6}$$

Where GM_j is the geometric mean of the weighting coefficients obtained by the decision-makers involved in the assessment of criterion j, wj denotes the weighting coefficient of criterion j, and K $_{is}$ the number of decision-makers.

MARCOS Method

The MARCOS (Measurement Alternatives and Ranking according to Compromise Solution) method is based on defining the relationship between alternatives and reference values (ideal and anti-ideal alternatives) (4, 14, 17, 20, 25, 28). Based on the defined relationships, the utility functions of the alternatives are determined and a compromise ranking is made between ideal and anti-ideal solutions. Decision preferences are defined based on a utility function. Utility functions represent the position of alternatives with respect to ideal and anti-ideal solutions. The best alternative is the one that is closest to the ideal and at the same time furthest from the anti- ideal reference point. The MARCOS method proceeds through the following steps (26, 7, 8, 9, 10, 11, 12):

Step 1: Formation of the initial decision-making matrix. A multi-criteria model involves defining a set of *n* criteria and *m* alternatives. In the case of group decision-making, a set of *r* experts is formed who evaluate the alternatives to the criteria. In that case, the expert evaluation matrices are aggregated into the initial group decision matrices.

Step 2: Forming the expanded initial matrix. In this step, the expansion initial matrix is defined with ideal (*AI*) and anti-ideal (*AAI*) solutions.

$$X = \begin{array}{c} \\ AAI \\ A_1 \\ A_2 \\ \cdots \\ A_m \\ AI \end{array} \begin{array}{c} \begin{array}{cccc} C_1 & C_2 & \cdots & C_n \end{array} \\ \begin{bmatrix} x_{aa1} & x_{aa2} & \cdots & x_{aan} \\ x_{11} & x_{12} & \cdots & x_{1n} \\ x_{21} & x_{22} & \cdots & x_{2n} \\ \cdots & \cdots & \cdots & \cdots \\ x_{m1} & x_{m2} & \cdots & x_{mn} \\ x_{ai1} & x_{ai2} & \cdots & x_{ain} \end{bmatrix} \end{array} \tag{7}$$

The anti-ideal solution (*AA*) is the worst alternative. The ideal solution (*AI*) is, on the contrary, the alternative with the best characteristics. Depending on the nature of the criteria, *AAI* and *AI* are defined using the following equations:

$$AAI = \min_i x_{ij} \;\; if\; j \in B \;and\; \max_i x_{ij} \;\; if\; j \in C \tag{8}$$

$$AI = \max_i x_{ij} \;\; if\; j \in B \;and\; \min_i x_{ij} \;\; if\; j \in C \tag{9}$$

Where *B* represents a benefit and *C* a cost group of criteria.

Step 3: Normalization of the extended initial matrix (*X*). The elements of the normalized matrix $N = [n_{ij}]_{mxn}$ are obtained by applying the following equations:

$$n_{ij} = \frac{x_{ai}}{x_{ij}} \;\; if\; j \in C \tag{10}$$

$$n_{ij} = \frac{x_{ij}}{x_{ai}} \;\; if\; j \in B \tag{11}$$

Where the elements x_{ij} and x_{ai} represent the elements of the matrix *X*.

Step 4: Defining the weighting matrix $V = [v_{ij}]_{mxn}$. The weighting matrix *V* is obtained by multiplying the normalized matrix *N* with the weighting coefficients of the criteria w_j using the following equation:

$$v_{ij} = n_{ij} x w_j \tag{12}$$

Step 5: Determining the degree of usefulness of alternatives K_i. The degree of usefulness of alternatives to anti-ideal and ideal solutions is determined using the following equations:

$$K_i^- = \frac{S_i}{S_{aai}} \tag{13}$$

$$K_i^+ = \frac{S_i}{S_{ai}} \tag{14}$$

Where S_i ($i = 1, 2, ..., m$) represents the sum of the elements of the weight matrix V, shown in the following equation:

$$S_i = \sum_{i=1}^{n} v_{ij} \tag{15}$$

Step 6: Determining the utility function of alternatives $f(K_i)$. The utility function is the compromise of the observed alternative about ideal and anti-ideal solutions. The utility function of alternatives is defined by the following equation:

$$f(K_i) = \frac{K_i^+ + K_i^-}{1 + \frac{1 - f(K_i^+)}{f(K_i^+)} + \frac{1 - f(K_i^-)}{f(K_i^-)}}; \tag{16}$$

Where $f(K_i^-)$ represents the utility function of the anti-ideal solution and $f(K_i^+)$ represents the utility function of the ideal solution.

Utility functions about ideal and anti-ideal solutions are determined using the following equations:

$$f(K_i^-) = \frac{K_i^+}{K_i^+ + K_i^-} \tag{17}$$

$$f(K_i^+) = \frac{K_i^-}{K_i^+ + K_i^-} \tag{18}$$

Step 7: Ranking of alternatives. The ranking of alternatives is based on the final value of the utility function. The alternative that has the highest possible value of the utility function is preferred.

RESULTS AND DISCUSSION

Six relevant criteria for evaluating the performance of public companies in Serbia were used in this study. The alternatives are the twelve largest public companies by total assets in Serbia in 2023. Table 1 shows the criteria, alternatives, and original empirical data of the analyzed public companies in Serbia for 2023.

Table 1. Performance indicators – Public enterprises in Serbia, 2023 (Million dinars)

		Business property	Capital	Loss	Business income	Net result	Number of employees
		C1	C2	C3	C4	C5	C6
A1	JP PUTEVI SRBIJE BEOGRAD	559893	383542	96197	63720	-6819	2190
A2	JP SRBIJAGAS NOVI SAD	356702	132242	0	174239	12030	910
A3	JAVNO PREDUZEĆE ZA GAZDOVANJE ŠUMA SRBIJAŠUME SA PO BEOGRAD	138903	132589	0	11128	726	3168
A4	JUGOIMPORT-SDPR JP BEOGRAD	118722	24781	292	14434	602	355
A5	JKP BEOGRADSKI VODOVOD I KANALIZACIJA BEOGRAD	93884	85623	18921	13280	14	2706
A6	JKP BEOGRDSKE ELEKTRANE BEOGRAD	66398	39839	589	31390	27	1958
A7	JVP VODE VOJVODINE NOVI SAD	51815	40306	2636	7142	5	480
A8	JP VOJVODINA ŠUME PETROVARADIN	47842	44170	0	7156	68	1445
A9	JVP SRBIJAVODE BEOGRAD	44006	1723	6	3192	16	164
A10	JP POŠTA SRBIJE BEOGRAD	35113	25710	0	31196	3174	14307
A11	JKP GSP BEOGRAD	27511	8777	34941	21599	-820	5700
A12	JKP NOVOSADSKA TOPLANA NOVI SAD	25402	18705	0	9653	30	321

Note: Amounts are in million of dinars. The number of employees is expressed in whole numbers.

Source: Report on the hundred most... economic companies in 2023.
Agency for Economic Registers of the Republic of Serbia

The evaluation of the analyzed criteria was performed using the PIPRECIA-S method (Table 2, Figure 1). (In this study, all calculations and results are done by the authors.)

Table 2. Evaluation of criteria

	sj	kj	qj	wj
C1		1	1.00	0.14
C2	1.5	0.5	2	0.28
C3	1	1	1.00	0.14
C4	0.6	1.4	0.71	0.10
C5	1.1	0.9	1.11	0.16
C6	1.2	0.8	1.25	0.18
			7.08	1.00

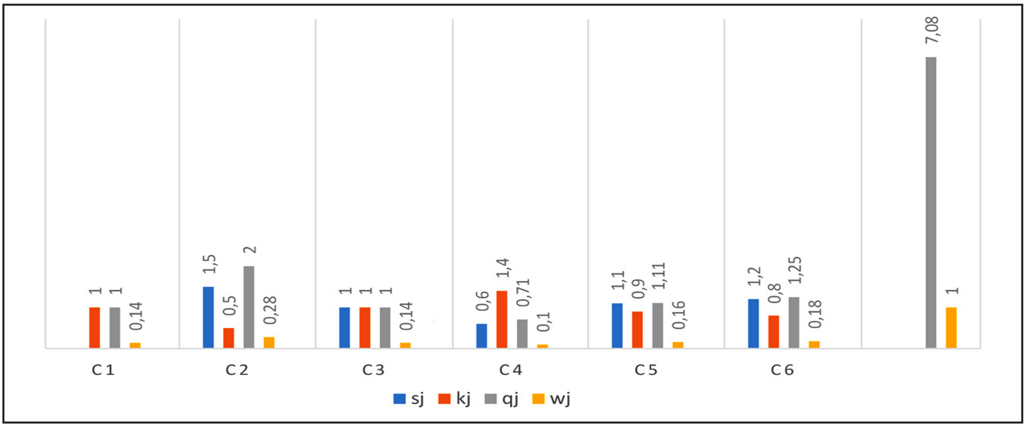

Figure 1. Evaluation of criteria

Source: Author's image

In the specific case, the ranking of the criteria is C2>C6>C5>C1 =C3 >C4. The most important criterion is C2 - Capital. The target performance ranking of public companies in Serbia can therefore be achieved with the efficient management of financial capital. In that direction, it is important to manage the other criteria as efficiently as possible. The selected criteria are key factors influencing the performance positioning of public companies in Serbia.

The ranking of alternatives in this study was performed using the MARCOS method. Tables 3 - 7 present the calculation procedure and results of the MARCOS method.

Table 3. Initial Matrix

Initial Matrix						
Weight of criteria	0.14	0.28	0.14	0.1	0.16	0.18
Kind of criteria	1	1	-1	1	1	1
	C1	C2	C3	C4	C5	C6
A1	559893	383542	96197	63720	-6819	2190
A2	356702	132242	0	174239	12030	910
A3	138903	132589	0	11128	726	3168
A4	118722	24781	292	14434	602	355
A5	93884	85623	18921	13280	14	2706
A6	66398	39839	589	31390	27	1958
A7	51815	40306	2636	7142	5	480
A8	47842	44170	0	7156	68	1445
A9	44006	1723	6	3192	16	164
A10	35113	25710	0	31196	3174	14307
A11	27511	8777	34941	21599	-820	5700
A12	25402	18705	0	9653	30	321
MAX	559893	383542	96197	174239	12030	14307
MIN	25402	1723	0	3192	-6819	164

Table 4. Extended Initial Matrix

Weight of criteria	0.14	0.28	0.14	0.1	0.16	0.18
Kind of criteria	1	1	-1	1	1	1
	C1	C2	C3	C4	C5	C6
AAI	25402	1723	96197	3192	-6819	164
A1	559893	383542	96197	63720	-6819	2190
A2	356702	132242	0	174239	12030	910
A3	138903	132589	0	11128	726	3168
A4	118722	24781	292	14434	602	355
A5	93884	85623	18921	13280	14	2706
A6	66398	39839	589	31390	27	1958
A7	51815	40306	2636	7142	5	480
A8	47842	44170	0	7156	68	1445
A9	44006	1723	6	3192	16	164
A10	35113	25710	0	31196	3174	14307
A11	27511	8777	34941	21599	-820	5700
A12	25402	18705	0	9653	30	321
AI	559893	383542	0	174239	12030	14307

Table 5. Normalized Matrix

Weight of criteria	0.14	0.28	0.14	0.1	0.16	0.18
Kind of criteria	1	1	-1	1	1	1
	C1	C2	C3	C4	C5	C6
AAI	0.045369	0.004492	0	0.01832	-0.56683	0.011463
A1	1.0000	1.0000	0.0000	0.3657	0.0000	0.1531
A2	0.6371	0.3448	0.0000	1.0000	1.0000	0.0636
A3	0.2481	0.3457	0.0000	0.0639	0.0603	0.2214
A4	0.2120	0.0646	0.0000	0.0828	0.0500	0.0248
A5	0.1677	0.2232	0.0000	0.0762	0.0012	0.1891
A6	0.1186	0.1039	0.0000	0.1802	0.0022	0.1369
A7	0.0925	0.1051	0.0000	0.0410	0.0004	0.0336
A8	0.0854	0.1152	0.0000	0.0411	0.0057	0.1010
A9	0.0786	0.0045	0.0000	0.0183	0.0013	0.0115
A10	0.0627	0.0670	0.0000	0.1790	0.2638	1.0000
A11	0.0491	0.0229	0.0000	0.1240	0.0000	0.3984
A12	0.0454	0.0488	0.0000	0.0554	0.0025	0.0224
AI	1	1	0	1	1	1

Table 6. Weighted Normalized Matrix

	C1	C2	C3	C4	C5	C6
AAI	0.006352	0.001258	0	0.001832	0	0.002063
A1	0.1400	0.2800	0.0000	0.0366	0.0000	0.0276
A2	0.0892	0.0965	0.0000	0.1000	0.1600	0.0114
A3	0.0347	0.0968	0.0000	0.0064	0.0097	0.0399
A4	0.0297	0.0181	0.0000	0.0083	0.0080	0.0045
A5	0.0235	0.0625	0.0000	0.0076	0.0002	0.0340
A6	0.0166	0.0291	0.0000	0.0180	0.0004	0.0246
A7	0.0130	0.0294	0.0000	0.0041	0.0001	0.0060
A8	0.0120	0.0322	0.0000	0.0041	0.0009	0.0182
A9	0.0110	0.0013	0.0000	0.0018	0.0002	0.0021
A10	0.0088	0.0188	0.0000	0.0179	0.0422	0.1800
A11	0.0069	0.0064	0.0000	0.0124	0.0000	0.0717
A12	0.0064	0.0137	0.0000	0.0055	0.0004	0.0040
AI	0.14	0.28	0	0.1	0.16	0.18

Table 7. Results of the MARCOS Method

		Si	Ki-	Ki+	f(K-)	f(K+)	f(K)		Ranking
	AAI	0.0115							
JP PUTEVI SRBIJE BEOGRAD	A1	0.4841	42.0799	0.5629	0.0132	0.9868	0.5628	0.5628	1
JP SRBIJAGAS NOVI SAD	A2	0.4572	39.7383	0.5316	0.0132	0.9868	0.5315	0.5315	2
JAVNO PREDUZEĆE ZA GAZDOVANJE ŠUMA SRBIJAŠUME SA PO BEOGRAD	A3	0.1874	16.2911	0.2179	0.0132	0.9868	0.2179	0.2179	4
JUGOIMPORT-SDPR JP BEOGRAD	A4	0.0685	5.9570	0.0797	0.0132	0.9868	0.0797	0.0797	8
JKP BEOGRADSKI VODOVOD I KANALIZACIJA BEOGRAD	A5	0.1278	11.1115	0.1486	0.0132	0.9868	0.1486	0.1486	5
JKP BEOGRDSKE ELEKTRANE BEOGRAD	A6	0.0887	7.7094	0.1031	0.0132	0.9868	0.1031	0.1031	7
JVP VODE VOJVODINE NOVI SAD	A7	0.0526	4.5707	0.0611	0.0132	0.9868	0.0611	0.0611	10
JP VOJVODINA ŠUME PETROVARADIN	A8	0.0674	5.8584	0.0784	0.0132	0.9868	0.0784	0.0784	9
JVP SRBIJAVODE BEOGRAD	A9	0.0164	1.4228	0.0190	0.0132	0.9868	0.0190	0.0190	12
JP POŠTA SRBIJE BEOGRAD	A10	0.2677	23.2656	0.3112	0.0132	0.9868	0.3112	0.3112	3
JKP GSP BEOGRAD	A11	0.0974	8.4656	0.1133	0.0132	0.9868	0.1132	0.1132	6
JKP NOVOSADSKA TOPLANA NOVI SAD	A12	0.0300	2.6063	0.0349	0.0132	0.9868	0.0349	0.0349	11
	AI	0.8600							

The results of the analysis of the problem addressed in this study show that the following five public companies in terms of performance in Serbia are: JP PUTEVI SRBIJE BEOGRAD, JP SRBIJAGAS NOVI SAD, JP POŠTA SRBIJE BEOGRAD, JAVNO PREDUZEĆE ZA GAZDOVANJE ŠUMA SRBIJAŠUME SA PO BEOGRAD and JKP BEOGRADSKI VODOVOD I KANALIZACIJA BEOGRAD.Therefore, the best-positioned public company is JP PUTEVI SRBIJE BEOGRAD. The public company JVP SRBIJAVODE BEOGRAD is the worst-positioned. The performance positioning of public companies in Serbia can, among other things, be improved through the most efficient management of business assets, capital, losses, business income, net results, and human resources. For these purposes, adequate adaptation to very dynamic changes in the business environment is necessary. The digitization of the entire business process of public companies in Serbia plays a significant role in this.

CONCLUSION

The operations of public companies are specific. They provide their services to entities and citizens. They should operate as efficiently as possible. This enables public companies to provide entities and citizens with quality services at affordable prices. To that end, it is necessary to continuously analyze the performance of public companies. In this study, an analysis of the performance of public companies in Serbia was performed using multi-criteria decision-making methods, namely PIPRECIA-S and MARCOS methods. The obtained results show that among these five public companies in terms of performance in Serbia are: JP PUTEVI SRBIJE BEOGRAD, JP SRBIJAGAS NOVI SAD, JP POŠTA SRBIJE BEOGRAD, JAVNO PREDUZEĆE ZA GAZDOVANJE ŠUMA SRBIJAŠUME SA PO BEOGRAD and JKP BEOGRADSKI VODOVOD I KANALIZACIJA BEOGRAD. Therefore, the best-positioned public company is JP PUTEVI SRBIJE BEOGRAD. The public company JVP SRBIJAVODE BEOGRAD is the worst-positioned. Among other things, to improve the performance positioning of public companies in Serbia, it is necessary to manage business assets, capital, losses, business income, net result, and human resources as efficiently as possible. Likewise, adequate adaptation to very complex dynamic changes in the business environment at the global, regional, and national levels is necessary. Digitization of the entire business is key to achieving the target performance positioning of public companies in Serbia.

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Analiza učinka javnih preduzeća u Srbiji na osnovu PIPRECIA-S i MARCOS metoda

Rezime: Po prirodi stvari, poslovanje javnih preduzeća je specifično. Ona pružaju javne usluge entitetima i građanima. Istraživanje učinka javnih preduzeća je veoma izazovno, složeno, relevantno i značajno. Ova studija istražuje performanse javnih preduzeća u Srbiji korišćenjem višekriterijumskih metoda donošenja odluka, i to: PIPRECIA-S i MARCOS metode. Rezultati ove studije pokazuju da su pet javnih preduzeća sa najvećim performansama u Srbiji: JP PUTEVI SRBIJE BEOGRAD, JP SRBIJAGAS NOVI SAD, JP POŠTA SRBIJE BEOGRAD, JAVNO PREDUZEĆE ZA GAZDOVANJE ŠUMA SRBIJAŠUME SA PO BEOGRAD i JKP BEOGRADSKI VODOVOD I KANALIZACIJA BEOGRAD. Najbolje pozicionirano javno preduzeće je JP PUTEVI SRBIJE BEOGRAD. Javno preduzeće JVP SRBIJAVODE BEOGRAD je u najgorem položaju. Pozicioniranje javnih preduzeća u Srbiji može se poboljšati efikasnijim upravljanjem poslovnom imovinom, kapitalom, gubicima, poslovnim prihodima, neto rezultatima i ljudskim resursima. U ove svrhe neophodna je adekvatna adaptacija na veoma složene dinamičke promene u poslovnom okruženju.

Ključne reči: Učinak, pozicioniranje, javna preduzeća, Srbija, PIPRECIA-S, MARCOS

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Reliance of Serbia on the European Union Foreign Direct Investments: Empirical Analysis

Abstract: *Foreign direct investments (FDI) represent one of the decisive factors of globalization, international trade and international economic integration in the modern world. Today, FDI are an important source of overall economic and social development and progress of every country. The purpose of this article is to provide a comparative insight into the differences in the net FDI inflows among different countries of the Western Balkans, to indicate the net FDI inflows and outflows from Serbia, their sectorial structure, as well as important differences in the FDI inflows among the different countries of their origin. The European Union (EU) is the largest trade partner, foreign investor and main donor in Serbia. On the other hand, Serbia is recognized as a regional leader in attracting FDI, the largest part of which undisputedly comes from EU member states. In addition, Serbia has the largest trade exchange with the EU, as indicated by the dominance of European companies in the domestic economy. Therefore, the paper concludes that Serbia has no alternative, and that it needs the EU due to its geographical proximity, intense trade relations, the country's dependence on foreign capital and the need for further modernization of its economy and society.*

Keywords: *Serbia, foreign direct investments (FDI), economic development, foreign capital, European Union (EU)*

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INTRODUCTION

Foreign direct investments (FDIs) are one of the decisive factors of the globalization process, international trade flows and international economic integration in the contemporary globalized world. FDIs are considered a vital driver of economic growth (1, p. 1), especially in emerging economies, as well as an important source of foreign private capital inflow (11, p. 35). By combining modern flows of trade, capital and technology, FDIs have today grown into a dynamic factor of economic growth and the basic mechanism of the globalization of world economy. At the same time, there is a mutual relationship between FDIs and the process of globalization itself. While globalization undoubtedly influenced the growth of international capital investment, the international financial flows themselves have pulled in an increasing number of economies in this process, thus further stimulating the dynamics of global growth (10, p. 38). In order to respond to increasingly strict criteria of competitiveness and profitable business in the modern integrated world, today companies ensure their presence in all important, dynamic world markets through direct investments abroad (18, p. 219). In addition to sustainable economic growth, foreign investments also represent an important source of capital accumulation, employment, transfer and diffusion of technology, access to export markets, production and technical expertise, new knowledge and skills, flourishing of innovations and general technological progress in the host country. Also, in addition to its indisputable positive macroeconomic aspects and benefits, FDI inflows also represent a development opportunity for the contemporary companies themselves, but also a long-term growth pathway for their production, employment, competitiveness and production skills (7, p. 4).

In the presence of an adequate economic policy, FDIs can ensure financial stability, economic development, employment growth and general social progress of the host country (9). UNCTAD defines FDI as long-term investment that imply lasting interest and the control by a resident business entity from a given country over the enterprise operations from some another country. At the same time, when investing abroad, the investor retains a significant degree of lasting interest, influence and control over the management of the company in which it invests (25, p. 245). On the other hand, the OECD states that lasting interest and ownership control imply the establishment of a long-term relationship between the foreign investor's parent company and its branch abroad, with a threshold of direct or indirect ownership of at least 10% over the foreign company (15, p. 17). FDI flows include the received capital from a foreign direct investor or some foreign investment company and usually consist of the following three components (25, p. 245): a) equity capital, b) reinvested earnings and c) intra-company loans.

The purpose of this article is to indicate the net FDI inflows and outflows in the Republic of Serbia and their sectorial structure, as well as to underline the dominant role of companies from European Union (EU) countries in its economy and total net FDI inflows. This article is structured as follows: after the introductory section, there follows a section on the methodological approach used in handling the available data. The third section of the article is devoted to the issues of treatment of foreign investments in developing countries, as well as to their determined advantages and shortcomings. This section also provides a description of current FDI trends at the global level, both in developed and developing countries. The fourth section deals with a detailed analysis of FDI net inflows and outflows from the Republic of Serbia in the period from 1997 to 2023, as well as the distribution of net FDI inflows by its economic branches. This chapter also provides the statistics of foreign subsidiaries in the country, indicating the clear role of European Union companies in the country's net FDI inflows, and thus in its economic structure and development. Finally, the last section concludes the paper, among other things with indications of the critical and unfavorable views of authors from Serbia on the role of foreign capital in the country's economic development. At the very end of the paper, it is however concluded that Serbia is heavily dependent on investments from the EU, as well as that, in spite of all the prevailing problems and trends described, the country objectively has no other alternative developmental solution.

APPLIED RESEARCH METHODOLOGY

The article uses the desk research method based on reports of relevant international organizations and available secondary data sources, together with a review of existing sources of economic literature on the importance, role, advantages and disadvantages of foreign direct investment in developed countries and emerging markets. This analysis covers net FDI inflow and outflow trends, the sectorial structure of net FDI inflows, as well as the structure of net FDI inflows by countries of origin over the last dozen years in the economy of Serbia. More precisely, the article uses data from the National Bank of Serbia (NBS), the Statistical Office of the Republic of Serbia (SORS), UNCDAT and from the World Bank database. In addition to desk research, the article also uses the method of description, analysis and synthesis, historical method, mathematical-statistical and comparative method in its attempt to portray the perspectives and the state of the art of the net FDI flows in the Republic of Serbia.

FOREIGN DIRECT INVESTMENTS IN DEVELOPING COUNTRIES

Driven by long-term profit motives in business activities that they directly control, foreign direct investments have grown over time into an important source of external financing for developing countries. Empirical evidences indicate that FDIs directly promote the growth of production capacities, the transfer of production technology, the development of skills and new knowledge, by boosting innovative capacity, organizational and managerial abilities, but also the productivity and global competitiveness of the host countries. Given the proven role of foreign investments in accelerating their economic development and industrial reconfiguration, developing countries have a strong interest in attracting and retaining FDIs (11, pp. 35-36). Therefore, emerging markets and transitional countries increasingly began to rely on FDIs, while perceiving them as the source of their economic growth, modernization and general social prosperity. For this purpose, these countries have liberalized the regimes of their economic and FDI policy, frequently supplemented by other relevant policy frameworks with the aim of attracting and retaining foreign capital (14, p. 5), often to the detriment of their own economic goals and interests.

However, the effects of FDIs on emerging markets' development are the subject of intense debate. Although literature sources generally take a positive stance on these issues, certain empirical studies still call for a more cautious approach (4, p. 489). In addition to its indisputable economic benefits, FDI flows also carry with themselves some commonly known potential disadvantages and pitfalls such as loss of control over the host country's economy, loss of jobs due to capital reallocation, negative environmental impact of manufacturing and mining industries, deterioration of working conditions, hindering domestic investments and social conflicts. In addition, currency crisis and exchange rate depreciation, reduction of foreign investors' confidence in the host country economy, risk of capital flight, government reduction of capital spending, current account deficit, and neglecting of the host country's long-term growth perspective are also cited as ordinary drawbacks of inward FDI flows. These processes can further encourage the vulnerability and volatility of host countries' economies with liberalized two-way flows of foreign capital (20, p. 5). Finally, intense net FDI inward flows can also lead to a loss of government control over industrialization, worsening social inequalities and to subordination of local development to the interests of multinational companies (MNCs) (19).

In the conditions of ongoing growing geopolitical tensions and war conflicts, there has been a fragmentation of global FDIs, and therefore an increase in the vulnerability of emerging markets and developing economies to their reallocation and displacement. Today, these countries are particularly affected by reduced access to foreign investment from developed countries, partly due to reduced capital formation and smaller productivity gains from the transfer of better technological solutions and production know-how (2). UNCTAD's latest World Investment Report 2023 points to a 12% drop in global FDI flows to a value of US$ 1.3 trillion in 2022, following their strong recovery from 2021. This decline was mainly driven by the Ukrainian war, rising food and energy prices, disruptions in global supply chains and rising public debt. In contrast to global FDI trends, developing countries nevertheless experienced a 4% increase in FDI inflows, albeit unevenly, with several leading large emerging markets and visibly declining in FDI inflows to less developed countries (26, pp. v-x).

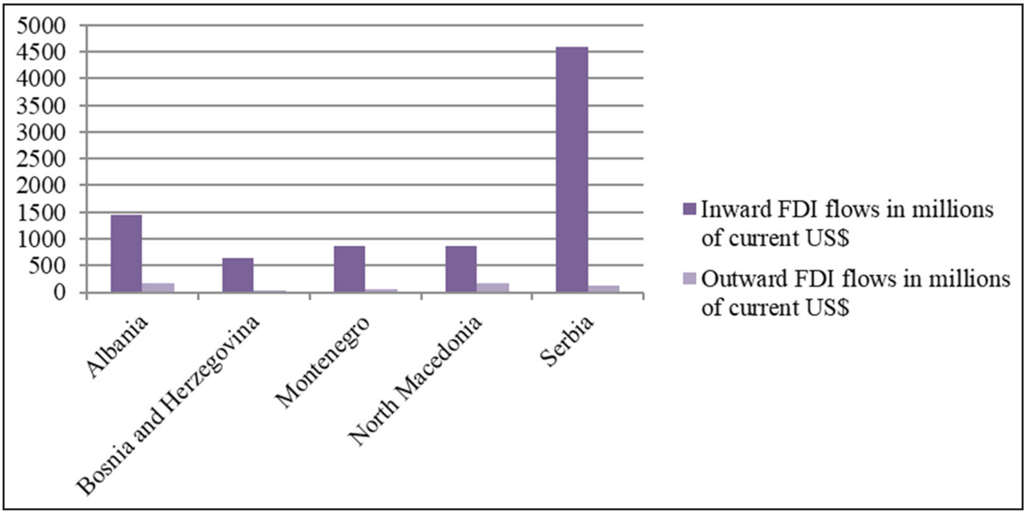
The Report further states that investment growth is concentrated in a very small number of larger developing countries, while inward FDI flows have remained stagnant in a larger number of smaller developing countries. Least developed countries seem to have fared the worst, with a drop in foreign investment by as much as 16% and with an already chronically low starting base. Observed at the sectorial level, the highest investment growth was experienced by the semiconductor sector, while the weakest growth was achieved by those sectors that are directly related to the production infrastructure and capacities building in these countries. Huge differences in sectorial investments related to the Sustainable Development Goals (SDGs) are also noticeable. While the highest investments were recorded in the renewable energy sources sector, other sectors such as water supply and sanitation services, agrifood systems, health and education recorded a significant decline in the volume and performance of foreign investments (26, p. v).

ECONOMIC POLICY AND THE STATE OF FOREIGN INVESTMENTS IN SERBIA

When it comes to Serbia itself, in the previous period there was a certain improvement in the investment ambience in the country due to implemented macroeconomic reforms, established financial stability and fiscal discipline. At the same time, attracting foreign investments appears as one of the most important strategic goals and the epicenter of the national economic policy. For this purpose, the Government of the Republic of Serbia (RS) implemented significant reforms in terms of its labor law, issuance of building permits, inspection procedures, public procurement and privatization with the aim of improving its business environment. Otherwise, Serbia has proven to be a relatively successful destination for attracting foreign capital, which has solved some of its accumulated economic problems, especially lagging exports, a high balance of payments imbalance, weak global competitiveness, huge foreign debt and the instability of the dinar exchange rate (27, p. 163). Apart from that, Serbia enjoys a reputation as an attractive and reliable destination due to its favorable strategic geographical location, educated workforce with knowledge of the English language, relatively low labor costs, generous government subsidies for attracting FDI, as well as signed free trade agreements with the EU and other important trade partners. Despite this, the country still faces certain challenges such as the complexity of public administration and bureaucratic delays, inefficient large state-owned enterprises, a striking gray economy and an insufficiently efficient judiciary system (28).

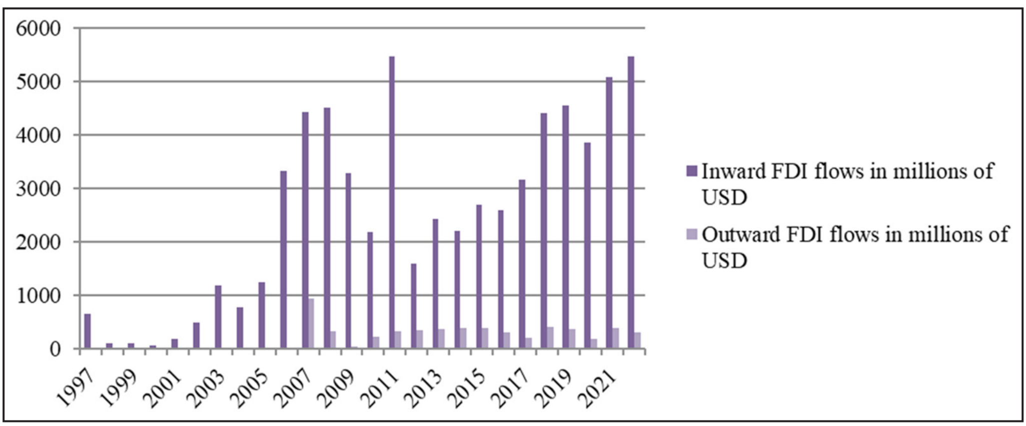
For the sake of comparison, in the rest of the text, Graph 1 provides a comparative overview of net inward and outward FDI flows in Serbia and other countries of the Western Balkans during 2023. As can be seen from the presented graph, Serbia is the absolute leader in attracting foreign investments, followed by Albania, Bosnia and Herzegovina, North Macedonia and Montenegro in last place. On the other hand, among the countries of the region, in 2023, the highest value of capital was exported by Serbia, followed by Albania, North Macedonia, Bosnia and Herzegovina and Montenegro, respectively.

During the 1990s of the last century, the FDI net inflows in Serbia were more than modest, primarily due to the war conflicts in the former Yugoslavia and the sanctions imposed on Serbia by the International Community. However, from 2003, a much more sensitive growth of inward FDI net inflows began, with several short-term disruptions mainly caused by global economic crises, political elections and to a lesser extent the *COVID-19* coronavirus pandemic. This change in the dynamics of FDI inflows appeared because of the ended war conflicts, democratic political changes in the country and its eventually opening to international financial and trade flows. In addition, the model of privatization was changed in the meantime by the adoption of several relevant legal regulations that mainly reduced the rights of workers in this process and enabled the conditional write-off of the debts of the then social enterprises towards the state (9, p. 72). In this way, Serbia became an attractive and trusty destination for foreign direct investments, which was naturally reflected in the growth of their inflow into the country.



Graph 1. Comparative overview of net FDI inward and outward flows in the Western Balkans countries in 2023

Source: (29)



Graph 2. FDI net inflows and outflows of the Republic of Serbia in the period from 1997 to 2023

Sources: (24) and (13)

Over time, the largest FDI inflows were realized in the domestic alcohol industry, the financial sector and banking, in the field of telecommunications, in the automobile industry, the oil industry, food retailing and in the construction of shopping centers. Since 2003, FDIs began to arrive more significantly in the country, with their maximum realized values in 2007 (4,420 million US$), 2011 (4,930 million US$), and later in 2023 (4,940 million US$), while especially since 2012, their stable growth has been recorded. The average amount of inward FDIs in the period from 2003 to 2023 amounted to US$ 3,022.9 million per year. On the other hand, outgoing FDI flows remained at their modest and symbolic level, experiencing their highest value in 2007, and then achieving a gradual decline. In the period from 2007 to 2023, domestic companies invested a total of US$ 5,056.2 million abroad, which is only slightly more than the realized FDI inflows during the last year of 2023 (4,940 million US$), indicating a huge disproportion between outward and inward FDI flows. Finally, while the average annual percentage share of inward FDI flows in GDP in this period amounted to 6.32%, the average annual percentage share of outward FDI flows in GDP was only 0.59% in the same period. The FDI inflows and outflows in the Republic of Serbia in the period from 1997 to 2023 are shown in Graph 2.

The structure of cumulative net FDI inflows in Serbia by economic branches in the period from the first to the third quarter of 2023 is given in the following Table 1.

Table 1: Cumulative net FDI inflows in Serbia in 2023 by economic branches (in millions of euros)

Economic branch	**FDI stock in 2023, in millions of euros**
Manufacturing industry	932.7
Construction	499.5
Mining	359.1
Finance and insurance	300.8
Science, innovation and technical activities	297.4
Real estate business	177.6
Energy sector	176.5
Wholesale and retail trade	165
Informing and communications	97.6
Transport and storage	68.6
Water supply	43.6
Administrative and auxiliary service activities	33.0
Accommodation and food service	18.6
Education	1.7
Other service activities	1.3
Health and social protection	0.0
Arts, entertainment and recreation	-0.8
Total net FDI growth	**3,211.6**

Source: (13)

As can be seen from the presented table above, the largest net FDI inflows in 2023 were achieved by the manufacturing industry sector, followed by construction, mining, finance and insurance, and science, innovation and technical activities sector. On the other hand, the most neglected sectors in terms of net FDI inflows were education, health and social protection and the arts, entertainment and recreation sector with even a negative net FDI inflows balance recorded.

The latest official data from the Statistical Office of the Republic of Serbia indicate that in 2021, 2,862 foreign subsidiaries operated in Serbia with 337,484 employees and a total turnover of 4,735 billion dinars, or about 40.4 billion euros. The largest number of foreign subsidiaries operated in the wholesale, retail trade and motor vehicle repair sector (33.7%), followed by the manufacturing industry (22.1%) and the informing and communication sector (12.6%). Besides, 19.9% of the total number of employees in Serbia was employed in affiliates of foreign companies, while their share in the total value added was 34.8%. Observed by FDI home countries, 70.8% of foreign subsidiaries originated from the European Union countries, 28.5% from non-EU countries, and the remaining 0.7% from offshore financial centers. In addition, 65.8% of the number of employees was engaged in foreign subsidiaries originating from EU member states, 33.1% from non-EU countries, and the remaining 1.1% also from offshore financial centers (21). All the above figures indicate the absolute dominance of foreign direct investments which originate from the European Union countries in the economy of Serbia.

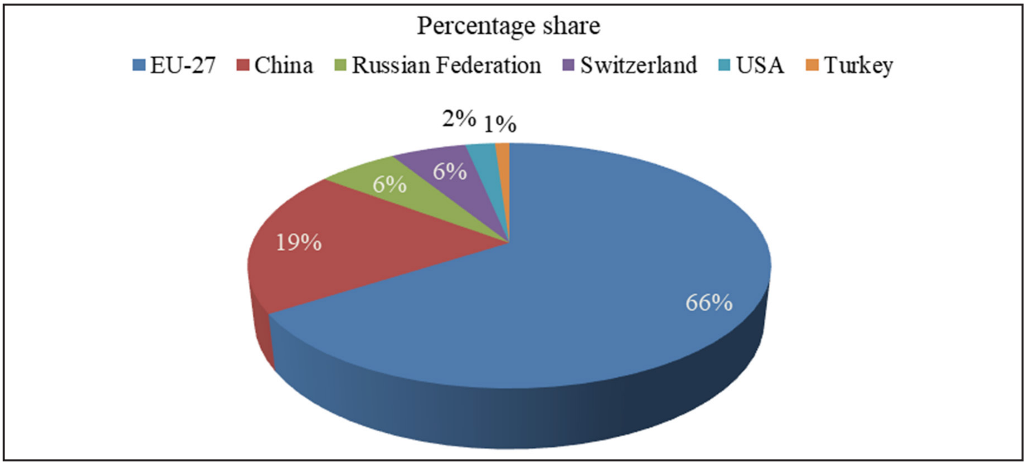
Table 2: FDI net inflows in Serbia from the most important trade partners (in millions of euros)

Country	EU-27	China	Russia	Switzerland	USA	Turkey	Total
2013	1196.1	22.2	206.2	86.8	23.2	2.2	**1536.7**
2014	1086.6	80.5	69.8	126.2	9.3	5.7	**1378.1**
2015	1511	66.4	88.4	86.1	38.9	36.3	**1827.1**
2016	1548.3	2018	20.1	234.9	14.4	15.4	**3851.1**
2017	2040.3	177.5	163	135.1	34.6	17.6	**2568.1**
2018	2467.9	686.6	248.3	-91	68	62.4	**3442.2**
2019	2925.2	339.4	558.7	335.7	186.8	11	**4356.8**
2020	2213.1	528.5	2.4	62.3	63.3	29.8	**2899.4**
2021	2771.4	630.8	11.3	539.1	100.5	85.6	**4138.7**
2022	2468.5	1377.3	453.1	200.9	135.6	59.6	**4695**
Total	**20228.4**	**5927.2**	**1821.3**	**1716.1**	**674.6**	**325.6**	**30693.2**
%	**65.91**	**19.31**	**5.93**	**5.59**	**2.2**	**1.06**	**100**

Source: (13)

The European Union is the largest investor, trade partner and donor in Serbia. At the moment, the trade exchange between EU members and Serbia accounts for about 62% of the country's total foreign trade, while in the past ten years, the cumulative FDI net inflows from EU countries amounted to 20.23 billion euros, or about 66% of the total FDI net inflows. In addition, Serbia is ranked among the first three countries that receive the highest financial aid from the EU. The main sectors of EU financial assistance include education, agriculture, local development, research and innovation, environmental protection, transport, energy, functioning of public administration, justice and the rule of law, as well as the health care system (6). The following Table 2 indicates the FDI net inflows from Serbia's most important trading partners in the period from 2013 to 2022, as well as the percentage share of each of them in the total volume of FDI net inflows. The table obviously shows that also in this respect the EU is clearly in the lead (65.91%). Among other important countries of foreign capital origin, China (19.31%), Russia (5.93%), Switzerland (5.59%), USA (2.2%) and Turkey (1.06%) stand out respectively.

The structure of net FDI inward flows in the Republic of Serbia in the period from 2013 to 2022 by the countries of origin can be shown more clearly through the following pie chart (Graph 3).



Graph 3. Structure of net FDI inflows by countries of origin in the period from 2013 to 2022

Source: (13)

ECONOMIC DEVELOPMENT OF SERBIA IN THE CONTEXT OF THE EUROPEAN UNION INVESTMENTS

In 2023, Serbia was the absolute stand out leader in attracting foreign investments among the countries of the Western Balkans, with as much as US$ 4.94 billion in attracted investments. In the country, since 2003, there has been a gradual increase in net FDI inward flows, albeit interrupted by the onset of the Global Financial Crisis in 2008 and the 2012 parliamentary elections, when they experienced their expected temporary decline. It is also important to note here that the world economic crisis caused by the *COVID-19* coronavirus pandemic contributed to a marked drop in net FDI inflows from US$ 4,270 million in 2019 to US$ 3,490 million in 2020. At the same time, in Serbia, the pandemic had a statistically significant and negative impact on GDP per capita at the 90% confidence level (23, p. 48). On the other hand, net FDI outward flows remained relatively stable and miniscule, with only 0.58% of their average share in the country's GDP. It also follows from the presented data that the European Union is the largest trade partner, foreign investor and main donor in the Republic of Serbia. While about 20% of all employed individuals are engaged in affiliates of foreign companies, about 71% of active foreign subsidiaries in the country originate from the EU countries. In addition, about 66% of people employed in foreign companies in Serbia are engaged in the EU foreign subsidiaries, thus contributing to the intensive trade exchange between Serbia and the EU, which makes up about 62% of the country's total foreign trade value. Finally, in the past dozen years, the cumulative net FDI inflows from the EU member states amounted to 20.23 billion euros, or about 66% of the total net FDI inflows. All these figures speak clearly about the dominant position of European companies and EU foreign direct investments in the Serbian economy.

Recently, there have been complaints in the Serbian public discourse regarding the fact that the country’s economy is completely subordinated to the interests of foreign capital, especially in light of its pronounced de-industrialization, the visible deterioration of labor rights and the large wave of subsidizing FDIs, mainly in the labor-intensive economic branches. In addition to its indisputable positive economic contributions, foreign capital in Serbia also enjoys some privileges resulting from the national orientation towards a policy of abundant FDI subsidization. Among other things, this policy led to the discrimination of domestic private small and medium-sized enterprises (SMEs), which finance these subsidies indirectly through their tax payments. Moreover, some of these subsidies far exceed economically justified amounts, turning these foreign investments into a kind of net cost to the country's economy (22, pp. 9-15). Accusations against foreign capital also go in the direction of the non-transparency of foreign investments in Serbia, the prevailing character of extractive institutions, rent-seeking behavior, state neoliberal capitalism, public investment mostly in labor-intensive jobs, as well as of abuse of administration and state resources (17, pp. 39-45). The country's economic growth is fundamentally deformed and is pushed by FDIs and state investments mainly led by the construction, mining and IT industry, while the domestic private sector and private initiative are completely restrained, without the effects of spreading technical progress and knowledge in the economy (12). Finally, radical criticism is reflected in the discrediting of foreign investments based on their negative impact on the environment and the transfer of dirty technologies through FDIs, especially in the mining and heavy industry sectors (8, pp. 91-92). These theses are also confirmed by the recent media reports about foreign investors who are asking the Government of the Republic of Serbia to organize extraordinary professional supervision of doctors who prescribe sick leave to workers in foreign owned factories due to suspicion that they are abusing their right to sick leave (3). Such demands further have upset the domestic public opinion.

On the other hand, there are quite opposing points of view that acknowledge the inclusive role of the European Union in encouraging the modernization and overall progress of modern Serbian society. Companies from the European Union introduced modern technologies into business, brought efficiency and knowledge and contributed to the creation of around 300,000 jobs. It is safe to say that they, among other things, revived the abandoned industrial zones in the south of the country. All this contributed to the growth of the foreign trade exchange of the Serbian southern regions from 400 million euros in 2012 to over 1.215 billion euros at this moment, while German investors with over 50,000 employees and an overall trade exchange of about 8 billion euros are leading the way in this whole process at the country level. At the same time, German investments in the area of Šumadija are mainly focused on sophisticated industry and partially on the food industry, bringing with themselves new jobs, respect for ecological standards and better living conditions. In addition, the European Union also invests in the infrastructure of southern Serbian municipalities, such as a central wastewater treatment plant and sewerage network, in which it has invested almost 30 million euros, and provides support to people with disabilities, thus directly contributing to social inclusion. Finally, the European Union actively invests in providing support for social development, small business operations, improvement of services for citizens, environmental protection, development of local infrastructure and improvement of energy efficiency (16). The European Union actively cooperates with the Ministry of Economy of the Republic of Serbia, while in 2022 alone, 716 companies in Serbia received financial assistance from the EU. Its grants are mainly intended for small and micro enterprises, entrepreneurs and cooperatives, and are primarily designed for the purchase of equipment, support for innovation and environmental protection (5).

Considering all above, the fact is that the foreign capital, especially that from EU countries, has brought significant economic improvements in Serbia, such as the impact on GDP growth, economic progress, employment growth, the transfer of modern technologies, new knowledge and skills, innovation, improvement of business environment, macroeconomic stabilization, intensification of the volume of foreign trade, etc. Given the fact that capital from EU countries played a vital role in these processes, its possible withdrawal from Serbia could undoubtedly lead to the collapse of the Serbian economy with incalculable economic and social consequences. This is all the more true since, historically, the majority of advanced and sound economic and social initiatives originated from the West, and objectively, Serbia has no better alternative, especially considering that competitive economic integrations are either in their infancy or underdeveloped and fragile, with insufficient financial and technical capacities. This is even truer since the country's greater reliance on Europe would encourage further modernization of Serbian society. In addition, Serbia needs to cooperate with the European Union since it is dependent on a stable inflow of foreign capital. Finally, but not least, Serbia is referred to Europe because of its geographical proximity, historical ties and common culture and tradition. Therefore, the solution for possible development failures and distortions should be sought in non-discriminatory encouragement of the development of the domestic small and medium-sized enterprises sector, and not in the discrediting of all foreign investments, since not all FDIs have an equally good or bad impact on contemporary Serbian society.

CONCLUSION

The European Union plays a dominant role in Serbia's economy as its largest investor, trade partner and donor, with foreign direct investments from the EU accounting for approximately 66% of the total FDI net inflows. Although these investments have triggered economic progress, job creation and modernization of the country, there are still concerns about Serbia's heavy reliance on foreign capital, suppressing the development of domestic small and medium-sized enterprises, deteriorating labor rights and causing undesirable environmental consequences. However, the discourse on European investments in Serbia remains highly polarized — some consider them crucial for growth and integration, while others criticize their impact on local economic independence and sustainability. Considering Serbia's strategic and economic dependence on European capital, instead of completely rejecting foreign investments, solutions should found in encouraging the development of domestic companies under fair, transparent and non-discriminatory conditions in order to ensure balanced and sustainable economic growth.

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Oslonjenost Srbije na strane direktne investicije iz Evropske unije: Empirijska analiza

Apstrakt: *Strane direktne investicije (SDI) predstavljaju jedan od odlučujućih faktora globalizacije, međunarodne trgovine i međunarodne ekonomske integracije u savremenom svetu. SDI danas figuriraju kao važan izvor ukupnog ekonomskog i društvenog razvoja i napretka svake zemlje. Svrha ovog članka je da pruži uporedni uvid u razlike u neto prilivu SDI između različitih zemalja Zapadnog Balkana, da ukaže na neto prilive i odlive SDI iz Srbije, njihovu sektorsku strukturu, kao i na važne razlike u prilivima SDI između različitih zemalja njihovog porekla. Evropska unija (EU) je najveći trgovinski partner, strani investitor i glavni donator u Srbiji. Sa druge strane, Srbija je prepoznata kao regionalni lider u privlačenju SDI, od kojih najveći njihov deo nesporno dolazi iz članica EU. Pored toga, Srbija ima najveću trgovinsku razmenu sa EU, na šta ukazuje i dominacija evropskih kompanija u domaćoj privredi. Stoga se u radu zaključuje da Srbija nema alternativu, kao i da joj je EU potrebna zbog svoje geografske blizine, intenzivnih trgovinskih odnosa, zavisnosti zemlje od stranog kapitala i potrebe za daljom modernizacijom privrede i društva.*

Ključne reči: *Srbija, strane direktne investicije (SDI), privredni razvoj, strani kapital, Evropska unija (EU)*

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UVOD

Strane direktne investicije (SDI) predstavljaju jedan od odlučujućih faktora procesa globalizacije, međunarodnih trgovinskih tokova i međunarodnih ekonomskih integracija u savremenom globalizovanom svetu. SDI se smatraju i vitalnim pokretačem privrednog rasta (1, str. 1), posebno u privredama u nastajanju, kao i važnim izvorom priliva eksternog privatnog kapitala (11, str. 35). Objedinjujući savremene tokove trgovine, kapitala i tehnologije, SDI su danas prerasle u dinamičan faktor privrednog rasta i osnovni mehanizam globalizacije svetske privrede. Pri tome, između SDI i procesa golbalizacije postoji veza uzajamne zavisnosti. Dok je globalizacija nesumnjivo uticala na rast obima ulaganja međunarodnog kapitala, dotle su i sami međunarodni finansijski tokovi vremenom *uvlačili* sve veći broj privreda u ovaj proces, dodatno podstičući dinamiku globalnog rasta (10, str. 38). Da bi odgovorile na sve oštrije kriterijume konkurentnosti i profitabilnog poslovanja u savremenom integrisanom svetu, kompanije putem direktnih investicija u inostranstvu obezbeđuju svoje prisustvo na svim važnijim dinamičkim svetskim tržištima (18, str. 219). Pored održivog privrednog rasta, SDI se danas javljaju i kao važan izvor akumulacije kapitala, zapošljavanja, transfera i difuzije tehnologije, pristupa izvoznim tržištima, proizvodnog umeća, novih znanja i veština, razvoja inovacija i generalno tehnološkog napretka u zemlji domaćinu. Takođe i pored svojih nespornih makroekonomskih aspekata i koristi, SDI predstavljaju i razvojnu šansu samih preduzeća, ali i putanju dugoročnog rasta njihove proizvodnje, zapošljavanja, konkurentnosti i proizvodnih veština (7, str. 4).

U prisustvu adekvatno vođene ekonomske politike, SDI mogu obezbediti finansijsku stabilnost, privredni razvoj, rast zaposlenosti i opšte-društveni napredak zemlje domaćina (9). UNCTAD definiše SDI kao dugoročne investicije koje podrazumevaju trajni interes i uspostavljanje kontrole poslovnih subjekata – rezidenata jedne privrede nad poslovanjem preduzeća iz druge zemlje. Pri tome, prilikom ulaganja u inostranstvo investitor zadržava značajan stepen trajnog interesa, uticaja i kontrole nad upravljanjem preduzećem u koje ulaže (25, str. 245). Sa druge strane, OECD navodi da trajni interes i vlasnička kontrola podrazumevaju uspostavljanje dugoročnog odnosa između preduzeća stranog ulagača i njegove afilijacije u inostranstvu, sa pragom direktnog ili indirektnog vlasništva od najmanje 10% nad inostranim preduzećem (15, str. 17). Tokovi SDI obuhvataju primljeni kapital stranog direktnog ulagača ili neke inostrane investicione kompanije i obično se sastoje od sledeće tri komponente (25, str. 245): a) akcijskog kapitala, b) reinvestirane dobiti i c) unutarkompanijskih zajmova.

Svrha ovog članka je da ukaže na ulazne i izlazne tokove SDI u Republici Srbiji i njihovu sektorsku strukturu, kao i da istakne dominantnu ulogu preduzeća iz zemalja Evropske unije (EU) u njenoj privredi i ulaznim tokovima SDI. Ovaj članak je strukturiran na sledeći način: nakon uvodnog odeljka, sledi odeljak o korišćenom metodološkom pristupu u analizi dostupnih podataka. Treće poglavlje rada je posvećeno pitanjima tretmana stranih ulaganja u zemljama u razvoju, kao i njihovim utvrđenim prednostima i nedostacima. U ovom poglavlju se takođe daje i aktuelni presek SDI trendova na globalnom nivou. Četvrti odeljak se bavi detaljnom analizom ulaznih i izlaznih SDI tokova u Republici Srbiji u periodu od 1997. do 2023. godine, kao i raspodelom ulaznih SDI tokova prema njenim privrednim granama. Ovo poglavlje takođe ukazuje i na statistiku inostranih podružnica u zemlji, kao i na jasnu ulogu preduzeća iz Evropske unije u privrednom razvoju zemlje. Konačno, poslednji odeljak zaključuje rad, između ostalog i uz naglašavanje prisutnih kritičkih stavova autora iz Srbije o ulozi stranog kapitala u privrednom razvoju zemlje. Na kraju rada se zaključuje da je Srbija u ogromnoj meri oslonjena na ulaganja iz EU, kao i da se čini da, uprkos svim opisanim problemima i trendovima, zemlja u ovom trenutku objektivno nema drugu razvojnu alternativu.

PRIMENJENA METODOLOGIJA ISTRAŽIVANJA

U radu je primenjena metoda desk istraživanja na osnovu dostupnih izveštaja relevantnih međunarodnih organizacija i podataka, zajedno sa pregledom postojećih izvora ekonomske literature o značaju, ulozi, prednostima i nedostacima stranih direktnih investicija u razvijenim zemljama i tržištima u nastajanju. Ova analiza pokriva ulazne i izlazne trendove SDI, sektorsku strukturu ulaznih tokova SDI, kao i strukturu zemalja porekla SDI u poslednjih desetak godina u privredi Srbije korišćenjem sekundarnih izvora podataka. Preciznije, u članku su korišćeni izvori podataka Narodne banke Srbije, Republičkog zavoda za statistiku, UNCDAT-a i delimično Svetske banke. Pored desk istraživanja, članak takođe primenjuje i metodu deskripcije, analize i sinteze, istorijsku metodu, matematičko-statističku i komparativnu metodu u svom pokušaju da dočara perspektive i stanje SDI u Repubici Srbiji.

STRANE DIREKTNE INVESTICIJE U ZEMLJAMA U RAZVOJU

Podstaknute dugoročnim profitnim motivima u proizvodnim aktivnostima koje direktno kontrolišu, SDI su vremenom prerasle u važan izvor eksternog finansiranja zemalja u razvoju. Empirijski dokazi ukazuju na to da SDI direktno podstiču rast proizvodnih kapaciteta, transfer proizvodne tehnologije, razvoj veština i novih znanja, inovativnih kapaciteta, organizacionih i menadžerskih sposobnosti, ali i produktivnosti i globalne konkurentnosti zemalja domaćina. Imajući u vidu dokazanu ulogu SDI u ubrzanju njihovog privrednog razvoja i industrijske transformacije, zemlje u razvoju su snažno zainteresovane za privlačenje i zadržavanje SDI (11, str. 35-36). Stoga su ove i tranzicione zemlje u sve većoj meri počele da se oslanjaju na SDI, percipirajući u njima izvor svog privrednog rasta, modernizacije i opšteg društvenog napretka. U tu svrhu su ove zemlje liberalizovale režime svoje SDI politike, često dopunjene i drugim relevantnim politikama sa ciljem privlačenja i zadržavanja stranog kapitala (14, str. 5), a neretko i na štetu sopstvenih ekonomskih ciljeva i interesa.

Međutim, efekti SDI po razvoj tržišta u nastajanju predmet su intenzivnih rasprava. Iako izvori literature generalno posmatrano zauzimaju pozitivan stav o ovim pitanjima, određene empirijske studije ipak pozivaju na oprezniji pristup (4, str. 489). Pored svojih nespornih ekonomskih koristi i prednosti, SDI tokovi nose sa sobom i neke opšte poznate potencijalne nedostatke kao što su gubitak kontrole nad privredom zemlje domaćina, gubitak poslova usled realokacije kapitala, negativni uticaj prerađivačkih i rudarskih industrija na životnu sredinu zemlje domaćina, pogoršanje uslova rada, ugrožavanje domaćih ulaganja i društveni konflikti. Pored toga, kao nedostaci ulaznih SDI tokova se takođe navode i kriza valute i deprecijacija deviznog kursa, smanjenje poverenja stranih ulagača u domaću privredu, rizik od bekstva kapitala, vladino smanjenje kapitalne potrošnje, deficit tekućeg računa platnog bilansa i zanemarivanje dugoročne perspektive rasta zemalja domaćina, a time i podsticanje njihove ranjivosti i volatilnosti, zajedno sa liberalizovanim dvosmernim tokovima stranog kapitala (20, str. 5). Konačno, intenzivni ulazni SDI tokovi mogu dovesti i do gubitka kontrole vlade nad industrijalizacijom, povećanja društvenih nejednakosti i podređenosti lokalnog razvoja interesima multinacionalnih kompanija (MNK) (19).

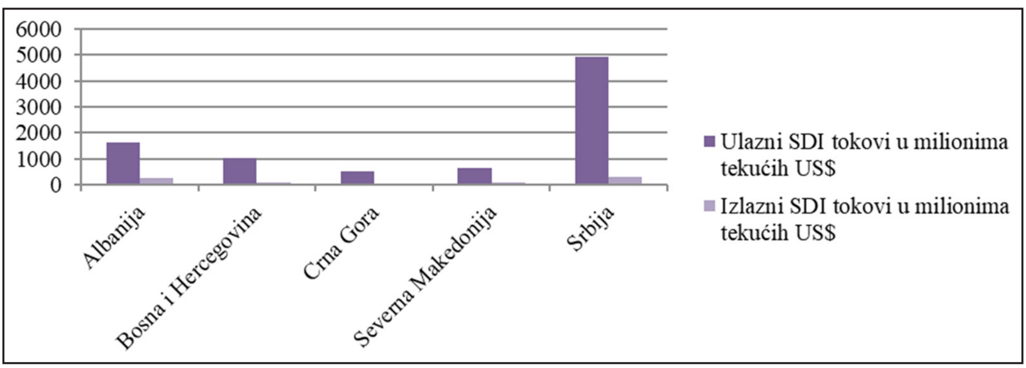
U uslovima tekućih rastućih geopolitičkih tenzija i ratnih konflikata, došlo je do fragmentacije globalnih SDI, a samim tim i do rasta ranjivosti tržišta u nastajanju i zemalja u razvoju na njihovu realokaciju. Danas su ove zemlje posebno pogođene smanjenim pristupom SDI iz razvijenih zemalja, delimično i zbog smanjenog generisanja kapitala i manje produktivnosti iz transfera boljih tehnoloških rešenja i proizvodnog znanja (2). Najnoviji UNCTAD-ov Izveštaj o ulaganjima u svetu iz 2023. godine upućuje na pad globalnih SDI za 12%, na 1,3 triliona američkih dolara (USD) u 2022. godini u odnosnu na njihov snažan oporavak tokom 2021. godine. Ovaj njihov pad je uglavnom bio vođen Ukrajinskim ratom, rastom cena hrane i energenata, poremećajima u globalnim lancima snabdevanja i rastućim javnim dugom. Za razliku od globalnih SDI trendova, zemlje u razvoju su ipak doživele rast priliva SDI za 4%, doduše neravnomeran, sa nekoliko vodećih velikih tržišta u nastajanju i vidno opadajućim SDI prilivima u namanje razvijene zemlje (26, str. v-x).

Izveštaj dalje navodi da je rast ulaganja koncentrisan u veoma malom broju većih zemalja u razvoju, dok su ulazni SDI tokovi ostali stagnantni u većem broju manjih zemalja u razvoju. Čini se da su najgore prošle najmanje razvijene zemlje, sa padom stranih ulaganja za čak 16% i sa već hronično niskom osnovom ovog pokazatelja. Posmatrano na sektorskom nivou, najveći rast ulaganja doživeo je sektor poluprovodnika, dok su najslabiji rast ostvarili oni sektori koji su direktno vezani za izgradnju proizvodne infrastrukture u ovim zemljama. Takođe su primetne i velike razlike u sektorskim ulaganjima vezanim za Ciljeve održivog razvoja. Dok su najveća ulaganja bila zabeležena u sektoru obnovljivih izvora energije, drugi sektori poput snabdevanja vodom i sanitarnih usluga, poljoprivredno-prehrambenih sistema, zdravstva i obrazovanja beleže značajan pad obima i performansi stranih ulaganja (26, str. v).

EKONOMSKA POLITIKA I STANJE STRANIH DIREKTNIH INVESTICIJA U REPUBLICI SRBIJI

Kada je reč o samoj Srbiji, u zemlji je u prethodnom periodu došlo do izvesnog poboljšanja investicionog ambijenta uslovljenog sprovedenim makroekonomskim reformama, finansijskom stabilnošću i uspostavljenom fiskalnom disciplinom. Pri tome se privlačenje stranih ulaganja javlja kao jedan od najvažnijih strateških ciljeva i epicentar nacionalne ekonomske politike. U tu svrhu je Vlada Republike Srbije usvojila značajne reforme na planu svog zakona o radu, izdavanja građevinskih dozvola, inspekcije, javnih nabavki i privatizacije sa ciljem unapređivanja svog poslovnog ambijenta. Srbija se inače pokazala kao relativno primamljiva destinacija za privlačenje stranog kapitala, čime je rešila deo svojih nagomilanih privrednih problema, a posebno zaostajanje izvoza, visoku neravnotežu platnog bilansa, slabu globalnu konkurentnost, ogroman spoljni dug i nestabilnost kursa dinara (27, str. 163). Srbija inače uživa reputaciju privlačne destinacije zbog svog povoljnog strateškog geografskog položaja, obrazovane radne snage sa poznavanjem engleskog jezika, relativno niskih troškova rada, izdašnih vladinih subvencija za privlačenje SDI, kao i potpisanih sporazuma o slobodnoj trgovini sa EU i drugim bitnim trgovinskim partnerima. Uprkos tome, zemlja se i dalje suočava sa izvesnim izazovima poput složenosti javne administracije i birokratskih kašnjenja, neefikasnih velikih državnih preduzeća, upadljive sive privrede i nedovoljno efikasnog pravosuđa (28).

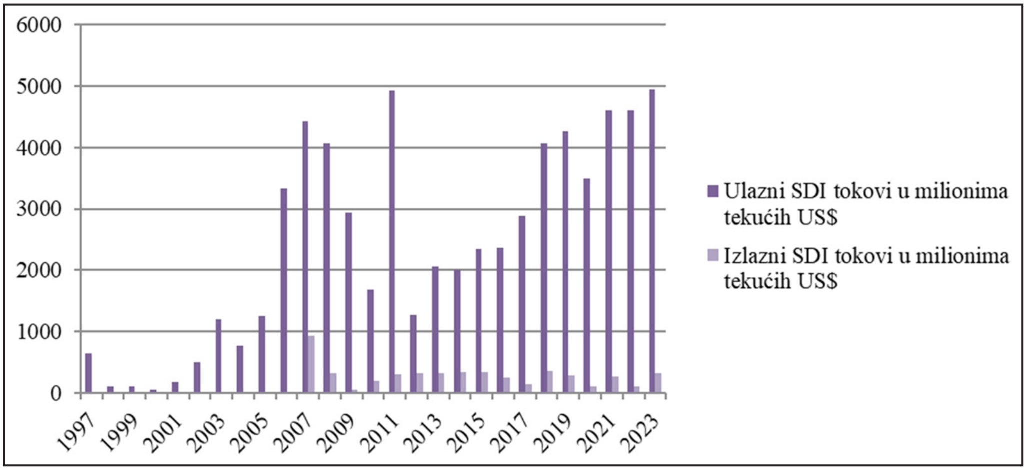
Poređenja radi, u nastavku teksta je Grafikonom 1 dat komparativni pregled neto ulaznih i izlaznih SDI tokova u Srbiji i drugim zemljama Zapadnog Balkana tokom 2023. godine. Kao što se i vidi iz predstavljenog grafikona, Srbija je apsolutni lider u privlačenju stranih ulaganja, praćena Abanijom, Bosnom i Hercegovinom, Severnom Makedonijom i Crnom Gorom na poslednjem mestu. Sa druge strane, od zemalja regiona, u 2023. godini je najveću vrednost kapitala izvezla Srbija, praćena Albanijom, Severnom Makedonijom, Bosnom i Hercegovinom i Crnom Gorom respektivno.



Grafik 1. Komparativni pregled neto ulaznih i izlaznih SDI tokova u zemljama Zapadnog Balkana u 2023. godini

Izvor: (29)

Tokom 90-tih godina prošlog veka priliv SDI u Srbiji bio je i više nego skroman, pre svega zahvaljujući ratnim konfliktima na teritoriji bivše Jugoslavije i sankcijama Međunarodne zajednice nametnutim Srbiji. Međutim, od 2003. godine počeo je daleko osetljiviji rast priliva ulaznih SDI, sa nekoliko kraćih poremećaja uglavnom izazvanih globalnim ekonomskim krizama i pandemijom koronavirusa *COVID-19*. Ova promena dinamike priliva SDI nastala je kao posledica završenih ratnih sukoba, demokratskih političkih promena u zemlji i njenog otvaranja ka međunarodnim ekonomskim i trgovinskim tokovima. Pored toga, bio je u međuvremenu izmenjen i model privatizacije usvajanjem nekoliko relevantnih zakonskih propisa koji su uglavnom smanjili prava radnika u ovom procesu i omogućili uslovni otpis dugova tadašnjih društvenih preduzeća prema državi (9, str. 72). Na taj način je Srbija postala atraktivna destinacija za inostrane SDI, što se prirodno odrazilo i na rast njihovog priliva u zemlju.



Grafik 2. Neto ulazni i izlazni tokovi SDI Republike Srbije u periodu od 1997. do 2023. godine

Izvori: (24) i (13)

Vremenom su najveći prilivi SDI bili ostvareni u domaćoj industriji alkoholnih prića, finansijskom sektoru i bankarstvu, u oblasti telekomunikacija, u industriji automobila, naftnoj industriji, maloprodaji hrane i u izgradnji tržnih centara. Od 2003. godine, SDI su počele značajnije da pristižu u zemlju, sa svojim maksimalno realizovanim vrednostima u 2007. godini (4.420 miliona USD), 2011. godini (4.930 miliona USD), a kasnije i u 2023. godini (4.940 miliona USD), dok se posebno od 2012. godine beleži njihov stabilan rast. Prosečan iznos ulaznih SDI je u periodu od 2003. do 2023. godine iznosio 3.022,9 miliona USD godišnje. Sa druge strane su odlazni SDI tokovi ostali na svom skromnom i simboličnom nivou, doživljavajući svoju najveću vrednost 2007. godine, a potom ostvarujući i postepeni pad. U periodu od 2007. do 2023. godine su domaća preduzeća u inostranstvo uložila ukupno 5.056,2 miliona USD, što je samo za nijansu više od ostvarenog priliva SDI tokom poslednje 2023. godine (4.940 miliona USD), ukazujući na ogromnu disproporciju između izlaznih i ulaznih SDI tokova. Konačno, dok je prosečno godišnje procentualno učešće ulaznih SDI u BDP-u u ovom periodu iznosilo 6,32%, prosečno godišnje procentualno učešće izlaznih tokova SDI u BDP-u je u istom periodu iznosilo samo 0,59%. Ulazni i izlazni tokovi SDI u Republici Srbiji u periodu od 1997. do 2023. godine na osnovu podataka Narodne banke Srbije i UNCTAD-a detaljnije su prikazani Grafikonom 2.

Struktura kumulativnih neto SDI priliva u Srbiji po privrednim granama u periodu od prvog do trećeg kvartala 2023. godine data je Tabelom 1.

Tabela 1: Kumulativni neto prilivi SDI u Srbiji u periodu od prvog do trećeg kvartala 2023. godine po privrednim granama (u milionima eura)

Privredna delatnost	Stanje u 2023. godini, u milionima eura
Prerađivačka industrija	932,7
Građevinarstvo	499,5
Rudarstvo	359,1
Finansije i osiguranje	300,8
Nauka, inovacije i tehničke delatnosti	297,4
Poslovanje nekretninama	177,6
Energetski sektor	176,5
Trgovina na veliko i malo	165
Informisanje i komunikacije	97,6
Saobraćaj i skladištenje	68,6
Vodosnabdevanje	43,6
Administrativne i pomoćne uslužne delatnosti	33,0
Usluge smeštaja i ishrane	18,6
Obrazovanje	1,7
Ostale uslužne delatnosti	1,3
Zdravstvena i socijalna zaštita	0,0
Umetnost, zabava i rekreacija	-0.8
Ukupan neto rast SDI	**3,211,6**

Izvor: (13)

Kao što se i vidi iz predstavljene tabele, najveći neto priliv SDI u 2023. godine ostvario je sektor prerađivačke industrije, praćen građevinarstvom, rudarstvom, finansijama i osiguranjem i naukom, inovacijama i tehničkim delatnostima. Sa druge strane, najviše zanemareni sektori sa aspekta neto priliva SDI bili su obrazovanje, zdravstvena i socijalna zaštita i sektor umetnosti, zabave i rekreacije sa čak zabeleženim negativnim saldom SDI.

Najnoviji zvaniči podaci ukazuju na to da je tokom 2021. godine u Srbiji poslovalo 2862 stranih podružnica sa 337484 zaposlenih lica i ukupnim prometom od 4735 milijardi dinara, odnosno oko 40,4 milijardi eura. Najveći broj stranih afilijacija poslovalo je u sektoru trgovine na veliko i malo i popravke motornih vozila (33,7%), zatim u prerađivačkoj industriji (22,1%) i u sektoru informisanja i komunikacija (12,6%). U stranim podružnicama bilo je angažovano 19,9% od ukupnog broja zaposlenih lica u Srbiji, dok je učešće inostranih podružnica u ukupno ostvarenoj dodatoj vrednosti iznosilo 34,8%. Posmatrano po matičnim državama, 70,8% stranih podružnica bilo je poreklom iz zemalja članica Evropske unije, 28,5% iz zemalja koje nisu članice EU, a preostalih 0,7% iz ofšor finansijskih centara. Pored toga, 65,8% od ukupnog broja zaposlenih lica bilo je angažovano u stranim podružnicama poreklom iz zemalja članica EU, 33,1% iz zemalja koje nisu članice EU, a preostalih 1,1% takođe iz ofšor finansijskih centara (21). Sve navedene brojke ukazuje na apsolutnu dominaciju stranih direktnih investicija iz Evropske unije u privredi Srbije.

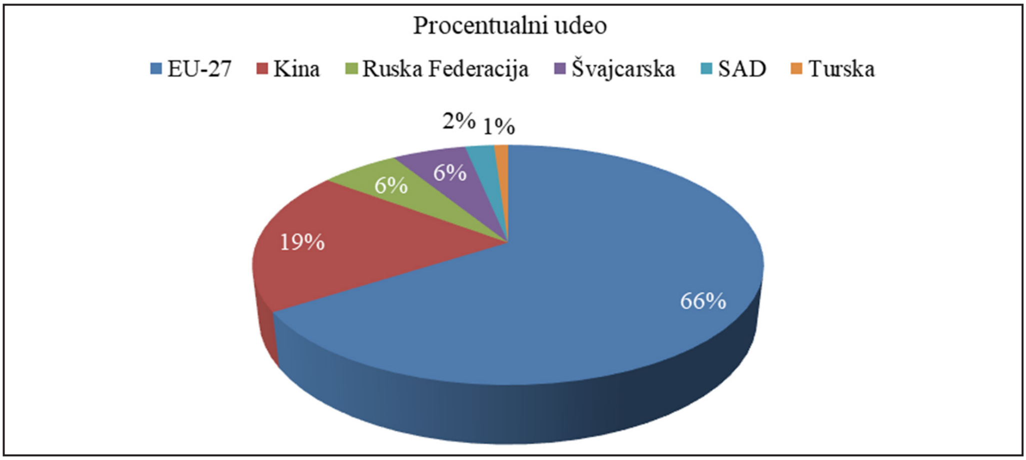
Evropska unija se inače javlja kao najveći ulagač, trgovinski partner i donator u Srbiji. U ovom trenutku trgovinska razmena između članica EU i Srbije čini oko 62% ukupne spoljne trgovine zemlje, dok su u proteklih desetak godina kumulativni neto prilivi SDI iz članica EU iznosili 20,23 milijarde eura, odnosno oko 66% ukupnih ulaznih tokova SDI. Pored toga, Srbija je svrstana među prve tri zemlje koje dobijaju najveću finansijsku pomoć od EU. Glavni sektori finansijske pomoći EU obuhvataju obrazovanje, poljoprivredu, lokalni razvoj, istraživanje i inovacije, zaštitu životne sredine, transport, energetiku, funkcionisanje javne uprave, pravosuđe i vladavinu prava, kao i sistem zdravstvene zaštite (6). Naredna Tabela 2 ukazuje na neto prilive SDI iz najznačajnijih trgovinskih partnera Srbije u periodu od 2013. do 2022. godine, kao i na procentualno učešće svakog od njih u ukupnom obimu neto SDI tokova. Iz tabele se jasno vidi da i u ovom pogledu jasno prednjači EU, praćena Kinom, Ruskom Federacijom, Švajcarskom, Sjedinjenim Američkim Državama (SAD) i Turskom.

Tabela 2: Trend neto priliva SDI u Srbiji iz zemalja najznačajnijih trgovinskih partnera u periodu od 2013. do 2022. godine (u milionima eura)

Zemlja	EU-27	Kina	Rusija	Švajcarska	SAD	Turska	Ukupno
2013	1196.1	22.2	206.2	86.8	23.2	2.2	**1536.7**
2014	1086.6	80.5	69.8	126.2	9.3	5.7	**1378.1**
2015	1511	66.4	88.4	86.1	38.9	36.3	**1827.1**
2016	1548.3	2018	20.1	234.9	14.4	15.4	**3851.1**
2017	2040.3	177.5	163	135.1	34.6	17.6	**2568.1**
2018	2467.9	686.6	248.3	-91	68	62.4	**3442.2**
2019	2925.2	339.4	558.7	335.7	186.8	11	**4356.8**
2020	2213.1	528.5	2.4	62.3	63.3	29.8	**2899.4**
2021	2771.4	630.8	11.3	539.1	100.5	85.6	**4138.7**
2022	2468.5	1377.3	453.1	200.9	135.6	59.6	**4695**
Total	**20228.4**	**5927.2**	**1821.3**	**1716.1**	**674.6**	**325.6**	**30693.2**
%	**65.91**	**19.31**	**5.93**	**5.59**	**2.2**	**1.06**	**100**

Izvor: (13)

Struktura neto ulaznih SDI tokova u Republici Srbiji u periodu od 2013. do 2022. godine prema zemljama porekla može se jasnije prikazati i narednim pita dijagramom (Grafik 3).



Grafik 3. Struktura neto ulaznih tokova SDI prema zemljama porekla u periodu od 2013. do 2022. godine

Izvor: (13)

PRIVREDNI RAZVOJ SRBIJE U KONTEKSTU ULAGANJA IZ EVROPSKE UNIJE

Srbija je 2023. godine bila apsolutni lider u privlačenju stranih ulaganja među zemljama Zapadnog Balkana sa čak 4,94 milijardi USD privučenih ulaganja. U zemlji je od 2003. godine došlo do postepenog rasta neto ulaznih SDI tokova, doduše prekinutog pojavom Globalne finansijske krize iz 2008. godine i Parlamentarnim izborima iz 2012. godine, kada su oni doživeli svoj očekivani privremeni pad. Ovde je takođe bitno napomenuti i to da je svetska ekonomska kriza izazvana pandemijom *COVID-19* doprinela izrazitom padu neto ulazni tokovi SDI sa 4.270 miliona USD u 2019. godini na 3.490 miliona USD u 2020. godini. Pri tome je u Srbiji pandemija imala statistički značajan i negativan uticaj na BDP po glavi stanovnika na nivou pouzdanosti od 90% (23, str. 48). Sa druge strane su neto izlazni SDI tokovi ostali relativno stabilni i minijaturni, sa samo 0,58% svog prosečnog učešća u BDP-u zemlje. Iz predstavljenih podataka takođe sledi da je Evropska unija najveći trgovinski partner, strani ulagač i glavni donator u Republici Srbiji. U afilijacijama stranih kompanija radi oko 20% ukupno zaposlenih lica, dok oko 71% aktivnih inostranih podružnica u zemlji vodi poreklo iz članica EU. Pored toga je oko 66% zaposlenih lica angažovano u stranim podružnicama poreklom iz zemalja članica EU, doprinoseći na taj način i intenzivnoj trgovinskoj razmeni između Srbije i EU koja čini oko 62% ukupne spoljne trgovine zemlje. Konačno, u proteklih desetak godina kumulativni neto prilivi SDI iz članica EU iznosili su 20,23 milijarde eura, odnosno oko 66% ukupnih ulaznih tokova SDI. Sve ove brojke neupitno govore o dominaciji evropskih preduzeća i stranih direktnih investicija iz EU u privredi Srbije.

U javnom su narativu u Srbiji u poslednje vreme prisutna negodovanja u vezi sa tim da je privreda zemlje u potpunosti podređena interesima stranog kapitala, posebno u svetlu svoje izražene deindustrijalizacije, vidnog pogoršanja radnih prava i velikog talasa subvencionisanja SDI u mahom radno intenzivnim privrednim granama. Pored svojih nespornih pozitivnih privrednih doprinosa, strani kapital u Srbiji uživa i neke privilegije koje proizilaze iz nacionalne orijentacije na politiku obilatog subvencionisanja SDI. Ova politika je između ostalog dovela i do diskriminacije domaćih privatnih malih i srednjih preduzeća (MSP) koja upravo svojim poreskim izdvajanjima finansiraju te subvecije. Štaviše, neke od ovih subvencija daleko premašuju ekonomski opravdane iznose, pretvarajući strana ulaganja u neto trošak za privredu zemlje (22, str. 9-15). Optužbe protiv stranog kapitala se kreću i u pravcu netransparentnosti stranih ulaganja u Srbiji, karaktera preovlađujućih ekstraktivnih institucija, ponašanja podstaknutog traženjem rente, državnog neoliberalnog kapitalizma, državnog ulaganja u mahom radno-intenzivne poslove i zloupotrebe administracije i državnih resursa (17, str. 39-45). Privredni rast zemlje je u osnovi deformisan i podupiru ga SDI i investicije države uglavnom vođene građevinarstvom, rudarstvom i IT industrijom, dok su domaći privatni sektor i privatna inicijativa u potpunosti sputani, bez efekata širenja tehničkog progresa i znanja u privredi (12). Konačno, radikalne kritike se odražavaju i u diskreditaciji stranih ulaganja po osnovu njihovog negativnog uticaja na životnu sredinu i transfera prljavih tehnologija kroz SDI, posebno u sektorima rudarstva i teške industrije (8, str. 91-92). Ove teze ujedno potvrđuju i skorašnja medijska izveštavanja o tome da strani investitori traže od Vlade RS da organizuje vanredni stručni nadzor nad lekarima koji propisuju bolovanja radnicima u fabrikama stranih kompanija zbog sumnje u to da oni zloupotrebljavaju svoje pravo na bolovanje (3). Ovakvi zahtevi su dodatno uzburkali domaću javnost.

Sa druge strane ima i suprotnih gledišta koja odaju priznanje ulozi Evropske unije u podsticanju modernizacije i sveukupnog napretka modernog srpskog društva. Kompanije iz Evropske unije su uvele moderne tehnologije u poslovanje, donele su efikasnost i znanje i doprinele su otvaranju oko 300.000 radnih mesta. Može se slobodno reći da su one, između ostalog, i oživele opustele industrijske zone na jugu zemlje. Sve je ovo doprinelo i rastu spoljnotrgovinske razmene južnih oblasti Srbije sa 400 miliona eura u 2012. godini na preko 1,215 milijardi eura, dok u celom ovom procesu prednjače nemački investitori sa preko 50.000 zaposlenih i trgovinskom razmenom od oko 8 milijardi eura. Pri tome su nemačka ulaganja na području Šumadije mahom usmerena na sofisticiranu industriju i delimično na prehrambenu industriju, donoseći sa sobom nova radna mesta, poštovanje ekoloških standarda i bolje uslove života. Pored toga, Evropska unija ulaže i u infrastrukturu južnih srpskih opština, poput centralnog postrojenja za prečišćavanje otpadnih voda i kanalizacione mreže u koje je uložila gotovo 30 miliona eura, a pruža i podršku osobama hendikepiranim u razvoju, doprinoseći na taj način i društvenoj inkluziji. Konačno, Evropska unija aktivno ulaže i u pružanje podrške društvenom razvoju, poslovanju malih preduzeća, unapređenju usluga namenjenih građanima, zaštiti životne sredine, razvoju lokalne infrastrukture i unapređenju energetske efikasnosti (16). Evropska unija aktivno sarađuje sa Ministarstvom privrede Republike Srbije, dok je samo tokom 2022. godine finansijsku pomoć EU dobilo 716 kompanija u Srbiji. Njena bespovratna pomoć je uglavnom namenjena malim i mikro preduzećima, preduzetnicima i zadrugama, a prevashodno je usmerena za kupovinu opreme, podršku inovacijama i zaštitu životne sredine (5).

Imajući u vidu sve rečeno, činjenica je da je strani kapital, a posebno onaj iz zemalja EU, doneo i značajna ekonomska poboljšanja poput uticaja na rast BDP-a, privrednog napretka, rasta zapošljavanja, savremenih tehnologija, novih znanja i veština, inovacija, unapređivanja poslovnog ambijenta, makroekonomske stabilizacije, intenziviranja obima spoljne trgovine i dr. S obzirom na to da je u ovim procesima vitalnu ulogu imao kapital iz članica EU, njegovo moguće povlačenje iz Srbije bi nesumnjivo moglo da dovede do *brodoloma* srpske privrede sa nesagledivim ekonomskim i društvenim konsekvencama. Ovo tim pre što je istorijski posmatrano većina naprednih privrednih i društvenih inicijativa poticala sa Zapada i što Srbija objektivno posmatrano i nema bolju alternativu, posebno imajući u vidu da su konkurentne ekonomske integracije ili tek u svom povoju ili nerazvijene i krhke, sa nedovoljnim finansijskim i tehničkim kapacitetima. Ovo tim pre što bi veće oslanjanje zemlje na Evropu podstaklo dalju modernizaciju srpskog društva. Osim toga, Srbiji je potrebna Evropska unija jer je zavisna od stabilnog priliva stranog kapitala. Konačno, ali ne i manje bitno, Srbija je upućena na Evropu zbog svoje geografske blizine, istorijskih veza i zajedničke kulture i tradicije. Stoga bi rešenje za eventualne razvojne neuspehe i deformacije trebalo potražiti u nediskriminatornom podsticanju razvoja sektora domaćih malih i srednjih preduzeća, a ne u diskreditaciji svih stranih ulaganja jer nemaju sve SDI podjednako dobar ili loš uticaj na savremeno srpsko društvo.

ZAKLJUČAK

Evropska unija ima dominantnu ulogu u privredi Srbije kao njen najveći investitor, trgovinski partner i donator, pri čemu strane direktne investicije iz EU čine približno 66% ukupnog neto priliva SDI. Iako su ova ulaganja pokrenula privredni napredak, stvaranje radnih mesta i modernizaciju zemlje, i dalje postoji zabrinutost zbog velikog oslanjanja Srbije na strani kapital, ograničavanja razvoja domaćih malih i srednjih preduzeća, pogoršanja radnih prava i posledica po životnu sredinu. No, diskurs o evropskim investicijama u Srbiji i dalje ostaje veoma polarizovan — neki ih smatraju ključnim za rast i integraciju, dok drugi kritikuju njihov uticaj na lokalnu privrednu samostalnost i održivost. S obzirom na stratešku i ekonomsku zavisnost Srbije od evropskog kapitala, umesto potpunog odbacivanja stranih investicija, rešenja bi trebalo pronalaziti u podsticanju razvoja domaćih preduzeća pod fer, transparentnim i nediskriminatornim uslovima kako bi se osigurao uravnotežen i održiv ekonomski rast.

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Role of Leadership in Local Governance Organizations: Authority, Ethics, and Institutional Capacity Building in Serbian Municipalities

Summary: *In the Republic of Serbia, local self-government is a unique form of democracy as it ultimately derives its authority from the people. In addition to objective conditions that are rapidly and continuously changing, the results of local self-government depend primarily on the leaders' ability to serve the interests of citizens. This role cannot be replaced. Consequently, local governments yield vastly different outcomes. The success of local self-governments is a relative, rather than absolute, concept due to the lack of objectively defined evaluation standards. Citizen satisfaction is often used as a proxy for assessing performance. Effective governance integrates leadership qualities with the fundamental principles of local self-government. The key to the success of local self-government is overall development, of which the economic element is the most crucial, along with the principle of sustainability. Leaders specify the objectives and paths of progress, as well as the implementation of concepts from their vision. Leaders, being future-oriented and unable to alter the past, focus on driving change. The most visible trait of a good leader is commitment, which encompasses all other admirable qualities. The mayor, who has the authority and ability to resolve issues, is the most significant leader. However, effective leadership requires a well-coordinated team. Good governance in local self-government depends on open, two-way communication with residents.*

Keywords: *leadership, key determinant, local governance, organization, sustainability, Serbia*

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INTRODUCTION

Leaders in local self-governance can also be referred to as political leaders, in contrast to leaders in a more general sense who can influence different processes in other organizations and institutions. In a formal sense, they can be regarded as main "contractors" of political scene. The subject of this article is leadership in Serbian local self-governance organizations. The political structure, constitutional and legislative frameworks that control basic problems of local self-governance in Serbia provides supreme leaders, or mayors, the primary responsibility for making administrative decisions (1; 28). Based on desk research of the academic literature as well as some comparative studies about traditional and modernized leadership, the paper applies to a descriptive-analytical research technique. From the observation of local political practice in Serbia, the authors' analysis also highlighted the role and constraints of leaders, their authority and power, and the moral standards of management and leadership.

For the very first start, it is important to distinguish between councilors who are in the opposition and those who are part of the majority in municipal or city legislatures when discussing representatives of local government institutions. It is obvious that the former - council members who support the local executive and make up the majority of the assembly—are more relevant to analyze in terms of leadership, whilst the latter is only marginally capable of being regarded as leaders and will not be discussed. In addition to having certain qualities, a person must be recognizable in the community and possess the capacity to influence and convince voters to vote for them in elections if they want to hold a position in the local government and be regarded as one of the leaders in local self-government (34). The mayor, deputy mayor, members of the municipal council, the mayor's assistants, the president and deputy president of the municipal assembly, and the councilors in the municipal assembly are the leaders of local self-government with the status of a municipality (36). The mayor, deputy mayor, members of the city council, the mayor's assistants, the president and deputy president of the municipal assembly, and the councilors are the leaders of local self-governments that have the status of cities. In essence, they carry out essentially the same activities and have duties and responsibilities that are only slightly different in that cities have slightly more authority than municipalities under the Law on Local Self-Government. For the sake of terminological clarity, we will discuss local officials in local self-governments with city status in the text that follows. A separate section of the article regarding the function and significance of leadership in a city will follow.

The Legal Framework for Local Leadership

The level of leadership of an official undoubtedly depends most on the level of the function he performs in the local government. Based on legal and other sources, the individual holding the highest, most powerful, and therefore most responsible position in the local government hierarchy is the mayor, as the one who represents and advocates for the city

(4). There is no dispute that the highest body of a local self-government unit in the status of a city is certainly the City Assembly. The leader must seek support for his ideas from the City Assembly at the end of any process of planning and proposing decisions, through consultations, discussions, and decision-making. The mayor and the city council make up the bicephalous executive branch at the local government level. The mayor serves as the president of the city council, which further solidifies and contributes to his undeniable position as the top leader at the local government level. As a result, the mayor has a lot of power which makes it easier for him to handle some problems than any other official. In other words, when no one else can solve a problem, it will be resolved at the highest level, that is, at the mayor's level. Additionally, interested parties will always accept the mayor's verbal assurances more readily when he says nothing different from his associates because his word carries special weight. After all, it is known that he has the political power to carry it out through his associates, all of the city's organizational units, and, in the broadest sense, followers who uphold and support him in his current position (35). On the other hand, when there are different views and opinions on certain issues within his team of people, or as it is otherwise said, within the government, it is up to him to decide; the mayor's word is inviolable. The moment this is not the case when he is not able to implement his will, it means that he has lost support and that there will be a change at the head of the city, that is, a new mayor will be elected in the city assembly or new local elections will be held so that someone else will receive a mandate or the legitimacy of the current mayor is confirmed. The mayor is elected by the citizens, through local elections, so that he, with a certain composition of his followers, can implement the ideas for which he received support in the elections (36). Because of all that has been said, the mayor, in the following text, although not specifically mentioned, will be to a large extent the first association or synonym for leaders at the level of local governments whose roles and importance are the subject of this paper.

POSITION AND LIMITATIONS OF LEADERS IN LOCAL SELF-GOVERNMENT

In every local government in the Republic of Serbia, the mayor can be considered the first leader. In second place are the other members of his coalition, depending on the function they perform, as well as on their characteristics and their position in the broader political context in the local government. On the other hand, it should be borne in mind that all elected members are part of personnel policy and political negotiation processes, and thus part of the team that gathers and forms around them an individual-designated and elected mayor. In the broader political context, it is clear that to a large extent, it is about the position and status that local officials have in political parties or groups of citizens that first nominated them in the elections and then delegated them to positions in the local government (24). From this aspect, we can talk about the success of local government - through the prism of the role and importance of leaders. The practice of the Serbian political system at the local level has shown complete legality in terms of local elections, which the authors want to state in this paper, without evaluating the system itself. If we are talking about persons who are at the head of local self-government - on the one hand, there is the support of the political party or group of citizens from which they are delegated - but on the other hand, there is a lack of long-term political stability, which is necessary for peaceful and dedicated work, good results and overall development of local self-government. Sooner or later, a political split may occur - which results in the sorting of individuals who "choose sides" - to constant conflicts for as much power and authority as possible, which is certainly not an environment that allows local self-government to progress successfully (20).

Characteristics of Successful and Less Successful Leadership

Some leaders devote most of their professional engagement and spend a lot of energy precisely on internal problems, sending a message of instability beyond the borders of local self-government. This can create an atmosphere that discourages any economic cooperation that would bring benefits. The greatest damage occurs in the matter of investments, which should be the focus of local self-government leaders today because they contribute to the creation of new jobs, which are sorely needed by the Serbian state. A discordant organization never lasts long because it collapses from within and leads to two outcomes - either an absolute victory for the existing leader (in this case, the mayor) or new local elections in which some of the political opponents profit politically. Essentially, the biggest loser is the local community, mostly due to the lost time, perhaps even the entire investment cycle - from contracting, through the construction of certain facilities to hiring people and starting work. Such practice in Serbia suggests that the leader must be strong and that his word should be listened to. To avoid the blockage of the work of institutions, primarily in terms of making important and urgent decisions - the leader as mayor must make the final decision. If the head of a local government is a leader who is also the holder of the highest office in the political party or group of citizens that formed the local government, such local governments cannot always be considered successful with certainty (23). However, such local governments are likely to be successful because of certain underlying political conditions. If the leader, or mayor, meets all the characteristics of a successful leader, creating a peaceful, orderly, and stable atmosphere, local self-government will be on the right track and will be able to implement plans and implement ideas for which the holders of power have received a mandate from the citizens. In that case, there should be no fear of autocracy, because power and authority are limited by legal frameworks and other positive legal regulations, justified by good results, and leaders survive for a long time, thanks to the convincing will and support of citizens. Citizens decide in local elections by voting, ultimately believing in the good and honest intentions of the leader, or mayor, for whom they vote. However, it is necessary to notice the difference between a classic manager, who applies a traditional management approach, and a modern leader, who is a transformational manager, not afraid of change, but open-minded and willing to accept or adopt new ideas.

Traditional Managers Versus Modern Leaders

The support of voters, or citizens, can never be unanimous, but that is the essence of the democratic system of government both at the local level and at the level of the state of Serbia. In most cases, only a small number of citizens do not support the elected officials in local self-governments. If the personal characteristics of the leader who has united important functions are not satisfactory, the entire situation in local self-government will turn into an unprincipled defense of sheer power, which in politically healthy systems with strong institutions and the non-governmental and media sectors, as well as politically mature environments, cannot last long (5, 8). One can always know how such situations will end, although one cannot predict with certainty when they will end because they depend on numerous factors. It is not enough just to have a vision; a leader undertakes all the necessary sustainable activities with great enthusiasm and creatively realizes them. In addition, the leader must bring emotion, to inspire and additionally motivate followers in implementing his/her ideas. Figure 1 presents six ways to achieve leadership success in an organization. In other words, it is necessary to inspire employees, manage successfully, plan strategically, be ready for changes, develop the spirit of employees, and be a sufficiently self-aware and responsible manager. A true leader works with people and manages together with them - so participation is the most important. A classic manager (not a modern leader) is just a simple manager and executor of certain functions, who makes decisions independently, without agreement with his/her employees. Figure 1 below shows the six ways to achieve success as a leader.

Figure 1: Six Ways to Achieve Success

Source: Center for Creative Leadership (6)

Accordingly, the political leader should clearly define sustainable goals and a practical plan for their successful realization (3). A political leader who has the desire and needs to sustainably lead or manage should surround him/herself (preferably from among his followers) with people who have knowledge and experience (2). The subject of the chapter is the study and highlighting of the importance of political leaders for successful and sustainable management in the local self-governments of Serbia. The aim of the chapter is related to ways that would improve the management of self-government, more precisely managerial duties in municipalities of the state of Serbia (if this is even possible, considering the national culture of the Serbian people!). It is considered that for the success of a political project - which is undoubtedly significant for local self-government or a municipality - the sustainable organization of activities is equally important, as the messages that are sent to the people through political ideas. One can wonder how certain leaders who lack the traits of good decision-makers can even end up in high-level roles and possess strong local self-government systems that rely heavily on them. Given the features of contemporary Serbian society, the answer to this question is straightforward. A cursory examination of Serbian election campaigns reveals dishonesty and false promises made by individuals (parties) that are not genuinely founded on the interests of the populace. People who are fresh to politics but also have charming messages can be blindly trusted by voters in municipal elections. Behind bogus promises, there is typically good organization in terms of logistical support, followed by a powerful media and financial campaign (31). The authors stress that there aren't many Serbian local governments whose residents haven't seen these kinds of interactions and models before and after elected officials were in office. But in the end, voters openly state that they grant certain political parties or groups the authority to carry out accountable tasks related to the city and local self-government on their behalf during local elections (26). Voters choose, and voters bear the consequences!

POWER AND AUTHORITY OF LEADERS IN LOCAL SELF-GOVERNMENTS IN SERBIA

Power and authority are undoubtedly the two terms most frequently used when discussing the mayor and other local self-government officials in Serbia (albeit to a considerably lower degree). The framework of local government, which is set up following local elections, may also limit the mayor's power and authority in addition to the unquestionable legal limits that are required in a democratic model of decision-making (13). In particular, the current Law on Local Self-Government stipulates that local government in a local self-government unit must be organized so that a majority of the councilors in its assembly are present, as required by the local self-government unit's law. Local authorities will be elected democratically through voting by this majority. If one group in the assembly - whether a political party or a group of individuals who nominated councilors and won seats in the elections - has an absolute majority, or more than half, it can elect local authorities on its own. In this instance, local government is deemed homogeneous and stable, and local leaders are strong, powerful, and capable of making decisions and acting quickly, or, more broadly, of effectively conducting local politics (13). On the other hand, a coalition local government agrees on the allocation of duties and political tasks and is composed of several political parties and citizen groups. As a result of the many consultations and frequently redundant agreements among coalition partners, which are conditioned and burdened by numerous unresolved issues and differing opinions, such a local government is perceived as diverse and unstable, and local leaders are viewed as weak, helpless, and incapable of making decisions and acting swiftly. Given that local officials' political power and influence are distributed among their representatives within the entities that make up local government, it is evident that one cannot discuss them in their entirety in such a setting (32). One could argue that there is an objective limitation of power and authority in this situation (33).

POWER AS ESSENTIAL FEATURE OF LEADERSHIP

When political leaders are mentioned, power is one of the first things that comes to mind. However, when power is mentioned, the majority of people will think of political leaders, so it is evident that there is a two-way relationship between the two terms. Many people who are already involved in politics do so because they want to have power; they care more or less about their position than the overall good of the social community. Therefore, it is evident that power is neither good nor bad, but rather depends on whose hands it is in. "Give a man power if you want to test his character," remarked Abraham Lincoln, while Henry Kissinger referred to power as "the original aphrodisiac." Although power is difficult to define precisely, political leadership and power are undoubtedly closely related (4). Political leaders are responsible for achieving the goals that have been defined, and power is a tool that makes achieving those goals easier. For example, power can be used to reward or punish people. The ability of a person or organization to pursue their goals and demands despite opposition from others is known as power. The ability to affect other people's actions and even their attitudes is another common definition of power. First and foremost, a true leader must be accountable. In this way, if gaining power is the sole reason for assuming a leadership role, it is extremely dangerous for any society or organization. If it is the sole motivation, power should only be used to accomplish the objectives of the leadership vision. A leadership position is the source of concrete power in our context, not a person who holds a leadership position for a set amount of time. This is because power is obtained through a leadership position. Although the sources of personal power are undeniable, they may be more important in achieving political leadership (5). When a person stops exercising their political office, they lose their power, and their position is taken over by someone else. Successful political leaders—by which we mean individuals who have been in positions of authority for a long time, do not abuse their power too frequently. They have no reason to. They can guide actions toward the achievement of the objectives, or complete effectiveness, by using their authority, which is a recognized influence and the right to wield power. Political leaders are thought to behave wisely when they exercise moderation, or the reasonable use of power, as this ensures a tranquil environment within the organization more broadly and prevents latent resistance. The organization's success is ensured by the exercise of power in conjunction with the development of a degree of collaboration where followers genuinely trust political leaders' plans and ideas and do everything in their power to make them work. Of course, there are instances in which organizations need to utilize their power more, such as when implementing significant structural reforms that radically alter outdated systems and methods of operation or when making adjustments to employee rights and responsibilities. Furthermore, it is evident how crucial power is as a tool for leaders, who are by nature the ones who inspire and carry out change, given that ongoing and thorough changes are not only essential to any organization's success today but also a prerequisite for its advancement, and without advancement, there is typically no survival.

Evaluating Leadership from the Citizens' Perspective

There are sources of positional and personal power, as was previously emphasized. The leader's personality, along with numerous other characteristics and situations, will determine how much real power they have, yet their position inside the organization provides them with formal and theoretical authority. Positional power can be divided into three categories: legitimate power, coercive power, and reward power. Expert and referent power are cited as sources of personal power, which stem from the leader's traits and skills (14). Successful and unsuccessful political leaders are shaped and differentiated by the combination of power dimensions. Political leaders are advised to use their authority, which is granted to them by the followers themselves, moderately, while respecting their own beliefs and keeping open communication with followers (16). More information on each type of power will be provided, along with suggestions for how to apply it, to help readers better understand how to use it. A political leader's position enables them to exercise power in a variety of circumstances, which may result in specific responses to the many issues that arise during their career. A leader's ability to recognize exceptional work and grant privileges to those they deem deserving is known as reward power. The majority of the time, it has to do with tangible incentives that encourage and satisfy workers, such as bonuses, higher salaries, and the like. On the other hand, unfair and immoral rewards lead to widespread dissatisfaction within the organization, which negatively impacts the environment and outcomes (17; 18). The foundation of coercive power is the use of punishment or the threat thereof for improper labor or purposeful obstacles to the completion of specific tasks to compel others to comply with the leader's expectations and demands. Depending on the severity of the work discipline infraction, the punishment may consist of verbal warnings and reprimands, a fine, a transfer to a less desirable position, or even dismissal. Leaders must adhere to the fairness principle when implementing this highly unpopular action since its effects extend well beyond the individual to whom it is applied, as it instills fear in other members of the organization (7).

Because it can only be successful if others are willing to recognize it, legitimate power is derived from a place in the organization's hierarchy and the authority based on that position. A leader gives instructions to followers based on their judgment of what is best and most practical in a particular circumstance. Because they hold power, they justify their actions through their perspective. A leader sees themselves in their way, not as others—inside or outside the organization—expect them to be (27). Expertise, knowledge, prior job experience, and the ability of leaders to influence others, the fundamental component of power—are all examples of expert power. To put it another way, expert power is the predominant form of authority in that situation because it stems from unique knowledge or skills not shared by others in the organization. Because of the rapid advancement of technology, expertise in the technical sciences must always be improved. Additionally, it's critical to stay informed about developments and to always have access to, dispose of, and even control pertinent information for the organization's strategy and business. Many theorists describe information power as the sixth fundamental source of leadership strength because of how important it is to be knowledgeable (12). Referent power is the capacity to use identity and admiration for the leader to influence others to follow their wishes. It stems from the leader's charisma, personality, or simply their ability to connect with others. Any institutionalized authority that is possessed by a state, a party, a particular organization, or an individual is considered political power. Political power is created and carried by political parties. Their presence as contemporary collective rulers depends on a strong governance system, which they defend democratically by gaining the support of members and voters in elections (30; 37).

ETHICAL PRINCIPLES OF POLITICAL LEADERS' BEHAVIOR

It is undeniable that political leaders possess political power that, in a small number of specific cases, is very great. Those who possess great political power are often prone to potential abuse because their impulses may conflict with the promises made during the political struggle. Although they swore an oath upon taking office, they had previously done everything in their power to obtain leadership positions. Any misuse of political leaders must indeed be rigorously curbed or eliminated. This can be accomplished by a rigorous criminal policy, the ongoing, unwavering battle against crime and corruption, and the legal framework in which they function (21). Political leaders, however, have considerable authority and frequently discretionary rights when making decisions on matters that are not entirely under systematic control (31). This is why imposing the weight of ethical obligation accomplishes more in all contemporary nations. In general, ethics offers a set of guidelines and precepts that a leader should follow when determining what is good or harmful in a particular circumstance.

Respect for others, integrity in interpersonal interactions, fair dealing, and efforts to improve the social community and its well-being are the cornerstones of ethical leadership. Ethical norms state that, unless particular circumstances call for it, no one should be given preferential treatment because they are a leader or because they are close to a leader (25).

Legal control over decision-making, forming coalitions, and involving powerful and trusted individuals—usually with shared values and ideologies—are all expressions of political power (10). Politics is about doing the right things at the right moment to gain, grow, and use power to accomplish objectives (11). Political power is possessed by political leaders. Generally speaking, power lacks a moral nature and cannot be judged as either good or harmful. Who holds it determines whether it will be used positively or negatively. This depends on the responsibility tied to the political function—that is, on the leader who holds the power. The ability and resourcefulness of political leaders—whether for better or worse—vary from one local government to another, which also plays a significant role (22). This largely depends on the development of legal frameworks and systems of local self-government that help prevent irresponsible behavior. Depending on their motives for engaging in public work—that is politics—political leaders typically use their power in one of two ways: some pursue personal gain (personalized power motive), while others act for the common good and the welfare of the broader community (socialized power motive).

FUTURE DIRECTIONS OF RESEARCH

From everything mentioned above, it is clear that when leaders or their followers are treated differently, they must give a justification that is grounded in moral principles. In this regard, in certain nations (such as Serbia, Croatia, and Montenegro, which are in the Western Balkans), assemblies of local self-government units ought to adopt the Code of Ethics for local self-government officials by the Standing Conference of Cities and Municipalities' model. It outlines the moral principles and conduct that local self-government representatives must adhere to to carry out their duties (8). Also, it is critical to establish adequate lines of communication so that residents are familiar with the ethical norms of behavior that they have the right to expect from their local officials, thereby fostering as much trust as possible between leaders and citizens (7). In the introductory articles of the Code of Ethics, in addition to the undeniable obligation of officials to perform their duties by the law, the following was highlighted: "A "person in power" should act exclusively in the public interest, rather than in his personal, private, group, or party interest. The leader of the local self-government shall carry out his public duties honorably, honestly, and impartially, with transparency and accountability for his decisions and acts. During his mandate, neither in the performance of his office nor in his private life, the leader of the local self-government must not act in a manner that would harm his reputation"(20). The Code of Ethics includes regulations and restrictions on performing various public functions simultaneously, as well as conflicts of interest. In addition, the use of budget funds, the attitude toward employees, duties to reveal the property status at the beginning and end of the mandate for the leader and linked persons, openness and availability for public information media, and others are also covered (19). Simply expressed, the need to define, in addition to legal requirements, the norms of conduct for leaders in an official form is demonstrated. The highest body of local self-government entities determines the official form. This form remains even though everyone would agree that it is about the most basic rules that should be a way of life and part of the personality of every adult and able-bodied person, particularly those who serve as representatives to the citizens who elected them (24, 26). Contemporary society has surpassed certain standards of acceptable behavior, which is why this requirement remains necessary. In this way, the previously held value systems have been overthrown, and the boundaries of previously held behavioral freedom have been shifted. Education from family, school, and ultimately the broader social milieu served as the foundation for the frontier.

This increased behavioral freedom—exacerbated by public attention and media scrutiny—is especially visible among leaders responsible for managing valuable public goods and resources. As a result, the entire community universally condemns any reckless and haughty attitude as undesirable. The perception of local self-government officials as individuals is shaped by their characteristics. An individual's perception of what is good and what is not is his value system (22). Real leaders must possess this quality, which is learned and developed from an early age, in contrast to followers who lack it (12; 14). Moral principles and honesty should be traits of leaders. The sociological fact that strong leaders are regarded as persons by Serbian society and at the local level supports everything that has been discussed here about the role of local leaders. The causes include situational, social, religious, traditional, ideological, and structural factors. For this reason, Serbia's entire pre- and post-election procedure is essentially personified to the hilt. The identification of a specific policy with a specific politician is known as the personification of politics.

CONCLUSION

Starting with the popular, largely male belief that they would be the best mayors, the authors' (two women's) objective was to investigate, analyze, and make inferences about the role and importance of leadership in Serbian local self-governance. It is necessary that gender equality be really incorporated into Serbian society as a long-term social development component. It is typical of Serbia that many necessary adoptions are only discussed during the election campaign and remain merely dead letters on paper. Although there aren't many resources on this topic that can be considered scientifically verified, it also makes space for future research on the Serbian political scene. In order to find answers on the role and importance of leadership in Serbian local self-governments, the paper provides a few definitions of successful and less successful leadership. In today's unstable political climate in Serbia, where the morality and ethics of successful municipal management are being put into question, it is extremely difficult to identify good examples of practice.

Political leaders who have long represented the majority party's positions are frequently unable to make management decisions on their own because they must agree with the ruling coalition's positions. On the other hand, the opposition leaders are broken, with a weak or nearly non-existent framework for the future of local self-governments, and all of this confuses citizens, leaving them unable to decide who to support in the elections. In any case, the writers feel that for successful leadership, in addition to the support of the ruling coalition, the person chosen (or selected) as mayor must have knowledge, intelligence, and high morality. Everyone is considered an interested party in Serbian local self-government, from the leader's closest associates to employees in every department of the local self-government unit. Last but not least, all Serbian citizens who participate in the local self-government system in a variety of ways, through a range of rights and obligations, have the most influence on leader selection. Finally, the authors point out that it is extremely important to conduct the elections in Serbia in an objective and fair manner - as much as possible.

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Liderstvo kao važna odrednica u organizacijama lokalnih samouprava u Srbiji

Rezime: *Lokalna samouprava u Republici Srbiji je specifična demokratska struktura, jer u krajnjoj liniji zavisi isključivo od građana. Rezultati lokalne samouprave zavise najviše od sposobnosti lidera, čija je uloga nezamenjiva, da služe interesima građana ali i od objektivnih okolnosti koje se brzo i neprestano menjaju. Rezultati su zato, od jedne do druge lokalne samouprave, potpuno različiti. Ne postoje objektivno definisani kriterijumi za ocenjivanje uspešnosti lokalnih samouprava, pa ona nije apsolutna već relativna kategorija. Ocena uspešnosti je vezana za stepen zadovoljstva građana. Koncept dobrog upravljanja objedinjuje karakterne osobine lidera i principe funkcionisanja lokalne samouprave. Sveukupni razvoj, sa ekonomskom komponentom kao najvažnijom i principom održivosti, predstavlja osnovni faktor uspešnosti lokalne samouprave. Lideri definišu ciljeve i pravce razvoja i kako da sprovedu ideje iz sopstvene vizije. Pozicija lidera se vezuje za promene, razmišljajući isključivo o budućnosti jer na prošlost ne mogu da utiču. Posvećenost lidera je karakteristika koju građani najpre prepoznaju i koja sadrži sve njihove pozitivne karakterne osobine. Najznačajniji lider jeste gradonačelnik, koji je nosilac autoriteta i moći da rešava probleme. Lideri mogu uspešno da funkcionišu samo kao tim dobro koordinisanih saradnika. Lokalna samouprava kao servis građana, garant je realizacije koncepta dobrog upravljanja, jedino kroz neposrednu dvosmernu komunikaciju sa građanima.*

Ključne reči: liderstvo, važna odrednica, lokalne samouprave, organizacija, Srbija

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Primjena Globalnih standarda interne revizije za održivo finansijsko izvještavanje

Apstrakt: *Globalni standardi interne revizije vode svjetsku profesionalnu praksu interne revizije i osnova su za evaluaciju i postizanje kvaliteta interne revizije. Postavljaju principe, zahtjeve, razmatranja i primjere za profesionalu praksu interne revizije na globalnom nivou. Standardi se primjenjuju na funkciju interne revizije i pojedinačne interne revizore, uključujući rukovodioca jedinice interne revizije. Interna revizija doprinosi sveukupnoj stabilnosti i održivosti organizacije pružajući sigurnost i njenu operativnu efikasnost, pouzdanost izvještavanja, usklađenost sa zakonoma i/ili propisima, očuvanje imovine i etičku kulturu. Rukovodilac jedinice interne revizije odgovoran je za implementaciju i usklađenost funkcije interne revizije sa svim principima i standardima, a svi interni revizori su odgovorni za usaglašavanje sa principima i standardima koji su vezani za etiku i profesionalizam, te obavljanje usluga interne revizije. Ovim radom želi se ukazati na primjenu Globalnih standarda interne revizije u procesu finansijskog izvještavanja. Korištene metode prilikom istraživanja su: deskriptivna metoda i anketni upitnik. U radu se nastoji dati teorijski doprinos, te proširiti postojeća fundamentalna saznanja iz navedene oblasti, te prikazati kako primjena Globalnih standarda interne revizije utiče na rad interne revizije i kvalitet prezentovanih podataka u finansijskim izvještajima, a što može imati posljedice za investitore prilikom donošenja poslovnih odluka na osnovu finansijskih izvještaja.*

Ključne reči: *interna revizija, Globalni standardi interne revizije, finansijsko izvještavanje*

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UVOD

U savremenom poslovnom okruženju, koje karakterišu sve veća očekivanja u pogledu transparentnosti i održivosti, finansijsko izvještavanje se suočava s izazovima koji prevazilaze tradicionalne okvire. Održivo finansijsko izvještavanje, koje integriše ekonomske, ekološke i društvene aspekte poslovanja, postaje ključan instrument za odgovorno upravljanje i donošenje strateških odluka. U tom kontekstu, interna revizija igra sve značajniju ulogu, pružajući nezavisnu i objektivnu procjenu usklađenosti i kvaliteta izvještavanja. Globalni standardi interne revizije usmjeravaju profesionalnu praksu interne revizije na globalnom nivou i pružaju osnovu za vrednovanje i unapređenje kvaliteta funkcije interne revizije.

Srž Standarda čini 15 ključnih principa koji omogućavaju efektivnu internu reviziju. Svaki princip je podržan standardima koji obuhvataju zahtjeve, razmatranja za primjenu i primjere dokaza o usklađenosti. Ovi elementi zajedno pomažu internim revizorima da postignu ciljeve principa i ispune svrhu interne revizije.

Interna revizija igra ključnu ulogu u jačanju sposobnosti organizacije da služi javnom interesu. Iako je osnovna funkcija interne revizije jačanje upravljanja organizacijom, upravljanja rizicima kontrolnih procesa, njeni efekti se protežu izvan organizacije. Interna revizija doprinosi opštoj stabilnosti i održivosti organizacije pružanjem uvjeravanja o njenoj operativnoj efikasnosti, pouzdanosti izveštavanja, usklađenosti sa zakonima i/ili propisima, zaštiti imovine i etičkoj kulturi. Ovo, zauzvrat, jača povjerenje javnosti u organizaciju i šire sisteme čiji je dio.

Primjena Globalnih standarda interne revizije predstavlja temelj za osiguranje kredibiliteta i integriteta održivih finansijskih izvještaja. Ovi standardi omogućavaju internim revizorima da efikasno identifikuju rizike, ocijene interne kontrole i doprinesu unapređenju procesa izvještavanja, posebno u domenu održivosti. Povezivanjem standardizovanih revizorskih praksi sa principima održivog razvoja, organizacije mogu graditi povjerenje kod investitora, regulatora i šire javnosti.

Finansijski izvještaji su osnov za procjenu imovinskog, prinosnog i finansijskog položaja preduzeća, što može uticati i na kretanje tržišne vrijednosti pojedinačnih akcija i vrijednosti ukupnog kapitala preduzeća. Finansijsko izvještavanje je način da se postojećim i potencijalnim učesnicima na tržištu kapitala pošalju određene poruke o stanju i perspektivi preduzeća, čime postaje važan činilac njegovog funkcionisanja. Globalni interni revizijski standardi, pružaju metodološki okvir i etičke smjernice koji omogućuju revizorima da:

- identificiraju rizike povezane s ESG izvještavanjem,
- ocijene integriranost podataka u izvještajima o održivosti,
- osiguraju da izvještaji zadovoljavaju načela transparentnosti, materijalnosti i vjerodostojnosti,
- savjetuju menadžment o jačanju internih kontrola koje podržavaju održivo izvještavanje.

Cilj ovog rada je analizirati kako se djelokrug Globalnih standarda interne revizije može primijeniti u praksi održivog finansijskog izvještavanja, te da istakne njihovu ulogu u jačanju transparentnosti, odgovornosti i dugoročne vrijednosti preduzeća.

DJELOKRUG GLOBALNIH STANDARDA INTERNE REVIZIJE

Kako bi ciljevi sistema interne revizije bili ostvareni potrebno je da su vezani za informacije koje cirkulišu unutar organizacije, a vezane su za kontrolu blagovremene pripreme ažurnih, pouzdanih i relevantnih informacija koje se prezentuju kroz razne izvještaje, kako internim tako i eksternim korisnicima.

Za razliku od operativnih ciljeva, ciljevi usklađenosti se odnose na to da sistem interne kontrole mora da osigura da cjelokupno poslovanje organizacije, mora biti usklađeno sa relevantnim zakonskim propisima, pravilnicima, odlukama, te drugim važećima aktima unutar organizacije. Institut internih revizora je posvećen postavljanju standarda uz učešće javnosti i u korist javnosti.

Međunarodni odbor za standarde interne revizije odgovoran je za uspostavljanje i održavanje standarda u interesu javnosti. Ovo se postiže kroz opsežan, kontinuirani postupak nadgledan od strane nezavisnog tijela, Savjeta za nadzor MOPP-a. Proces uključuje prikupljanje mišljenja i razmatranje interesa različitih zainteresovanih strana, uključujući aktivne interne revizore, stručnjake iz industrije, vladine organe, regulatore, predstavnike javnosti i druge, kako bi Standardi odražavali različite potrebe i prioritete društva.

Globalni standardi interne revizije definišu principe, zahtjeve, razmatranja i primjere profesionalne prakse interne revizije na globalnom nivou. Standardi se primenjuju na svakog pojedinca ili funkciju koja pruža usluge interne revizije, bez obzira na to da li organizacija direktno zapošljava interne revizore, angažuje ih preko spoljnog pružaoca usluga ili koristi oba pristupa. Organizacije koje koriste usluge interne revizije razlikuju se po sektoru i industrijskoj pripadnosti, svrsi, veličini, složenosti i strukturi.

Standardi se primenjuju na funkciju interne revizije i pojedinačne interne revizore, uključujući izvršnog rukovodioca revizije. Dok je izvršni rukovodilac revizije odgovoran za primjenu i usklađenost funkcije interne revizije sa svim principima i standardima, svi interni revizori su odgovorni za usklađenost sa principima i standardima merodavnim za obavljanje njihovih radnih zadataka, koji su uglavnom predstavljeni u Domenu II: Etika i profesionalnost i Domenu V: Pružanje usluga interne revizije.

Sposobnost funkcije interne revizije da se u potpunosti uskladi sa Standardima može biti uslovljena njenom veličinom ili veličinom organizacije. Uz ograničene resurse, ispunjavanje određenih zadataka može biti izazovno. Pored toga, ako se funkcija interne revizije sastoji od samo jednog člana, adekvatan program obezbeđenja i unapređenja kvaliteta zahtjevaće podršku izvan funkcije interne revizije.

Iako se Globalni standardi interne revizije primenjuju na sve funkcije interne revizije, interni revizori u javnom sektoru rade u političkom okruženju koje je podložno upravljačkim, organizacijskim i finansijskim strukturama koje se mogu razlikovati od onih u privatnom sektoru. Priroda ovih struktura i srodnih uslova može u velikoj mjeri zavisiti od nadležnosti i nivoa vlasti u okviru kojih funkcija interne revizije djeluje. Pored toga, neka terminologija koja se koristi u javnom sektoru razlikuje se od one u privatnom sektoru. Ove razlike mogu uticati na način na koji funkcije interne revizije u javnom sektoru primjenjuju Standarde. Odjeljak „Primena Globalnih standarda interne revizije u javnom sektoru", koji slijedi nakon Domena V: Pružanje usluga interne revizije, opisuje strategije za usklađivanje sa okolnostima i uslovima specifičnim za internu reviziju u javnom sektoru.

ORGANIZACIJA GLOBALNIH STANDARDA INTERNE REVIZIJE

Standardi su organizovani u pet domena:

- Domen I: Svrha interne revizije.
- Domen II: Etika i profesionalnost.
- Domen III: Upravljanje funkcijom interne revizije.
- Domen IV: Rukovođenje funkcijom interne revizije.
- Domen V: Pružanje usluga interne revizije.

Domeni II do V sadrže sljedeće elemente:

- Principi: široki opisi povezanih grupa zahtjeva i razmatranja.
- Standardi, koji uključuju:
  - Zahtjeve: obavezne prakse za internu reviziju.
  - Razmatranja za primjenu: uobičajene i poželjne prakse koje treba razmotriti pri primjeni zahtjeva.
  - Primjere dokaza o usklađenosti: načini da se pokaže da su zahtjevi standarda sprovedeni.

Posmatrano u formalnom smislu, novi Globalni standardi interne revizije (umjesto dosadašnjih Međunarodnih standarda) neposredno povezuju principe interne revizije i same standarde. Standardi se sastoje od pet poglavlja, tzv. domena i imaju uticaj na zakone, pravilnike i aktivnosti povezane sa obukom internih revizora u javnom sektoru. Prvi domen bavi se svrhom interne revizije a drugi domen obuhvata etiku i profesionalnost. Treći domen bavi se upravljanjem funkcijom interne revizije, četvrti se bavi rukovođenjem funkcijom interne revizije, a peti samim izvođenjem interne revizije (2).

Domen I: Svrha interne revizije

Interna revizija jača sposobnost organizacije da stvori, zaštiti i održi vrijednost tako što pruža odboru i menadžmentu nezavisno, objektivno i na riziku zasnovano uvjeravanje savjet, uvid i predviđanje.

Interna revizija poboljšava organizaciju kroz:

- Uspješno postizanje svojih ciljeva.
- Procese upravljanja, upravljanje rizikom i kontrolu.
- Donošenje odluka i nadzor.
- Ugled i kredibilitet kod zainteresovanih strana.
- Sposobnost služenja javnom interesu.

U Domenu I se navodi kako interne revizija pomaže organizaciji da ostvari uspjeh, doda vrijednost I uslove koji internu reviziju čine efektivnfom (1).

Interna revizija je najefikasnija kada:

- Se izvodi od strane kompetentnih profesionalaca u skladu sa Globalnim standardima interne revizije,a koji su postavljeni u javnom interesu.
- Funkcija interne revizije je nezavisno pozicionirana sa direktnom odgovornošću odboru.
- Interni revizori su oslobođeni neprimjerenog utjecaja i posvećeni davanju objektivnih procjena (9).

Domen II: Etika i profesionalnost

Principi i standardi u Domenu Etika i profesionalnost Globalnih standarda interne revizije zamjenjuju prethodni Etički kodeks Instituta internih revizora i definišu očekivano ponašanje profesionalnih internih revizora, uključujući izvršne rukovodioce revizije, druge pojedince i bilo koje entitete koji pružaju usluge interne revizije.

Usklađenost sa ovim principima i standardima uliva povjerenje u profesiju interne revizije, stvara etičku kulturu unutar funkcije interne revizije i pruža osnovu za oslanjanje na rad i prosuđivanje internih revizora.

Od svih internih revizora se zahtijeva da se pridržavaju standarda etike i profesionalnosti. Ako se od internih revizora očekuje da se pridržavaju drugih etičkih kodeksa, ponašanja ili postupanja, kao što su oni definisani od strane organizacije, očekuje se usklađenost i sa principima i standardima etike i profesionalnosti sadržanim u ovom dokumentu. Činjenica da se određeno ponašanje ne pominje u ovim principima i standardima ne znači da se ono ne smatra neprihvatljivim ili diskreditujućim (9).

Domen III: Upravljanje funkcijom interne revizije

Odgovarajući aranžmani upravljanja su od suštinskog značaja da bi se omogućilo da funkcija interne revizije bude efektivna. Ovaj domen ocrtava zahtjeve za glavne izvršne revizore da blisko sarađuju sa odborom kako bi uspostavili funkciju interne revizije, postavili je nezavisno i nadgledali njen učinak. Ovaj domen također ističe odgovornosti višeg menadžmenta koje podržavaju odgovornosti odbora i promovišu snažno upravljanje funkcijom interne revizije. Dok je glavni izvršni revizor odgovoran za zahtjeve u ovom domenu, aktivnosti odbora i višeg menadžmenta su ključne za sposobnost funkcije interne revizije da ispuni svrhu interne revizije. Ove aktivnosti su identificirane kao „bitni uslovi“ u svakom standardu i uspostavljaju neophodnu osnovu za efektivan dijalog između odbora, višeg menadžmenta i glavnog izvršnog revizora, što na kraju omogućava efikasnu funkciju interne revizije (9). Upravljanje funkciojom interne revizije razjašnjava ulogu revizorskog odbora, odnosno Komisije za reviziju, u smislu kako ju je srpski zakonodavac prepoznao u propisima. Ova promjena ističe značaj odgovornosti odbora kao podrška efektivnoj funkciji interne revizije i ukazuje na to kako izvršni rukovodilac revizije može da podrži odbor u ispunjavanju njegove odgovornosti (1).

Domen IV: Rukovođenje funkcijom interne revizije

Izvršni rukovodilac revizije odgovoran je za rukovođenje funkcijom interne revizije u skladu sa Poveljom interne revizije i Globalnim standardima interne revizije. Ova odgovornost uključuje strateško planiranje, dobijanje i raspoređivanje resursa, izgradnju odnosa, komunikaciju sa zainteresovanim stranama, kao i obezbjeđivanje i unapređenje učinka funkcije.

Od lica odgovornog za rukovođenje funkcijom interne revizije očekuje se da postupa u skladu sa Standardima uključujući i obavljanje odgovornosti opisanih u ovom Domenu, bez obzira na to da li je to lice zaposleno u organizaciji ili angažovano kao spoljni pružalac usluga. Konkretni naziv pozicije i odgovornosti mogu se razlikovati među organizacijama.

Izvršni rukovodilac revizije može da delegira određena zaduženja drugim kvalifikovanim stručnjacima u okviru funkcije interne revizije, ali zadržava krajnju odgovornost.

Domen IV obuhvata 4 principa:

- Princip 9 Planiraj strateški,
- Princip 10 Upravljajte resursima,
- Princip 11 Komunicirajte efikasno i
- Princip 12 Poboljšajte kvalitet.

Svi principi ovog domena odnose se na Glavnog izvršnog revizora što je prema našim propisima Rukovodilac interne revizije ili Direktor Odjeljenja interne revizije (9).

Domen V: Pružanje usluga interne revizije

Pružanje usluga interne revizije zahtijeva od internih revizora da efektivno planiraju angažmane, sprovode poslove angažmana radi formulisanja nalaza i zaključaka, sarađuju s rukovodstvom radi utvrđivanja preporuka i/ili planova aktivnosti koji se odnose na nalaze i komuniciraju sa rukovodstvom i zaposlenima koji su odgovorni za aktivnost koja se pregleda, tokom angažmana i po njegovom završetku.

Iako su standardi za izvođenje angažmana predstavljeni u nizu, koraci u izvođenju angažmana nisu uvijek razdvojeni, linearni i sekvencijalni. U praksi, redosled kojim se koraci izvode može da varira u zavisnosti od angažmana i ima preklapajuće i ponavljajuće aspekte. Na primjer, planiranje angažmana uključuje prikupljanje informacija i procenu rizika, što se može nastaviti tokom čitavog angažmana. Svaki korak može uticati na drugi ili na angažman u celini. Stoga, interni revizori treba da pregledaju i razumeju sve standarde u ovom domenu prije nego što započnu angažman. Usluge interne revizije uključuju pružanje uveravanja, saveta ili oba. Od internih revizora se očekuje da primenjuju i poštuju Standarde prilikom obavljanja angažmana, bilo da daju uvjeravanje ili savjete, osim kada je drugačije navedeno u pojedinačnim standardima.

Usluge uvjeravanja imaju za cilj da obezbijede povjerenje u upravljanje organizacijom, upravljanje rizicima i kontrolne procese zainteresovanim stranama organizacije, posebno odboru, najvišem rukovodstvu i rukovodstvu aktivnosti koja je predmet revizije. Kroz usluge uveravanja, interni revizori obezbjeđuju objektivne procene razlika između postojećeg stanja aktivnosti koja se revidira i skupa kriterijuma za vrednovanje. Interni revizori procjenjuju razlike kako bi utvrdili da li postoje nalazi o kojima treba da se izvještava i da bi dali zaključak o rezultatima angažmana, uključujući izveštavanje i kada su procesi efektivni.

Obavljanje poslova interne revizije sadrži dodatne zahtijeve i preporučene prakse koji treba da obezbijededa interna revizija pruža usluge visokog kvaliteta (1)

Interni revizori mogu inicirati savjetodavne usluge ili ih obavljati na zahtjev odbora, najvišeg rukovodstva ili rukovodstva neke aktivnosti. Priroda i obuhvat savjetodavnih usluga mogu biti predmet dogovora sa stranom koja traži usluge. Primjeri savjetodavnih usluga uključuju savjetovanje o dizajnu i primjeni novih politika, procesa, sistema i proizvoda; pružanje forenzičkih usluga; pružanje obuke; i omogućavanje diskusija o rizicima i kontrolama. Prilikom obavljanja savetodavnih usluga, od internih revizora se očekuje da zadrže objektivnost tako što ne preuzimaju odgovornosti rukovodstva. Na primjer, interni revizori mogu da obavljaju savjetodavne usluge kao pojedinačne angažmane, ali ako izvršni rukovodilac revizije preuzme odgovornosti koje ne spadaju u internu reviziju, tada se moraju primjeniti odgovarajuće mjere zaštite kako bi se održala nezavisnost funkcije interne revizije (9).

ULOGA INTERNE REVIZIJE NA KVALITET FINANSIJSKOG IZVJEŠTAVANJA

Interna revizija je nezavisno, objektivno uvjeravanje i konsultantska aktivnost kreirana s ciljem da se doda vrijednost i unaprijedi poslovanje organizacije. Interna revizija predstavlja jednu od ključnih funkcija u okviru sistema korporativnog upravljanja, s važnom ulogom u unapređenju kvaliteta finansijskog izvještavanja. Kroz sistematski i disciplinovan pristup evaluaciji rizičnih područja, procedura i kontrola, interna revizija doprinosi osiguravanju tačnosti, potpunosti i pouzdanosti finansijskih informacija koje se prezentuju internim i eksternim korisnicima. Svrha, nadležnost i odgovornost interne revizije u preduzeću organizuje se i definiše odlukom menadžmenta o osnivanju i Pravilnikom o internoj reviziji koji se sačinjavaju u skladu sa Standardima interne revizije, Kodeksom etike i drugim zakonskim propisima.Interni revizori, osim što uvjeravaju da informacije iz poslovnih knjiga tačno odražavaju činjenice, također procjenjuju politiku, procedure, upotrebu autoriteta, kvaliteta menadžmenta, efikasnost metoda, specijalne probleme i ostale faze.

Interna revizija je nezavisno, objektivno davanje mišljenja i savjetodavna aktivnost koja ima za cilj da unaprijedi poslovanje subjekta i pomaže subjektu da ostvari svoje ciljeve obezbjeđujući sistematičan i disciplinovan pristup ocjeni i poboljšanju efikasnosti upravljanja rizikom, kontrolama i procesima upravljanja (8). Internom revizijom se postiže da se poslovanje odvija usaglašeno sa zakonima i drugim zakonskim rješenjima, pravilnicima, odlukama, da sve informacije budu pouzdane i tačne, zatim da se resursi koriste efikasno, efektivno i ekonomično, kao i da se posluje u duhu dobrog domaćina zaštitom imovine i informacija (5). Od internih revizora se očekuje primjena i pridržavanje sljedećih načela: integritet, objektivnost, povjerljivost istručnost. Osnovna svrha Standarda interne revizije je osigurati razumijevanje uloge i dužnosti interne revizije, uspostaviti stručnu podlogu za provođenje i ocjenu rada interne revizije, te poboljšati njeno funkcionianje u praksi.

Cilj interne revizije je da poveća vrijednost i poboljša poslovanje preduzeća, te pomaže preduzeću da ispuni svoje ciljeve sistemskim i stručnim pristupom da bi ocijenila i unaprijedila efikasnost procesa upravljanja rizikom, kontrole i upravljanja.

Kvalitet finansijskog izvještavanja, kao i kvalitet revizorske profesije u pogledu Međunarodnih računovodstvenih standarda revizije predstavlja ključnu komponentu u minimiziranju investicionog rizika. Finansijski izvještaj je finalni proizvod računovodstvenog procesa i osnovni izvor finansijskih informacija. Finansijski izvještaji omogućavaju menadžerima i analitičarima pregled i utvrđivanje:

1. stanja i razvoja finansijskog položaja preduzeća iskazanih u bilansu stanja i
2. rezultata poslovanja preduzeća iskazanog u bilansu uspjeha i
3. tokova finansijskih sredstava kroz aktivnosti.

Kvalitet finansijskog izvještavanja zavisi od različitih faktora, među kojima su efikasnost internih kontrola, usklađenost sa računovodstvenim standardima, integritet finansijskih podataka i transparentnost izvještajnog procesa. U tom kontekstu, interna revizija ima zadatak da nezavisno ispituje i ocjenjuje sve relevantne aspekte izvještajnog sistema, identifikuje nepravilnosti i slabosti, te predlaže konkretne mjere za unapređenje.

Računovodstveni standardi, uspostavljen sistem interne revizije, eksterna revizija i poslovna etika su komponente sa ključnom ulogom u građenju povjerenja javnosti u sistem finansijskog izvještavanja. Primjenom standarda minimizira se činjenje nedozvoljenih radnji, prilikom sastavljanja finansijskih izvještaja. Informacije iz finansijskih izvještaja predstavljaju veoma vrijedan resur, koji pomaže realizaciju upravljačkih aktivnosti putem poslovno-finansijkog odlučivanja. Proces finansijskog izvještavanja ima ulogu da obezbijedi informacije potrebne za podmirivanje potreba velikog broja korisnika. Da bi se to postiglo, u uslovima globalizacije svjetske privrede, potrebno je da finansijski izvještaji budu pripremljeni i prezentovati u skladu sa jedinstvenim principima i načelima, kako bi fer, objektivno i istinito prestavili poslovanje preduzeća.

Podaci koje pružaju finansijski izveštaji utiču na investicione, finansijske i strateške odluke. Ove podatke treba uporediti sa podacima iz prethodnog perioda ili sa prosjekom u sektoru u kome preduzeće posluje. Kombinacija različitih finansijskih pokazatelja treba da se koristi u analizi finansijskih performansi firme. Prema tome, analiza finansijskih izveštaja je adekvatan alat za efikasno donošenje odluka (6). Uloga Globalnih standarda interne revizije se ogleda kroz definisanje strukture procesa interne revizije koji se primjenjuje i u finansijskom izvještavanju, a koja obuhvata segmente:

- Planiranje revizije,
- Izvršenje revizije (prikupljanje dokaza, testiranje kontrola),
- Izvještavanje i komunikacija nalaza,
- Praćenje preporuka.

Koliki su stvarni efekti sistema internih finansijskih kontrola u javno sektoru i kvalitet podataka prezentovanih u finansijskim izvještajima i podizanju fiskalne odgovornosti najbolje svedoče iskustva evropskih zemalja, koje su kroz ovaj sistem ostvarile značajne uštede u egzistenciji javnog sektora i postigle veći nivo fiskalne odgovornosti (8). Institut za internu reviziju definiše javni sektor kao onaj koji „sastoji vlade i sve javno kontrolisane ili javno finansirane agencije, preduzeća i drugi subjekti koji pružaju usluge programe, dobra i/ili usluge uspostavljene kroz javnu politiku i zakonodavstvo – da služe javno dobro, što je njihova sveobuhvatna svrha. Glavna karakteristika koja razlikuje organizacije iz javnog sektora je da imaju mandat da služe, štite i promovišu javno dobro a ne stvaraju profit kao u privatnom sektoru (4). Glavna karakteristika koja razlikuje organizacije iz javnog sektora je da imaju mandat da služe, štite i promovišu javno dobro a ne stvaraju profit kao u privatnom sektoru (4).

Sistem internih fiannsijskih kontrola primjenjen kroz finansijsko upravljanje i kontrolu i internu reviziju predstavlja internog „čuvara", jer teži stalnoj implementaciji bez izuzetka svih definisanih javnih pravila i smanjenje ili ublažavanje djelovanja svih rizika na koje subjekti javnog sektora nailaze u svom poslovanju (3).

REZULTATI EMPIRIJSKOG ISTRAŽIVANJA

Informacije do kojih se došlo kao rezultat empirijskog istraživanja dobijene su anketnim upitnikom među internim revizorima, koordinatorima finansijskog upravljanja i kontrole i službenicima u javnom sektoru. Većina pitanja je zatvorenog tipa: direktna pitanja, pitanja sa ponuđenim odgovorima nabrajanja, te pitanja sa ponuđenim odgovorima intenziteta. Od ispitanika je zatraženo da iznesu svoje mišljenje o primjeni Globalnih standarda interne revizije na održivo finansijsko izvještavanje. Empirijsko istraživanje je sprovedeno putem anketnog upitnika koji je koncipiran kao segment istraživanja primjene Globalnih standarda interne revizije na održivo finansijsko izvještavanje. Za ostvarenje ciljeva istraživanja prikupljanje podataka je izvršeno iz primarnih izvora (terensko istraživanje) i sekundarnih izvora (istraživanje za desk stolom). Prikupljanje primarnih podataka izvršeno je metodom ispitivanja primjenom anketnog upitnika. U istraživanje je bilo uključeno 32 ispitanika iz isto toliko institucija i to:

1. Interni revizori koji su popunili anketni list i čiji stavovi su predmet istraživanja;
2. Koordinatori finansijskog upravljanja i kontrole u javnom sektoru koji su popunjavajući anketni list izrazili svoje stavove koji su predmet istraživanja
3. Službenici zaposleni na drugim poslovima.

Rezultati ispitivanja do kojih se došlo anketnim putem prikazani su tabelarno.

Odgovori na pitanje: „Da li posjedujete licencu internog revizora?“ prikazani su u Tabela 1. Strukturna analiza uzorka ispitanika pokazaju da većina ispitanika ima licencu internog revizora (71,90%), što ukazuje na visok stepen stručnosti među učesnicima. Manji procenat (28,10%) bez licence može ukazivati na razlike u pristupu revizorskim standardima i načinima interpretacije održivog finansijskog izvještavanja.

Tabela 1. Da li posjedujete licencu internog revizora (Autori 2025)

Odgovor	**Broj ispitanika**	**% ispitanika**
Da	23	71,90 %
Ne	9	28,10%
Ukupno:	**32**	**100,00 %**

Odogovarajući na pitanje: „Da li radite na poslovima internog revizora“, rezultati anketnog upitnika, pokazuju sljedeće:

Tabela 2. „Da li radite na poslovima internog revizora?“ (Autori 2025)

Odgovor	**Broj ispitanika**	**% ispitanika**
Da	22	68,75 %
Ne	10	31,25%
Ukupno:	**32**	100,00 %

Od 32 ispitanika, njih 68,75% je potvrdilo da rade na poslovima internog revizora, a manji broj, njih 10 ili 31,25% ne radi na poslovima internog revizora. Iako 71,90% ispitanika poseduje licencu internog revizora, nešto manje (68,75%) zaista radi na tim poslovima. To može značiti da postoje licencirani pojedinci koji nisu aktivni u reviziji, što može uticati na način primene standarda.

Na pitanje: „Da li ste upoznati sa Globalnim standardima interne revizije“, 87,50% ispitanika odgovorilo je da je upoznato sa standardima, ali 12,50% nije, što može ukazivati na potencijalnu potrebu za dodatnom edukacijom u okviru javnog sektora. Odgovori ispitanika su prikazani u sljedećoj tabeli:

Tabela 3. Pregled rezultata istraživanja – „Da li ste upoznati sa Globalnim standardima interne revizije?“ (Autori 2025)

Odgovor	**Broj ispitanika**	**% ispitanika**
Da	28	87,50%
Ne	4	12,50%
Ukupno:	**32**	100,00%

Od ukupnog broja ispitanika koji su učestvovali u anketnom upitniku, 28 ispitanika, odnosno 87,50% ispitanika je potvrdilo da je upoznato sa Globalnim standardima interne revizije, dok 4 ispitanika ili 12,50% nisu upoznati sa novim Globalnim standardima interne revizije.

Sprovodeći istraživanje putem anketnog upitnika, došlo se do mišljenja ispitanika na pitanje: „Smatrate li, da li će Globalni standardi interne revizije unaprediti poslovanje subjekta?“ veliki deo ispitanika (84,40%) odgovorio je da smatra da će standardi unaprediti finansijsko izvještavanje, ali 15,60% izražava sumnju. Analiza ovog segmenta može se usmeriti na razloge skepticizma i potencijalne izazove u implementaciji standarda.

Rezultati anketnog upitanika su prikazani u tabeli 4.

Tabela 4. Pregled rezultata istraživanja – „Smatrate li, da li će Globalni standardi interne revizije uticati na finansijsko izvještavanje o poslovanju subjekta?“ (Autori 2025)

Odgovor	**Broj ispitanika**	**% ispitanika**
DA	27	84,40%
Ne	5	15,60%
Ukupno:	**32**	**100,00 %**

Rezultati istraživanja pokazuju da 84,40% ispitanika smatra da će Globalni standardi interne revizije uticati na finansijsko izvještavanje o poslovanju subjekta. Takođe, rezultati pokazuju da 15,60% ispitanika smatra da Globalni standardi interne neće uticati na kvalitetnije finnasijsko izvještavanje o poslovanju subjekta.

Na pitanje: „Koliko su Globalni standardi interne revizije važni za održivo finansijsko izvještavanje?“ 78,13% ispitanika odgovorilo je da smatra da su Globalni standardi interne revizije veoma važni za održivo finansijsko izvještavanje, dok 6,25% ih ne vidi kao relevantne. Ovde je ključna analiza razloga zašto određeni procenat ispitanika ne prepoznaje značaj standarda, što može ukazivati na nedovoljnu informisanost ili nejasnu povezanost standarda sa održivošću. Pregled podataka dobijenih istraživanjem prikazan je u tabeli 5.

Tabela 5. Pregled rezultata istraživanja – „Koliko su Globalni standardi interne revizije važni za održivo finansijsko izvještavanje?“ (Autori 2025)

Odgovor	**Broj ispitanika**	**% ispitanika**
Veoma važni	25	78,13%
Djelimično važni	5	15,62%
Malo važni	2	6,25%
Ukupno:	**32**	**100,00 %**

Prikazani rezultati istraživanja, pokazuju da se 78,13% ispitanika slaže da su Globalni standardi interne revizije veoma važni za održivo finansijsko izvještavanje. Ispitanika, 15,62% smatra da su Standardi djelimično važni za održivo finansijsko izvještavanje, dok 6,25% ispitanika smatra da nisu važni za održivo finansijsko izvještavanje, što može ukazivati da nisu upućeni u datu oblast, pa ne mogu dati preciznije mišljenje.

ZAKLJUČAK

Za sagledavanje značaja globalnih standarda interne revizije za održivo finansijsko izvještavanje, podaci su prikupljeni putem anketnog upitnika, kombinovanjem zatvorenih pitanja i pitanja intenziteta. Ovaj pristup omogućava kvantifikaciju stavova, ali može ograničiti dublje kvalitativne uvide u izazove implementacije. Uzorak od 32 ispitanika može pružiti relevantne uvide, ali za širu validaciju rezultata bilo bi korisno sprovesti istraživanje na većem broju institucija.

Opšti zaključak istraživanja ukazuje na visok stepen svijesti o Globalnim standardima interne revizije i njihovom potencijalu za unapređenje održivog finansijskog izvještavanja, uz određenu mjeru skepticizma kod manjeg broja ispitanika.

Preporuke za dalju analizu obuhvate pitanja koa što su: dodatno ispitivanje među ispitanicima koji izražavaju skepticizam o primjeni standarda može pomoći u razumjevanju konkretnih izazova i poređenje rezultata sa međunarodnim praksama interne revizije, koje može pružiti širu perspektivu o efektima standarda na održivo finansijsko izvještavanje.

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Application of Global Internal Audit Standards for Sustainable Financial Reporting

Summary: Global internal audit standards guide the worldwide professional practice of internal auditing and are the basis for evaluating and achieving internal audit quality. They set principles, requirements, considerations and examples for the professional practice of internal auditing at the global level. The standards apply to the internal audit function and individual internal auditors, including the head of the internal audit unit. Internal audit contributes to the overall stability and sustainability of the organization by providing security and its operational efficiency, reliability of reporting, compliance with laws and/or regulations, preservation of assets and ethical culture. The head of the internal audit unit is responsible for the implementation and compliance of the internal audit function with all principles and standards, and all internal auditors are responsible for compliance with the principles and standards related to ethics and professionalism, and the performance of internal audit services. This work aims to point out the application of Global Internal Audit Standards in the process of financial reporting. The methods used during the research are descriptive method and survey questionnaires. The paper tries to make a theoretical contribution, and to expand the existing fundamental knowledge in the mentioned area, and to show how the application of the Global Internal Audit Standards affects the work of the internal audit and the quality of the data presented in the financial reports, which may have consequences for investors when making business decisions based on financial reports.

Keywords: *internal audit, Global Internal Audit Standards, financial reporting*

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The Role of Human Resources, Business Psychology, and Sustainability in Managing Organizations: An Overview and Strategy Planning

Summary: *Human Resources (HR), Business Psychology, and Sustainability functions have gained increasing importance in managing organizations today. These fields are deeply evolved and interconnected in shaping the way how organizations manage their workforce, foster psychological well-being, and address environmental and social responsibilities to achieve better productivity, employee satisfaction, organizational effectiveness and sustainable business practice. This article analyses and explores the role of Human Resources, Business Psychology, and Sustainability, their interconnections, interrelations and the significance of integration in managing organizations as a critical areas to reach business efficiency and success in the current highly demanding environment. Thus, the study provides insight into the cornerstone role of strategic planning for implementing those fields in organization practice and attaining effective desired outcomes and favorable position in the market.*

Keywords: *Human resources, business psychology, sustainability, organization, management*

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INTRODUCTION

Human Resources, Business Psychology, and Sustainability represent dynamic and core functions in managing organizations today. As organizations operate in a rapidly changing global landscape marked by technological advancements, societal expectations, and economic pressures, integrating these fields has become essential for achieving competitive advantage and long-term viability (6). In such a business environment, all organizations have to be conscious of the immense importance of implementing these areas into their operations supported by effective strategy. In organizations Human Resources (HR), as a function as well as a department, traditionally focused on recruitment, compensation, training, and administrative tasks (12). However, over the past few decades, HR has evolved from administrative and operational into a more strategic function aimed at fostering a productive and positive work environment (24).

At the same time, Business Psychology, also known as Industrial-Organizational Psychology, has emerged as a discipline that applies psychological theories and examines human behavior within organizational settings to enhance desirable workplace behavior, performance, and employee well-being (18). Indeed, by implementing business psychology with HR functions effectively, companies can drive organizational success by improving productivity, leadership, employee satisfaction, and overall organizational health to boost performance at all levels (5). Beyond, sustainability has become a crucial aspect of business for any organization. Organizations have to implement sustainability frameworks in their practices and be committed in contributing to environmental protection and community well-being (7). Their competitive advantage and success in the market depend on that, as a great support to build a stronger brand, reach more customers, and better performance (8). Such importance has emerged Sustainable Human Resource Management (Sustainable HRM) as a strategic priority in aligning human resource practices with environmental, social, and economic sustainability goals in the organizations. It should be underlined that sustainability requires the participation of employees in this process which further emphasizes the importance of Sustainable HRM.

Sustainable Human Resource Management integrates sustainability principles into HR practices, aiming to balance organizational goals with environmental, social, and economic considerations. It promotes ethical labor standards, diversity and inclusion, employee health, and environmental stewardship. The shift towards sustainability in HR reflects growing expectations from stakeholders—employees, consumers, investors, and regulators—who demand transparent, responsible, and future-oriented business practices(4). Human resources represent the hub of every organization and every business process, so it is very important for any organization as well as human resources and other managers how they will manage and motivate their workforce in order to achieve sustainability and socially responsible business, and high work performance of their employees, thus success. However, Human resources management is an extremely complex and multidimensional process (9). Even though that in all organizations there are certain rules in the work processes, human behavior is subject to change, often unpredictable which can cause a negative working climate and effects on employees' productivity (1). Hence, every business entity must take this into account and undertake activities and measures that will lead to the creation of a stable and positive environment and value to reduce the negative effects of employee behaviors and consequences on their performance. That is why it is necessary to apply business psychology principles in organizational work processes and HR settings as it provides an insight into workforce dynamics, scientific understanding of behavior in the workplace and accordingly actions toward building and retaining positive working environment and highly motivated and competitive employees able to committ to sustainable development and overall goals of the organization (11). Further, to achieve good results in a business processes, effective strategy planning is necessary for all organizations with particular emphasis on sustainable human resource management including business psychology principles (3). It should be emphasized that the contemporary fast-changing business environment demands efficient and effective operations of the entire organization where the Human Resources (HR) department serves as a bridge between organizational strategy and employee well-being, ensuring that actions align with environmental, social, and governance (ESG) principles (25). In this process business psychology provides great support as a very useful tool to achieve these goals (15). Therefore, today Human Resources, as a pivotal function, plays a crucial role in the success of the organization which requires integration and implementation of sustainability and business psychology framework in operations supported by holistic and efficient strategy to foster innovation, employee engagement, and long-term sustainability and achieve success (13).

LITERATURE REVIEW

Human Resources (HR), Business Psychology, and Sustainability have gained significant attention among researchers, particularly in organizational research. The main focus of these studies is on how organizations can optimize human capital, foster psychological well-being (10), and integrate sustainable practices to achieve long-term success addressing theoretical frameworks, empirical evidence, and practical implications of these domains (4; 17). Human resource management (HRM) is an area of organizational science that deals with the study of all aspects of employees in an organization (23). Industrial and economic development prosperity, particularly since the 1960s have impacted the evolution of the theory of scientific management with the focus on increasing productivity, and behavioral sciences that emphasized the importance of attitudes, needs, and motivation of individuals, thus industrial psychology (business psychology) which included testing a person's ability to work and other tests to help employers in understanding a candidate's potential (18; 23). This influenced the development of human resources management (HRM) in organizations as a core area in managing business. Further, the requirements to adapt to fast changes and trends of the business environment and implement innovations, drive organizations to realize that they have to invest more in the development of their human resources capital and employee training to improve their skills and knowledge, thus productivity (3).

Human Resources, as a function as well as a department within an organization, is responsible for managing the employee lifecycle from recruitment and onboarding to development and retention. Adequate management of human resources in the organization should satisfy the strategic needs of the company (20). Therefore, human resource management has to ensure appropriate behaviors, knowledge and skills of employees, to meet the needs of the organization and achieve strategic goals. The main aim of human resources management starts from the position that the organizations have to fulfill their goals by directing the employees and their work efforts efficiently (10).

Over the last decades, the dramatic changes at the global levels have imposed crucial and strategic role of HR management and HR department in shaping organizational culture, employee engagement, and aligning human capital with organizational goals (10). HR professionals are also key drivers in ensuring legal compliance, managing compensation, and fostering an environment conducive to employee development. The HR department becomes a more and more complex process which besides HR managers involves the managers of all other departments and seniors who have a core role in developing and setting strategy (20). In such an environment business psychology has emerged as a pivotal field in studying the workplace and how to more improve working conditions in organizations by motivating employees to achieve better results and work performance. Business psychology helps both employees and organizations to operate at their highest potential in the global environment (15). Drawing on the understanding of individual differences and insights into human behavior and mental processes, business psychology supports organization and HR managers in analyzing, organizing, guiding, anticipating, and influencing workplace behavior to enhance productivity. It covers various areas such as motivating staff, hiring and selecting candidates, employee training and development, planning for workforce needs, managing pay and benefits, ensuring workplace health and safety, nurturing leadership skills, studying workplace behavior, boosting organizational efficiency, and supporting overall organizational growth (11).

It should be underlined that the major factors powerful by rapid changes of today's global environment that affect organizations in managing the operations, thus their success, particularly the management of human resources, are: growing competition, globalization and internationalization of businesses, technological advancement; sustainability and ethical and legal compliance in business practice (24).

One of the imperatives of today's business has become sustainability and organizations' commitment to sustainable development and environmental protection (7). This is a vital aspect of business that should be implemented in all organizations as it brings many benefits and competitive advantages to the organizations (8). Sustainability in organizations encompasses environmental, social, and economic dimensions, often referred to as the triple bottom line according to some authors (14). In other words, organizations have to manage the economic, environmental, and social performance by reducing their negative impacts on the environment and climate change, applying ethical sustainable labor practices, and actively engaging in all community sustainable matters. However, to achieve sustainability implementation in the practice, all employees have to be actively involved and participate in these processes (12).

That has emerged sustainable HRM which refers to HR strategic alignment of human resource practices with the goals of sustainable development by applying and promoting environmental stewardship, social equity, and economic viability (21). It is an approach that ensures that human capital contributes to the organization's performance and long-term sustainability. This underscores the dual focus - on organizational performance and the well-being of employees and society (5). The HR department and management play a pivotal role in embedding sustainability into organizational culture. HR practices, such as green training and sustainability-focused performance metrics, encourage employees to adopt eco-friendly behaviors (2). From a psychological perspective, employees' attitudes toward sustainability influence their engagement in sustainable practices. Pro-environmental behaviors are more prevalent in organizations with strong sustainability values and supportive leadership (21). Furthermore, Corporate Social Responsibility (CSR) initiatives enhance employee morale and organizational reputation, creating a virtuous cycle of sustainability and engagement. This highlights that implementing business psychology in organizational and HR settings is a powerful tool to achieve all these requirements. Key areas in these processes include leadership development, motivation, team dynamics, occupational health, and change management. By understanding cognitive and emotional drivers of behavior, organizations can design interventions that promote productivity and well-being (1) critical for sustainable HR practices and also to avoid employees' residence to the changes (11). Further, this offers targeted support and help to employees to adapt to the rapidly changing technologies and demands of the modern global workplace.

Worrying levels of environmental pollution (7) have led to the increasingly frequent use of the term Green Human Resource Management (GHRM) in literature which refers to HR practices that promote dedication to environmental sustainability within organizations (25; 19). It should be underpinned that sustainable HRM is grounded on a holistic system acknowledging that organizational success is interdependent on societal and environmental well-being and participation of stakeholders. Key principles include: long-term strategy planning of workforce development, prioritizing employee well-being (physical, mental, and emotional health), dedication to ethical leadership by promoting integrity and fairness in decision-making and respecting diversity and inclusion by creating equitable opportunities for all employees (14). It should be added that today efficient strategy planning and implementation in practice with policy settings is a core requirement to achieve the goals in organization. Sustainable HR policies should include for instance ethical labor practices, equitable compensation, green HRM policies such as eco-friendly offices and others. Therefore, the key characteristics that distinguish sustainable HRM from traditional HR practices include long-term orientation, stakeholder inclusivity, integration with CSR and ESG, ethical and legal compliance, green HRM Practices, resilience and agility (24; 22; 25).

Henceforward, it can be argued that by implementing sustainability and business psychology in HR practices supported by effective strategy, organizations can foster a positive work environment, enhance employee well-being and their participation in sustainable development, and contribute to environmental protection, thus, achieving long-term prosperity of their business and entire community (4).

THE ROLE AND ITERRELATIONS OF HR, BUSINESS PSYCHOLOGY AND SUSTAINABILITY FUNCTIONS IN MANAGING ORGANIZATIONS

The key goal of every organization today is timely adaptation to changes, sustainable development and existence in the market. The main drivers of these processes are employees considering the fact that they perform the necessary tasks on the way to achieving these goals. This refers to the fact that human resources capital determines the success of any organization (12; 20). It means that the organizations have to take care of their employees which necessitates a lot of time and effort to be invested in them in order to attract and employ competent employees, train, develop and motivate them, and take the measures to retain productive workers (10). This requires holistic organizational development with the integration of HR, Business Psychology, and Sustainability functions since their interrelation and interdependence are very deep and core requirements to thrive the business in today's ever-changing environment (11). For instance, HR can leverage Business Psychology to design interventions that promote both employee well-being and sustainable behaviors. Some studies show that employees with high Psychological Capital (PsyCap) are more likely to engage in pro-environmental behaviors, suggesting a synergy between psychological resilience and sustainability. They are characterized by high levels of hope, self-efficacy, optimism, and resilience (13). In other words, they are more dedicated to being successful in achieving their goals, navigating challenges, and thriving in both their personal and professional lives (1). Moreover, sustainable HR practices, such as flexible work arrangements and employee benefit and motivational programs, enhance psychological well-being and reduce negative environmental impact (2). Leadership plays a crucial role in this integration. Transformational leaders who exponent sustainability inspire employees to align personal values with organizational goals, fostering a culture of purpose and responsibility (17). HR professionals increasingly rely on business psychology to design evidence-based policies. Such practices are grounded on business psychology principles such as strengths-based leadership, emotional intelligence training, cognitive-behavioral coaching, improvement of recruitment, retention, and engagement processes (18). On the other hand, sustainable HRM emphasizes long-term employee development, ethical labor relations, and work-life balance (22). Green HR practices including environmentally conscious recruitment and training align with sustainability goals and enhance employer branding (21). Psychological insights are critical for promoting pro-environmental behaviors and values within organizations (25). Strategies such as nudging, behavioral change communication and value-based leadership foster a sustainability-oriented culture.

The integration of HR, Business Psychology, and Sustainability manifests in initiatives like employee-led green innovation, psychologically safe workplaces that support diversity and inclusion, and leadership pipelines trained in both ethical reasoning and emotional intelligence. These integrative approaches drive systemic resilience and stakeholder trust (4). It should be underlined that the integration of business psychology and sustainability into HR practices has profound implications for both individuals (employees) and organizations. HR professionals can use psychological principles to better understand and manage employee behavior, enhance job satisfaction, and ensure organizational effectiveness, while sustainability supports ethical long-term successful development and resilience. This importance is reflected particularly in the following key areas for organizational efficiency and success (6):

- **Talent Acquisition and Recruitment:** Recruitment and selection processes are foundational HR functions that can be significantly enhanced by business psychology. Psychometric testing, behavioral interviews, and personality assessments, environmental awareness can help HR professionals identify candidates whose characteristics align with the needs of the organization. By understanding psychological traits such as emotional intelligence, cognitive ability, and motivation, HR teams can make better hiring decisions, ensuring a good fit between employees, organizational culture and sustainable development.
- **Employee Motivation and Engagement:** Organizations should design and apply work environments that foster motivation in HR practices. HR professionals can create reward systems, recognition programs, and career development opportunities that align with employees' intrinsic and extrinsic motivators. This, in turn, can lead to higher levels of employee engagement, job satisfaction, organizational and environmental commitment, which is of particular importance for sustainable development. Business psychology tools can significantly help HR managers to analyze levels of employee motivation and engagement, make evaluations and accordingly create tailor-made programs and activities to improve these feats.
- **Leadership Development:** Effective leadership is a crucial element of organizational success, and business psychology provides valuable insights into leadership styles, behaviors, and traits. HR professionals can use business psychological tools, such as Transformational Leadership and Emotional Intelligence, to guide leadership development programs. By helping leaders to understand their own behaviors and motivations, the importance of sustainable development, HR can cultivate leaders who inspire and motivate their teams, drive organizational change, and promote positive workplace culture, sustainability and environmental protection.

- **Conflict Resolution and Team Dynamics:** Conflicts are inevitable in any workplace, but how they are managed can significantly impact organizational outcomes. Business psychology offers tools for understanding conflict resolution styles, group dynamics, and the psychological mechanisms that contribute to interpersonal issues. HR can leverage this knowledge to design conflict resolution programs, team-building exercises, and communication training to promote collaboration, environmental protection, improve interpersonal relationships, and reduce workplace tension, residence to changes and sustainable development.
- **Organizational Culture and Change Management:** Organizational culture plays a vital role in employee satisfaction and productivity and the implementation of sustainable development. Business psychology provides frameworks for understanding how culture is formed, maintained, and changed within organizations. HR professionals can use this understanding to assess and reshape organizational culture to align with business objectives, values, employee well-being and sustainability. Additionally, when organizations undergo changes, HR can apply principles of psychology to manage resistance, foster adaptation, and promote a sense of stability, sustainability and cohesion during transitions.

In addition to driving organizational performance, HR, business psychology and sustainability together emphasize the importance of employee well-being. Many issues related to stress, burnout, and mental health can guide HR professionals in creating work environments that prioritize employee welfare on sustainability pillars (12). Further, work-life balance is a critical aspect of employee well-being. When employees are able to effectively balance work and personal life, they are more likely to be productive, satisfied, and engaged at work. HR departments can develop policies and practices that support work-life balance, such as flexible hours, remote work options, and paid time off. Employee Training and Development play a pivotal role in these processes emphasizing the importance of continuous learning and personal growth in the workplace (23). HR professionals can incorporate psychological and sustainable principles into employee training and development programs by considering learning styles, cognitive load, and motivation theories. By tailoring training programs to meet the psychological needs of employees, HR can ensure that employees are not only gaining the necessary skills but also staying motivated and engaged throughout their careers contributing to sustainable development (17). With the efficient strategy many programs and policies can be implemented to help reduce of many problems in the working environment and negative consequences of employees' behaviors resulting in enhancement of overall job satisfaction, thus high employee productivity (9).

It should be emphasized that the integration of sustainability into HR practices not only benefits the environment but also enhances employee well-being (5). Employees who perceive their organization as environmentally responsible report higher levels of job satisfaction, reduced stress, and increased motivation. This, in turn, leads to improved organizational performance (19). For example, a study found that sustainable HR practices positively impact employee psychological well-being, which subsequently enhances business performance (4). Therefore in the current turbulent environment, organizations have to anticipate all changes and their employees as a core capital to achieve success and existence in the market. Effective employee management is the central hub to implement sustainability in practice and thrive in the business (21). That is why the HR department and management should apply business psychology and sustainability principles as powerful tools to structure a positive work environment and motivate employees with high work performance dedicated to sustainable development and organizational success (15).

SIGNIFICANTE OF INTEGRATED STRATEGY PLANNING

Strategy planning is essential for any organization for long-term success and sustainability. Without the strategy, organizations are not able to adequately respond to the demands of the changing business environment which leads organizations to the risk of losing focus, wasting resources, and missing opportunities to achieve the goals. It serves as a roadmap that guides decision-making, aligns resources with objectives, and provides a clear direction for growth and development (14). One of the primary benefits of strategic planning is that it helps organizations set clear goals and define the steps necessary to achieve them. This clarity enables leaders and employees to stay focused on what truly matters, ensuring that every action taken contributes to the broader mission and vision (16). Strategic planning also enhances organizational agility. By anticipating future trends, challenges, and opportunities, organizations can proactively adapt to changes rather than simply reacting to them (9).

In the current environment, an integrated strategy development with a holistic approach is necessary for all organizations (8). Moreover, an efficient holistic strategic plan, which includes integration of HR, business psychology and sustainability fields, promotes and aligns organizational objectives across various functions, departments and teams to achieve long-term success. It fosters better communication, coordination, and collaboration, ensuring the well-being of employees and that everyone is working toward the same objectives (5). Such a strategy not only improves efficiency but also boosts employee engagement and morale. Hence, integrated strategy development ensures that organizational goals are cohesive, leveraging synergies between HR, Business Psychology, and Sustainability. Moving beyond traditional strategic HR management to sustainable HR management fosters long-term organizational resilience by balancing economic, social, and environmental objectives (6). An integrated holistic strategy ensures that sustainability, as a strategic pillar, is embedded in organizational culture, which implies sustainable HR management supported by HR policies and informed by psychological principles(19; 13).

To ensure that the integrated holistic strategy supports overall business goals, organizations have to (3; 16; 14;24):

- At the first stage to conduct a strategic review of the organization's mission, vision, and ESG commitments and identify overlapping goals between HR (e.g., talent retention), business psychology (e.g., well-being), and sustainability (e.g., long-term impact). They should create a cross-functional task force (HR, Sustainability, Organizational Development) to lead the integration of strategy.
- The second stage should involve include evaluation and assessment of organization's current state such as a current HR practices audit for alignment with sustainability (e.g., diversity, ethical labor, green policies), the psychological climate of the organization (using tools like: employee engagement surveys; stress and well-being audits, organizational culture diagnostics) and evaluation the company's environmental and social performance (via ESG and GRI frameworks).
- In the third stage organization should define goals and KPIs and set measurable objectives which should include HR goals to improve retention, implement inclusive hiring practices, increase internal mobility, then Business Psychology goals to reduce burnout, improve team dynamics, enhance leadership competencies and Sustainability goals to reduce carbon footprint, increase employee green behavior, achieve a sustainability certification and others. For example, some KPIs could include the percentage of trained employees in green competencies, also in emotional intelligence etc.
- At the next stage, organizations should design integrated programs and policies with the development of initiatives that simultaneously target HR, psychological, and sustainability and green outcomes. This should include:
  - Green HRM Programs: Sustainable onboarding and training (eco-conscious, digital-first); Incentives for sustainable commuting or remote work;
  - Behavioral Interventions (Business Psychology): Nudging for eco-friendly behavior (e.g., default options in printing or waste sorting); Mindfulness, resilience, and well-being workshops; Strengths-based performance management;
  - Ethical and Inclusive Policies: Diversity,equity and inclusion integrated with environmental justice; Transparent leadership development programs.
- Training and engagement of managers should be the next step to support strategic integrated practices such as executive training programs in Transformational and ethical leadership, Psychological safety and motivation theories, and Systems thinking and sustainability to encourage leadership accountability through sustainability-linked performance reviews.
- The next important step is to make strategy integration part of daily operations and organizational life by embedding it in organizational culture and communication. This should include:
  - Communicate a compelling (positive) narrative about strategy integration.
  - Promote success stories and employee champions.

  - Integrate sustainability and psychological health into core values and employer branding.
- Following important step should ensure the longevity and scalability of the strategy by updating and implementing policies and procedures to permanently maintain integrated values. The policies and procedures should be applied into performance appraisal systems, recruitment frameworks as well as corporate reporting (e.g., integrated sustainability reports). Also, creation and engagement in partnerships and certifications (e.g., ISO, GRI, EMS Certifications) are highly important elements.
- The last step should include continuous monitoring of strategy implementation and measures for improvements and adoption to the changes. For every organization, it is important to permanently track KPIs across HR, psychological, and environmental dimensions and use dashboards that combine HR analytics, employee sentiment, and sustainability performance.

With such holistic strategy integration, organizations are able to consistently align people strategy, behavioral insight, and sustainability principles in their operations and to gain not only competitive advantage but also employee trust and long-term stakeholder value (2).

As per research analysis, it is obvious that strategy planning and its implementation in organization practices is an extraordinarily complex process that requires a lot of effort from all employees in the organization, especially managers, as they play a key role in planning and running ethical and responible business (22). It should be emphasized that in today's turbulent environment, every organization should apply a holistic approach and integrate HR, business psychology and sustainability into a strategy planning as core elements that enables organizational efficiency, resilience and prompt response to the changes on which their existence in the market depends. Such strategic planning is not just a managerial tool—it's a critical process that empowers organizations to define their future, navigate uncertainty, and achieve green practices, thus success (2).

CONCLUSION

Human Resources, Business Psychology, and Sustainability, have become core functions and valuable feats in managing modern organizations and organizational development. As deeply interconnected and independent, these fields today represent a critical point for all organizations aiming to achieve long-term success in a complex and dynamic environment. This requires integrated holistic strategy planning by encompassing these fields efficiently into strategy implementation in the organization's practices. Human capital is the hub of functioning, thus the success of any modern organization which necessitates effective HR management in managing overall operations in organizations. Since sustainability has emerged as an immense and central aspect of business continuity, Human

Resource Management has evolved from an administrative HR function to a Sustainable HRM- value-driven strategic pillar to support and drive sustainable, environmental and social goals of organizations. By embedding sustainability into HR, organizations can cultivate a more resilient, engaged, and ethical workforce. Organizations that successfully integrate sustainability into their HR practices can achieve long-term benefits, including enhanced employee engagement, improved organizational performance, and positive societal and environmental impacts. HR professionals must act as stewards of long-term organizational and societal health and sustainability.

The integration of business psychology into sustainable HR practices represents a powerful approach to optimizing both organizational performance and employee well-being. Understanding and applying business psychological principles to the HR functions, enables organizations to foster a supportive, productive, and dynamic sustainable workplace culture. As sustainable HRM continues to evolve from a transactional to a strategic function by engaging stakeholders, transforming culture, and measuring outcomes,the insights and tools provided by business psychology will continue to be crucial in creating organizations that are efficient human-centered and dedicated to sustainability and environmental protection. This not only enhances employee well-being and organizational performance but also contributes to sustainable and environmental goals.

It can be concluded that the integration of HR, Business Psychology, and Sustainability is reshaping organizational structure and operations toward more efficient business, driven by the need for resilience, inclusivity, and responsibility. As organizations continue to navigate the challenges of the 21st century, adopting and implementing an integrated strategy of HR, psychology, and sustainability functions into operations will pursue in being a critical aspect for the long-term success of all organizations.

Future research should continue to analyze and explore new methods and ways for integrating sustainability and business psychology with HR practices, particularly in addressing case studies of key challenges and issues of these processes such as remote work, global teams, technological advancements, requirements of innovative strategies, interdisciplinary collaboration, and a commitment to aligning organizational goals with sustainable and societal needs.

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Uloga ljudskih resursa, poslovne psihologije i održivosti u upravljanju organizacijama: Osvrt i planiranje strategije

Rezime: Funkcije ljudskih resursa, poslovne psihologije i održivosti dobijaju sve više na značaju u upravljanju organizacijama danas. Ova polja su duboko uticajna i međusobno povezana u oblikovanju načina na koji organizacije upravljaju svojom radnom snagom, neguju pozitivnu radnu atmosferu uz psihološko blagostanje zaposlenih i bave se ekološkim i društvenim odgovornostima kako bi postigle bolju produktivnost, zadovoljstvo zaposlenih, organizacionu efikasnost i održivu poslovnu praksu. Ovaj članak analizira i istražuje ulogu ljudskih resursa, poslovne psihologije i održivosti, njihove međusobne veze, odnose i značaj integracije u upravljanju organizacijama kao ključnih oblasti za postizanje poslovne efikasnosti i uspeha u današnjem veoma zahtevnom okruženju. Takođe, rad pruža uvid u temeljnu ulogu strateškog planiranja za implementaciju ovih oblasti u poslovnoj praksi organizacija radi postizanje efikasnih željenih rezultata i povoljne pozicije na tržištu.

Ključne reči: ljudski resursi, poslovna psihologija, održivost, orrganizacija, upravljanje.

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Application of Databases and Artificial Intelligence in the Automotive Industry: A Methodological – Research Framework

Summary: *This paper presents a methodological research framework for the application of databases and artificial intelligence (AI) in the automotive industry. The research examines how digitalization and AI-based technologies influence business models and financial performance, particularly through the integration of smart systems into modern vehicles. The paper outlines both quantitative and qualitative methods, including case studies of companies such as Tesla, BMW, and Ottometric Inc., as well as an analysis of capital market indicators. Special emphasis is placed on data collection techniques and their role in strategic decision-making. The study further explores the correlation between digital innovation and stock market valuation, demonstrating how advanced software solutions contribute to investor perception and company growth. By combining theoretical insights with real-world examples, this framework lays the foundation for further research into the financial and strategic implications of AI and databases in the automotive sector.*

Keywords: *digitalization, automotive industry, databases, artificial intelligence, business models, capital markets, data analysis, company valuation*

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INTRODUCTION

The automotive industry is undergoing one of the most dynamic transformations in its history, driven by digitalization, databases, and artificial intelligence (AI). The development of smart vehicles, autonomous systems, and advanced data analytics enables companies to enhance efficiency, optimize production processes, and improve customer experience. Connected vehicles generate vast amounts of data, whose proper processing and analysis are becoming key competitive factors in the market.

Digitalization is not only changing the technical aspects of vehicle production and maintenance but also has a far-reaching impact on business models and companies' financial performance. Automotive manufacturers are increasingly integrating software services into their products, transitioning from traditional vehicle sales to subscription-based and data-driven service models. These changes raise new questions regarding company valuation, investment in research and development, and the analysis of geopolitical and market risks.

The aim of this research is to provide a methodological framework for analyzing the impact of databases and artificial intelligence on the automotive sector. Through a review of existing research, capital market analysis, and practical industry examples, the paper explores how digitalization shapes modern business models and financial performance. Special attention is given to the methodology of data collection and analysis, as a crucial element in strategic decision-making in the automotive industry.

Methodological Research Framework

Researching the digitalization of the automotive industry through databases and artificial intelligence requires a multidisciplinary approach that combines scientific research methodology with capital market analysis. This paper utilizes a combination of quantitative and qualitative methods to gain a more accurate insight into how digitalization affects business models and financial performance.

Research Methods

The automotive industry is no exception and two research methods are used in this field as well:.

Quantitative Methods

Quantitative methods are research techniques based on numerical data and statistical analysis. The goal of quantitative research is to provide objective, measurable, and reproducible results that can be generalized to a broader population. These methods rely on standardized data collection techniques such as surveys, experiments, big data analytics, and mathematical modeling. In the context of the automotive industry, quantitative methods may include the analysis of sales data, market trends, and company financial performance.

Specifically, in the automotive sector, quantitative methods include:

- **Secondary Data Analysis** – Using available sources such as financial reports from auto manufacturers, capital market data, stock exchange movements, and case studies of digital transformation in the industry.
- **Statistical Analysis** – Employing economic indicators and market metrics to assess the impact of digitalization investments on profitability and company valuation.

Qualitative Methods

Qualitative methods are research techniques aimed at understanding human experiences, perceptions, and social phenomena through descriptive and interpretative analyses. These methods include interviews, focus groups, case studies, and ethnographic research. Instead of focusing on numerical data, qualitative research emphasizes in-depth analysis and contextual understanding of issues.

Within the digitalization of the automotive industry, qualitative methods can be used to explore consumer perceptions of autonomous vehicles, analyze organizational change in companies, and examine the impact of AI technologies on the workforce.

In this industry, qualitative research may include:

- **Case Studies** – Analysis of specific examples of AI and database application in the automotive sector, including companies like Tesla, BMW, and Ottometric Inc. ***Resouce: (7)***

Advantages and Disadvantages of Quantitative Research

Advantages	Disadvantages
• Generalization and drawing general conclusions • Effective and efficient database analysis • Examining and identifying patterns, consequences, and relationships among phenomena • Objective and independent results • Readers like numbers	• Impersonal, "dry, and soulless" • No trace or presence of the respondent's voice • No sense of context or circumstances • The research is mostly initiated and controlled by the researcher

Resource: (7)

Advantages and Disadvantages of Qualitative Research

Advantages	Disadvantages
• Very detailed perspectives of the participants • The respondent's voice is felt and heard • A complete impression of the context and circumstances is gained • The opinions are based on the views and attitudes of the participants • Readers like stories and narratives	• Limited generalization and conclusion drawing • "Soft data" without numbers, series, trends, or charts • A high degree of interpretation • Reliance on participants is minimized • Researcher's expertise

Resource: (7)

Digital Methods of Data Collection

- **Sensor Systems and IoT Devices** – Modern vehicles are equipped with sensors that collect data on driving behavior, fuel consumption, driver actions, and more.
- **LiDAR and Radar Technologies** – These technologies enable the collection of spatiotemporal data in real time, which is especially important for autonomous vehicles.
- **Telemetry** – Used to gather data on vehicle performance under real-world operating conditions.
- **Digital Tools for User Behavior Analysis** – For example, through mobile applications, onboard infotainment systems, and platforms linked to user accounts.

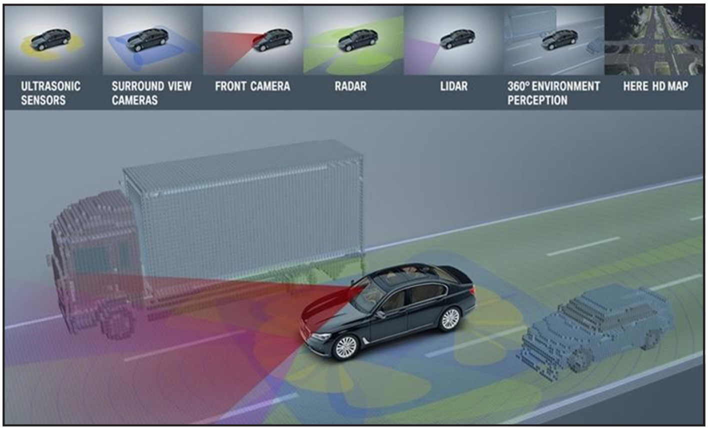

Figure 1: L4 Functionalities of Autonomous Vehicles

Source: (9)

Data Collection in Real Projects

At **Ottometric**, the company where the author of this paper is employed, a combination of digital and traditional data collection methods is used. The software developed within the company integrates:

- User behavior analytics,
- **LiDAR sensors** for spatial data collection,
- AI models for automated data processing and pattern recognition,
- **An agile software development approach** that enables iterative testing, where collected data is used for rapid hypothesis validation and informed technical and business decision- making.

BMW CarData – Telematics Data for Personalized Services

BMW uses its CarData system to collect telematics data from vehicles, such as speed, fuel consumption, and driver behavior. This data enables the personalization of services, including tailored offers for insurance and maintenance.

Nexar – Real-Time Data Collection via Onboard Cameras

The startup company Nexar utilizes cameras mounted on vehicles to collect real-time visual data. This data is used for road mapping, identifying traffic patterns, and improving road safety.

UDRIVE Project – European Driver Behavior Study

UDRIVE is a European project that collected data on driver behavior under real driving conditions across Europe. Sensors and cameras were used to gather data on speed, acceleration, mobile phone use, and other factors that influence road safety.

NODAR Technology – Deep 3D Data Collection for Autonomous Vehicles

NODAR's flagship product, Hammerhead™, uses a pair of wide-baseline stereo cameras to enable extremely accurate 3D spatial mapping at distances exceeding 1,000 meters. Unlike traditional LiDAR systems, NODAR's solution does not require additional sensors, relying instead on software-based auto-calibration. This significantly reduces system costs and increases reliability. This technology is used for:

- Detection of small objects (pedestrians, obstacles, lost cargo),
- Advanced automatic braking and collision avoidance,
- Operation in complex weather conditions (rain, fog, nighttime driving).

DIGITALIZATION AND ARTIFICIAL INTELLIGENCE IN THE CONTEXT OF CAPITAL MARKETS

The rapid pace of technological advancement is a global trend across all industries, including the automotive sector. Through the application of artificial intelligence (AI) and databases, technological progress increasingly influences production and logistics processes, as well as the overall perception of company value in capital markets. Companies that invest in digitalization are perceived as innovative, which undoubtedly leads to positive movements in their stock prices.

A prominent example is the company *Tesla*, which, although primarily an automaker, is often valued more as a technology company. Its market capitalization significantly exceeds that of competitors in the traditional automotive sector, precisely due to its strong application of AI in autonomous driving and advanced software solutions. This clearly demonstrates how technological superiority and innovation have become key factors in investment analysis.

It can be concluded that there is a direct correlation between the level of digitalization and a company's performance in capital markets. Companies that successfully implement AI solutions often become more attractive to investors, positively influencing their market position and valuation.

CONNECTIONS BETWEEN THE AUTOMOTIVE INDUSTRY AND STOCK MARKETS

Listing of Automotive Manufacturers on Global Stock Exchanges

Many large automotive companies are publicly traded companies, which means their shares are listed on stock exchanges:

- On the New York Stock Exchange (NYSE): General Motors (GM), Ford Motor Company, Tesla (NASDAQ)
- On the London Stock Exchange (LSE): Aston Martin, Jaguar Land Rover (part of Tata Motors – listed in India, but closely followed by the London market due to its operations)

This means that the business performance of these companies directly affects their stock prices – every innovation, malfunction, market shift, or introduction of AI systems immediately has consequences.

Most leading automotive companies are publicly listed and thus directly connected to the dynamics of capital markets. Their shares are traded on the most important global stock exchanges, and the stock prices of these companies often reflect technological progress and strategic moves.

For example:
- **Tesla (NASDAQ) –** often perceived more as a technology company than an automotive one, thanks to innovations in autonomous driving, battery technology, and software.
- **Ford and General Motors (GM) – NYSE;** although traditional manufacturers, they are also investing significant resources in digital transformation and fleet electrification.
- **Volkswagen and BMW** – listed in Germany on the Frankfurt Stock Exchange (FWB), with the market closely monitoring their AI and digital strategies.

Every announcement of new AI functionality, partnerships with IT firms, or successful implementation of digital solutions often causes a shift in stock prices.

Indices and Automotive Companies

Automotive companies are part of major stock market indices:
- FTSE 100 (UK) – which includes companies like Rolls Royce Holdings (not automotive, but transport), Aston Martin, etc.
- S&P 500 (USA) – Tesla, Ford, GM
- DAX (Germany) – Volkswagen, BMW, Mercedes-Benz Group

Movements in these companies often influence the entire index, especially when major changes occur (introduction of AI systems, new models, environmental technologies). For example, the rise in Tesla's stock often "pulls" the technology and automotive sectors of the index upward.

The Impact of AI and Digitalization on Valuation

Companies that successfully implement AI in their products and business models are perceived as innovative and capable of long-term growth. Investors increasingly focus on:
- The share of software and subscription revenues
- The number of AI patents and partnerships with technology firms
- The speed of innovation adoption (time-to-market)Tesla is the best example: although it produces significantly fewer vehicles than Toyota or Volkswagen, it often has a higher market capitalization precisely because of its perceived technological advantage.

The Chart 1 shows market capitalization (in billions of USD) and the percentage of revenue coming from software solutions for selected automobile manufacturers. Tesla leads both in market value and in the degree of digitalization of its business model, which further confirms the market perception of it as a technology company. In contrast, traditional manufacturers like Ford, BMW, and Toyota have a lower share of software revenues, although they are increasingly investing in AI and digital platforms.

The data are simplified and serve as an illustration of the impact of digitalization on the market valuation of companies.

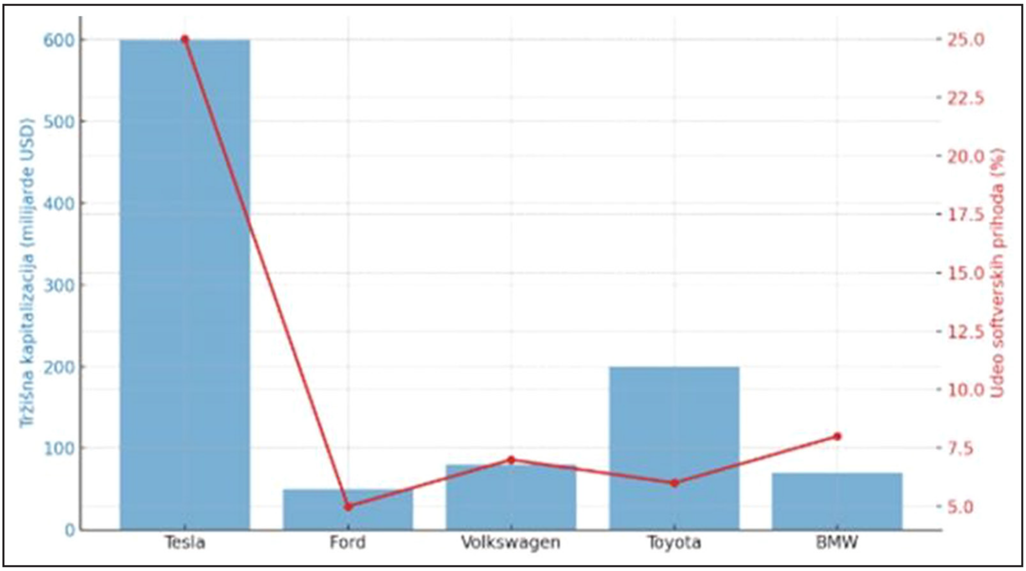

Chart 1: Comparison of Market Capitalization and Share of Revenue from Software Solutions among Leading Automotive Companies

Sources for the Chart: (14, 5, 1, 15, 16, 18).

Note: *The data are used for illustrative purposes to demonstrate the relationship between market value and digitalization through software revenues. The share of software revenues was estimated based on publicly available sources and internal assessments when official data were not explicitly published.*

Data Collection and Analysis of the Automotive Industry on Stock Exchanges

Stock exchanges and investment analysts use sophisticated systems for data collection and processing to monitor the performance of companies in the automotive industry. These data come from multiple sources:

- Financial reports (quarterly & annual reports) – publicly available documents submitted by companies to regulatory bodies (e.g., the SEC in the USA) and investors.
- Technical and fundamental indicators – including metrics such as the P/E ratio (price-to- earnings), EBITDA, ROE, as well as technical signals like trading volume, volatility, and stock prices.
- ESG indicators (Environmental, Social, Governance) – increasingly important for valuing auto companies investing in sustainable and digital technologies.

- News, AI sentiment analysis, and real-time releases – platforms like Bloomberg, Reuters, and Yahoo Finance use algorithms to gather and analyze news and social media to detect market expectations.
- Macroeconomic factors and geopolitical risks – such as supply chain disruptions, CO_2 emission taxes, or trade policies that directly impact the automotive industry.

Some of the specialized platforms analysts use to obtain sector-specific data include Refinitiv, Bloomberg Terminal, S&P Capital IQ, and FactSet. These platforms often offer automotive sector dashboards displaying stock movements, software revenue shares, unit costs, and market research by region.

By integrating data from these sources, stock exchanges and investment funds form predictions about company performance and valuation, directly influencing capital flows and investment decisions.

CONCLUSION

Digitalization of the Automotive Industry, driven by the development of databases and artificial intelligence, represents a fundamental transformation of a sector that has relied for decades on traditional manufacturing and sales models. Modern vehicles are becoming smart platforms that collect, analyze, and exchange vast amounts of data — changing not only technological processes but also entire business models.

This paper demonstrates how the application of quantitative and qualitative research methods enables a comprehensive insight into the ways digitalization impacts company performance, their position in the capital markets, and their valuation in the eyes of investors. Case studies and concrete examples, such as Tesla, BMW, and NODAR, illustrate how innovations in data collection and processing — whether through LiDAR, stereo vision, or telemetry — are shaping the future of the automotive industry.

A particular contribution of this work is the connection of theory from the fields of scientific research methodology and capital markets with practice in real industrial conditions. This establishes a solid framework for further work within the master thesis, which will deepen the analysis of the impact of digitalization on business strategies, company valuation, and investment decision-making.

The future direction of research will focus on measuring specific financial performances before and after the implementation of AI and digital technologies, applying advanced analytical tools, and assessing market reactions to innovations in the sector.

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Primena baza podataka i veštačke inteligencije u automobilskoj industriji: Metodološki okvir istraživanja

Apstrakt: *Ovaj rad prikazuje metodološki okvir istraživanja primene baza podataka i veštačke inteligencije (AI) u automobilskoj industriji. Istraživanje se bavi time kako digitalizacija i tehnologije zasnovane na veštačkoj inteligenciji utiču na poslovne modele i finansijske performanse, posebno kroz integraciju pametnih sistema u savremena vozila. U radu su objašnjene kvantitativne i kvalitativne metode, uključujući studije slučaja kompanija poput Tesle, BMW-a i Ottometric Inc., kao i analiza pokazatelja sa tržišta kapitala. Poseban akcenat stavljen je na tehnike prikupljanja podataka i njihovu ulogu u strateškom odlučivanju. Dalje se istražuje korelacija između digitalnih inovacija i vrednovanja na berzi, pokazujući kako napredna softverska rešenja doprinose percepciji investitora i rastu kompanija. Kombinovanjem teorijskih uvida i primera iz prakse, ovaj okvir postavlja temelje za dalja istraživanja finansijskih i strateških implikacija AI i baza podataka u sektoru automobilske industrije.*

Ključne reči: *digitalizacija, automobilska industrija, baze podataka, veštačka inteligencija, poslovni modeli, tržišta kapitala, analiza podataka, vrednovanje kompanija*

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UVOD

Automobilska industrija prolazi kroz jednu od najdinamičnijih transformacija u svojoj istoriji, vođenu digitalizacijom, bazama podataka i veštačkom inteligencijom (AI). Razvoj pametnih vozila, autonomnih sistema i naprednih analiza podataka omogućava kompanijama da unaprede efikasnost, optimizuju proizvodne procese i poboljšaju korisničko iskustvo. Povezani automobili generišu ogromne količine podataka, čija pravilna obrada i analiza postaju ključni faktori konkurentnosti na tržištu.

Digitalizacija ne samo da menja tehničke aspekte proizvodnje i održavanja vozila, već ima i dalekosežan uticaj na poslovne modele i finansijske performanse kompanija. Proizvođači automobila sve više integrišu softverske usluge u svoje proizvode, prelazeći sa tradicionalne prodaje vozila na modele pretplate i pružanja usluga baziranih na podacima. Ovakve promene postavljaju nova pitanja u pogledu vrednovanja kompanija, ulaganja u istraživanje i razvoj, te analize geopolitičkih i tržišnih rizika.

Cilj ovog istraživanja je da pruži metodološki okvir za analizu uticaja baza podataka i veštačke inteligencije na automobilski sektor. Kroz pregled postojećih istraživanja, analizu tržišta kapitala i praktične primere iz industrije, rad će istražiti kako digitalizacija oblikuje savremene poslovne modele i finansijske performanse. Takođe, poseban fokus biće stavljen na metodologiju prikupljanja i analize podataka, kao ključni element donošenja strateških odluka u auto-industriji.

METODOLOŠKI OKVIR ISTRAŽIVANJA

Istraživanje digitalizacije automobilske industrije kroz baze podataka i veštačku inteligenciju zahteva multidisciplinarni pristup koji kombinuje metodologiju naučnog istraživanja i analizu tržišta kapitala. Ovaj rad koristi kombinaciju kvantitativnih i kvalitativnih metoda kako bi se dobio što precizniji uvid u uticaj digitalizacije na poslovne modele i finansijske performanse.

Automobilska industrija nije izuzetak, te se i u ovoj oblasti koriste dve metode istraživanja:

Kvantitativne metode

Kvantitativne metode predstavljaju istraživačke tehnike koje se zasnivaju na numeričkim podacima i statističkoj analizi. Cilj kvantitativnog istraživanja je da pruži objektivne, merljive i ponovljive rezultate koji mogu biti generalizovani na širu populaciju. Ove metode koriste standardizovane tehnike prikupljanja podataka, poput anketa, eksperimenata, analiza velikih skupova podataka (big data) i matematičkih modela. U kontekstu automobilske industrije, kvantitativne metode mogu uključivati analizu prodajnih podataka, tržišnih trendova i finansijskih performansi kompanija.

Kada je reč o automobilskoj industriji, kvantitativne metode se odnose na:

- Analiza sekundarnih podataka – Korišćenje dostupnih izvora kao što su finansijski izveštaji auto-kompanija, podaci o tržištu kapitala i berzanskim kretanjima, te studije slučaja digitalizacije u industriji.
- Statistička analiza – Upotreba ekonomskih indikatora i tržišnih pokazatelja kako bi se procenio uticaj ulaganja u digitalizaciju na profitabilnost i vrednost kompanija.

Kvalitativne metode

Kvalitativne metode su istraživačke tehnike usmerene na razumevanje ljudskih iskustava, percepcija i društvenih fenomena kroz deskriptivne i interpretativne analize. Ove metode uključuju intervjue, fokus grupe, studije slučaja i etnografska istraživanja. Umesto brojčanih podataka, kvalitativna istraživanja se fokusiraju na dubinsku analizu i kontekstualno razumevanje problema.

U okviru digitalizacije automobilske industrije, kvalitativne metode mogu se koristiti za analizu percepcije potrošača o autonomnim vozilima, studije organizacionih promena u kompanijama i istraživanje uticaja AI tehnologija na radnu snagu. Kvalitativne metode u auto industriji podrazumevaju:

- Studije slučaja – Analiza konkretnih primera primene AI i baza podataka u automobilskoj industriji, uključujući kompanije poput Tesle, BMW-a i Ottometric Inc.
- Stručni intervjui – Razgovori sa profesionalcima iz industrije o izazovima i prednostima digitalizacije u auto-sektoru.

Ove dve metode se često kombinuju u istraživanjima kako bi se postigao celovitiji uvid u određeni fenomen.

Prednosti i nedostaci kvantitativnih istraživanja

Prednosti	Nedostaci
• Generalizacija i izvodenje opštih zaključaka • Efektna i efikasna analiza baze podataka • Ispitivanje i uočavanje uzroka, posledica i veza medu pojavama • Objektivni i nezavisni rezultati • Čitaoci vole brojeve	• Bezlično, „suvo i bez duše” • Nema i ne oseća se reč ispitanika • Nema utiska o kontekstu i prilikama • Istraživanja su mahom inicirana i pod kontrolom istraživača

Izvor: (7)

Prednosti i nedostaci kvalitativnih istraživanja

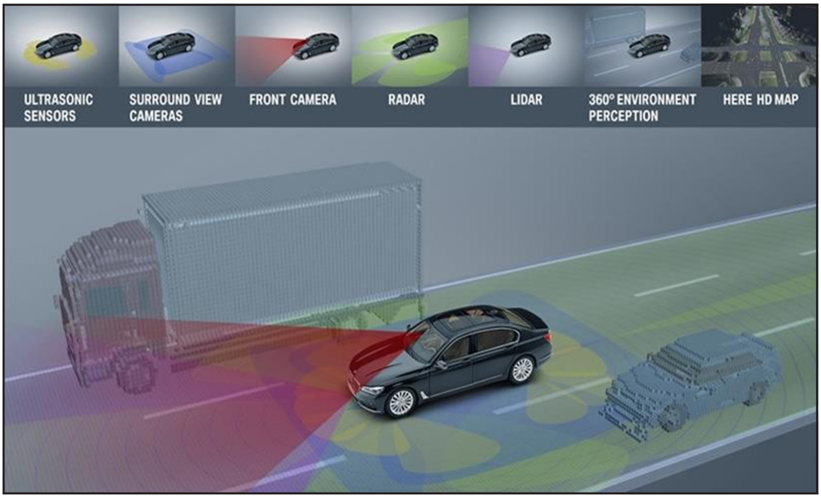
Prednosti	Nedostaci
• Veoma detaljne perspektive participanata • Oseća se i čuje reč ispitanika • Stiče se potpuni utisak o kontekstu i okolnostima • Stavovi se baziraju na mišljenju i stavovima participanata • Čitaoci vole priče i narative	• Ograničeno generalizovanje i zaključivanje • „Soft data" bez brojeva, serija, trendova i grafikona • Visok stepen interpretacija • Oslanjanje na participante se minimizira • Stručnost istraživača

Izvor: (7)

Digitalne metode prikupljanja podataka

Postoji nekoliko digitialnih metoda prikupljanja podataka:

- Senzorski sistemi i IoT uređaji – savremeni automobili su opremljeni senzorima koji prikupljaju podatke o vožnji, potrošnji goriva, ponašanju vozača itd.
- LiDAR i radar tehnologije – omogućavaju prikupljanje prostorno-vremenskih podataka u realnom vremenu, što je posebno značajno za autonomna vozila.,
- Telemetrija – koristi se za prikupljanje podataka o performansama vozila u stvarnim uslovima eksploatacije.
- Digitalni alati za analizu korisničkog ponašanja – npr. kroz mobilne aplikacije, onboard infotainment sisteme i platforme povezane sa korisničkim nalozima.



Slika 1: L4 funkcionalnosti autonomnih vozila.

Izvor: (9)

Prikupljanje podataka u realnim projektima

U kompaniji Ottometric, gde se autor rada zaposlen koristi se kombinacija digitalnih i klasičnih metoda. Softveri koji se razvijaju u kompaniji integrišu:

- Analizu ponašanja korisnika (user analytics),
- LiDAR senzore za prikupljanje podataka o prostoru,
- AI modele za automatsku obradu podataka i otkrivanje obrazaca.
- Agilni pristup razvoju softvera omogućava iterativno testiranje, gde se prikupljeni podaci koriste za brzu validaciju hipoteza i donošenje tehničkih i poslovnih odluka.

BMW CarData – Telematski podaci za personalizovane usluge

BMW koristi svoj sistem CarData za prikupljanje telematskih podataka iz vozila, kao što su brzina, potrošnja goriva i ponašanje vozača. Ovi podaci omogućavaju personalizaciju usluga, kao što su prilagođene ponude za osiguranje i održavanje.

Nexar – Prikupljanje podataka putem kamera u realnom vremenu

Startup kompanija Nexar koristi kamere montirane na vozila za prikupljanje vizuelnih podataka u realnom vremenu. Ovi podaci se koriste za mapiranje puteva, identifikaciju saobraćajnih obrazaca i unapređenje bezbednosti na putevima.

UDRIVE projekat – Evropska studija o ponašanju vozača

UDRIVE je evropski projekat koji je prikupljao podatke o ponašanju vozača u realnim uslovima vožnje širom Evrope. Korišćeni su senzori i kamere za prikupljanje podataka o brzini, ubrzanju, korišćenju mobilnih telefona i drugim faktorima koji utiču na bezbednost saobraćaja.

NODAR tehnologija - Prikupljanje dubinskih 3D podataka za autonomna vozila

Njihov vodeći proizvod, Hammerhead™, koristi par stereo kamera sa širokim rastojanjem (wide- baseline stereo vision) kako bi omogućio izuzetno precizno 3D mapiranje prostora na udaljenostima većim od 1000 metara. Za razliku od tradicionalnih LiDAR sistema, NODAR-ovo rešenje ne zahteva dodatne senzore, već koristi softversku auto-kalibraciju, što omogućava značajno smanjenje troškova i povećanje pouzdanosti sistema. Ova tehnologija se koristi za:

- detekciju malih objekata (pešaka, prepreka, izgubljenog tereta),
- napredno automatsko kočenje i izbegavanje sudara,
- rad u složenim vremenskim uslovima (kiša, magla, noćna vožnja).

DIGITALIZACIJA I VEŠTAČKA INTELIGENCIJA U KONTEKSTU TRŽIŠTA KAPITALA

Brzina tehnološkog napretka je globalni trend u svim industrijama, pa tako i u samoj automobilskoj industriji. Kroz primenu veštačke inteligencije (AI) i baza podataka, tehnološki napredak ima sve veći uticaj na proizvodne i logističke procese, te samu percepciju vrednosti kompanija na tržištu kapitala. Kompanije koje investiraju u digitalizaciju percipiraju se kao inovativne kompanije, što nedvojbeno rezultira pozitivnim kretanjem njihovih akcija na berzama.

Primer za gore pomenuto je komapnaija „Tesla", koja iako je proizvođač automobila, često se više vrednuje kao tehnološka kompanija. Tržišna kapitalizacija ove kompanije značajno nadmašuje konkurenciju iz tradicionalnog auto sektora, upravo zbog snažne primene veštačke inteligencije u autonomnoj vožnji i naprednim softverskim rešenjima. Upravo ovo je pokazatelj kako tehnološka superiornost i inovativnost postaju ključni faktori u investicionim analizama.

Može se zaključiti da postoji direktna veza između nivoa digitalizacije i performansi kompanije na tržištu kapitala. Kompanije koje uspešno implementiraju AI rešenja često postaju privlačnije investitorima, što pozitivno utiče na njihovu tržišnu poziciju i vrednovanje.

VEZE IZMEĐU AUTOMOBILSKE INDUSTRIJE I BERZI

Kotiranje proizvođača automobila na svetskim berzama

Mnoge velike automobilske kompanije su javno trgovačka društva, što znači da su njihove akcije uvrštene na berzama:

- Njujorškoj berzi – NYSE (New York Stock Exchange): General Motors (GM), Ford Motor Company, Tesla (NASDAQ)
- Londonskoj berzi – LSE (London Stock Exchange): Aston Martin, Jaguar Land Rover (deo Tata Motors – listiran u Indiji, ali prati ga londonsko tržište zbog poslovanja)

To znači da se poslovanje tih firmi direktno odražava na cenu njihovih akcija – svaka inovacija, kvar, pomeranje na tržištu ili uvođenje AI sis tema odmah ima posledice.

Većina vodećih automobilskih kompanija je javno listirana i time direktno povezana sa dinamikom tržišta kapitala. Njihove akcije se kotiraju na najvažnijim svetskim berzama, a cena akcija tih kompanija često pokazuje tehnološki napredak i strateške pomake:

- Tesla (NASDAQ) – često percipirana više kao tehnološka nego automobilska kompanija, zahvaljujući inovacijama u autonomnoj vožnji, baterijskoj tehnologiji i softveru.

- Ford i General Motors (GM) – NYSE; iako tradicionalni proizvođači, i oni ulažu značajna sredstva u digitalnu transformaciju i elektrifikaciju flote.
- Volkswagen i BMW – listirani u Nemačkoj na Frankfurtskoj berzi (FWB), s tim da tržište posebno prati njihove AI i digitalne strategije.

Svaka najava nove AI funkcionalnosti, partnerstva sa IT firmama ili uspešna implementacija digitalnih rešenja često uzrokuje pomak u ceni akcija.

Indeksi i automobilske kompanije

Automobilske firme čine deo velikih berzanskih indeksa:

- FTSE 100 (UK) – gde ulaze firme poput Rolls Royce Holdings (ne auto, ali transport), Aston Martin itd.
- S&P 500 (USA) – Tesla, Ford, GM
- DAX (Nemačka) – Volkswagen, BMW, Mercedes-Benz Group

Kretanja u ovim firmama često utiču na ceo indeks, pogotovo kada se dešavaju velike promene (uvođenje AI sistema, novi modeli, ekološke tehnologije). Na primer, rast Teslinih akcija često „vuče" tehnološki i automobilski sektor indeksa naviše.

Uticaj AI i digitalizacije na vrednovanje

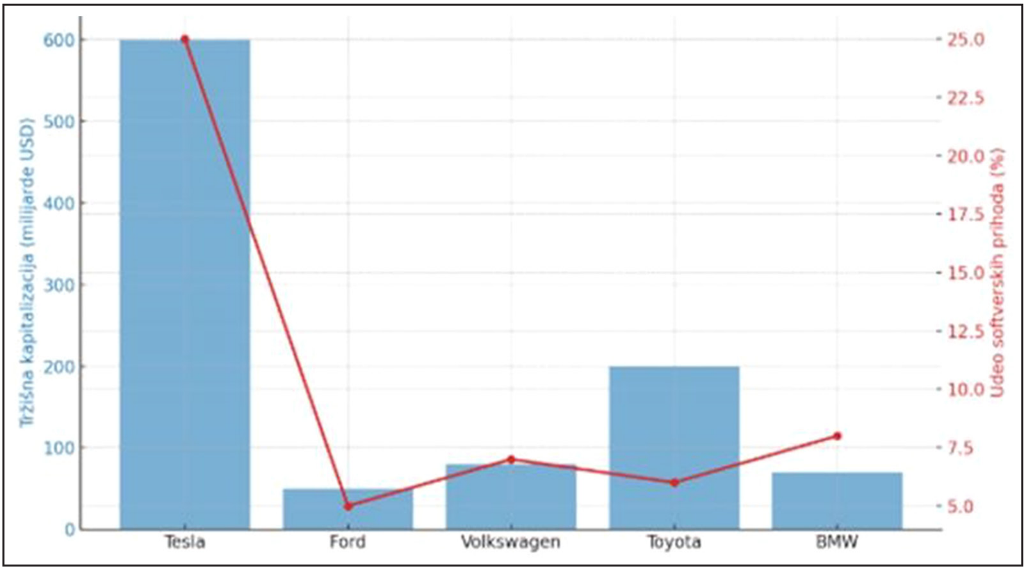
Kompanije koje uspešno implementiraju AI u svoje proizvode i poslovne modele percipirane su kao inovativne i sposobne za dugoročni rast. Investitori sve više gledaju na:

- Učešće softverskih i pretplatnih prihoda
- Broj AI patenata i partnerstava sa tehnološkim firmama
- Brzinu primene inovacija (time-to-market)

Tesla je najbolji primer: iako proizvodi znatno manje vozila od Toyote ili Volkswagena, često ima veću tržišnu kapitalizaciju upravo zbog percipirane tehnološke prednosti.

Grafikon 1 prikazuje tržišnu kapitalizaciju (u milijardama USD) i procenat prihoda koji dolazi iz softverskih rešenja kod izabranih proizvođača automobila. Tesla prednjači i po tržišnoj vrednosti i po stepenu digitalizacije poslovnog modela, što dodatno potvrđuje percepciju tržišta da je reč o tehnološkoj kompaniji. Nasuprot tome, tradicionalni proizvođači poput Forda, BMW-a i Toyote imaju niži udeo softverskih prihoda, iako ulažu sve više u AI i digitalne platforme.

Podaci su pojednostavljeni i služe kao ilustracija uticaja digitalizacije na tržišno vrednovanje kompanija.



Grafikon 1: Poređenje tržišne kapitalizacije i udela prihoda od softverskih rešenja kod vodećih auto-kompanija.

Izvori: (14, 5, 1, 15, 16, 18).

Napomena: *Podaci su korišćeni u ilustrativne svrhe radi prikaza odnosa između tržišne vrednosti i digitalizacije kroz softverske prihode. Udeo softverskih prihoda je procenjen na osnovu javno dostupnih izvora i internih procena kada zvanični podaci nisu eksplicitno objavljeni.*

Prikupljanje i analiza podataka o automobilskoj industriji na berzama

Berze i investicioni analitičari koriste sofisticirane sisteme za prikupljanje i obradu podataka kako bi pratili performanse kompanija iz automobilske industrije. Ovi podaci dolaze iz više izvora:

- Finansijski izveštaji (quarterly & annual reports) – javno dostupni dokumenti koje kompanije šalju regulatornim telima (npr. SEC u SAD) i investitorima.
- Tehnički i fundamentalni indikatori – uključuju pokazatelje kao što su P/E odnos (odnos cene i zarade), EBITDA, ROE, ali i tehničke signale poput obima trgovanja, volatilnosti i cena akcija.
- ESG indikatori (Environmental, Social, Governance) – sve važniji za vrednovanje auto- kompanija koje ulažu u održive i digitalne tehnologije.
- Vesti, AI sentiment analiza i objave u realnom vremenu – platforme poput Bloomberg, Reuters i Yahoo Finance koriste algoritme za prikupljanje i analizu vesti i društvenih mreža, kako bi detektovali tržišna očekivanja.

- Makroekonomski faktori i geopolitički rizici – kao što su poremećaji u lancima snabdevanja, porezi na CO_2 emisije ili trgovinske politike koje direktno utiču na automobilsku industriju.

Neke od specijalizovanih platformi koje analitičari koriste za dobijanje sektorskih podataka uključuju Refinitiv, Bloomberg Terminal, S&P Capital IQ i FactSet. Te platforme često nude specifične automotive sector dashboards, koji prikazuju kretanje akcija, udeo softverskih prihoda, troškove po jedinici i istraživanja tržišta po regionima.

Integracijom podataka iz navedenih izvora, berze i investicioni fondovi oblikuju predikcije o performansama i vrednosti kompanija, što direktno utiče na tokove kapitala i investicione odluke.

ZAKLJUČAK

Digitalizacija automobilske industrije, vođena razvojem baza podataka i veštačke inteligencije, predstavlja suštinsku transformaciju sektora koji se decenijama oslanjao na klasične proizvodne i prodajne modele. Savremena vozila postaju pametne platforme koje prikupljaju, analiziraju i razmenjuju ogromne količine podataka – čime se menjaju ne samo tehnološki procesi, već i kompletni poslovni modeli.

U radu je prikazano kako primena kvantitativnih i kvalitativnih metoda istraživanja omogućava sveobuhvatan uvid u načine na koje digitalizacija utiče na performanse kompanija, njihovu poziciju na tržištu kapitala, ali i na vrednovanje u očima investitora. Studije slučaja i konkretni primeri, poput kompanija Tesla, BMW i NODAR, ilustruju kako inovacije u prikupljanju i obradi podataka – bilo putem LiDAR-a, stereo vizije, ili telemetrije – oblikuju budućnost automobilske industrije.

Poseban doprinos ovog rada jeste povezivanje teorije iz oblasti metodologije naučnog istraživanja i tržišta kapitala sa praksom u realnim industrijskim uslovima. Time je postavljen temeljan okvir za dalji rad u okviru master teze, u kojoj će se dodatno produbiti analiza uticaja digitalizacije na strategije poslovanja, vrednovanje firmi i donošenje investicionih odluka.

Budući pravac istraživanja usmeriće se ka merenju konkretnih finansijskih performansi pre i nakon implementacije AI i digitalnih tehnologija, uz primenu naprednih analitičkih alata i procenu tržišnih reakcija na inovacije u sektoru.

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Harmonizacija finansijskog izveštavanja javnog sektora u Evropskoj uniji – komparacija Austrije i Nemačke

Apstrakt: *Ovaj rad analizira harmonizaciju finansijskog izveštavanja u javnom sektoru Evropske unije, sa posebnim fokusom na komparaciju računovodstvenih sistema u Austriji i Nemačkoj. Iako obe zemlje imaju složenu federalnu strukturu, postoji značajna razlika u pristupu računovodstvu i budžetiranju. Austrija koristi kombinaciju kameralnog računovodstva na lokalnim nivoima i obračunskog računovodstva na saveznom nivou, dok Nemačka, uprkos sličnom federalnom sistemu, sve više primenjuje obračunsko računovodstvo na lokalnom nivou, dok na saveznom nivou i dalje dominira kameralizam. Rad takođe analizira ključne reforme koje su se desile u obe zemlje, kao što je reforma računovodstva u Nemačkoj 2009. godine, koja je omogućila usklađivanje sa međunarodnim računovodstvenim standardima. Ova komparativna analiza pruža uvid u izazove i koristi harmonizacije računovodstvenih sistema u javnom sektoru, s ciljem postizanja veće efikasnosti i transparentnosti u finansijskom izveštavanju i posledično u fiskalnom upravljanju unutar Evropske unije.*

Ključne reči: *harmonizacija, javni sektor, Evropska unija, računovodstveni sistemi, kameralizam, obračunsko računovodstvo, Austrija, Nemačka, budžetiranje*

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U savremenom javnom sektoru, finansijsko izveštavanje i računovodstvo igraju ključnu ulogu u obezbeđivanju transparentnosti i odgovornosti u upravljanju javnim resursima. S obzirom na kompleksnost fiskalnog upravljanja i potrebu za efikasnim nadzorom, računovodstveni sistemi moraju omogućiti tačno prikazivanje i praćenje javnih sredstava. Harmonizacija finansijskog izveštavanja u Evropskoj uniji postala je ključni cilj, jer omogućava standardizaciju i uporedivost podataka, što je od suštinskog značaja za donošenje informisanih politika na nivou Unije. Ovaj proces zahteva usklađivanje računovodstvenih normi i praksi među zemljama članicama, uzimajući u obzir specifične institucionalne i administrativne okvire svake države.

Austrija i Nemačka predstavljaju dva izuzetno interesantna slučaja u tom kontekstu, s obzirom na njihove federalne strukture i različite pristupe računovodstvu i budžetiranju. Iako obe zemlje dele određene zajedničke karakteristike, kao što su visok stepen decentralizacije i složena administrativna podela, njihovi računovodstveni sistemi se značajno razlikuju. U Austriji se koristi kombinacija kameralnog računovodstva na lokalnim nivoima i obračunskog računovodstva na saveznom nivou, dok je u Nemačkoj došlo do značajnih pomaka ka upotrebi obračunskog računovodstva, naročito na lokalnom nivou, dok na saveznom nivou još uvek dominira kameralizam.

Razumevanje ovih razlika i izazova u vezi sa harmonizacijom računovodstvenih sistema u Austriji i Nemačkoj pruža korisne uvide u širi proces harmonizacije finansijskog izveštavanja u EU. U ovom radu, fokus će biti na analizi računovodstvenih reformi koje su se dogodile u obe zemlje, posebno onih koje su usmerene ka većoj usklađenosti sa međunarodnim računovodstvenim standardima. Takođe, biće razmotreni faktori koji oblikuju računovodstvene sisteme u javnom sektoru, kao i njihove implikacije na fiskalnu politiku i upravljanje javnim finansijama unutar Evropske unije.

HARMONIZACIJA FINANSIJSKOG IZVEŠTAVANJA U EVROPSKOJ UNIJI

Harmonizacija finansijskog izveštavanja u javnom sektoru unutar Evropske unije predstavlja ključni cilj u smanjenju fiskalnih nesuglasica i poboljšanju transparentnosti među državama članicama. S obzirom na različite računovodstvene tradicije i nacionalne zakonodavne okvire, EU teži ka integraciji i harmonizaciji računovodstvenih standarda koji omogućavaju lako uporedivi fiskalni izveštaj (15)(34). Harmonizacija nacionalne i internacionalne računovodstvene profesionalne regulative ističe se u zemljama u razvoju za koje su strana ulaganja od velike važnosti (19)(38).

Iako je u poslednjim decenijama postignut značajan napredak u ovom procesu, i dalje postoje izazovi u postizanju potpune usklađenosti, naročito u pogledu računovodstvenih sistema i budžetiranja u javnom sektoru (13)(25). Informacije o postizanju budžetiranih ciljeva u javnom sektoru su od krucijalne važnosti za odluke o ulaganjima u javni sektor i njegove pojedine delatnosti (20). Pored evropskih inicijativa kao što su Evropski standardi za računovodstvo sektora javnih finansija (EPSAS), zemlje članice EU moraju balansirati između usklađivanja sa zajedničkim normama i očuvanja svojih nacionalnih specifičnosti (6), posebno onih delatnosti javnog sektora gde postoji značajna konkurencija realnog sektora (18)(7)(23).

U okviru ovog procesa, značajnu ulogu igraju i reforme koje su sprovedene u pojedinim zemljama kako bi se obezbedila veća efikasnost u fiskalnom upravljanju i izveštavanju (10). Iako su zemlje članice obavezne da usklade svoje računovodstvene prakse sa evropskim standardima, stvarni izazov leži u implementaciji tih normi u kontekstu lokalnih i nacionalnih administracija (27)(26)(39).

Zemlje poput Austrije i Nemačke, sa svojom složenom federalnom strukturom, nude dobar primer kako se evropski okviri mogu prilagoditi specifičnim nacionalnim okolnostima. Kako bi se omogućilo usklađeno finansijsko izveštavanje, ove zemlje su u poslednjim decenijama preduzele važne korake u modernizaciji svojih računovodstvenih sistema, dok istovremeno zadržavaju elemente koji su specifični za njihove fiskalne sisteme (3)(16). S obzirom na to, analiza računovodstvenih sistema u ovim zemljama predstavlja dobar osnov za razumevanje kako harmonizacija može izgledati u praksi unutar EU.

Računovodstvo i finansijsko izveštavanje u javnom sektoru u Austriji

Austrija je savezna republika koja se sastoji od devet pokrajina i 2.354 lokalne samouprave. Austrijska javna uprava je veoma složena budući da je sačinjena od kombinacije federalnog principa upravljanja i principa lokalne samouprave. Zakonodavstvo je podeljeno između centralne i savezne vlade, dok se izvršne funkcije obavljaju na sva tri nivoa vlasti (24).

U skladu sa tradicijom austrijske države, državni budžeti i računovodstveni standardi su postavljeni kroz zakone, uredbe i direktive. Pošto je devet saveznih država autonomno u regulisanju sopstvenog budžeta i sistema računovodstva svojih lokalnih samouprava, može se uočiti velika raznolikost pristupa budžetiranju i računovodstvu (8).

Od 2013. godine budžetiranje i računovodstvo, na centralnom nivou, zasnovani su na obračunskim razgraničenjima, što na bazi dvojnog knjigovodstva, takođe omogućava integraciju budžetskog računovodstva (2)(9). Na regionalnim i lokalnim nivoima vlasti dominantan oblik računovodstva javnog sektora u Austriji je i dalje takozvani kameristički pristup. Kameralizam (nem. Kameralismus) je bila nemačka nauka o administraciji u 18. i ranom 19. veku, koja je imala za cilj snažno upravljanje centralizovanom ekonomijom u korist države. Disciplina se u svojoj najužoj definiciji odnosila na upravljanje javnim finansijama (4). Sa tehničkog stanovišta, kamerističko računovodstvo se zasniva na jednokratnom knjigovodstvu, vođenju i predstavljanju operativnih računa u istom formatu kao i budžet. U svom klasičnom obliku, kamerističko računovodstvo uključuje samo gotovinske transakcije. To naglašava centralnu ulogu budžeta u kontekstu javnog sektora, uz stav da je najvažnija uloga računovodstva da evidentira i kontroliše izvršenje budžeta (28).

Pojedine lokalne samouprave primenjuju modifikovanu verziju obračunskog računovodstva, dok lokalne samouprave u drugim saveznim državama primenjuju proširene oblike kameralistike ili elemente obračunskog računovodstva. Iako računovodstveni sistem na državnim i lokalnim nivoima vlasti u Austriji karakteriše velika raznolikost računovodstvenih tehnika, sve one održavaju snažnu vezu između sistema budžetiranja i računovodstva (17).

Sa svojim sveobuhvatnim budžetskim i računovodstvenim reformama, Austrija pripada grupi zemalja koje su uspostavile obračunsko računovodstvo - koje takođe omogućava integraciju budžetskog (izvršnog) računovodstva (14). Na osnovu toga, priznaju se različite budžetske faze ili transakcije, koje su definisane u Zakonu o saveznom budžetu (BHG):

1. nerešene obaveze,
2. potraživanja i obaveze i
3. plaćanja.

Prema BHG-u, transakcije se priznaju kao obaveze na čekanju, gde su promene evidentirane ili rezervisane, ali nijedna obaveza još uvek nije utvrđena. Prve dve navedene vrste transakcija nisu prikazane u izveštaju o tokovima gotovine, koji ima formu izveštaja o izvršenju budžeta; ali nude važne informacije o rezervama (2)(1). Ovakav višeslojni model priznanja transakcija ima za cilj povećanje transparentnosti i omogućavanje višedimenzionalne analize budžetskog izvršenja. Takođe, doprinosi većem usklađivanju sa evropskim zahtevima koji podrazumevaju obuhvatan i precizan prikaz finansijskih tokova u javnom sektoru.

Austrijski sistem javnog finansijskog izveštavanja predstavlja primer kako se reforme mogu sprovesti postepeno, uz očuvanje lokalnih specifičnosti. Austrija takođe aktivno učestvuje u evropskim inicijativama harmonizacije, kao što je razvoj EPSAS standarda, pri čemu koristi svoja prethodna iskustva u reformisanju nacionalnog sistema kao osnovu za dalje usklađivanje sa evropskim okvirom (8)(14). Austrija nudi primer funkcionalne fleksibilnosti u sprovođenju reformi, što je važno za druge članice EU koje teže ka modernizaciji javnog finansijskog upravljanja.

Računovodstvo i finansijsko izveštavanje u javnom sektoru u Nemačkoj

Javna uprava u Nemačkoj organizovana je na tri nivoa vlasti: savezni, državni i lokalni. Federalna struktura Nemačke podrazumeva značajne razlike u načinu na koji se sprovode budžetiranje, računovodstvo i revizija na svakom od tih nivoa. Ove razlike su posebno vidljive između saveznog nivoa i nižih nivoa vlasti, kao što su pokrajine i opštine. Na lokalnom nivou, mnoge opštine i gradovi prešli su na savremeno obračunsko računovodstvo, kao i na obračunsko budžetiranje zasnovano na rezultatima, dok na saveznom nivou mnoge savezne vlade još uvek koriste kameralno računovodstvo i sistem budžetiranja (11)(5).

Na saveznom nivou, glavni pravni okvir za računovodstvo i budžetiranje javnog sektora obuhvata nekoliko ključnih zakona i propisa. Osnovni zakon Nemačke, Zakon o budžetskim principima, Zakon o saveznom budžetu i drugi propisi o računovodstvu regulišu načine vođenja finansijskih izveštaja i budžeta (31). Zakon o budžetskim principima ima za cilj harmonizaciju federalnog i državnog budžeta i računovodstva, te se od savezne vlade i pokrajina zahteva da se usklade sa principima utvrđenim tim zakonom (32).

Standardi za računovodstvo javnog sektora u Nemačkoj, zasnovani na principu nastanka događaja, propisuju obaveznu izradu nekoliko vrsta finansijskih izveštaja. Među njima su:

1. **Izveštaj o finansijskom položaju** – Prikazuje imovinu, obaveze i kapital entiteta, slično privatnom sektoru. Ovaj izveštaj je ključan za sagledavanje ukupne finansijske pozicije javnog sektora, omogućavajući analizu i upoređivanje finansijske stabilnosti (30).
2. **Izveštaj o finansijskom učinku** – Ovaj izveštaj prikazuje suficit ili deficit na kraju godine, sa naglaskom na prihode i rashode koji se obračunavaju po obračunskoj osnovi. Ovaj izveštaj je važan za evaluaciju finansijske discipline i efikasnosti u korišćenju javnih sredstava (31).
3. **Izveštaj o tokovima gotovine** – Prikazuje tokove gotovine, razvrstane na tokove koji dolaze iz poslovnih aktivnosti, ulaganja i finansijskih aktivnosti. Kroz ovaj izveštaj se može sagledati likvidnost javnog sektora, tj. sposobnost da pokrije svoje kratkoročne obaveze (22).
4. **Napomene uz finansijske izveštaje** – Ovaj deo daje dodatne informacije koje omogućavaju dublje razumevanje osnovnih finansijskih izveštaja. Napomene obuhvataju ključne faktore koji utiču na finansijske odluke, kao i specifične rizike sa kojima se suočava javni sektor (37).
5. **Rasprava i analiza finansijskih izveštaja** – Analitički deo koji pruža objašnjenje značajnih stavki i transakcija, kao i njihovu buduću predviđenu evoluciju. Ovaj izveštaj često uključuje izveštaje o rizicima, koji predstavljaju potencijalne probleme koji bi mogli negativno uticati na finansijski položaj entiteta (36).

Na saveznom nivou, prema Zakonu o saveznom budžetu, Savezno ministarstvo finansija odgovorno je za izradu izveštaja o prihodima, rashodima, imovini i dugovima države. Ovi izveštaji obuhvataju budžetske izveštaje i izveštaje o imovinskim računima, a na kraju fiskalne godine se priprema i novčani račun koji prikazuje tokove gotovine tokom godine (31).

Nemačka je 2009. godine sprovela značajnu reformu računovodstvenog sistema kroz „Zakon o modernizaciji računovodstva“, što je dovelo do temeljnih promena u pravilima za priznavanje i vrednovanje elemenata finansijskih izveštaja. Reforma je omogućila integraciju novih metoda računovodstva koje odgovaraju savremenim potrebama za transparentnim i efikasnim finansijskim izveštavanjem u javnom sektoru (35).

KOMPARACIJA RAČUNOVODSTVENIH SISTEMA U JAVNOM SEKTORU U AUSTRIJI I NEMAČKOJ

Komparacija računovodstvenih sistema u javnom sektoru u Austriji i Nemačkoj pokazuje sličnosti i razlike u pristupu i implementaciji obračunskog računovodstva i budžetskih praksi. U oba sistema, ključna uloga računovodstva je da obezbedi transparentnost i odgovornost u javnim financijama. Iako su oba sistema prešla na obračunsko računovodstvo na višim nivoima vlasti, značajna razlika leži u tome što je u Nemačkoj ovaj proces implementiran tek nakon donošenja Zakona o modernizaciji računovodstva 2009. godine (21), dok su u Austriji reforme započele ranije, a savezne i lokalne vlasti su već prilagodile svoje prakse evropskim standardima računovodstva (40). U Nemačkoj, veliki gradovi i lokalne samouprave prešle su na računovodstvo zasnovano na rezultatima, dok su na saveznom nivou mnoge države zadržale kameralni sistem (12). Iako su u Austriji reforme usmerene ka standardizaciji budžeta i računovodstva, na saveznim nivoima još uvek dominira tradicionalni kameralni sistem (33).

Pravni okviri u Nemačkoj su, na saveznom nivou, usklađeni kroz osnovne zakone kao što su Osnovni zakon, Zakon o budžetskim principima i Zakon o saveznom budžetu. Ovi zakoni obezbeđuju temelje za harmonizaciju budžetskih i računovodstvenih sistema (29). Zakon o budžetskim principima zahteva da sve savezne države regulišu svoje zakone o budžetu u skladu sa principima utvrđenim Zakonom, dok je u Austriji primena ovih standarda obavezna na svim nivoima vlasti, uključujući lokalne i regionalne (33).

U smislu finansijskih izveštaja, u Nemačkoj je uvedena potreba za zasebnim izveštajima prema standardima koji se zasnivaju na nastanku događaja. To uključuje izveštaj o finansijskom položaju, izveštaj o finansijskom učinku, izveštaj o novčanim tokovima i napomene uz finansijske izveštaje. Ovi izveštaji omogućavaju jasnu sliku o prihodima, rashodima, imovini i obavezama, čime se pruža detaljna analiza finansijskog stanja i rizika za javne subjekte (21). Za razliku od toga, u Austriji su izveštaji sažeti i uglavnom se baziraju na kameralnom računovodstvu, iako su regionalne vlasti uvele savremene prakse obračunskog računovodstva (33).

Za federalni nivo u Nemačkoj, Ministarstvo finansija je odgovorno za obračun svih prihoda, rashoda, imovine i duga, a glavni izveštaji koje federacija priprema uključuju izveštaj o budžetu i imovinski račun. Takođe, izveštaj o novčanim tokovima, koji pokazuje stvarne prilive i odlive gotovine, pruža dodatnu transparentnost u poslovanju i omogućava bolje praćenje finansijskih tokova tokom fiskalne godine (12). Na kraju svake fiskalne godine, savezni nivo priprema novčani račun, koji ukazuje na stvarne prilive i odlive gotovine, kao i promene u rezervama i neto kreditnom finansiranju. Za razliku od Nemačke, Austrija već dugo primenjuje izveštaje koji sadrže detalje o budžetskim tokovima, a fokus je na optimizaciji javnog sektora u skladu sa evropskim smernicama (29).

Reforme u Nemačkoj u vezi sa modernizacijom računovodstva donose značajne promene, posebno u pogledu priznanja i vrednovanja elemenata finansijskih izveštaja (40). Nakon što je Zakon o modernizaciji računovodstva donet 2009. godine, Nemačka je promenila svoje pristupe u vezi sa priznavanjem imovine, obaveza i obuhvata budžeta. Ove promene se temelje na pristupima koji su usklađeni sa evropskim standardima i međunarodnim računovodstvenim normama, što omogućava da javni sektor bude u skladu sa globalnim trendovima u računovodstvu (33).

Komparacija računovodstvenih sistema u Nemačkoj i Austriji pokazuje da iako postoje značajne razlike u implementaciji, osnovni ciljevi oba sistema ostaju isti – obezbeđivanje transparentnosti, odgovornosti i usklađenosti sa evropskim i međunarodnim normama. U oba slučaja, reforme u računovodstvenim praksama postepeno se implementiraju, a razvoj sistema koji zasnivaju na rezultatima omogućava efikasniju kontrolu javnih finansija i bolju analizu ekonomskih performansi na svim nivoima vlasti (21)(41).

ZAKLJUČAK

Analizom računovodstvenih sistema javnog sektora u Austriji i Nemačkoj, uočava se značajna razlika u pristupima u implementaciji i regulaciji računovodstvenih standarda, što je u velikoj meri povezano s njihovom federalnom strukturom i istorijskim razvojem. Austrija je u poslednjih nekoliko godina ostvarila značajan napredak u harmonizaciji svojih računovodstvenih sistema, uvođenjem obračunskog računovodstva na centralnom nivou, dok su na regionalnom i lokalnom nivou i dalje dominantni elementi kameralnog računovodstva. Sa druge strane, Nemačka je, iako u procesu modernizacije, zadržala različite pristupe na saveznom i lokalnom nivou, s posebnim akcentom na harmonizaciju budžeta i računovodstva kroz propise kao što je Zakon o budžetskim principima.

Ove razlike u računovodstvenim praksama pružaju ključne uvide u izazove s kojima se suočavaju zemlje EU pri harmonizaciji sistema javnog sektora i finansijskog izveštavanja, naročito u kontekstu budžetskog računovodstva, transparentnosti i odgovornosti. Nemačka i Austrija, iako razvijaju i primenjuju različite računovodstvene metode, dele zajednički cilj u postizanju efikasnosti u upravljanju javnim finansijama, uzimajući u obzir specifične nacionalne okolnosti.

U budućnosti, zemlje članice EU trebale bi da nastave sa razvojem integrisanih računovodstvenih sistema koji bi omogućili veći stepen harmonizacije, što bi im omogućilo bolju saradnju u okviru zajedničkog tržišta. Ovaj proces ne bi samo poboljšao transparentnost, već bi i omogućio efikasniji nadzor javnih finansija, čime bi se postigao viši nivo poverenja građana u upravljanje javnim sredstvima.

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Application of Global Internal Audit Standards for Sustainable Financial Reporting

Abstract: Global Internal Audit Standards provide the foundation for professional internal auditing practices worldwide and serve as a benchmark for achieving internal audit quality. These standards establish principles, requirements, considerations, and examples for the professional practice of internal auditing globally. They apply to both internal audit functions and individual auditors, including the head of the internal audit unit. Internal auditing contributes to an organization's sustainability and stability by ensuring operational efficiency, the reliability of reporting, compliance with laws and regulations, asset protection, and the promotion of an ethical culture. The head of the internal audit unit is responsible for ensuring that the audit function complies with all applicable principles and standards, while all internal auditors are accountable for maintaining ethical and professional conduct and delivering high-quality audit services. This paper highlights the application of Global Internal Audit Standards in the context of financial reporting. The research is based on a descriptive approach and the use of survey questionnaires. It aims to make a theoretical contribution by expanding existing knowledge and demonstrating how the implementation of these standards influences internal audit practices and the quality of financial report data—information that can significantly impact investor decision-making.

Keywords: internal audit, Global Internal Audit Standards, financial reporting, audit quality, sustainability

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Korporativna kultura usklađenog i etičnog poslovanja (*Compliance*), osnovne postavke, merenje i ciljevi

Apstrakt: *Šta je reputacija, kako se ona gradi i šta su elementi korporativne kulture upravljanja su pojmovi koje u današnjem kompetativnom okruženju - ljudi koji rade u organizacijama - svakako treba da znaju. Osnov izgradnje reputacije i korporativne kulture svakako predstavlja i donošenje odluka na način usklađen sa Zakonima, procedurama i zdravom logikom, ali i u skladu sa etičkim principima. Šta je Compliance, kako se meri i gradi korporativna kultura, koji su izazovi i koja je korelacija sa Internom revizijom u organizaciji - objašnjava tekst koji objavljujemo.*

Ključne reči: *usklađenost, poslovna etika, korporativno upravljanje*

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„Ugled se dugo gradi, a može se izgubiti za jedan dan“ – je poznata rečenica koju često možemo čuti. Izgradnja uspešnog biznisa satkana je od donošenja mnogih poslovnih odluka u raznim situacijama, od kojih mnoge nisu crno-bele. Turbulentan poslovni kontekst, doneo je izazov „sive zone“ u kojoj je potrebno izmeriti rizik tako da na kraju prevagne odluka koja je „ispravnija“ i čiji efekti mogu izazvati manje negativne posledice u slučaju eskalacije. Retko kada je situacija tako jednostavna da imamo samo crnu ili belu dimenziju u kojoj možemo da se krećemo. Praksa je pokazala da efekat poslovne odluke na uspeh ili neuspeh u biznis rezultatu, često svoje dalekosežnije efekte proizvodi na kreiranje reputacije ili ugleda u poslovanju koji dalje jednako snažno utiče na uspeh, odnosno neuspeh i dugoročnost biznisa. Aktivno posvećivanje ispravnom načinu rada doprinosi cilju održivosti i dugoročnosti, održavanju poverenja - počev od poverenja potrošača, preko saradnika i kupaca do poverenja zaposlenih. Osnov tog ugleda i poverenja je svakako izgradnja Korporativne kultura usklađenog načina rada i razmišljanja sa vrednosnim okvirom. Na taj način se stvara **organizacija integriteta** u kojoj ostaje sve manje prostora za neusklađenosti i ne-moralno postupanje, a samim tim i skandale, pa hajde da pogledamo od čega se sastoji i kako je postaviti.

Šta je to poslovni ugled?

Ugled je isto što i reputacija – mišljenje društva o organizaciji koje se formira na osnovu evaluacije njenog ponašanja i učinka. Ona je spontani element društvene kontrole zavistan od aktivnosti i postupaka i ujedno visoko efikasan mehanizam, koji je u današnjem vremenu društvenih mreža i globalnog poslovanja – aktuelniji nego ikad. Sa druge strane - imidž - nije isto što i reputacija. Imidž je slika o nama - koju želimo proizvesti u javnosti, svojim samo-prikazivanjem. Kada se naše ili organizacijske aktivnosti i prakse, poklapaju sa imidžom koji gradimo o sebi ili organizaciji, reputacija najčešće neće biti loša, a posebno ako su prakse dobre. Ali ako se prakse ili organizacijske aktivnosti razlikuju od imidža koji gradimo, reputacija svakako neće biti dobra. Dakle, koliko će reputacija biti dobra, zavisi od toga šta radimo i koja je korelacija između prakse i imidža: kada radimo jedno, a pričamo drugo – odnosno stvaramo o sebi imidž koji ne odgovara onome što radimo i praktikujemo - reputacija će biti loša. Stiče se utisak da u današnjem svetu, pa i poslovnom okruženju, subjekti rade više na imidžu nego da praksama, pa je vrlo važno da objasnimo sled aktivnosti kako bi predupredili nastanak negativne reputacije i izgradili korporativnu kulturu usklađenog i etičnog poslovanja.

A šta je *compliance*?

Compliance (na srpskom: komplajens) je definitivno alat korporativnog upravljanja koji nam u svemu tome pomaže. Značenje reči „*Compliance*“ koja se uglavnom koristi u izvornom obliku na engleskom jeziku na srpskom jeziku zapravo znači „Usklađenost“ i potiče od latinske reči „Complere“ – imati sve delove, raditi u skladu sa svim pravilima i standardima.

Ako nam je cilj da se prikažemo i izgradimo imudž dobrog poslodavca ili odgovornog proizvođača određenog proizvoda, onda moramo poštovati sve standarde i zakone koji su bitni za poslovanje poslovnog subjekta. Mnogobrojna istraživanja i primeri su pokazala da potrošač svoju odluku kupovine određenog proizvoda ili korišćenja neke usluge - ne donosi više samo da bi zadovoljio svoju baznu potrebu. Potrošač traži i gleda i dodatnu vrednost nekog proizvoda tzv. „brend sa svrhom", što je u prevodu reputacioni element. Potrošača sve više zanima kakva je kompanija koja kreira i prodaje taj proizvod, kakve su joj prakse, da li postupa usklađeno i etično i da li joj je biznis održiv po više segmenata. Slično razmišljaju i investitori kada donose odluke o ulaganju svog novca u određeni biznis, a isti elemanati su bitni i kod zaposlenja, zadržavanja zaposlenih u organizacijama i stvaranju produktivne atmosfere u kojoj ljudi prepoznaju vrednost i sa kojom hoće dugoročno da posluju. Stvaranju ideje za dublje bavljenje ovom tematikom podstaknuto je i mnogobrojnim korporativnim skandalima od kojih je najpoznatiji onaj iz 2006.g.– kada je velika kompanija Siemens suočena sa skandalom globalnih razmera i velikim kaznama u mnogo zemalja, uvela Compliance kao deo odgovornosti određenog sektora. Naime, u toj kompaniji je ustanovljeno postojanje posebnog budžeta za podmićivanje saradnika i državnih službenika u ugradnji i implementaciji tehničkih sistema. Uprokos postojanju „na papiru" mnogih politika, procedura i pravila, o nedozvoljenom postupanju zaposlenih ove korporacije, u praksi su se dešavale zabranjene aktivnosti podmićivanja i ne-etičkih praksi. **Znači, nije bitno samo imati pravila koja pokrivaju razne oblasti, već i raditi u skladu sa njima.**

Compliance bi uvek trebalo da obuhvati i *Poslovnu etiku* (Business ethics). Za razliku od *Compliance*-a koji je mahom pod nadzorom represivne kontrole države, *Poslovna etika* ima širi okvir, jer treba da osigura da se odluke ne donose samo zato što su zakonske, već i iz razloga zato što su moralno ispravne. Poslovna etika se ispoljava i onda kada nismo pod nadzorom regulatora ili pretpostavljenih i zato ona proizvodi dugoročnu vrednost za kompanije, društvo i deoničare. Kako je prepoznato da kompanije sve više utiču na pojedince, društva u celini i planetu i izazove sa kojima se suočava na polju održivosti, poslovanje se više ne može zasnivati samo na zakonitom i ekonomskom osnovu već i na tim višim principima rada gde će se ljudi osećati motivisanim da rade, uče i budu uspešni i ostvaruju dugoročnu vrednost. Takođe *Poslovna etika* pomaže da donesemo odluku u već pomenutim situacijama koje nisu crno-bele, jer daje osnovne moralne vrednosti (koje kompanija postavi) kao orijentir za postupanje.

Tako dolazimo do suštine - potreba za aktivnu posvećenost temama kao što su korporativna kultura i compliance predstavljaju jednako bitne stavke za uspeh organizacije i postavljanje ciljeva u vezi istih.

Osnovni preduslov

Posvećenost Top menadžmenta ili „Tone from the top" je glavni preduslov izgradnji kulture usklađenosti i etičnog poslovanja, odnosno rada po Compliance principima. Bez tog elementa, nema ni „spuštanja" daljih zahteva na niže upravljačke strukture, pa sve do pojedinca. Alati korišćeni za izgradnju, merenje, kao i rezultati – ostaće „mrtvo slovo na papiru", ukoliko Top menadžment aktivno ne demonstrira zahteve i ličnim primedbom ne doprinese ostvarenju kreiranja organizacije integriteta. Takođe, bitno je da se neusaglašenosti i primedbe i tačke za poboljšanje **čuju i razumeju, sa voljim da se one otklone ili unaprede**. Jedino uz primenu određenih alata i svakodnevni rad sa ljudima kao i praćenje konteksta okruženja i njihovih izmena i osluškivanje potreba, može se stvoriti dobar preduslov za pozitivan progres kako u rezultatima same korporativne kulture ali i u rezultatima poslovanja.

Postavljanje ciljeva korporativne kulture i merenje

Kao i u svemu drugom, i u izgradnji korporativne kulture usklađenog i etičnog poslovanja bitno je postaviti ciljeve. Kako korporativna kultura predstavlja skup ponašanja u jednoj kompaniji koji odražava vrednosni, etički, vizionarski okvir u kome neka kompanija posluje i radu, ciljevi treba da budu povezani sa efektima koje želimo postići na tržište, potrošača, zaposlene i saradnike, obzirom da je to čini jedinstvenom, kreira imidž kako za ljude koji u njoj rade, tako i za korisnike usluga i saradnike. Iz toga razloga, treba sagledati i još jednom proveriti, da li kompanija poseduje elemente korporativne kulture koji objašnjavaju ŠTA je okosnica rada (korak 1. u postavljanju stategije) :

1. Misija
2. Vizija
3. Ciljevi
4. Pravila rada u ključnim procesima.

Međutim, u svemu tome, ne treba da zavoravimo ni Vrednosti, koji predstavljaju KAKO nešto želimo ostvariti. Vrednosti se još zovu i "građevinski blokovi kulture" i predstavljaju najbitniji faktor korporativne kulture. Primeri vrednosti rada nekih organizacija su mnogobrojne: poštovanje, usklađenost, otvorenost, inovativnost, perspektiva, raznolikost, sigurnost, transparentnost, kvalitet ...

Nakon toga, u koraku 2. bi usledila evaluacija ili merenje aktuelnog stanja korporativne kulture te postavljanja ciljeva za određeni period. Alati koje koristimo za merenje mogu biti:

1. Upitnik za zaposlene gde bi zaposleni ocenili više faktora svog rada i okruženja ocenama (zadovoljstvo upravljačkim aspektom, slobodom mišljenja, osećajem ličnog zadovoljstva, priznanjima, mogućnošću napredovanja);
2. Upitnik za partnere (kupce, dobavljače, saradnike) sa kojima organizacija radi da ocene određene parametre rada sa organizacijom;
3. Razgovor sa fokus grupama u organizaciji sa ključnom tačkama za adresiranje;
4. Izlazni intervjui za zaposlene koji napuštaju kompaniju sa ključnim razlozima za njihov odlazak;

5. Broj slučajeva neusklađenosti (non-compliance) na osnovu internih i eksternih prijava;
6. Kultura otvorenosti (broj ljudi koji se obraćaju i poznavanje alata za prijave neusklađenosti);
7. Broj i status sporova i prekršaja u kojima je organizacija strana;
8. Rezultati internih kontrola – ukoliko postoje;
9. Procena u proceduralnoj usaglašenosti;
10. Edukacija i obučenost ljudi (u odnosu na target teme i broj ljudi).

Koje oblasti rada obuhvata i kako se gradi Compliance i Poslovna etika u Kompaniji?

Compliance i *Poslovna etika* se protežu kroz čitavu sferu poslovanja (od nabavke, preko proizvodnje do prodaje). Počev od zasnivanja radnog odnosa i poštovanja prava radnika na bezbednost, privatnost, rodnu ravnopravnost, dostojanstvo, zdravlje i prijavu neregularnosti, tako i na lanac snabdevanja, prodaju, pravo konkurencije i sve druge prateće zakonske obaveze koje se odnose na poštovanje životne sredine, potrošača i obaveza jedne kompanije u posedovanju određenih dozvola i izmirivanju obaveza. Neke oblasti nije potrebno regulisati dodatnim procedurama u okviru kompanije jer je to uređeno Zakonima, dok je druge oblasti neophodno urediti procedurama i pravilima. Takođe, potrebno je obezbediti redovan pregled stanja usklađenosti od strane menadžmenta.

Kako je to regulisano u pravu Republike Srbije?

Na nivou Republike Srbije i dalje ne postoji sveobuhvatni Zakon koji definiše *Compliance* za privatna privredna društva, već postoje samo zakoni koji se bave pojedinim oblastima *Compliance*-a i uspostavljaju obavezu postojanja ove funkcije u pojedinim industrijama. Na tom putu napavljen je pomak 2023. godine gde je uvedena zakonska obaveza formiranja Compliance funkcije u privrednim društvima u većinskom vlasništvu Republike Srbije. S tim u vezi, osnovna uloga ove funkcije u javnom sektoru je jasna, ali predstoji značajan deo puta koji mora da se pređe kako bi se ova funkcija do kraja razumela i razvila.

Iako, privatni sektor sem određenih industrija (finansijski, farmaceutski, igre na sreću) zaostaje, mnoge kompanije će morati da povedu računa o tome da u svojoj strukturi proaktivno obezbede i ovaj aspekt, obzirom da *Compliance* postaje neodvojivi deo održivosti i ESG strategije. Imajući u vidu ubrzani trend novih EU direktiva koje kompanijama zadaju nove propise i pravila poslovanja, kompanije iz Srbije će moći da ostvare svoju nameru i ambiciju da svoju robu i/ili usluge prodaju globalnim velikim kompanijama ili izvoze na tržišta Evropske unije jedino poštovanjem i doslednom primenom ove strategije. (Podsećanja radi, ESG predstavlja skraćnicu za „*Environmental, Social and Governance*" a i srpskom bismo rekli da on predstavlja skup standarda kojima se korporativna politika usmerava na: **Zaštitu životne sredine, društvene odgovornosti i savesnog korporativnog upravljanja**. Smatra se da ova tri faktora predstavljaju tri glavna izazova sa kojima se suočava današnji svet, kao i korporacije. Za razliku od nekad korišćenog termina „Društveno odgovorno poslovanje", ESG je uveo **merljive obaveze** kompanijama za postavljanje i ispunjenje jasnih ciljeva održivosti i nije samo dobrovoljna inicijativa. To je obaveza koju kompanija mora ispuniti, a naročito ukoliko hoće da posluje u okvirima EU i sveta. ESG podrazumeva tri neodvojive oblasti delovanja: 1) „E"- environmental - zaštita planete i ekološke ciljeve (emisije ugljenika, seča šuma, uticaji na klimu, zagađenje, bio-diverzitet, ekosistem); 2) „S"- social - sprečavanje loših praksi koje utiču na društvo (kršenje ljudskih prava, odnos prema zaposlenima, dobavljačima, kupcima, dečiji rad, prisilni rad, zdravlje i bezbednost na radu, rodna ravnopravnost i dr.) i 3) „G" – Governance - upravljanje procesima, radom i poslovanjem. Dakle, mnoge globalne kompanije su dužne osigurati da poznaju način rada i kod svojih dobavljača, pružaoca usluga i efekata koje proizvode svojim poslovanjem, pa tako moraju vršiti dužan nadzor (*due dilligence*) nad procesima rada koji su širi od same njihove delatnosti u celom lancu svog snabdevanja.

Tu onda dolazimo do odgovora na pitanje o ulozi *Compliance*-a kao dela ESG strategije i upravljanja, koje treba da se prožima kroz celu organizaciju i svako na svom zadatku spram svojih odgovornosti treba da ga sprovede, te se kompanije se ne mogu baviti samo „E" ili ekološkim aspektima, već su podjednako važnni „S" i „G" aspekti.

Kada i kako započeti pripreme i proces?

Uvek je pravo vreme za razvoj obzirom na korisne efekte koje ovakav način rada donosi: manji rizici od kazni, čuvanje ugleda i razvijenu korporativnu kulturu u kojoj se ljudi osećaju dobro. Za početak je potrebno imati cilj da usklađeni oblik rada ili Compliance uz Poslovnu etiku u potpunosti implementira. Nakon toga je potrebno razviti svest u organizaciji o postojanju tog cilja, te da je *Compliant* način rada pored cilja i vrednost za celu organizaciju (compliance mindset). Menadžment treba da osigura da „Ton od vrha" ili njihova poruka ka organizaciji bude usmerena na osnovne vrednosti i obavezu usklađenog načina rada koji se traži od svih pojedinaca. Zatim je potrebno obratiti pažnji i uložiti resurse u sveobuhvatnu analizu rizika i njihovo upravljanje, odnosno pronaći „slabe tačke" koje treba unaprediti kao i oblasti koje treba urediti internim procedurama. Izuzetno je bitna i transparentnost i otvorenost organizacije da obezbedi komunikaciju sa ljudima u organizaciji i van nje - da imaju mogućnost da neusklađenosti prijave kao i obaveštenost - uključenost menadžmenta o rizicima i njihovom upravljanju. U Srbiji danas postoji iskustvo - kako u internim resursima Kompanija koje su razvile *Compliance* funkciju, tako i u eksternim stručnjacima koji su stekli široko znanje i konsultantskim radom mogu osigurati ekspertizu. Obe varijante su dozvoljene kao model rada i razvoja *Compliance-a*.

Šta su izazovi u razvoju Compliance-a i Poslovne etike u Srbiji?

Kako je već istaknuto, razvoj svesti o značaju i koristima koje donosi *Compliance* i *Poslovne etika* kako kod menadžmenta tako i ljudi u organizaciji je velik deo zadatka i tu predstoji još dosta izazova sa kojim se suočavamo. Ljudi u Srbiji nisu skloni raditi na preventivi, već su fokusirani na rešavanje akutnih problema. Izmenom svesti, da se proaktivnim radom može mnogo problema predupREDITI i sam biznis unaprediti, je nešto što će doprineti opštoj poslovnoj klimi. Zatim je potrebno uložiti u resurse – stručan kadar (interni ili eksterni) koji može razviti ovu funkciju, što takođe može predstavljati teret na neke Kompanije. Međutim, može se koristiti i eksterni resurs (tzv. Outsource), angažovanjem Compliance profesionalca koji može pružiti podršku u uspostavljanju ovakvog načina upravljanja. Kako možemo videti, uloga *Compliance* funkcije razvojem društveno odgovornog i etičkog poslovanja, a u kontekstu ESG upravljanja sa sva tri njegova elementa – pored investicije koju definitivno predstavlja – dobija i svoju novu i punu dimenziju, koja se nadograđuje brže nego što smo mogli predvideti. Stoga, pravo pitanje je – da li je momenat za pripremu i implementaciju bliži nego što smo očekivali?

Odnos između Interne revizije i Compliance-a

Korporacija u operativnom delovanju najčešće ima 3 nivoa odbrane od rizika. Ako su u prvoj liniji odbrane vlasnici sektora i procesa, hajde da kažemo da Compliance uloga uzima drugi nivo odbrane kao faktor koji proaktivno i kontrolno deluje – da do greške ne dođe – ona aktivno prati promene u stvarnom vremenu i kontroliše zahteve inplementacije u organizaciji. Interna revizija predstavlja treću liniju odbrane i njena uloga je mahom reaktivna – kada se proces okonča, a pre eskalacije bilo kakvog problema – ona procenjuje delotvornost mera i upravljanja rizicima, analizira prethodni period i učinka kontrole u organizaciji. Interna revizija i Compliance predstavljaju dva vrlo srodna sektora, obe deluju kontrolno i treba da budu odvojene kako bi se ostvario pun efekat delovanja.

Obe funkcije su najefikasnije kada prave sinergiju u programu svog delovanja i najbolji put za kompaniju je da uspostavi proces rada u kome obe mogu dati svoj dragoceni doprinos.

Corporate Culture of Compliant and Ethical Business Conduct (*Compliance*): Fundamental Principles, Measurement, and Objectives

Abstract: What is reputation, how it is built, and what are the elements of corporate culture governance are concepts that people working in organizations should certainly be aware of in today's competitive environment. The foundation of building reputation and corporate culture certainly includes making decisions in accordance with laws, procedures, and common sense, but also in line with ethical principles. What is Compliance, how is corporate culture measured and built, what are the challenges, and what is the correlation with Internal Audit in the organization - is explained in the text we are publishing.

Keywords: Compliance, business ethics, corporate governance.

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MRS JS/IPSAS Transakcija koje nisu transakcije razmene – na primeru konsolidovanih finansijskih izveštaja Švajcarske konfederacije

Rezime: *Međunarodni računovodstveni standardi u javnom sektoru (IPSAS) klasifikuju transakcije u dve glavne kategorije: razmenske transakcije, gde subjekti direktno trguju vrednošću, i nerazmenske transakcije, gde jedan entitet daje ili prima vrednost bez ekvivalentnog povrata.*

Razmenske transakcije uključuju direktan reciprocitet, kao što je kupovina robe ili usluga. Ne-razmenske transakcije uključuju poreze, novčane kazne, grantove i donacije, koje ne uključuju direktnu razmenu vrednosti. Subjekti javnog sektora uglavnom se finansiraju putem ne-razmenskih transakcija, kao što su plaćanja poreza i državni transferi. Neke transakcije kombinuju elemente obe kategorije, zahtevajući detaljnu procenu da bi se utvrdila njihova priroda. Standardi zahtevaju objavljivanje prihoda, imovine i obaveza koje proizilaze iz nerazmenskih transakcija. Primer takvog obelodanjivanja ilustrovan je prikazom iz konsolidovanih finansijskih izveštaja Švajcarske Konfederacije za 2024. godinu. Klasifikacija i priznavanje ovih transakcija utiču na finansijsko izveštavanje i donošenje odluka u javnom sektoru.

Ključne reči: *računovodstvo u javnom sektoru, finansijsko izveštavanje u javnom sektoru, priznavanje prihoda u javnom sektoru*

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Međunarodni standardi finansijskog izveštavanja za javni sektor (MRS JS/IPSAS[4]) klasifikuju transakcije u dve kategorije, (1) transakcije razmene i (2) transakcije koje nisu transakcije razmene, tj. transakcije bez razmene. (4) Transakcije razmene su transakcije u kojima jedan entitet prima imovinu ili usluge, ili izmiruje obaveze, i direktno daje približno jednaku vrednost (prvenstveno u obliku gotovine, robe, usluga ili upotrebe sredstava) drugom entitetu u zamenu. Drugim rečima, transakcija je transakcija razmene, ako u njoj postoji direktna zamena protivvrednosti – na primer, kupovina robe ili usluga, gde jedna strana plaća, a druga pruža konkretan proizvod ili uslugu. Transakcije bez razmene su transakcije u kojima entitet prima vrednost od drugog entiteta bez direktnog davanja približno jednake vrednosti u zamenu, ili daje vrednost drugom entitetu bez direktnog primanja približno jednake vrednosti u zamenu. Transakcije koje nisu transakcije razmene uključuju prihode nastale bez razmene eksplicitne protivvrednosti – na primer, porezi, carine i kazne koje država naplaćuje građanima i kompanijama, kao i grantovi i donacije koje institucije primaju bez obaveze davanja nečega zauzvrat. Ovde se želi naglasiti da prihodi iz suverenih ovlašćenja (kao što su porezi i kazne) ne predstavljaju razmenu, jer obveznici nemaju direktnu protivvrednost za ono što plaćaju. Slično tome, grantovi i donacije takođe spadaju u kategoriju transakcija bez razmene, jer institucija prima sredstva bez obaveze da zauzvrat pruži određenu uslugu ili proizvod. (3)

Transakcije bez razmene uobičajene su u javnom sektoru. Plaćanje poreza je zakonski propisano, obavezno, i predstavlja transakciju koja nije transakcija razmene između pojedinaca ili entiteta i vlasti. Iako će vlasti oporezivanjem obezbediti sredstva za finansiranje raznih javnih usluga poreskim obveznicima, to nema uticaja na obavezu plaćanje poreza. Nivo i kvalitet usluga koje prima pojedinac ili grupa pojedinaca obično nije direktno povezan sa iznosom poreza koji plaćaju. Ponekad će pojedinac ili grupa možda morati da plati neku malu naknade i/ili je možda morao da da određene doprinos za pristup određenim uslugama. Međutim, takve transakcije su generalno, nerazmenske prirode, jer iznos koji pojedinac ili grupa pojedinaca dobija u beneficijama najčešće neće ni biti jednake iznosu bilo koje plaćene naknade ili doprinosa pojedinca ili grupe. Međunarodni subjekti javnog sektora uglavnom se finansiraju transferima iz nacionalnih, regionalnih i državnih vlada. Takvo finansiranje može biti regulisano ugovorima i konvencijama ili može biti na dobrovoljnoj osnovi.

Postoje transakcije za koje nije odmah jasno da li su transakcije sa razmenom ili bez razmene transakcije. U takvim slučajevima potrebno je ispitati suštinu transakcije da bi se utvrdilo da li je priroda transakcije razmenska ili nerazmenska. Na primer, prodaja robe se obično klasifikuje kao razmenska transakcija. Ako se, međutim, transakcija sprovodi

[4] MRS JS je skraćenica od punog naziva „Međunarodni računovodstveni standardi za javni sektor“ i prevod je skraćenice IPSAS koja se odnosi na „International public sector accounting standards“. Do ne tako davne prošlosti, bilo je uobičajeno da se sve skraćenice prevode na srpski jezik. U savremenom globalnom okruženju, postaje uobičajeno da , zbog preciznije komunikacije, skraćenice ne prevode. Primer toga je i skraćenica IFRS od „International financial reporting standards“ koja se koristi u najnovijem prevodu „Međunarodnih standarda finansijskog izveštavanja“ na srpski jezik. U ranijim prevodima, korišćena je skraćenica MSFI.

po subvencionisanoj ceni, odnosno ceni koja ni približno nije jednaka poštenoj/fer vrednosti prodate robe, ta transakcija spada u nerazmenske transakcije. Popusti, količinski popusti ili druga smanjenja navedene cene imovine iz različitih razloga ne moraju nužno značiti da je transakcija nerazmenske prirode. Pri utvrđivanju da li je suština transakcije razmenska ili nerazmenska, koristi se profesionalna procena.

Postoji još jedna grupa kombinacije nerazmenskih i razmenskih transakcija u kojima entitet može da obezbedi određenu naknadu direktno u zamenu za primljene resurse. U ovim slučajevima, entitet utvrđuje komponente kombinacije razmenskih i nerazmenskih transakcija, od kojih se svaka komponenta priznaje odvojeno. Na primer, entitet dobija sredstva od 6 miliona novčanih jedinica (NJ) od multilateralne razvojne agencije. Sporazumom je predviđeno da entitet mora da otplati 5 miliona NJ primljenih sredstava u periodu od 10 godina, uz kamatu od 5%. Tržišna kamatna stopa za slične zajmove iznosi 11%. Entitet je efektivno u vidu nerazmenskih transakcija primio 1 miliona NJ (6 milion NJ manje 5 miliona NJ duga na otplatu) i povlašćenu kamatnu stopu na dug od 5 miliona NJ,. Primljen zajam koji će se otplaćivati u narednom periodu i pripadajuća kamata su razmenske transakcije. (3)

Priroda nerazmenskih transakcija može imati uticaja na to kako se te transakcije priznaju, mere, i prikazuju od strane učesnika u transakciji. Na primer, zalihe se mogu preneti na entitet putem nerazmenske transakcije. MRS JA/IPSAS 12 Zalihe zahteva da ako se zalihe steknu putem nerazmenske transakcije, nabavna vrednost tih zaliha meri po poštenoj/fer vrednosti na dan sticanja (1),. Isto tako, prema i MRS JS/PSAS 17 Nekretnina, postrojenja i oprema, ako je sredstvo nekretnine, postrojenja i opreme stečeno putem nerazmenske transakcije, nabavna vrednost te imovine meri se po poštenoj/fer vrednosti na dan sticanja (2).

Standardi uređuju i obelodanjivanje prihoda, imovine i obaveza koji su nastali u transakcijama koje nisu transakcije razmene. U samim finansijskim izveštajima prikazuju se glavne klase prihoda, na primer, porezi i transferi, kao i potraživanja i obaveze iz nerazmenskim transakcijama. U okviru napomena uz finansijske izveštaje opšte namene, obelodanjuju se

1. Računovodstvene politike priznavanje prihoda od nerazmenskih transakcija;
2. Glavne klase prihoda od nerazmenskih transakcija, i osnova na kojoj je merena poštena/fer vrednost primljenih resursa;
3. Za glavne klase prihoda od poreza koje entitet ne može realno izmeriti tokom perioda u kojem se oporezivi događaj javlja, informacije o njihovoj prirodi; I
4. Priroda i tip većih iznosa zaostavštine, poklona i donacija, pokazujući odvojeno glavne klase dobara primljenih u naturi.

PRIMER OBELODANJIVANJA NERAZMENSKIH TRANSAKCIJA – KONSOLIDOVANI FINANSIJSKI IZVEŠTAJI OPŠTE NAMENE ŠVAJCARSKE KONFEDERACIJE

Federalni konsolidovani finansijski izveštaji Švajcarke konfederacije za 2024. godinu sadrže nekoliko napomena o računovodstvenim politikama za transakcije koje nisu transakcije razmene. U Napomeni 1 navedena je računovodstvena politika priznavanja prihoda (5, p. 46).

Priznavanje prihoda

Ako ne postoji ni razmenska transakcija ni obaveza usluge ili otplate, kao što je to obično slučaj sa grantovima, prihod se priznaje u potpunosti u izvještaju o finansijskom rezultatu u godini koja se razmatra.

Svaki priliv sredstava entiteta procenjuje se kako bi se utvrdilo da li predstavlja priliv iz transakcija razmene (IPSAS 9) ili priliv iz transakcija bez razmene (IPSAS 23).

U slučaju transakcije bez razmene, entitet ili prima vrednost od drugog entiteta bez direktnog davanja približno jednake vrednosti zauzvrat ili daje vrednost drugom entitetu bez direktnog primanja približno jednake vrednosti zauzvrat.

Ako transakcija razmene postoji, prihod se generalno priznaje u trenutku isporuke i pružanja usluga. Kod projektnih ugovora, neispunjena obaveza izvođenja se evidentira kao obaveza. Prihod se knjiži i prikazuje u skladu sa fazom realizacije projekta.

U slučaju transakcije bez razmene, potrebno je utvrditi da li postoji obaveza pružanja usluge ili vraćanja sredstava. Ako takva obaveza postoji, odgovarajući iznos se priznaje kao obaveza u trenutku zaključenja ugovora, a prihod se priznaje u skladu sa napretkom projekta.

Ako ne postoji ni transakcija razmene ni obaveza pružanja usluge ili vraćanja sredstava, kao što je obično slučaj sa grantovima, prihod se priznaje u celosti u izveštaju o finansijskom razultatu za godinu koja je predmet analize.

Struktura prihoda je sledeća:

- **Poreski prihodi.** Za priznanje direktnog federalnog poreza koristi se računovodstvo zasnovano na obračunskoj osnovi. Kantoni obično podnose zahtev za svoj deo od poreza tek u narednoj godini. Izuzetno, ako se fakturisanje obavi tokom poreske godine, prihod se evidentira na obračunskoj osnovi. Avansna plaćanja se priznaju kao obaveze. Zbog vremenskog okvira izveštavanja koji kantoni primenjuju, postoji jednomesečno kašnjenje pre nego što se prihod prizna u federalnim finansijskim izveštajima.

  Prihodi od poreza na dodatu vrednost (PDV) obračunavaju se na osnovu potraživanja i obaveza iz poravnanja (uključujući dodatna poravnanja, kreditne obaveštenja, itd.) tokom fiskalne godine. Potraživanja iz procena nastala zbog nepodnošenja

PDV prijava priznaju se kao prihod samo u iznosu od 20%, zasnovanom na empirijskim podacima, zbog niske verovatnoće priliva sredstava.
Udeo kantona u poreskim prihodima priznaje se zasebno kao rashod.

- **Prihodi od usluga i proizvodnje.** Prihodi od usluga priznaju se linearno tokom trajanja ugovora ili u trenutku pružanja usluge. Prihodi od prodaje proizvoda priznaju se u izveštaju o finansijskom rezultatu kada se rizici i mogućnosti vlasništva nad proizvodima prenesu kupcu.
- **Prihodi od socijalnog osiguranja.** Doprinosi poslodavaca i osiguranih lica (lični doprinosi i doprinosi na zaradu) zasnivaju se na trenutnim stopama doprinosa. Oni se evidentiraju na gotovinskoj osnovi.
- **Ostali prihodi.** Neki prihodi, kao što su prihodi od izdavanja zgrada u zakup, evidentiraju se srazmerno vremenu. Druge vrste ostalih prihoda, poput raspodele dobiti Švajcarske narodne banke, priznaju se kada nastane pravni osnov za isplatu.

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IPSAS: Non-Exchange Transactions – The Case of the Consolidated Financial Statements of the Swiss Confederation

Summary: *The International Public Sector Accounting Standards (IPSAS) classify transactions into two main categories: exchange transactions, where entities directly trade value, and non-exchange transactions, where one entity provides or receives value without an equivalent return.*

Exchange transactions involve direct reciprocity, such as the purchase of goods or services. Non-exchange transactions include taxes, fines, grants, and donations, which do not entail a direct exchange of value. Public sector entities are predominantly financed through non-exchange transactions, such as tax payments and government transfers. Some transactions combine elements of both categories, requiring a detailed assessment to determine their nature. Standards require the disclosure of revenue, assets, and liabilities arising from non-exchange transactions. An example of such disclosure is illustrated through the consolidated financial statements of the Swiss Confederation for the year 2024. The classification and recognition of these transactions affect financial reporting and decision-making in the public sector.

Keywords: *Public sector accounting, public sector financial reporting, public sector revenue recognition*

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International Public Sector Accounting Standards (IPSAS[4]) classify transactions into two categories: (1) exchange transactions and (2) non-exchange transactions (4). Exchange transactions are those in which one entity receives assets or services, or settles liabilities, and directly gives approximately equal value (primarily in the form of cash, goods, services, or the use of assets) to another entity in return. In other words, a transaction is considered an exchange transaction if it involves a direct transfer of equivalent value – for example, the purchase of goods or services, where one party pays and the other delivers a specific product or service. Non-exchange transactions are transactions in which an entity receives value from another entity without directly giving approximately equal value in return, or gives value to another entity without directly receiving such value in return. Non-exchange transactions include revenue that arises without an explicit reciprocal value – for example, taxes, customs duties, and fines that the government collects from citizens and companies, as well as grants and donations received by institutions without any obligation to provide something in return. It is important to emphasize that revenue derived from sovereign authority (such as taxes and fines) does not represent an exchange, as payers do not receive a direct equivalent value for what they pay. Similarly, grants and donations also fall into the category of non-exchange transactions, since the institution receives funds without the obligation to deliver a specific service or product in return (3).

Non-exchange transactions are common in the public sector. The payment of taxes is legally mandated, compulsory, and represents a non-exchange transaction between individuals or entities and the authorities. Although governments use taxes to finance various public services for taxpayers, this has no effect on the obligation to pay taxes. The level and quality of services received by an individual or group of individuals is generally not directly linked to the amount of taxes paid. Occasionally, individuals or groups may be required to pay a small fee and/or make a certain contribution in order to access specific services. However, such transactions are generally non-exchange in nature, as the benefits received by the individual or group are often not equal in value to the fees or contributions paid. International public sector entities are mainly financed through transfers from national, regional, and federal governments. Such financing may be governed by contracts and conventions or provided on a voluntary basis.

There are transactions for which it is not immediately clear whether they are exchange or non-exchange in nature. In such cases, it is necessary to examine the substance of the transaction in order to determine whether it should be classified as exchange or non-exchange. For example, the sale of goods is usually classified as an exchange transaction.

4 IPSAS is the abbreviation of the full title “International Public Sector Accounting Standards” and is the English equivalent of the Serbian abbreviation MRS JS, which stands for “Međunarodni računovodstveni standardi za javni sektor.” Until not so long ago, it was common practice to translate all abbreviations into Serbian. In today’s global environment, however, it has become standard practice not to translate abbreviations, in order to ensure more precise communication. An example of this is the abbreviation IFRS, for “International Financial Reporting Standards,” which is now used in the most recent Serbian translations of these standards. In earlier translations, the abbreviation MSFI was used.

However, if the transaction is carried out at a subsidized price, i.e., a price significantly below the fair value of the goods sold, it is considered a non-exchange transaction. Discounts, quantity discounts, or other reductions in stated asset prices for various reasons do not necessarily mean that the transaction is non-exchange in nature. In determining whether the substance of a transaction is exchange or non-exchange, professional judgment is applied.

There is another category of combined transactions, where an entity may provide some consideration directly in exchange for the resources received. In such cases, the entity identifies the components of the exchange and non-exchange transaction mix, with each component recognized separately. For example, an entity receives 6 million monetary units (MU) from a multilateral development agency. Under the agreement, the entity is required to repay 5 million MU over a period of 10 years, with an interest rate of 5%. The market interest rate for similar loans is 11%. The entity effectively receives 1 million MU (6 million MU minus 5 million MU repayment liability) as a non-exchange transaction, along with a concessional interest rate on the 5 million MU loan. The loan to be repaid and the associated interest constitute exchange transactions (3).

The nature of non-exchange transactions may affect how such transactions are recognized, measured, and presented by the entities involved. For example, inventories may be transferred to an entity through a non-exchange transaction. IPSAS 12 – Inventories – requires that if inventories are acquired through a non-exchange transaction, their cost should be measured at fair value on the acquisition date (1). Similarly, under IPSAS 17 – Property, Plant, and Equipment, iabi item of property, plant, and equipment is acquired through a non-exchange transaction, its cost should also be measured at fair value on the acquisition date (2).

The standards also govern the disclosure of revenue, assets, and liabilities arising from non-exchange transactions. The financial statements present the main classes of revenue – for example, taxes and transfers – as well as receivables and liabilities from non-exchange transactions. The notes to the general purpose financial statements disclose:

1. The accounting policies for recognizing revenue from non-exchange transactions;
2. The main classes of revenue from non-exchange transactions and the basis on which the fair value of the received resources was measured;
3. For major classes of tax revenue that the entity cannot reasonably measure during the period in which the taxable event occurs, information on their nature; and
4. The nature and type of significant bequests, gifts, and donations, showing separately the main classes of goods received in-kind.

EXAMPLE OF NON-EXCHANGE TRANSACTION DISCLOSURE – GENERAL PURPOSE CONSOLIDATED FINANCIAL STATEMENTS OF THE SWISS CONFEDERATION

The federal consolidated financial statements of the Swiss Confederation for the year 2024 contain several notes regarding accounting policies for non-exchange transactions. Note 1 outlines the accounting policy for revenue recognition (5, p. 46).

Revenue recognition

If there is neither an exchange transaction nor an obligation to provide a service or repayment – as is typically the case with grants – revenue is fully recognized in the statement of financial performance for the year under review.

Each inflow of funds to the entity is assessed to determine whether it constitutes an inflow from an exchange transaction (IPSAS 9) or from a non-exchange transaction (IPSAS 23).

In a non-exchange transaction, the entity either receives value from another entity without directly giving approximately equal value in return, or provides value to another entity without directly receiving approximately equal value in return.

If the transaction is an exchange, revenue is generally recognized at the time of delivery or service provision. For project contracts, any unfulfilled performance obligation is recognized as a liability. Revenue is recorded and presented according to the stage of project completion.

In the case of a non-exchange transaction, it must be determined whether there is an obligation to provide a service or to repay funds. If such an obligation exists, the corresponding amount is recognized as a liability when the agreement is signed, and revenue is recognized in accordance with project progress.

If there is neither an exchange transaction nor an obligation to provide a service or repay funds – as is typically the case with grants – revenue is recognized in full in the statement of financial performance for the year under review.

Structure of revenue:

- Tax revenue. Accrual-based accounting is used for recognizing federal direct tax. Cantons usually submit claims for their share of tax revenue only in the following year. Exceptionally, if invoicing takes place during the tax year, the revenue is recorded on an accrual basis. Advance payments are recognized as liabilities. Due to the reporting timeframes applied by the cantons, there is a one-month delay before the revenue is recognized in the federal financial statements.
  Value-added tax (VAT) revenue is accounted for based on receivables and liabilities arising from settlements (including additional settlements, credit notes, etc.) during the fiscal year. Receivables from estimates due to non-submission of VAT returns are

recognized as revenue only in the amount of 20%, based on empirical data, due to the low probability of cash inflows.

The cantons' share of tax revenue is recognized separately as an expense.

- **Revenue from services and production**. Revenue from services is recognized on a straight-line basis over the term of the contract or at the time the service is provided. Revenue from the sale of products is recognized in the statement of financial performance when the risks and rewards of ownership are transferred to the customer.
- **Social insurance revenue.** Employer and insured person contributions (individual and payroll contributions) are based on current contribution rates. They are recorded on a cash basis.
- **Other revenue. Some** revenue, such as rental income from leasing buildings, is recognized on a time-proportionate basis. Other types of revenue, such as profit distributions from the Swiss National Bank, are recognized when the legal entitlement to payment arises.

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OVERVIEW

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Catalyst for Sustainable Development and Digital Transformation: The Round Table on Green Economy

Summary: *The Round Table on Green Economy served as a catalyst for discussions on sustainable development and the digital transformation necessary to drive these changes. By bringing together experts and key stakeholders, the event facilitated meaningful exchanges on the integration of green technologies, digital innovation, and strategic approaches to achieving sustainability. The discussions highlighted the importance of collaboration across borders and sectors to accelerate the adoption of green economic practices and leverage digital tools in creating more sustainable futures.*

The Round Table on Green Economy served as a crucial platform for advancing discussions on the intersection of sustainable development and digital transformation. Bringing together over 30 experts, professors, and public sector representatives from various countries, the event focused on key topics such as smart cities, the circular economy, climatology, and cybersecurity. Special attention was given to the integration of cutting-edge technologies, including blockchain, IoT, and artificial intelligence, into sustainable systems. The interactive sessions facilitated valuable knowledge exchange and the development of practical strategies aimed at accelerating the transition to a green economy. The round table concluded with a shared recognition that digitalization and international collaboration are pivotal to achieving sustainability goals. The event also underscored the role of global dialogue in inspiring new generations to tackle future challenges and drive lasting change in the region.

Keywords: *Green Economy, Digital Transformation, Circular Economy, Smart Cities, Sustainable Urban Development, Climate Change Mitigation and Adaptation Strategies*

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INTRODUCTION

At Alfa BK University in Belgrade, Republic of Serbia, the Institute for Strategic Studies and Development "Petar Karić", in co-operation with its partner institutions on the ***Project U 01/2023 GREEN ECONOMY IN THE ERA OF DIGITALIZATION,*** as well as with its following co-organising partner organizations: Institute for International Politics and Economics from Belgrade, Institute for Agricultural Economics from Belgrade, Institute for European Studies from Belgrade, Tamiš Research and Development Institute, Pančevo, Serbia, Faculty of Hotel Management and Tourism from Vrnjačka Banja, University of Kragujevac, Faculty of Business Studies and Law of the MB University from Belgrade, the Faculty of Mediterranean Business Studies Tivat of the "Adriatic" University from Bar, Montenegro, Faculty of Commercial and Business Sciences, Celje, Slovenia, Scientific Society of Serbia for organization management, Belgrade, organized the Round Table "Green Economy" on March 6, 2025. The manager of the event was Prof. Marijana Joksimović, Full-Time Professor. The event brought together a distinguished group of professors, researchers, and experts from various parts of the world to discuss the critical intersection of digital technologies and sustainability. The central theme of the round table revolved around exploring how digitalization can support and accelerate the transition to a green economy.

The event brought together over thirty prominent experts, professors, and representatives from the public sector from Serbia, Russia, Bulgaria, Greece, Slovenia, Montenegro, Uzbekistan, Georgia, India, and other countries, setting a new standard for regional cooperation in the field of sustainable development.

In their opening remarks, Prof. Dr. Jovan Veselinović, Rector of Alfa BK University, Prof. Dr. Oleg Smeshko, Rector of the University of Management Technologies and Economics (UMTE) from St. Petersburg, and Project Manager Prof. Dr. Marijana Joksimović, Chair of the Scientific Committee, emphasized the importance of collaboration in the areas of green economy research and digital innovations, which will enable joint projects and knowledge exchange.

Moderated by an esteemed panel of panelists including Prof. Marijana Joksimović, Full Time Professor, Senior Research Fellow, PhD, Antoaneta Vassileva, Full time PhD, Larisa Jovanović, Full time Professor, Emeritus, Jozefina Beke-Trivunac, Full Time Professor, Emeritus, PhD Suzana Balaban, Associate Professor and PhD Lidija Madžar, Associate Professor

The event covered a wide range of topics from sustainable supply chains to circular economy models and the role of digital innovations in climate change mitigation and adaptation.

KEY TOPICS AND DISCUSSIONS

Session 1: Intersection of Green Economy and Digitalization

Key Discussion Points:

- **Digital Technologies as Catalysts for the Green Economy Transition:** The panelists agreed that digital technologies play a critical role in accelerating the green economy transition. Tools like AI, big data, IoT, and cloud computing enable greater efficiency in energy use, waste management, and resource optimization, making sustainability practices more effective and scalable.
- **Opportunities and Challenges:** One of the primary opportunities discussed was the ability of digital technologies to support real-time monitoring and data analytics, which can lead to more informed decision-making. However, the integration of digital solutions into sustainability initiatives faces challenges such as high implementation costs, the need for robust infrastructure, and the digital divide in less-developed regions.

Session 2: Sustainable Supply Chains in the Digital Age

Key Discussion Points:

- **Improving Transparency and Traceability:** Digital technologies, such as blockchain and IoT, were highlighted as essential tools in promoting transparency within supply chains. By enabling real-time tracking and verification of materials and processes, these technologies allow companies to ensure sustainable sourcing, reduce waste, and foster more responsible consumption patterns.
- **The Role of Blockchain, IoT, and Data Analytics:** Blockchain was emphasized for its potential in providing immutable records of supply chain transactions, ensuring trust in sustainability claims. IoT devices facilitate real-time data collection on resource usage, while data analytics help in predicting and optimizing supply chain operations for sustainability.

Session 3: Circular Economy and Digital Innovation

Key Discussion Points:

- **Facilitating the Shift to a Circular Economy:** The discussion focused on how digital platforms can enable the transition from a linear to a circular economy. Through digital platforms, consumers and businesses can engage in the exchange of goods, services, and resources in a way that promotes reuse, recycling, and waste reduction.
- **Innovative Digital Solutions:** Examples of digital solutions supporting circular economy efforts included product life-cycle tracking systems, waste management apps, and AI-powered systems that optimize material reuse in manufacturing processes.

Session 4: Smart Cities and Sustainable Urban Development

Key Discussion Points:

- **The Contribution of Smart City Technologies:** Panelists discussed the role of smart city technologies in promoting environmental sustainability. Sensors and AI-driven systems optimize energy use, reduce emissions, and improve waste management in urban environments.
- **Citizen Engagement and Involvement:** Digital tools such as mobile apps and online platforms are essential in engaging citizens in sustainability efforts. Real-time data on air quality, water usage, and energy consumption enables residents to make informed decisions and participate in local sustainability initiatives.

Session 5: Climate Change Mitigation and Adaptation Strategies

Key Discussion Points:

- **Digital Innovations in Climate Monitoring:** Real-time monitoring technologies, powered by AI and remote sensing, were highlighted as critical for addressing climate change impacts. These tools enable governments and organizations to track changes in weather patterns, predict natural disasters, and make data-driven decisions for climate action.
- **The Use of AI, Remote Sensing, and Geospatial Data:** Geospatial data and remote sensing technologies offer detailed insights into climate change's effects on ecosystems and infrastructure. The integration of AI allows for better forecasting, more efficient adaptation strategies, and improved climate resilience efforts.

Session 6: Data Privacy and Cybersecurity in Green-Tech Solutions

Key Discussion Points:

- **Data Privacy Concerns:** As the use of digital technologies in the green economy increases, concerns about data privacy and security are mounting. Environmental data, such as energy consumption patterns and waste disposal practices, may be sensitive and need robust protection from cyber threats.
- **Cybersecurity Strategies:** The panel stressed the importance of establishing strong cybersecurity frameworks to protect the integrity of green-tech solutions. Industry leaders and policymakers need to collaborate on developing regulations that ensure the safety of environmental data and digital infrastructure.

Session 7: Policy and Regulation for Digital Environmental Governance

Key Discussion Points:

- **Policy Frameworks Supporting Green-Tech Innovation:** The discussions highlighted the need for clear policy frameworks that promote digital innovation while ensuring environmental protection. Governments should provide incentives for businesses to adopt green technologies and foster collaboration between industry and academia to drive research and development.
- **Cross-Sector Collaboration:** A common theme was the importance of cross-sector collaboration. Governments, industry leaders, and civil society must work together to create regulatory frameworks that support responsible digitalization and ensure equitable access to green technologies.

Session 8: Equity, Access, and Digital Divide in Green Innovation

Key Discussion Points:

- **Tackling Inequalities:** The panel underscored the importance of addressing inequalities in access to digital technologies. Bridging the digital divide is essential to ensure that marginalized communities are not left behind in the transition to a green economy.
- **Strategies for Bridging the Digital Divide:** Ideas to address this issue included providing affordable internet access, digital literacy programs, and supporting local innovations that cater to the specific needs of underserved communities. Governments and NGOs play a crucial role in ensuring inclusivity in green innovation.

PANEL DISCUSSIONS ON SPECIFIC TOPICS

1. **Opportunities for Implementation of Green Bonds by Municipalities and Green Cities**
   Presented by PhD Antoaneta Vassileva and Vladimir Atanasov, this session explored how green bonds could be used by municipalities to finance sustainable urban projects, supporting the development of green cities.
2. **Leveraging Digital Platforms for the Transition to a Circular Economy**
   Presented by PhD Chander Mohan Gupta and Yana I. Ustinova, this session discussed the role of digital platforms in enabling the transition from a linear to a circular economy, focusing on the opportunities, challenges, and strategies involved.
3. **HDI (Humanism, Digitalization, Innovation) in Managing Entrepreneurial Projects**
   Prof. Ekaterina Litau presented the concept of combining humanism with digitalization and innovation to effectively manage entrepreneurial projects in the green economy.

4. **Digital Twins for Smart Cities: Applications in Trikala**
   Experts from Greece George Tsinarakis, PhD, Laboratory Teaching Staff, Industrial and Digital Innovations Research Group (INDIGO), School of Production Engineering and Management, Technical University of Crete; Konstantinos A. Avdelidis Dr.Eng., Advisor to the Mayor, Municipality of Trikala; Thessaly, Greece, and George M. Aspridis, Professor, Department of Forestry, Wood Sciences and Design, University of Thessaly, Greece discussed the application of digital twin technologies in the Municipality of Trikala, highlighting how digital models of cities can support better urban planning and environmental sustainability.
5. **The Importance of the Green Economy for Organic Agriculture**
   PhD Larisa Jovanović discussed the role of the green economy in promoting organic agriculture, emphasizing the need for sustainable agricultural practices.
6. **Digitization and Accounting of the Green Economy**
   This session, led by PhD Jozefina Beke-Trivunac, examined how digitalization is transforming accounting practices within the green economy, ensuring better reporting and monitoring of sustainability initiatives.
7. **Digital Support for De-risking Strategies in Global Supply Chains**
   PhD Nataša Stanojević presented strategies for using digital tools to mitigate risks in global supply chains, focusing on supply chain transparency and resilience.
8. **Sustainability in Georgian Architecture: Digitalization and Green Economy in the Built Environment**
   PhD Mariam Bedoidze from the Georgian Technical University discussed the role of digital technologies in promoting sustainability in the architecture and construction sectors.
9. **Economic Effects of New Technologies in Vegetable Production**
   PhD Jonel Subić and PhD Marijana Jovanović Todorović analyzed the economic impact of introducing new technologies in vegetable production, focusing on sustainability and efficiency.
10. **Green Finance in the Era of Digitalization**
    PhD Vladimir Ristanović presented the integration of sustainability and economic resilience through green finance in a digitalized world.
11. **Dynamic Systems in Branding Green Innovation**
    PhD Marija Paunović discussed how dynamic systems can be applied in branding strategies to promote green innovations effectively.
12. **Circular Economy as an Instrument of Sustainable Development in the EU and Serbia**
    PhD Biljana Grujić Vučkovski and PhD Irina Marina presented on the importance of circular economy models for the sustainable development of both the EU and Serbia.
13. **Digitalization and the Green Economy in Healthcare**
    PhD Milorad Stamenovic explored how digital health solutions can drive sustainability in healthcare systems across Europe.

These panel discussions were crucial in understanding how digitalization can enhance green economy initiatives and how various sectors can collaborate to foster sustainability and innovation for a better future.

INTERACTIVE SESSIONS AND FUTURE CHALLENGES

The event covered topics ranging from smart cities and circular economy to climatology and cybersecurity, with a focus on practical strategies. Through interactive sessions, participants exchanged experiences on integrating blockchain, IoT, and artificial intelligence into sustainable systems.

"This was a space where theory and practice met. The results will serve as a roadmap for future projects in the region," emphasized Prof. Dr. Marijana Joksimović, Project Manager and Chair of the Scientific Committee.

The Round Table concluded with a joint statement that digitalization and international cooperation are key to a faster transition to a green economy. Thanks to participants from 12 countries, Belgrade became a platform for global dialogue that will inspire future generations.

CONCLUSION

The Round Table "Green Economy at Alfa BK University" provided critical insights into the ways digital technologies can accelerate the transition to a green economy. Key themes included sustainable supply chains, circular economy models, smart cities, climate change mitigation, and the importance of inclusive digital policies. Collaboration across sectors, careful policy development, and addressing the digital divide were identified as essential for leveraging the full potential of digital innovations in creating a sustainable and inclusive green economy.

In conclusion, the Round table reinforced the idea that the successful integration of digital technologies into the green economy requires not only technological innovation but also thoughtful policies, equitable access, and global cooperation. By addressing these challenges and leveraging the full potential of digital tools, we can drive meaningful progress toward a more sustainable and resilient future. The collaboration of academia, industry, and policymakers will be key in realizing the promise of a green economy empowered by digitalization.

Marijana Joksimović[1] **OSVRT**

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Katalizator za održivi razvoj i digitalnu transformaciju: Okrugli sto o zelenoj ekonomiji

Apstrakt: *Okrugli sto na temu zelene ekonomije bio je katalizator za diskusiju o održivom razvoju i digitalnoj transformaciji koja je neophodna za ostvarivanje tih promena. Dovođenjem zajedno stručnjaka i ključnih aktera, događaj je omogućio značajnu razmenu mišljenja o integraciji zelenih tehnologija, digitalnih inovacija i strateških pristupa ostvarivanju održivosti. Diskusije su naglasile važnost saradnje između zemalja i sektora kako bi se ubrzalo usvajanje zelenih ekonomskih praksi i iskoristili digitalni alati u stvaranju održivih budućnosti.*

Okrugli sto o zelenoj ekonomiji pružio je ključnu platformu za unapređenje diskusije o preseku održivog razvoja i digitalne transformacije. Okupivši više od 30 stručnjaka, profesora i predstavnika javnog sektora iz različitih zemalja, događaj je bio fokusiran na ključne teme kao što su pametni gradovi, cirkularna ekonomija, klimatologija i sajber bezbednost. Posebna pažnja posvećena je integraciji najnovijih tehnologija, uključujući blockchain, IoT i veštačku inteligenciju, u održive sisteme. Interaktivne sesije omogućile su dragocenu razmenu znanja i razvoj praktičnih strategija koje će ubrzati prelazak na zelenu ekonomiju. Okrugli sto je završen zajedničkim zaključkom da su digitalizacija i međunarodna saradnja ključni za postizanje ciljeva održivosti. Događaj je takođe naglasio ulogu globalnog dijaloga u inspirisanju novih generacija za rešavanje budućih izazova i podsticanje trajnih promena u regionu.

Ključne reči: *zelena ekonomija, digitalna transformacija, cirkularna ekonomija, pametni gradovi, održivi urbani razvoj, strategije ublažavanja i prilagođavanja klimatskim promenama*

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UVOD

Okrugli sto na temu "Zelena Ekonomija" organizovan je 6. marta 2025. godine na Alfa BK Univerzitetu u Beogradu, u saradnji sa Institutom za strateške studije i razvoj „Petar Karić", kao i partner institucijama na projektu U 01/2023 „ZELENA EKONOMIJA U ERI DIGITALIZACIJE". Događaj su podržali sledeći suorganizatori: Institut za međunarodnu politiku i ekonomiju iz Beograda, Institut za agrarnu ekonomiju iz Beograda, Institut za evropske studije iz Beograda, Tamiš istraživačko-razvojni institut iz Pančeva, Fakultet za hotelijerstvo i turizam iz Vrnjačke Banje, Univerzitet u Kragujevcu, Fakultet poslovnih studija i prava MB univerziteta iz Beograda, Fakultet mediteranskih poslovnih studija Tivat sa „Adriatik" univerziteta iz Bara, Crna Gora, Fakultet komercijalnih i poslovnih nauka, Celje, Slovenija, i Naučno društvo Srbije za upravljanje organizacijama iz Beograda.

Okrugli sto okupio je eminentne profesore, istraživače i stručnjake iz različitih delova sveta kako bi diskutovali o kritičnoj povezanosti digitalnih tehnologija i održivosti. Centralna tema okruglog stola bila je istraživanje kako digitalizacija može podržati i ubrzati prelazak na zelenu ekonomiju.

Događaj je okupio više od 30 istaknutih stručnjaka, profesora i predstavnika javnog sektora iz Srbije, Rusije, Bugarske, Grčke, Slovenije, Crne Gore, Uzbekistana, Gruzije, Indije i drugih zemalja, čime je postavljen novi standard za regionalnu saradnju u oblasti održivog razvoja.

U uvodnim rečima, prof. dr Jovan Veselinović, rektor Alfa BK Univerziteta, prof. dr Oleg Smeshko, rektor Univerziteta za menadžment tehnologija i ekonomiju (UMTE) iz Sankt Peterburga, i rukovodilac projekta prof. dr Marijana Joksimović, predsednica Naučnog odbora, naglasili su značaj saradnje u oblasti istraživanja zelene ekonomije i digitalnih inovacija, što će omogućiti zajedničke projekte i razmenu znanja.

Moderatori su bili cenjeni panelisti, uključujući prof. dr Marijanu Joksimović, redovnu profesorku, dr Antoanetu Vasilevu, redovnu profesorku, dr Larisu Jovanović, emeritus profesorku, dr Jozefinu Beke-Trivunac, emeritus profesorku, dr Suzanu Balaban, vanrednu profesorku i dr Lidiju Madžar, vanrednu profesorku.

Okrugli sto obuhvatio je širok spektar tema, od održivih lanaca snabdevanja do modela cirkularne ekonomije i uloge digitalnih inovacija u ublažavanju klimatskih promena i prilagođavanju na iste.

KLJUČNE TEME I DISKUSIJE

Sesija 1: Tačke zelene ekonomije i digitalizacije

Ključne tačke diskusije:

- **Digitalne tehnologije kao katalizatori prelaska na zelenu ekonomiju:** Panelisti su se složili da digitalne tehnologije igraju ključnu ulogu u ubrzanju prelaska na zelenu ekonomiju. Alati kao što su veštačka inteligencija (AI), velike baze podataka, Internet stvari (IoT) i računarske platforme u oblaku omogućavaju veću efikasnost u korišćenju energije, upravljanju otpadom i optimizaciji resursa, čineći prakse održivosti efikasnijim i skalabilnijim.
- **Prilike i izazovi:** Jedna od glavnih prilika koja je diskutovana bila je sposobnost digitalnih tehnologija da podrže praćenje u stvarnom vremenu i analizu podataka, što može dovesti do bolje informisanog donošenja odluka. Međutim, integracija digitalnih rešenja u inicijative održivosti suočava se s izazovima poput visokih troškova implementacije, potrebe za robusnom infrastrukturom i digitalnim jazom u manje razvijenim regionima.

Sesija 2: Održivi lanci snabdevanja u digitalnom dobu

Ključne tačke diskusije:

- **Poboljšanje transparentnosti i praćenja:** Digitalne tehnologije kao što su blockchain i IoT istaknute su kao ključni alati u promovisanju transparentnosti unutar lanaca snabdevanja. Omogućavanjem praćenja i verifikacije materijala i procesa u stvarnom vremenu, ove tehnologije omogućavaju kompanijama da obezbede održivo nabavljanje, smanje otpad i podstiču odgovornije obrasce potrošnje.
- **Uloga blockchain-a, IoT-a i analize podataka:** Blockchain je istaknut zbog svog potencijala da obezbedi nepromenljive zapise transakcija u lancu snabdevanja, čime se osigurava poverenje u tvrdnje o održivosti. IoT uređaji omogućavaju prikupljanje podataka u stvarnom vremenu o korišćenju resursa, dok analiza podataka pomaže u predviđanju i optimizaciji operacija lanca snabdevanja za održivost.

Sesija 3: Cirkularna ekonomija i digitalne inovacije

Ključne tačke diskusije:

- **Olakšavanje prelaska na cirkularnu ekonomiju:** Diskusija se fokusirala na to kako digitalne platforme mogu omogućiti prelazak sa linearne na cirkularnu ekonomiju. Kroz digitalne platforme, potrošači i preduzeća mogu se angažovati u razmeni dobara, usluga i resursa na način koji podstiče ponovnu upotrebu, reciklažu i smanjenje otpada.

- Inovativna digitalna rešenja: Primeri digitalnih rešenja koja podržavaju napore u cirkularnoj ekonomiji uključivali su sisteme za praćenje životnog ciklusa proizvoda, aplikacije za upravljanje otpadom i sisteme pokretane AI-jem koji optimizuju ponovnu upotrebu materijala u proizvodnim procesima.

Sesija 4: Pametni gradovi i održivi urbani razvoj

Ključne tačke diskusije:

- **Doprinos tehnologija pametnih gradova:** Panelisti su diskutovali o ulozi tehnologija pametnih gradova u promovisanju ekološke održivosti. Senzori i sistemi zasnovani na AI optimizuju upotrebu energije, smanjuju emisije i poboljšavaju upravljanje otpadom u urbanim sredinama.
- **Angažovanje građana i participacija:** Digitalni alati kao što su mobilne aplikacije i online platforme od ključne su važnosti za angažovanje građana u naporima održivosti. Podaci u stvarnom vremenu o kvalitetu vazduha, potrošnji vode i energije omogućavaju stanovnicima da donose informisane odluke i učestvuju u lokalnim inicijativama održivosti.

Sesija 5: Strategije ublažavanja klimatskih promena i adaptacija

Ključne tačke diskusije:

- **Digitalne inovacije za praćenje klimatskih promena:** Tehnologije za praćenje u stvarnom vremenu, zasnovane na AI-u i daljinskom senzoru, istaknute su kao ključne za rešavanje uticaja klimatskih promena. Ovi alati omogućavaju vladama i organizacijama da prate promene u vremenskim obrascima, predviđaju prirodne katastrofe i donose odluke zasnovane na podacima u cilju delovanja na klimatske promene.
- **Korišćenje AI-a, daljinskog senzora i geospacijalnih podataka:** Geospacijalni podaci i tehnologije daljinskog senzora nude detaljan uvid u uticaje klimatskih promena na ekosisteme i infrastrukturu. Integracija AI-a omogućava bolje prognoze, efikasnije strategije adaptacije i poboljšanje otpornosti na klimatske promene.

Sesija 6: Privatnost podataka i sajber sigurnost u zelenim tehnološkim rešenjima

Ključne tačke diskusije:

- **Briga o privatnosti podataka:** Kako upotreba digitalnih tehnologija u zelenoj ekonomiji raste, brige o privatnosti podataka i sigurnosti postaju sve veće. Podaci o životnoj sredini, kao što su obrasci potrošnje energije i prakse odlaganja otpada, mogu biti osetljivi i zahtevaju snažnu zaštitu od sajber pretnji.
- **Mere sajber sigurnosti:** Panel je naglasio važnost uspostavljanja jakih okvira sajber sigurnosti za zaštitu integriteta zelenih tehnoloških rešenja. Lideri industrije i

donosioci politika treba da sarađuju na razvoju propisa koji obezbeđuju sigurnost podataka o životnoj sredini i digitalne infrastrukture.

Sesija 7: Politika i regulativa za digitalno ekološko upravljanje

Ključne tačke diskusije:
- **Okviri politike za inovacije u zelenim tehnologijama:** Diskusije su naglasile potrebu za jasnim političkim okvirima koji promovišu digitalne inovacije, uz obezbeđivanje zaštite životne sredine. Vlade treba da obezbede podsticaje za preduzeća koja usvajaju zelene tehnologije i podstiču saradnju između industrije i akademije za istraživanje i razvoj.
- **Saradnja između sektora:** Zajednička tema bila je važnost saradnje između sektora. Vlade, lideri industrije i civilno društvo moraju zajedno raditi na kreiranju regulatornih okvira koji podržavaju odgovornu digitalizaciju i obezbeđuju pravičan pristup zelenim tehnologijama.

Sesija 8: Jednakost, pristup i digitalni jaz u zelenim inovacijama

Ključne tačke diskusije:
- **Rešavanje nejednakosti:** Panelisti su naglasili značaj rešavanja nejednakosti u pristupu digitalnim tehnologijama. Prelazak preko digitalnog jaza je od suštinskog značaja kako bi se obezbedilo da marginalizovane zajednice ne budu isključene u prelasku na zelenu ekonomiju.
- **Strategije za smanjenje digitalnog jaza:** Ideje za rešavanje ovog problema uključivale su obezbeđivanje pristupa internetu po pristupačnim cenama, programe digitalne pismenosti i podršku lokalnim inovacijama koje odgovaraju specifičnim potrebama nedovoljno zastupljenih zajednica. Vlade i nevladine organizacije igraju ključnu ulogu u obezbeđivanju inkluzivnosti u zelenim inovacijama.

PANEL DISKUSIJE O SPECIFIČNIM TEMAMA

1. **Mogućnosti za implementaciju zelenih obveznica od strane opština i zelenih gradova**
   Prezentovali: prof. dr Antoaneta Vassileva i dr Vladimir Atanasov Ova sesija istraživala je kako opštine mogu koristiti zelene obveznice za finansiranje održivih urbanih projekata, podržavajući razvoj zelenih gradova.
2. **Korišćenje digitalnih platformi za prelaz u kružnu ekonomiju**
   Prezentovali: prof. dr Chander Mohan Gupta i prof. dr Yana I. Ustinova Razgovaralo se o ulozi digitalnih platformi u omogućavanju prelaza sa linearne na kružnu ekonomiju, fokusirajući se na mogućnosti, izazove i strategije koje su u ovom procesu ključne.

3. **HDI (Humanizam, Digitalizacija, Inovacija) u upravljanju preduzetničkim projektima** Prezentovala: Prof. dr Ekaterina Litau Prof. Litau je predstavila koncept kombinovanja humanizma sa digitalizacijom i inovacijama kako bi se efikasno upravljalo preduzetničkim projektima u zelenoj ekonomiji.
4. **Digitalni dvojnici za pametne gradove: Aplikacije u Trikali** Prezentovali: prof. dr George Tsinarakis, prof. dr Konstantinos A. Avdelidis, Dr.Eng. i George M. Aspridis Stručnjaci iz Grčke su diskutovali o primeni tehnologije digitalnih dvojnika u opštini Trikala, ističući kako digitalni modeli gradova mogu podržati bolje urbano planiranje i održivi razvoj životne sredine.
5. **Značaj zelene ekonomije za organsku poljoprivredu** Prezentovala: prof. dr Larisa Jovanović Ova sesija je razmatrala ulogu zelene ekonomije u promociji organske poljoprivrede, naglašavajući potrebu za održivim poljoprivrednim praksama.
6. **Digitalizacija i računovodstvo zelene ekonomije** Prezentovala: prof. dr Jozefina Beke-Trivunac Ova sesija je istraživala kako digitalizacija menja računovodstvene prakse unutar zelene ekonomije, omogućavajući bolje izveštavanje i praćenje inicijativa održivosti.
7. **Digitalna podrška za strategije smanjenja rizika u globalnim lancima snabdevanja** Prezentovala: dr Nataša Stanojević dr Stanojević je predstavila strategije za upotrebu digitalnih alata u smanjenju rizika u globalnim lancima snabdevanja, fokusirajući se na transparentnost i otpornost lanaca snabdevanja.
8. **Održivi razvoj u gruzijskoj arhitekturi: Digitalizacija i zelena ekonomija u građevinskom sektoru** Prezentovala: dr Mariam Bedoidze dr Bedoidze je diskutovala o ulozi digitalnih tehnologija u promociji održivosti u sektoru arhitekture i građevinske industrije u Gruziji.
9. **Ekonomski efekti novih tehnologija u proizvodnji povrća** Prezentovali: dr Jonel Subić i dr Marijana Jovanović Todorović Ova sesija je analizirala ekonomski uticaj uvođenja novih tehnologija u proizvodnju povrća, fokusirajući se na održivost i efikasnost.
10. **Zeleni finansijski instrumenti u eri digitalizacije** Prezentovao: dr Vladimir Ristanović dr Ristanović je predstavio kako se održivost i ekonomska otpornost integrišu kroz zelene finansijske instrumente u digitalizovanom svetu.
11. **Dinamički sistemi u brendiranju zelenih inovacija** Prezentovala: dr Marija Paunović dr Paunović je diskutovala o tome kako se dinamički sistemi mogu primeniti u strategijama brendiranja kako bi se efikasno promovisale zelene inovacije.
12. **Kružna ekonomija kao instrument održivog razvoja u EU i Srbiji Prezentovali:** dr Biljana Grujić Vučkovski i dr Irina Marina Ova sesija je razmatrala značaj modela kružne ekonomije za održivi razvoj u EU i Srbiji.
13. **Digitalizacija i zelena ekonomija u zdravstvu** Prezentovao:dr Milorad Stamenović dr Stamenović je istraživao kako digitalna zdravstvena rešenja mogu doprineti održivosti zdravstvenih sistema širom Evrope.

Panel diskusije bile su ključne za razumevanje kako digitalizacija može unaprediti inicijative zelene ekonomije i kako različiti sektori mogu sarađivati kako bi promovisali održivost i inovacije za bolju budućnost.

INTERAKTIVNE SESIJE I BUDUĆI IZAZOVI

Događaj je obuhvatio teme koje se kreću od pametnih gradova i kružne ekonomije do klimatologije i sajber bezbednosti, sa fokusom na praktične strategije. Kroz interaktivne sesije, učesnici su razmenjivali iskustva o integraciji blockchain-a, IoT-a i veštačke inteligencije u održive sisteme.

„Ovo je bio prostor u kojoj su se susreli teorija i praksa. Rezultati će služiti kao mapa puta za buduće projekte u regionu," istakla je prof. dr. Marijana Joksimović, rukovodilac projekta i predsednica Naučnog odbora.

Zaokruženo je zajedničkom izjavom da su digitalizacija i međunarodna saradnja ključni za brži prelazak u zelenu ekonomiju. Zahvaljujući učesnicima iz 12 zemalja, Beograd je postao platforma za globalni dijalog koji će inspirisati buduće generacije.

ZAKLJUČAK

Okrugli sto „Zelena ekonomija" na Alfa BK Univerzitetu pružio je ključne uvide u načine na koje digitalne tehnologije mogu ubrzati prelazak u zelenu ekonomiju. Ključne teme obuhvatile su održive lance snabdevanja, modele kružne ekonomije, pametne gradove, ublažavanje klimatskih promena i značaj inkluzivnih digitalnih politika. Saradnja između sektora, pažljivo razvijanje politika i rešavanje digitalne podele prepoznati su kao ključni za maksimalno iskorišćavanje punog potencijala digitalnih inovacija u stvaranju održive i inkluzivne zelene ekonomije.

Zaključno, okrugli sto je potvrdio ideju da uspešna integracija digitalnih tehnologija u zelenu ekonomiju zahteva ne samo tehnološke inovacije, već i promišljene politike, pravičan pristup i globalnu saradnju. Rešavanjem ovih izazova i maksimalnim korišćenjem digitalnih alata, možemo postići značajan napredak ka održivijoj i otpornijoj budućnosti. Saradnja akademije, industrije i donosioca politika biće ključna u ostvarivanju obećanja zelene ekonomije osnažene digitalizacijom.

NAUČNA POLITIKA ČASOPISA

Časopis REVIZOR objavljuje radove iz oblasti društvenih nauka, a izuzetno i iz drugih naučnih oblasti, ako je tema rada povezana sa tematikom finansija, rizika i kontrola, računovodstva, forenzike i revizije. Navedene teme mogu da se obrađuju sa stanovišta mikro i makro ekonomije (ocena rizika iz okruženja), i sa različitim pristupom, kao što su upravljanje organizacijom, menadžment, komunikacija, odgovornosti prema društvenoj zajednici, odgovornosti prema prirodnom okruženju, i slično. Finansija, rizici i kontrole, računovod stvo, forenzike i revizija nerazdvojno su vezane sa svakim oblikom organizacije u svim delatnostima i svim vidovima svojine, tako da je tema o svakoj od njih pokrivena naučnom politikom časopisa. Sve vrste naučnih i stručnih radova značajano doprinose vrednosti časopisa.

U časopisu se objavljuju sve vrste radova: originalni naučni radovi, pregledni radovi, prethodna saopštenja, stručni radovi, prikazi i osvrti i slično.

Časopis REVIZOR izlazi kvartalno, u kontinuitetu od 1997. godine i tradicionalno je prisutan u naučnoj i stručnoj javnosti u zemlji i regionu. Interesovanja za časopis iskazana preko društvenih i naučnih mreža poazuju da jei zadnjih nekoliko godina zapažen rast ugleda časopisa i u međunarodnom okruženju.

- **Naučno polje:** Društveno humanističke nauke.
- **Naučne oblasti:** Ekonomija i organizacione nauke
- **Uže naučne oblasti:** Poslovna ekonomija; Upravljanje organizacijama; Finansije; Računovodstvo; Revizija; Forenzika; Poslovno pravo (u kontekstu revizije i finansijskog izveštavanja).

SCIENTIFIC POLICY OF THE JOURNAL

The journal REVIZOR publishes papers in the field of social sciences, and exceptionally in other scientific fields, if the topic is related to finance, risk and control, accounting, forensics, and auditing. These topics may be addressed from the perspective of micro and macroeconomics (e.g., environmental risk assessment) and through various approaches, such as organizational management, communication, social responsibility, environmental responsibility, and similar frameworks. Finance, risks and controls, accounting, forensics, and auditing are inextricably linked with every form of organization across all industries and types of ownership, meaning that each of these topics falls within the journal's scientific scope. All types of scientific and professional papers contribute significantly to the journal's value.

The journal publishes all categories of work: original scientific papers, review articles, preliminary communications, professional papers, reports, commentaries, and similar contributions.

REVIZOR is published quarterly and has been continuously issued since 1997, maintaining a strong presence in the scientific and professional community both domestically and in the region. Interest expressed through academic and professional networks in recent years shows that the journal's reputation has also grown internationally.

- **Scientific field:** Social Sciences and Humanities
- **Scientific disciplines:** Economics and Organizational Sciences
- **Narrower fields:** Business Economics; Organizational Management; Finance; Accounting; Auditing; Forensics; Business Law (in the context of auditing and financial reporting)

OSNOVNE INFORMACIJE O ČASOPISU

REVIZOR

Časopis za upravljanje organizacijama, finansije i reviziju

Časopis REVIZOR, od 2023. godine, izdaje Naučno društvo za upravljanje organizacijama iz Beograda. Naučna i izdavačka politika časopisa usklađene su sa ciljevima i zadacima Naučnog društva. Časopis je osnovan 1997. godine od strane Instituta za ekonomiku i finansije, a prvi broj časopisa izišao je 1998. Prvi i dugogodišnji urednik časopisa bio je profesor dr Stanoje Vukić.

UREĐIVAČKE POLITIKE

Uređivačke politike časopisa usklađene su sa Pravilnikom o kategorizaciji i rangiranju naučnih časopisa („Službeni glasnik RS“ broj 159 od 30. decembra 2020.).

Uputstvo za autore navodi se u svakom broju časopisa.

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Glavni urednik i članovi uređivačkog odbora dužni su da preduzmu sve razumne mere da recenzenti ostanu anonimni tokom i nakon procesa evaluacije u skladu sa procedurom. Spisak recenzenata se daju u prvom broju časopisa iz svake kalendarske godine.

BASIC INFORMATION ABOUT THE JOURNAL

REVIZOR

Journal of Organization Management, Finance and Auditing

The journal REVIZOR (Journal of Organization Management Finance and Auditing) has been published by the Scientific Society for Organization Management from Belgrade since 2023. The journal was founded in 1997 by the Institute for Economics and Finance, and the first issue was published in 1998. The first and longtime editor of the journal was Professor Dr. Stanoje Vukić.

EDITORIAL POLICIES

The editorial policies of the journal are aligned with the Regulation on Categorization and Ranking of Scientific Journals („Službeni glasnik RS“ No. 159 of December 30, 2020).

Instructions for authors are provided in every issue of the journal.

The journal publishes original scientific and review scientific papers and professional papers that have received positive reviews from reviewers. Each author bears moral and ethical responsibility for the data published in the paper.

The editor-in-chief and members of the editorial board are obliged to take all reasonable measures to ensure that reviewers remain anonymous during and after the evaluation process, in accordance with the

Recenzenti su dužni da stručno i u zadatim rokovima dostave glavnom uredniku ocenu vrednosti i tačnosti istraživanja.

U svom radu, redakcija primenjuje Committee on Publication Ethics (COPE) Smernice (COPE Guidance) koje se bave osnovne politike i prakse koje su potrebni časopisima i izdavačima da bi se dostigli najviši standardi etike objavljivanja (COPE Guidance dostupne su na: https://publicationethics.org/)

ORIGINALNOST RADA I BORBA PROTIV PLAGIJATA

Uz rad, autori dostavljaju i izjavu o autorstvu i autorskim pravima, kojom potvrđuju da je rad njihovo originalno delo.

U slučaju da redakcija časopisa sama ili posredstvom recenzenata otkrije da je rad koji je predat za objavljivanje plagijat, u prvom narednom broju časopisa biće objavljena informacija o tome da je odnosni autor predao rad koji je plagijat, i biće navedeno originalno delo iz kog je plagijat uzet. Takođe, radovi istog autora neće se ubuduće objavljivati u ovom časopisu.

Po potrebi, biće obavešteni autor originalnog rada i redakcija časopisa u kome je taj rad objavljen.

procedure. The list of reviewers is published in the first issue of the journal each calendar year.

Reviewers are obliged to provide a professional and timely evaluation of the value and accuracy of the research to the editor-in-chief.

In its work, the editorial board applies the Committee on Publication Ethics (COPE) Guidelines, which address the basic policies and practices needed by journals and publishers to achieve the highest standards of publishing ethics (COPE Guidelines available at: https://publicationethics.org/).

ORIGINALITY OF WORK AND FIGHT AGAINST PLAGIARISM

Authors submit a statement of authorship and copyright along with their work, confirming that the work is their original creation.

If the journal's editorial board, either independently or through reviewers, discovers that the submitted work is a plagiarism, the information about the author submitting a plagiarized work will be published in the next issue of the journal, along with the reference to the original work from which the plagiarism was taken. Additionally, works by the same author will no longer be published in this journal.

If necessary, the author of the original work and the editorial board of the journal in which the original work was published will be notified.

UPUTSTVA AUTORIMA

Radove pripremiti u skladu sa sledećim uputstvom:

RUKOPIS

Rukopis se predaje u elektronskom obliku (MS Word) na srpskom ili engleskom jeziku. Uz rad se obavezno dostavlja i pisana izjava autora o tome da je rad originalno delo. Priloge za časopis dostavljati na e-mail adresu: **casopisrevizor@outlook.com**

Uslov da rad uđe u proceduru recenziranja jeste da u potpunosti zadovoljava tehničke kriterijume koji su propisani ovim uputstvom. Dostavljeni rad mora biti lektorisan, tj. mora da zadovoljava jezičke i pravopisne standarde srpskog odnosno engleskog jezika.

Dostavljati samo članke koji nisu bili niti će biti objavljeni pre štampanja u našem časopisu. Kod posebnih slučajeva postoji mogućnost dogovora sa glavnim urednikom.

Autori dostavljaju redakciji sve identifikacione podatke o sebi.

Uređivački odbor zadržava pravo na odlučivanje o prihvatanju dostavljenog teksta za objavljivanje i redakcijske intervencije na tekstu do obima koji ne zadire u strukturu rada.

JEZIK I OBIM RADA

Tekst se predaje na srpskom ili engleskom jeziku. Ako bude prihvaćen, biće objavljen na jeziku na kome je predat. Izuzetno, uređivački odbor može odlučiti da rad dostavljen na engleskom jeziku prevede na srpski, i obrnuto.

INSTRUCTIONS FOR THE AUTHORS

The papers are to be prepared in accordance with the following instructions:

THE MANUSCRIPT

The manuscript is submitted in electronic form (MS Word) in Serbian or English. The paper should be accompanied by the written Author's Statement of originality. The papers are submitted to the following e-mail address: **casopisrevizor@outlook.com**

Precondition for the paper to be accepted for the reviewing procedure is that it fully satisfies technical criteria according to the instructions given here. The paper has to be proofread before submission and must meet the criteria regarding the language (Serbian and English) and spelling.

Submit articles which were not and will not be published before printing in our journal. In special cases, there is a possibility of agreement with the editor-in-chief.

The authors have to submit their identification data to the editors.

The editorial office reserves the right to decide on the acceptance of the submitted text for publication and editorial interventions on the text to the extent that does not interfere with the structure of the work.

LANGUAGE AND VOLUME

The text is submitted in Serbian or English language. If accepted, it will be published in the language in which it was submitted. Exceptionally, the editors will decide that the text submitted in Serbian language is to be translated and published in English, or vice versa.

Obim predloženog članka treba da bude od 12000 do 30000 znakova sa belinama. Prikazi knjiga i drugi prilozi treba da obuhvate do 6000 znakova sa razmacima. Izuzetak ide po dogovoru.

ORGANIZACIJA RUKOPISA

Članak mora da sadrži sledeće elemente i to ovim redom:

1. **Podatke o autoru.** – Ime i prezime, zvanje (titula) autora, naziv institucije u kojoj je autor zaposlen (afilijacija); obavezno navesti e-mail adresu autora.
2. **Naslov rada. –** Naslov treba da je jasan i precizan.
3. **Sažetak (rezime, apstrakt).** – To je kratak informativni prikaz sadržaja članka, koji sadrži cilj istraživanja, metode, rezultate i zaključak. U pogledu obima, poželjno je da sažetak ima oko 600 slovnih mesta, uključujući i beline. Rezime se dostavlja na srpskom i engleskom jeziku. Sažetak članka treba da stoji između naslova rada i ključnih reči, nakon kojih sledi tekst članka.
4. **Ključne reči. –** Predstavljaju termine ili fraze koji najbolje opisuju sadržaj članka. Dozvoljeno je navesti do pet reči odnosno fraza. Ključne reči se dostavljaju na srpskom i engleskom jeziku, i stoje iza sažetka pisanog na odgovarajućem jeziku.

Primer:

Ključne reči: *prihodi, kapital, eksterna revizija, interna kontrola, računovodstveni standardi.*

The paper should have between 12000 and 30.000 characters, including spaces. Book reviews and other contributions should include up to 6000 characters with spaces. The exception is by agreement.

ORGANIZATION OF MANUSCRIPT

The article must contain the following elements, in the following order:

1. **Information about the author.** – Name and surname, title of the author, name of the institution where the author is employed (affiliation) and the author's e-mail address.
2. **Title of the paper.** – The title should be clear and precise.
3. **Abstract. –** This is a brief presentation of the article content, which contains the research goal, methods, results, and main conclusions. In terms of volume, it is desirable that the abstract has about 600 characters including spaces. Abstract are submitted in Serbian and English. It stands between the title and keywords, after which the text of the article follows.
4. **Key words**. – The terms or phrases which best describe the content of the article. It is allowed to write up to five words, i.e. phrases. Keywords are submitted in Serbian and English, and are behind the abstract written in the appropriate language.

Example:

Keywords: *revenues, capital, external audit, internal control, accounting standards.*

5. **Tekst članka.** – Centralni deo predstavlja tekst članka u kojem autor uz upotrebu odgovarajuće aparature obrađuje određeni naučni problem. Tekst dostaviti kucan fontom 10; svaki novi pasus ide bez uvlačenja reda i jednim proredom se odvaja od prethodnog pasusa. Naslovi i podnaslovi su bez numerisanja, centriranja i uvlačenja.
   Raščlanjivanje naslova ide najdublje do tri nivoa. Različiti nivoi naslova označavaju se prema sledećem primeru:

Primer:

PRVI NIVO NASLOVA: BOLD, VERZAL

Drugi nivo naslova: kurent

Treći nivo naslova: kurziv

Tabele po mogućnosti dostaviti i odvojeno u excelu.
Grafikone zajedno sa izvornim podacima, ilustracije i ostale priloge obavezno dostaviti odvojeno od teksta kao prilog tekstu koji dostavljate.

6. **Popis korišćene literature.** – Posle teksta članka, daje se popis korišćene literature i to abecednim redom po prezimenima autora.
   Kod navodenja korišćenih izvora od strane drugih autora obavezno je označiti izvor.
   Popis se daje prema niže izloženom **Uputstvu za citiranje**, s tim da se godina izdanja stavlja odmah iza imena

5. **Text of the article.** – The central part is the text of the article in which the author uses appropriate tools while processing the writing of a scientific paper. Text should be typed in font 10; each new paragraph goes without indenting and is separated from the previous paragraph by one line spacing. Titles and subtitles are without numbering, centering and indentation.
   Depending on the text, the titles can have different levels. Therefore, the following method is used for marking different title levels.

Example:

FIRST LEVEL OF THE TITLE: BOLD, UPPERCASE

Second Level of Title: Bold, Title Case

Third level of the title: Italics, sentencecase

Tables should be submitted separately in Excel if possible.
Graphs, together with original data, illustrations and other additions must be submitted separately from the text as an attachment to the text you are submitting.

6. **List of used literature.** – After the text of the article, the list of used literature is specified in alphabetical order by authors' last name.
   When citing sources used by other authors, it is obligatory to indicate the source.
   The list is given according to the **Citation instructions**, with the year of publication coming right after the author's,

autora odnosno urednika. Na kraju navođenja članka ili rada u zborniku navode se stranice na kojima se nalazi citirani rad.

7. **Navođenje korišćene literature u tekstu.** – Korišćena literatura referiše se u tekstu stavljanjem u zagrade, a piše se prezime autora i godina izdanja, naprimjer: (Jović, 2018.), a u slučaju citata navodi se još i broj stranice (Jović, 2018: 78). Svaka referenca navodi se kao i prvi put. Ako je reč o dva autora, oba prezimena navode se u zagradama, a ako ih je više, navodi se samo prvi autor: (Jović i saradnici, 2018.). Svaka referenca mora se navesti u popisu literature.

   Osnovni stil pozivanja na literaturu u tekstu prikazan je na sledećoj tabeli:

i.e., editor's name. At the end of the information on an article or a paper in the collection of papers, the pages of the cited paper are given.

7. **Citing used literature in the text.** – Used literature is referred to in the text in parentheses, and the author's last name and year of publication are written, for example: (Jović, 2018), and in the case of citations, the page number is also given: Jović, 2018: 78). Each reference is given as the first time. If there are two authors, both surnames are given in brackets, and if there are more, only the first author is listed: (Jović et al., 2018). Each reference must be listed in the bibliography.

   The basic style of referring to the literature in the text is shown in the following table:

Broj autora / Author type	**Navođenje u zagradi / Parenthetical citation**	**Narativno citiranje / Narrative citation**
Jedan autor/One author	(Luna, 2020)	Luna (2020)
Dva autora/Two authors	(Salas & D'Agostino, 2020)	Salas and D'Agostino (2020)
Tri ili više autora/ Three or more authors	(Martin et al., 2020)	Martin et al. (2020)
Grupa autora sa skraćenicom/ Group author with abbreviation		
Prvo citiranje/ First citation	(National Institute of Mental Health [NIMH], 2020)	National Institute of Mental Health (NIMH, 2020)
Naredno citiranje/ Subsequent citations	(NIMH, 2020)	NIMH (2020)
Grupa autora bez skraćenice/ Group author without abbreviation	(Stanford University, 2020)	Stanford University (2020)

Izvor/Source: Official Source for APA Style The Publication Manual of the American Psychological Association, Seventh Edition (https://apastyle.apa.org/products/publication-manual-7th-edition).

Ne označavati posebno neke reči u radu, delove rada i slično podebljanjem, kosim slovima ili nekim drugim oblikovanjem.

Do not specifically mark some words in the paper, parts of the paper and the like in bold, italics or some other formatting.

UPUTSTVO ZA CITIRANJE

Kod navođenja korišćenih izvora drugih autora treba obavezno označiti izvor. Strogo izbegavajte fusnote. Izvor se navodi kao redni broj rada u spisku literature u zagradama, na pr. (2).

Za oblikovanje referenci u popisu literature koristiti APA stil:

http://www.apastyle.org

Popis literature navodi se na kraju rada. Popis može obuhvatiti samo dela na koja se autor poziva u tekstu. Literatura se slaže po abecednom redu prezimena autora navedenih dela, bez razvrstavanja po vrstama. Podaci o delu moraju biti potpuni, u skladu s bibliografskim standardima. Ako je više radova istog autora objavljeno iste godine, uz godinu se koriste oznake „a, b, c“.

Korišćena literatura treba da ima najmanje 15 izvora za pregledne naučne radove, dok za sve ostale radove treba da ima najmanje 10 izvora. Bibliografija treba da bude novijeg datuma.

Preporučuje se da se autori pozivaju na izvore radova koji su u prethodnom periodu bili objavljeni u časopisu „REVIZOR“ (http://revizor.casopisrevizor.rs/index.php/revizor), kao i onim koji su navedeni u bazama referentnih naučnih časopisa.

Preporučuje se da se autori pozivaju na izvore radova koji su u prethodnom periodu bili objavljeni u časopisu „REVIZOR“ (http://revizor.casopisrevizor.rs/index.php/revizor), kao i onim koji su navedeni u bazama referentnih naučnih časopisa.

INSTRUCTIONS FOR CITATIONS

When citing the sources used by other authors, it is necessary to specify the source. Strictly avoid footnotes. The source is cited as the ordinal number of the paper in the bibliography, e.g. (2).

Use the APA style to format references in the bibliography:

http://www.apastyle.org

The list of references is given at the end of the paper. The list can only include works that the author refers to in the text. The literature is arranged in alphabetical order of the surnames of the authors of the listed works, without sorting by types. Data on the work must be complete, in accordance with bibliographic standards. If several works by the same author were published in the same year, the marks “a, b, c” are used next to the year.

The used literature should have at least 15 sources for review scientific papers, while for all other papers there should be at least 10 sources. The bibliography should be more recent.

It is recommended that the authors refer to the sources of papers that were previously published in the journal “REVIZOR” (http://revizor.casopisrevizor.rs/index.php/revizor), as well as those listed in the databases of reference scientific journals.

It is recommended that the authors refer to the sources of papers that were previously published in the journal “REVIZOR” (http://revizor.casopisrevizor.rs/index.php/revizor), as well as those listed in the databases of reference scientific journals .

Primeri:

Knjige: prezime, inicijali imena, godina izdanja, naslov. ime izdavača. Na isti način citiraju se štampanja izdanja i elektronska izdanja.

Examples:

Books: Provide the author, year of publication, title, and publisher of the book. Use the same format for both print books and ebooks.

Jackson, L. M. (2019). *The psychology of prejudice: From attitudes to social action* (2nd ed.). American Psychological Association. https://doi.org/10.1037/0000168-000

Sapolsky, R. M. (2017). *Behave: The biology of humans at our best and worst*. Penguin Books.

Svendsen, S., & Løber, L. (2020). *The big picture/Academic writing: The one-hour guide* (3rd digital ed.). Hans Reitzel Forlag. https://thebigpicture-academicwriting.digi.hansreitzel.dk/

Poglavlja u knjigama: Koristite isti format za navođenje poglavlja i za štampana i za e-izdanja knjiga.

Ako poglavlje ima DOI, uključite DOI poglalvlja u referencu iza imena izdavača. Ne navodite mesto izdavača.

Chapers in edited books: Use the same format for both print and ebook edited book chapters.

If the chapter has a DOI, include the chapter DOI in the reference after the publisher name. Do not include the publisher location.

Aron, L., Botella, M., & Lubart, T. (2019). Culinary arts: Talent and their development. In R. F. Subotnik, P. Olszewski-Kubilius, & F. C. Worrell (Eds.), *The psychology of high performance: Developing human potential into domain-specific talent* (pp. 345–359). American Psychological Association. https://doi.org/10.1037/0000120-016

Dillard, J. P. (2020). Currents in the study of persuasion. In M. B. Oliver, A. A. Raney, & J. Bryant (Eds.), *Media effects: Advances in theory and research* (4th ed., pp. 115–129). Routledge.

Thestrup, K. (2010). To transform, to communicate, to play – The experimenting community in action. In E. Hygum & P. M. Pedersen (Eds.), *Early childhood education: Values and practices in Denmark*. Hans Reitzels Forlag. https://earlychildhoodeducation.digi.hansreitzel.dk/?id=192

Članci u časopisima: Ako članak u časopisu ima DOI, uključite DOI u reference. Ako članak u časopisu nema DOI, alii ma ULR, uključite URL članka na kraju reference.

Journal article: If a journal article has a DOI, include the DOI in the reference. If the journal article does not have a DOI but does have a URL, include the URL of the article at the end of the reference.

Jerrentrup, A., Mueller, T., Glowalla, U., Herder, M., Henrichs, N., Neubauer, A., & Schaefer, J. R. (2018). Teaching medicine with the help of “Dr. House.” *PLoS ONE*, *13*(3), Article e0193972. https://doi.org/10.1371/journal.pone.0193972

Radovi prezentovani na konferencijama: Navedite imena izlagača. Navedite pun datum konferencije. Navedite naziv prezentacije u uglastim zagradama iza naslova. Opis je fleksibilan (npr. „[Sesija konferencije]", „[Prezentacija rada]", „[Uvodno izlaganje]"). Navedite naziv konferencije ili sastanka i njegovu lokaciju.

Conference Presentation References: Provide the names of the presenters. Provide the full dates of the conference. Describe the presentation in square brackets after the title. The description is flexible (e.g., "[Conference session]," "[Paper presentation]," "[Poster session]," "[Keynote address]"). Provide the name of the conference or meeting and its location

Objavljene disertacije ili teze: Primeri reference za objavljene disertacije ili teze su:

Published Dissertation or Thesis References: Reference examples for published dissertations or theses are:

Kabir, J. M. (2016). *Factors influencing customer satisfaction at a fast food hamburger chain: The relationship between customer satisfaction and customer loyalty* (Publication No. 10169573) [Doctoral dissertation, Wilmington University]. ProQuest Dissertations & Theses Global.

Miranda, C. (2019). *Exploring the lived experiences of foster youth who obtained graduate level degrees: Self-efficacy, resilience, and the impact on identity development* (Publication No. 27542827) [Doctoral dissertation, Pepperdine University]. PQDT Open. https://pqdtopen.proquest.com/doc/2309521814.html?FMT=AI

Zambrano-Vazquez, L. (2016). *The interaction of state and trait worry on response monitoring in those with worry and obsessive-compulsive symptoms* [Doctoral dissertation, University of Arizona]. UA Campus Repository. https://repository.arizona.edu/handle/10150/620615

Evans, A. C., Jr., Garbarino, J., Bocanegra, E., Kinscherff, R. T., & Márquez-Greene, N. (2019, August 8–11). *Gun violence: An event on the power of community* [Conference presentation]. APA 2019 Convention, Chicago, IL, United States. https://convention.apa.org/2019-video

Izvori sa sajta Wikipedia: Koristite sledeći format za svaku wiki stranicu.

Wikipedia Entry References: Use this format to cite any wiki page,

Oil painting. (2019, December 8). In Wikipedia. https://en.wikipedia.org/w/index.php?title=Oil_painting&oldid=929802398

Naučno društvo za upravljanje organizacijama

Ciljevi naučnog društva:

1. Podsticanje, povezivanje i razvijanje naučnog, nastavnog i stručnog rada u oblasti upravljanja organizacijama, uključujući, ali ne i ograničavajući se na, oblasti menadžmenta, finansija, računovodstva, revizije, kontrolinga i drugih oblasti povezanih sa upravljanjem organizacijama.
2. Praktična primena naučnih saznanja iz predmetnih oblasti u rešavanju različitih pitanja povezanih sa poslovanjem preduzetnih i drugih organizacija.
3. Podsticanje razvoja i razvijanje naučne kritičke misli o pitanjima iz predmetnih oblasti.
4. Razvijanje novih metoda i tehnika stručnog usavršavanja iz predmetnih oblasti primenom savremenih informacionih tehnologija.

Rad naučnog društva odvija se kroz dve naučne oblasti

1. Naučna oblast za menadžment, finansije i kontrolu;
2. Naučna oblast za računovodstvo i reviziju.

Scientific Society for Organizational Management

Objectives of the Scientific Society:

1. Encouraging the connection and development of scientific, teaching, and professional work in the field of organizational management, including but not limited to areas of management, finance, accounting, auditing, controlling, and other related fields.
2. Practical application of scientific knowledge in the subject areas to solve various issues related to the operations of entrepreneurial and other organizations.
3. Encouraging the development and fostering of scientific critical thinking on issues in the subject areas.
4. Developing new methods and techniques for professional training in the subject areas using modern information technologies.

The work of the Scientific Society takes place through two scientific areas:

1. Scientific area for management, finance, and control;
2. Scientific area for accounting and auditing.

TOK RECENZIJE

1. Autor dostavlja svoj rad (originalni ili revidirani tekst) redakciji
2. Sekretar redakcije upućuje dostavljeni rad odgovornom uredniku
3. Uredništvo vrši preliminarnu ocenu rada
4. Ako je preliminarna ocena negativna, urednik o tome obaveštava autora e mejlom
5. Rad sa pozitivnom preliminarnom ocenom dostavlja se recenzentima*
6. Recenzenti dostavljaju uredniku izveštaj o recenziji sa svojim mišljenjem
7. Urednik razmatra mišljenja recenzenata I donosi konačnu odluku**
8. Konačna odluka dostavlja se autoru i recenzentima
9. Urednik periodično izveštava članove Izdavačkog saveta o toku radova i statusu recenzija

Napomene:
* Prvi krug recenzije za originalni tekst I drugi krug recenzije za revidovani tekst.
** Konačna odluka može se doneti i nakon jednog kruga recenzije.

Svi primljeni radovi upućuju se na ocenjivanje odgovornom uredniku. Odgovorni urednik, nakon prethodne procene teksta, donosi odluke od daljnjem postupku, i to:

a) koje rukopise odbiti,
b) koje rukopise vratiti autoru sa sugestijama, preporukama i primedbama radi poboljšanja prije slanja u postupak recenzije,
c) koje rukopise uputiti u postupak recenzija.

O odluci glavnog urednika autori se obaveštavaju putem emejla.

Nakon prihvatanja rada za postupak recenzije autori potpisuju Izjavu o autorstvu i autorskim pravima koju šalju redakciji. Svojim potpisom autor potvrđuje izvornost svoga priloga (rukopisa) i svoje autorstvo.

Radovi koji se upućuju u postupak recenzije šalju se na najmanje dve anonimne recenzije. Anonimnost recenzija znači da recenzenti ne znaju ko su autori rada, niti autori znaju ko su recenzenti. Urednik, sa puno dužne pažnje, vodi računa da recenzenti ne potiču iz iste institucije iz koje su autori. Recenzent ima obavezu da naznači eventualni konflikt interesa pre nego što recenziju prihvati, i na moguće povrede etičkih normi u radu. Nakon recenzentskog postupka, ako recenzenti to zatraže, rad se šalje na doradu autorima.

Ukoliko postoje, primedbe recezenata se dostavljaju autoru nakon prijema obe recenzije. Osim uzimanja u obzir komentara i sugestija recenzenata, autori su obavezni dostaviti i popratno pismo u kojem se navode izmene u radu i označene stranice na kojima su unesene izmene. Korigovani rad i popratno pismo šalju se autoru e-mailom. Kada autor dostavi ispravljen rad, rad se ponovo šalje recenzentima na uvid.

U situacijama kad recenzenti nisu međusobno saglasni u svojim prijedlozima u vezi s objavom i/ili kategorizacijom rada, odluku donosi glavni urednik.

Radovi se, na predlog recenzenata kategorišu u četiri kategorije:
1) **Originalni naučni rad** koji sadržava do sada još neobjavljene rezultate izvornih naučnih istraživanja;
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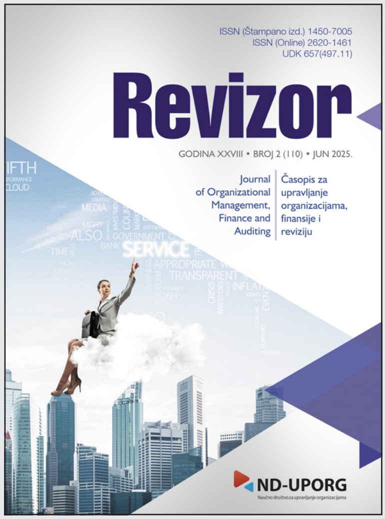

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