

PROFITABILITY OF AUDIT COMPANIES IN THE REPUBLIC OF SERBIA: EMPIRICAL RESEARCH IN THE PERIOD 2010-2019

1 Biljana Jovković, University of Kragujevac, Faculty of Economics, Serbia
2 Nemanja Karapavlović, University of Kragujevac, Faculty of Economics*, Serbia
3 Aleksandra Radojević, University of Kragujevac, Faculty of Economics, Serbia

*Corresponding author E-mail: nkarapavlovic@kg.ac.rs

1 ORCID ID: [0000-0003-2433-0963](https://orcid.org/0000-0003-2433-0963)

2 ORCID ID: [0000-0002-3421-7828](https://orcid.org/0000-0002-3421-7828)

3 ORCID ID [0000-0001-8000-9248](https://orcid.org/0000-0001-8000-9248)

ARTICLE INFO

Review Scientific Paper

Received: 29.03.2021

Revised: 21.05.2021.

Accepted: 22.05.2021.

doi [10.7251/ACE2134205J](https://doi.org/10.7251/ACE2134205J)

UDC

338.488.2:338.486.3

(497.11)“2010/2019”

Keywords: *audit company, profitability, audit services, ROA, net income*

JEL Classification: M42

ABSTRACT

The subject of the research in the paper is profitability assessment of audit companies operating in the Republic of Serbia. The objective of the research is to provide the answer to professional and scientific public whether the profitability of audit companies is conditioned by the impact of the size of audit company, origin of its equity or the existing market participation? The research included the entire population of active audit companies in the Republic of Serbia in the period from 2010 to 2019. Data analysis was performed in the statistical program SPSS, and non-parameter tests Kruskal-Wallis H test and Mann-Whitney U test were used. The research will give the answer to the question whether the profitability of an audit company depends on the source of its equity, the size or market participation it has in provision of audit services. The results of the research have shown that there is an impact of the size of the company, the origin of its equity and market participation on the profitability of audit companies measured by net income and return on total assets.

© 2021 ACE. All rights reserved

1. INTRODUCTION

Financial statements should provide relevant and faithful information to the users on the basis of which they make decisions. Independent auditor presents his/her opinion on financial statements whose basic role is to decrease information asymmetry between company management that makes them and their potential investors. With the decrease in information risk of the presented financial statements the audit enables safer investment decision making. More rational use of capital implies better use of economically limited goods and creation of bigger national wealth.

The most important change in the area of normative regulation of audit profession in the Republic of Serbia (RS) happened in 1996, when the Law on Financial Statements Audit was adopted. According to the Law from 2013, there was a separation of the Accounting Law and Auditing Law in two legal acts. The last amendments were made to the Auditing Law in 2019, which defines that licensed authorized auditors perform independent audit of financial statements, as independent auditors or for an audit company. External audit can be performed by: audit companies that have at least one licensed authorized auditor fully employed – for the audit of medium-sized companies (for the audit of large companies at least 4 authorized licensed auditors); independent auditors as entrepreneurs that have valid license for audit performance and audit companies of the EU member states, third countries, as well as auditors of member states or third countries that obtained the valid license for audit performance issued by the supervisor in RS. Audit service is provided by 259 authorized auditors (Chamber of Authorized Auditors – CAA, 2021).

Audit services are provided by audit companies. The stability of operating these companies and the security of provided services quality is important for the functioning of capital market since financial statements audit is the condition for the quotation of issuers' securities in this market. Starting from the mentioned importance of audit in economy, the focus of this research is the success of business operation of audit companies after the global economy crisis that affected financial markets in 2008. The profitability of audit companies was analyzed by measuring net income (profit or loss) and return on total assets (ROA) in the period from 2010 to 2019. The paper objective is to find out whether there is a statistically significant difference between profitability of micro, small and medium-sized audit companies. Moreover, the attempt has been made to find out whether the size of market participation of a company and the origin of its equity affect the profitability of these companies. The findings served in the development of clear image of the success focus: smaller audit companies or the companies that belong to *Big four*, and the right perception of the importance of certain participants in audit services market.

In 2010, there were 42 audit companies operating in RS ([Jovković & Ljubisavljević, 2015](#): 540), whose number increased for more than 73% in the next 10 years, so in 2019 it reached the number of 73 audit companies (CAA, 2021). Bearing in mind such a movement in the number of active audit companies, the question of how much profitability these companies have and how much they are attractive to start one's own business was imposed to the authors of the paper.

2. LITERATURE REVIEW

The aim of the audit is to increase the level of trust of potential users in financial statements ([Ljubisavljević & Jovković, 2016](#), 184), where the quality of audit can be conceived from a very low to extreme quality ([Francis, 2004](#): 345-368). It has been established that over the years there has been a strengthening of legal regulation within audit profession, which includes the increased demand for the implementation of quality control system of the work of auditors and audit companies ([Kondić & Petrović, 2008](#): 123-153). Economic science, accounting, audit and finances are significantly included in forensic science in developed market economies, and without the contribution of these disciplines it is not possible to imagine contemporary accounting, audit or court practice ([Serdar & Vranješ, 2013](#): 179 - 200).

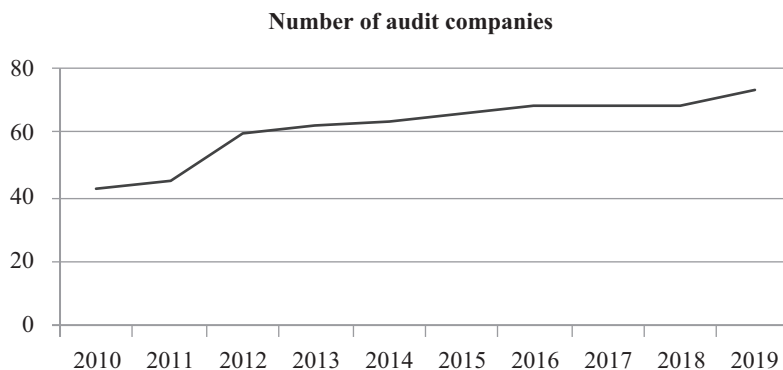
The importance of stratification of companies based on their size for obtaining the results is expressed in other research as well ([Pobrić, 2019](#): 149-167; [Vučenović, Milovanović & Grahovac, 2015](#): 49-68). Companies can be divided based on their size into: micro, small, medium-sized and large ([The Accounting Law, The Official Gazette of RS, no. 73/2019, Article 6](#)). Taking into account the criteria for grouping the companies according to their size, it has been shown that there are no large audit companies in the market of RS. Certainly, the companies that are smaller according to their size have significant contribution to the economy and its harmonious functioning. Small and medium-sized companies are important carriers of contemporary economy ([Marinković & Senić, 2012](#): 13-22).

There are different ways of looking at the position and performance of audit companies. Some of the papers that researched audit companies and the success of business of stated companies in the RS took into account operating revenues, net income, number of employees, and number of authorized auditors ([Jakšić, Mijić & Bojić, 2015](#): 549-559; [Mijić, Jakšić & Vuković, 2014](#): 27-37). In addition to income and number of employees as separate categories, some authors observed the net income per employee ([Milenković, 2017](#): 47-56; [Mrdak, 2019](#): 19-29). Audit companies as professional institutions use human capital that represents an important input factor for acquiring competitive advantage ([Chen, Yang & Yang, 2020](#): 1254-1270).

3. MATERIALS AND METHODS

The research included the total number of 73 audit companies that existed in 2019 in RS. The characteristics of population within descriptive statistics have

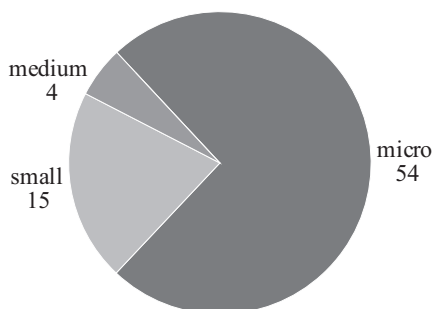
been described by the following adjectives: the company size, headquarters, the age of the audit company, the type of founder (physical entity, legal entity or mixed), the number of founders and the number of auditors. Active number of audit companies during the period of the analysis was increasing constantly. The review of the number of audit companies that make research subject population was presented in the following graph.



Graph 1. Active number of companies in RS in the period 2010-2019

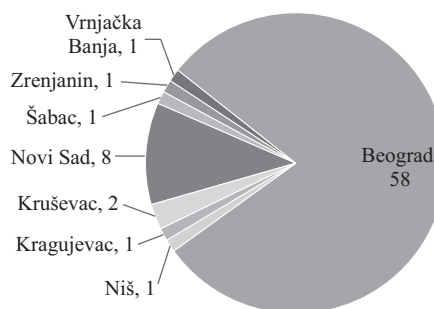
Source: Authors' calculation on the basis of data, CAA, 2021

In 2010, there were 42 audit companies operating in RS (Jovković & Ljubisavljević, 2015: 540), whose number increased by more than 50% in the next 5 years, so in 2015 there were 66 companies in total (Ljubisavljević & Jovković, 2016: 363). In the second half of analyzed decade, the number of companies increased more slowly, so in 2019 it reached the number of 73 audit companies, which is an increase of 10,6% in comparison to the condition five years ago.



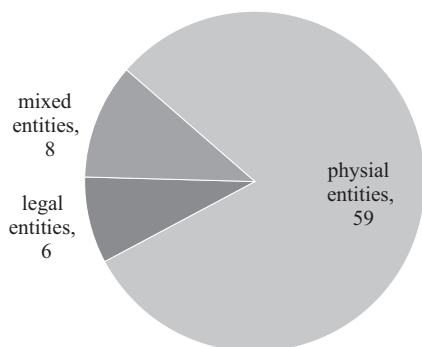
Graph 2. Audit companies according to their size

Source: Authors' calculation on the basis of data, CAA, 2021



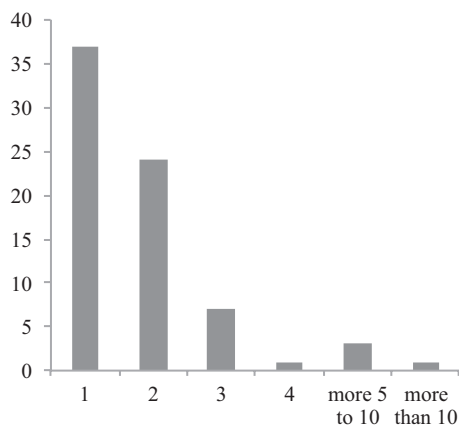
Graph 3. Audit companies according to their headquarters

Audit companies can be micro, small, medium-sized and large, depending on the average number of employees, the amount of business incomes and the amount of total assets (The Accounting Law, Article 6). The audit company size and its reputation are some of the very important factors (Al Ani, Salim & Al Enzi, 2017: 1087-1095). The biggest number of audit companies is micro, according to their size, and with percentage share of these companies in the total number of audit companies being 73.97%. It is important to emphasize that the companies of medium size are actually the members of “Big four”. The most common headquarters of audit companies are in Belgrade (58), Novi Sad is the headquarters for 8 audit companies, Kruševac for two. One audit company has the headquarters in Šabac, Zrenjanin, Vrnjačka Banja, Niš and Kragujevac, respectively.



Graph 4. Audit companies acc. to founder type

Source: Authors’ calculation on the basis of data, KOR, 2021



Graph 5. Audit companies acc. to their age

The biggest number of audit companies has been founded by physical entities, 59 of them, which is the most common type of founding, in 80.82% of cases. Legal entities have founded only 6 audit companies in RS, while mixed founders, comprised of both physical and legal entities have founded 8 audit companies. By observing active audit companies, the oldest among them are audit companies DELOITTE, FINEKS S.J. and BDO founded in 1991 and 1992. Audit companies that have existed in the market of RS up to 5 and 10 years make 24.66% of all audit companies, more precisely, 18 audit companies are in these groups. Even 15 companies have operated more than 20 years in the market of RS.

For the purpose of the analysis data on registered audit companies available in the official register of the Chamber of licensed auditors of the Republic of Serbia

have been collected (COA, 2021). The collected data were grouped by financial years and prepared for further treatment in the program Microsoft Excel. The formed database on the business of audit companies was imported into SPSS statistical program where further testing was started. Nonparametric tests were performed, as follows: Kruskal-Wallis H test and Mann-Whitney U test, depending on whether the population was divided into three or two strata for the purposes of testing a particular hypothesis. Considering that the mentioned tests compare the medians, a comparison of the medians of net income and the ROA by strata was performed. The following hypotheses were tested in the paper:

- H_1 : The size of audit companies significantly impacts the profitability
 - $H_{1,1}$ measured by the amount of obtained net income
 - $H_{1,2}$ measured by ROA.
- H_2 : The origin of the audit companies' equity significantly impacts the profitability
 - $H_{2,1}$ measured by the amount of obtained net income.
 - $H_{2,2}$ measured by ROA.
- H_3 : Market participation of audit companies does not impact the profitability significantly
 - $H_{3,1}$ measured by the amount of obtained net income
 - $H_{3,2}$ measured by ROA.

4. RESULTS AND DISCUSSIONS

For the purpose of testing the first set hypothesis, which examines the existence of conditionality between the company size and profitability, a Kruskal-Wallis H test was performed. The company size was determined by using criteria for classification according to the Accounting Law ([Accounting Law, Article 6](#)). The first hypothesis is broken down into $H_{1,1}$, where the profitability is measured by the amount of obtained net income and $H_{1,2}$, where the profitability is measured by ROA, as the global profitability indicator ([Bogićević, Domanović & Obradović, 2020: 9731](#)).

$H_{1,1}$: The size of audit companies significantly impacts the profitability measured by the amount of net income.

The results of the performed test are shown in the Table 1.

Table 1. Results of Kruskal-Wallis H test – enterprise size and net income

Year	Chi-Square	df	Sig.	Median for micro enterprises	Median for small enterprises	Median for medium-sized enterprises
2010	16.580	2	0.000	1,518.00	13,313.50	15,731.50
2011	12.545	2	0.002	1,192.00	13,912.50	10,827.00
2012	13.410	2	0.001	849.00	9,962.00	8,316.00
2013	9.283	2	0.010	1,543.00	10,968.00	9,490.50
2014	16.644	2	0.000	559.00	12,587.00	23,457.00
2015	17.277	2	0.000	390.00	11,068.00	51,993.50
2016	26.021	2	0.000	247.50	5,049.00	34,107.50
2017	20.479	2	0.000	331.00	3,724.00	18,205.50
2018	23.506	2	0.000	470.50	6,526.00	9,553.00
2019	28.007	2	0.000	401.00	8,024.00	46,217.50

Source: Authors' calculation

The results of Kruskal-Wallis H test displayed in the Table 1 show that in each observed year there is a statistically significant difference in the amount of net income between audit companies of various sizes ($p < \alpha$). Median of medium companies is the highest in seven observed years, while the median of small companies is the highest in all years encompassed by the analysis. Median of micro companies is the lowest for all years encompassed by the analysis. Since Kruskal-Wallis H test only indicates that there is a possible statistically significant difference, but not between which groups, additional Mann-Whitney U tests were conducted between micro and small audit companies, micro and medium-sized audit companies, and small and medium-sized audit companies (Table 2), the results of which were interpreted after performing Bonferroni correction of alpha value ($\alpha = 0.05 / 3 = 0.017$) (Pallant, 2011: 235-236).

The results of Mann-Whitney U tests in the Table 2 show that between net income of micro and small audit companies there is a statistically significant difference in each observed year ($p < \alpha$), whereby that difference is of a medium intensity only in 2013, between medium and high intensity in six observed years and of a high intensity in three observed years (see the indicator of the size impact (r), according to Pallant, 2011: 231). In seven observed years there is a statistically significant difference between net income of micro and medium audit companies. That difference is of a medium intensity in 2010 and 2014, while from 2015 to 2019 it is between medium and high intensity. Between the net income of small and medium audit companies there is a statistically significant difference only in the last year of analysis, whereby that difference is of a high intensity.

Table 2. Results of Mann-Whitney U test – enterprise size and net income

Year	Mann-Whitney U	Z	Sig.	R
<i>Micro and small</i>				
2010	18.000	-3.720	0.000	0.448
2011	41.000	-3.317	0.001	0.399
2012	50.000	-3.244	0.001	0.391
2013	66.000	-2.725	0.006	0.328
2014	91.000	-3.558	0.000	0.428
2015	115.000	-3.496	0.000	0.421
2016	77.000	-4.404	0.000	0.530
2017	128.000	-3.690	0.000	0.444
2018	109.000	-4.051	0.000	0.488
2019	105.000	-4.364	0.000	0.525
<i>Micro and medium-sized</i>				
2010	5.000	-2.597	0.009	0.341
2011	19.000	-1.843	0.065	0.242
2012	13.000	-2.340	0.019	0.307
2013	20.000	-1.897	0.058	0.249
2014	15.000	-2.521	0.012	0.331
2015	13.000	-2.735	0.006	0.359
2016	5.000	-3.096	0.002	0.407
2017	7.000	-3.048	0.002	0.400
2018	4.000	-3.159	0.002	0.415
2019	0.000	-3.314	0.001	0.435
<i>Small and medium-sized</i>				
2010	23.000	-0.121	0.903	0.028
2011	22.000	-0.243	0.808	0.056
2012	20.000	-0.485	0.628	0.111
2013	22.000	-0.243	0.808	0.056
2014	19.000	-1.100	0.271	0.252
2015	21.000	-0.900	0.368	0.206
2016	15.000	-1.500	0.134	0.344
2017	17.000	-1.300	0.194	0.298
2018	20.000	-1.000	0.317	0.229
2019	3.000	-2.700	0.007	0.619

Source: Authors' calculation

- $H_{1,2}$: The size of audit companies significantly impacts the profitability measured by ROA.

The results of the performed test were shown in the Table 3.

Table 3. Results of Kruskal-Wallis H test – enterprise size and ROA

	Chi-Square	df	Sig.	Median for micro enterprises	Median for small enterprises	Median for medium-sized enterprises
2010	4.691	2	0.096	28.89%	22.75%	5.67%
2011	3.980	2	0.137	22.59%	17.99%	3.29%
2012	3.338	2	0.188	22.23%	22.46%	3.16%
2013	4.244	2	0.120	30.59%	14.80%	2.95%
2014	0.966	2	0.617	16.28%	15.77%	7.18%
2015	0.598	2	0.741	15.32%	11.38%	11.82%
2016	0.826	2	0.662	3.44%	10.17%	8.84%
2017	1.376	2	0.503	9.30%	9.24%	4.56%
2018	2.808	2	0.246	9.38%	8.73%	1.93%
2019	0.060	2	0.970	6.05%	7.54%	7.28%

Source: Authors' calculation

Kruskal-Wallis H test did not reveal a statistically significant difference between the ROA in audit companies of various sizes ($p > \alpha$ in each of the observed years). In seven observed years, median of ROA is the highest with micro audit companies, while in three observed years median of rate on total assets was the highest in small companies. Median of the ROA of medium-sized companies is the lowest in seven observed years, of micro companies in two, and of small companies in one year.

For the purpose of testing the second set hypothesis that examines the existence of conditionality between the origin of the audit companies' equity and profitability a Mann-Whitney U test was performed. The origin of one's equity was established according to the status of ownership available in the data of the Business Registers Agency of RS. All residents of RS are domestic entities while investors, legal and physical entities from foreign countries, are treated as foreign entities. The second hypothesis is broken into $H_{2,1}$ where the profitability is measured by the amount of realized net income and $H_{2,2}$ where the profitability is measured by ROA.

- $H_{2,1}$ The origin of audit companies' equity significantly impacts the profitability measured by obtained net income.

The results of Mann-Whitney U test given in the Table 4 show that only in period 2017-2019 there is a statistically significant difference between obtained net income of domestic and foreign audit companies ($p < \alpha$). However, the analysis of median shows that net income of foreign audit companies is higher than realized net income of domestic audit companies in all years of the analysis.

Table 4. Results of Mann-Whitney U test – enterprise origin and net income

	Mann-Whitney U	Z	Sig.	r	Median for domestic	Median for foreign
2010	64.000	-1.512	0.130	0.177	2,803.00	11,419.00
2011	80.000	-1.833	0.067	0.215	1,462.00	5,510.00
2012	109.000	-1.102	0.270	0.129	1,407.50	5,206.00
2013	117.000	-0.850	0.395	0.099	2,058.50	4,024.00
2014	245.000	-0.565	0.572	0.066	1,217.00	6,615.00
2015	323.000	-0.358	0.720	0.042	750.00	981.00
2016	286.000	-1.421	0.155	0.166	381.00	1,503.00
2017	266.000	-2.005	0.045	0.235	366.50	2,314.00
2018	201.000	-3.044	0.002	0.356	590.00	5,509.00
2019	255.500	-2.878	0.004	0.337	433.50	4,265.00

Source: Authors' calculation

- $H_{2,2}$ The origin of audit companies' equity significantly impacts the profitability measured by ROA.

The results of performed testing were shown in the Table 5.

Table 5. Results of Mann-Whitney U test – enterprise origin and ROA

	Mann-Whitney U	Z	Sig.	r	Median for domestic	Median for foreign
2010	58.000	-1.654	0.098	0.194	25.860%	6.735%
2011	111.000	-0.800	0.424	0.094	20.560%	7.920%
2012	89.000	-1.636	0.102	0.191	23.470%	4.780%
2013	84.000	-1.890	0.059	0.221	25.735%	4.120%
2014	211.000	-1.362	0.173	0.159	16.715%	8.730%
2015	233.500	-1.884	0.060	0.221	15.180%	5.935%
2016	351.500	-0.387	0.699	0.045	4.940%	4.260%
2017	337.000	-0.943	0.346	0.110	10.015%	5.600%
2018	390.000	-0.265	0.791	0.031	7.510%	9.570%
2019	459.000	-0.222	0.824	0.026	6.530%	6.810%

Source: Authors' calculation

The results of Mann-Whitney U test show that there is no statistically significant difference measured by ROA between domestic and foreign audit companies (Table 5). However, the analysis of median shows that ROA of domestic audit companies in eight observed years (beginning from 2010 and concluding with 2017) is higher than ROA of foreign audit companies, while the foreign audit companies, according to ROA, only in two observed years (in 2018 and 2019) are more profitable than domestic audit companies.

For the purpose of testing the third set hypothesis that examines the existence of conditionality between market participation of audit companies and profitability, a Mann-Whitney U test was performed. Market participation of audit companies was established based on participation of operating revenues of the each company in total operating revenues of all audit companies realized in that year of the analysis. In order to examine the influence of market participation of audit companies on ROA, audit companies were divided into two groups: group 1 – market participation up to 5% and group 2 – market participation higher than 5%. The third hypothesis is broken into $H_{3,1}$ where the profitability is measured by the amount of obtained net income and $H_{3,2}$ where the profitability is measured by ROA.

- $H_{3,1}$ Market participation of audit companies does not impact significantly the profitability measured by the amount of obtained net income.

Table 6. Results of Mann-Whitney U test – market share and net income

	Mann-Whitney U	Z	Sig.	r	Median for up to 5%	Median for more than 5%
2010	28.000	-1.655	0.098	0.194	7,140.48	16,391.76
2011	41.000	-1.342	0.179	0.157	5,577.43	11,432.00
2012	41.000	-1.450	0.147	0.170	5,101.30	8,954.00
2013	42.000	-1.912	0.056	0.224	4,910.28	14,159.60
2014	34.000	-2.155	0.031	0.252	4,958.61	25,554.00
2015	34.000	-2.291	0.022	0.268	6,081.33	50,404.50
2016	20.000	-2.739	0.006	0.321	2,459.72	47,457.00
2017	24.000	-2.687	0.007	0.314	2,165.37	25,804.25
2018	22.000	-2.730	0.006	0.320	2,583.84	12,918.25
2019	3.000	-3.372	0.001	0.395	2,655.81	53,954.50

Source: Authors' calculation

Mann-Whitney U test showed that in the period from 2014 to 2019 there is a statistically significant difference ($p < \alpha$) between obtained net income of audit companies that have market participation up to 5% and audit companies that have market participation higher than 5% (Table 6). From 2014 concluding with 2018 that difference is of a medium intensity, while in 2019 that difference is between medium and high intensity. The analysis of medians shows that in all observed years the median of net income of audit companies that have market participation higher than 5% is higher than median of net income of audit companies, the market participation of which is up to 5%.

- $H_{3.2}$: Market participation of audit companies does not impact significantly the profitability measured by ROA.

The results of the performed Mann-Whitney U tests are shown in Table 7. ROA of audit companies that have market participation of up to 5 % and audit companies that have market participation higher than 5% is statistically significantly different only in 2010 and 2011 ($p < \alpha$). The established difference is of medium intensity. However, in eight observed years the median of companies with market participation up to 5% is larger than the median of the companies with market participation higher than 5%, while the reverse is only in two observed years.

Table 7. Results of Mann-Whitney U test – market share and ROA

	Mann-Whitney U	Z	Sig.	r	Median for up to 5%	Median for more than 5%
2010	18.000	-2.165	0.030	0.371	25.860%	5.665%
2011	27.000	-1.991	0.047	0.315	20.460%	3.285%
2012	32.000	-1.803	0.071	0.282	22.455%	3.160%
2013	52.000	-1.514	0.130	0.236	22.655%	4.120%
2014	67.000	-1.044	0.297	0.143	16.280%	7.180%
2015	95.000	-0.452	0.651	0.059	15.070%	11.815%
2016	106.000	-0.233	0.816	0.030	4.940%	8.840%
2017	82.000	-1.129	0.259	0.139	9.270%	4.555%
2018	64.000	-1.583	0.113	0.196	8.910%	1.930%
2019	128.000	-0.242	0.808	0.028	6.280%	7.275%

Source: Authors' calculation

5. CONCLUSIONS

Based on the result of performed researches it is possible to draw the following conclusions on tested hypotheses:

- $H_{1.1}$: The size of audit companies significantly impacts the profitability measured by the amount of obtained net income.

The results of the performed test show that in each observed year there is a statistically significant difference in the amount of net income between audit companies of different sizes. These results suggest a conclusion that small and medium audit companies measured by net income are more profitable than macro companies, so that the hypothesis $H_{1.1}$ is accepted. Such conclusion additionally supports the analysis of median which is the highest in medium companies in seven observed years, in small companies in three years, while in micro companies it is the lowest in all analyzed years.

- $H_{1,2}$: The size of audit companies significantly impacts the profitability measured by ROA.

The performed test did not discover a statistically significant difference among ROA in audit companies of various sizes. However, when median of ROA of micro, small, and medium companies is analysed, it is noted that in seven observed years, median of ROA is the highest in micro audit companies, while in three observed years median of ROA is the highest in small companies. Median of ROA of medium companies is the lowest in seven observed years, with micro companies in two, and small ones in one year. Thus, this hypothesis is partially accepted because medians of ROA indicate that most frequently the most profitable are micro companies in the analysed period (and then small companies) since the performed test did not discover a statistically significant difference.

Thus, if the profitability is measured by the ROA, micro and small audit companies are, generally, more profitable than medium audit companies. Contrary to this conclusion, the size of a company impacts the profitability measured by net income since the results of the research have indicated that medium companies are more profitable than small ones, while the small ones are more profitable than micro ones.

- $H_{2,1}$ The origin of audit companies' equity significantly impacts the profitability measured by the amount of obtained net income.

The test results show that although only in the period 2017-2019 there is a statistically significant difference between obtained net income of domestic and foreign audit companies. The hypothesis $H_{2,1}$ can be accepted since the analysis of medians unequivocally shows that net income of foreign audit companies is higher than obtained net income of domestic audit companies in all years of analysis.

- $H_{2,2}$ The origin of audit companies' equity significantly impacts the profitability measured by ROA.

The results of performed tests did not show the existence of a statistically significant difference between ROA of domestic and foreign audit companies. However, the analysis of medians clearly shows that ROA of domestic audit companies in eight out of 10 observed years (2010-2017) is higher than ROA of foreign audit companies. The hypothesis $H_{2,2}$ is partially adopted since the analysis of medians suggests the conclusion that domestic audit companies are more profitable than foreign ones.

Thus, it can be concluded that if the profitability is measured by absolute amount of net income, foreign audit companies are more profitable than domestic ones. If the profitability is measured by ROA, domestic audit companies are more profitable than foreign companies. Foreign audit companies realize higher net profit, but since they have significant engaged assets, in the relative indicator (ROA) they lose leading position based on this indicator of profitability. Thanks to fewer assets they possess, domestic audit companies are more profitable.

- $H_{3,1}$ Market participation of audit companies does not significantly impact the profitability measured by the amount of obtained net income.

The results of performed tests have shown the existence of statistically significant difference between obtained net income of audit companies that have market participation of 5% and audit companies that have market participation higher than 5% in six observed years. Also, the median analysis of net income in all observed years of these two groups of audit companies has confirmed that companies with market participation higher than 5% have larger median of net income than the companies whose net participation is up to 5%. If the profitability is measured by absolute amount of net income, audit companies that have larger market participation are more profitable than audit companies that have less market participation, which implies the conclusion that this hypothesis is rejected.

- $H_{3,2}$ Market participation of audit companies does not impact significantly the ROA.

The test results indicate that ROA of audit companies that have market participation of up to 5% and audit companies that have market participation higher than 5% is statistically significant only in 2010 and 2011. The analysis of medians indicates that in eight observed years the median of the companies with market participation of up to 5% is higher than the median of the companies with market participation higher than 5%. Such results lead to the conclusion of partial rejection of $H_{3,2}$ hypothesis, because the analysis of medians indicates that market participation impacts ROA of the audit company. Thus, the claim that market participation of audit companies does not impact ROA can be partially rejected, because if the profitability is measured by net income, the companies with higher market participation are more profitable, while such ascertainment with relative indicator can be partially expressed.

Regardless of the size, the origin of equity or the volume of market participation of a company, profitability of the audit company as an exclusive motif and imperative must not be a priority at all costs. Namely, audit companies must

comply with the rules of profession in providing auditing services and perform audit in accordance with auditing standards (IFAC, MSR,) and requirements of regulation norms ([Auditing Act, 2019](#)). In RS the COA is a professional association that takes care of the quality of work of audit companies, auditing services and keeps the register of issued certificates to the licensed auditors and work permits of audit companies. If audit companies ignore the rules of the profession in their business the Ministry of Finance of RS will order the company to remove the irregularities, conditionally revoking the work permit for two or five years. The CAA takes care of conducting these measures, and transparently keeps the register of issued measures as shown in the Table 8.

Table 8. Review of declared measures to audit companies and independent auditors

No.	Audit company	Declared measure of the Chamber	Date
1.	Vinčić d.o.o Novi Beograd	The audit license is conditionally revoked for two years	14/01/2020
2..	FULL REVIZIJA Surčin	The audit license is revoked for a period of five years	14/08/2018
3.	MILINKOVIĆ AUDIT d.o.o. Beograd	It is ordered to eliminate the irregularities identified in the work control procedure	23/06/2017
4.	BOJIĆ REVIZIJA d.o.o. Šabac	It is ordered to eliminate the irregularities identified in the work control procedure	23/06/2017
5.	ABSOLUTE AUDIT d.o.o. Beograd	It is ordered to eliminate the irregularities identified in the work control procedure	23/06/2017
6.	“Rosh Audit” d.o.o. Beograd	It is ordered to eliminate the irregularities identified in the work control procedure	21/12/2016
7.	FINREVIZIJA d.o.o. Beograd	It is ordered to eliminate the irregularities identified in the work control procedure	21/12/2016
8.	AUDITOR d.o.o. Beograd	It is ordered to eliminate the irregularities identified in the work control procedure	21/12/2016
9.	DIJ-AUDIT d.o.o. Beograd	It is ordered to eliminate the irregularities identified in the work control procedure	23/09/2016
10.	“STANIŠIĆ-AUDIT” d.o.o. Beograd	It is ordered to eliminate the irregularities identified in the work control procedure	23/09/2016
11.	ACA professional audit company d.o.o. Beograd	It is ordered to eliminate the irregularities identified in the work control procedure	23/06/2016
12.	Libra Audit d.o.o. Novi Sad	It is ordered to eliminate the irregularities identified in the work control procedure	23/06/2016
13.	REVIZIJA doo Beograd	The audit license is revoked for a period of five years	15/01/2016

Source: (http://www.kor.rs/registri_preduzeca.asp), time of preview March 2019

No matter how much the profit may be the leading motive for the funding an audit company the main stumbling block for doing this job is having a certified auditor’s license, which implicitly implies having sophisticated knowledge and experience in this field, which is the main obstacle to entering this business.

ACKNOWLEDGEMENTS

The authors declare that there is no conflict of interest.

REFERENCES

- Agencija za privredne registre. (n.d.). Available at: <https://www.apr.gov.rs>
- Al Ani, M., Salim, B. & Al Enyi, J. (2017). Auditor Selection: Big four or Non - Big Four? Case of Oman. *International Business Management*, 11(5), 1087 – 1095.
- Bogićević, J., Domanović, V., & Obradović, V. (2020). Agriculture, Forestry and Fishing Sector Profitability in the Republic of Serbia, *Fresenius Environmental Bulletin*, 29(11), 9730-9740.
- Chen, Yahn-Shir., Yang, Chung.-Cheng. & Yang, Yi-Fang. (2020). Higher Academic Qualifications, Professional Training and Operating Performance of Audit Firms. *Sustainability*, 12(3), 1254 – 1270.
- Francis, J. (2004). What do we know about audit quality? *The British Accounting Review*, 36(4), 345 – 368.
- Jakšić, D., Mijić, K. & Bonić, Lj. (2015). Sličnosti i razlike u performansama revizijskih firmi u Srbiji. *Ekonomске teme*, 53(4), 549 – 559.
- Jovković, B. & Ljubisavljević, S. (2015). Analysis of the profitability of audit firms in the Republic of Serbia between 2010 and 2012. *Contemporary Issues in Economics, Business and Management – EBM 2014*, 537 – 557. Kragujevac: Faculty of Economics University of Kragujevac.
- Komora ovlašćenih revizora (n.d.). Dostupno na: https://www.kor.rs/registri_izdatih_sertifikatai.asp
- Kondić, N. & Petrović, N. (2008). Javni nadzor nad revizorskom profesijom i kontrola kvaliteta rada revizora i revizorskih firmi. *Acta Economica*, 6(8), 123 – 153.
- Ljubisavljević, S. & Jovković, B. (2016). *Revizija finansijskih izveštaja*. Kragujevac, Srbija: Ekonomski Fakultet Univerzitet u Kragujevcu.
- Marinković, V. & Senić, V. (2012). Analiza elemenata kvaliteta usluga u korporativnom bankarstvu. *Ekonomski horizonti*, 14(1), 13 – 22.
- Mijić, K., Jakšić, D. & Vuković, B. (2014). Uticaj saturacije revizorskog tržišta na poslovanje novih revizorskih firmi. *Ekonomski pogledi*, 16(3), 27 – 37.
- Milenković, M. (2018). Revizorske firme u Srbiji 2017. *Revizor*, 21(83), 47 – 56.
- Mrdak, G. (2019). Revizorske firme u Srbiji 2018. *Revizor*, 22(6), 19 – 29.
- International auditing and assurance standards boards. (n.d.). MSR. Dostupno na: <https://www.iaasb.org/standards-pronouncements>
- Pallant. (2011). *SPSS – Priručnik za preživljavanje*. Beograd: Mikro knjiga.
- Pobrić, A. (2019). The application of fair value accounting in Bosnia and Herzegovina. *Acta Economica*, 17(31), 149 – 167.
- Serdar, T. & Vranješ, S. (2013). Otkrivanje i sprečavanje finansijskih prevara u cilju jačanja finansijskih performansi preduzeća u Republici Srpskoj. *Acta Economica*, 11(19), 179 – 200.

Vučenović, S., Milovanović, D. & Grahovac, M. (2015). Finansijska konkurentnost privrede Republike Srpske. *Acta Economica*, 13(23), 49 – 68.
Zakon o računovodstvu (“Službeni glasnik Republike Srbije”, br. 73/2019).
Zakon o reviziji (“Službeni glasnik Republike Srbije”, br. 73/2019)

ПРОФИТАБИЛНОСТ РЕВИЗОРСКИХ ПРЕДУЗЕЋА У РЕПУБЛИЦИ СРБИЈИ: ЕМПИРИЈСКО ИСТРАЖИВАЊЕ У ПЕРИОДУ 2010-2019.

¹ Биљана Јовковић, Универзитет у Крагујевцу, Економски факултет, Србија

² Немања Карапавловић, Универзитет у Крагујевцу, Економски факултет*, Србија

³ Александра Радојевић, Универзитет у Крагујевцу, Економски факултет, Србија

САЖЕТАК

Предмет истраживања у раду је оцјена профитабилности пословања ревизорских предузећа у Републици Србији. Циљ истраживања јесте да пружи одговор стручној и научној јавности да ли је профитабилност ревизорских предузећа условљена величином ревизорског предузећа, поријеклом сопственог капитала или постојећим тржишним учешћем. Истраживање је обухватило цјелокупну популацију активних ревизорских предузећа у Републици Србији у периоду од 2010. до 2019. године. Анализа података је извршена у статистичком програму СПСС, а коришћени су непараметарски тестови Крускал-валис Х тест и Ман-витни У тест. Истраживање даје одговор на питање да ли профитабилност ревизорског предузећа зависи од извора сопственог капитала, величине или тржишног учешћа које има у пружању ревизорских услуга. Резултати истраживања показују да постоји веза између: величине предузећа, поријекла сопственог капитала и тржишног учешћа и профитабилности предузећа мјерене нето резултатом или стопом приноса на укупна средства. Не може се извести идентичан закључак о профитабилности ревизорских предузећа када се као мјерило користи апсолутни износ нето резултата и када се користи релативни показатељ – принос на укупна ангажована средства (РОА рацио). Наиме, добијају се неконзистентни резултати када се профитабилност мјери апсолутном и релативном мјером. Добијени резултати истраживања потврђују хипотезе $X_{1,1}$ и $X_{2,1}$ док дјелимично потврђују хипотезе $X_{1,2}$ и $X_{2,2}$. Резултати истраживања оспоравају прихватање хипотезе $X_{3,1}$ у потпуности и дјелимично одбијање хипотезе $X_{3,2}$.

Кључне ријечи: *ревизорско предузеће, профитабилност, услуге ревизије, РОА, нето резултат.*

