

A PRAGMATIC APPROACH OF THE STATE AUDIT ENGAGEMENTS THROUGH AN ANALYSIS OF THE AUDITED MUNICIPALITIES' REVENUES AND EXPENDITURES IN THE REPUBLIC OF NORTH MACEDONIA

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Abstract. *The state audit is a crucial mechanism in controlling the spending of public money, hence the synonym for state audit is “guardian of public money”. The Lima Declaration, and later the Mexico Declaration, began to regulate state audit of a profession. The International Organization of Supreme Audit Institutions (INTOSAI) Standards indicate that state audit is regulated by the highest legal act of a country (the Constitution). In the Republic of North Macedonia, the state audit is regulated by the Law on State Audit, which governs its competencies and its mandate to audit public sector entities. The activities related to the state audit in the Republic of North Macedonia are performed by the State Audit Office (SAO), as the Supreme Audit Institution (SAI). The SAO has been a member of the INTOSAI since 2001 and of the European Organization of Supreme Audit Institutions (EUROSAI) since 2002. The most important entities covered by the state audit in the Republic of North Macedonia are the units of local self-government (hereinafter referred to as municipalities). This research focuses on the audits of the municipalities in the Republic of North Macedonia within 10 years, in terms of the volume of audited revenues and expenditures in the municipalities. By analyzing the data obtained from the annual reports of the performed audits and the operation of the SAO (2010–2019), this research investigates the impact of the state audit engagements on the audited revenues and expenditures of the Macedonian municipalities. For the analysis of the domestic practice, data was collected and extracted from 10 annual reports of the performed audits and the operation of the SAO (2010–2019). All the results of the research will be summarized in a conclusion that should indicate whether the audit of the municipalities in the Republic of North Macedonia noticed progress through the past 10 years with a particular emphasis on the trend and impact of conducted audit engagements.*

Keywords: *municipality audit, state audit, state audit office.*

JEL classification: *M40, M42.*

INTRODUCTION

A successful development of countries' economies depends on effective and efficient public administration, which includes good and wise local government and efficient service delivery at the local level (EUROSAI TFMA, 2016). In all democratic societies, court review is an integral part of the constitution. The state audit of the budgets serves the country and its citizens by examining public responsibility and the way the public money is spent. State audit differs from other types of government controls by emphasizing its independence and authorized access for examination, audit, and control of budget development by central and local governments and control of the implementation in the function of public interest. Local government is the closest government unit to people, therefore, its policies and activities impact the general public on a daily basis. To optimize public interests, local government audit plays a significant role in the national audit system. According to the Law on State Audit, which was adopted in 1997 and has set the framework at the national level, the state audit in the Republic of North Macedonia is performed by the State Audit Office (hereinafter referred to as SAO) as an independent public authority managed by the Auditor General (State Audit Office, 2019). To increase the compliance of the legal regulations in the state audit with the requirements of the Lima Declaration and the Mexico Declaration of SAI Independence and to bring it closer to the EU standards and practice, this law undergoes several changes, and in 2010 enters into force new Law on State Audit which is largely in line with the stated requirements of the declarations. The municipality audit has always been one of the most important audits in the Republic of North Macedonia, given the fact that for a long time period, the Special Sector for the audit of local self-government units (municipalities) existed in the organizational structure in the SAO, and currently, the audit of

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municipalities is included in a separate department as a part of the organizational structure of the SAO. Besides external audits, the internal audit at the local government level also exists and functions to improve compliance and performance in the operation of the municipality. The procedures of audit engagements in the municipalities do not differ significantly from the audit process on other public institutions at the national level, but there is a significant difference in the selection of the entity to be audited, the essence and scope of the audit (Geist, 1981). The purpose of the municipality audit can be defined as the collection of data on the activities of local governments, their verification, and their comparison with the norms in order to initiate the correction of deficiencies and improve the local administration. This research paper refers to a topic that is insufficiently explored even though it concerns one of the most important aspects of the sustainability, development, and welfare of the municipalities. A theoretical, practical, and empirical approach is applied through summarizing the relevant literature and analysis of the annual audit reports by the SAO for a period of the last 10 years (2010–2019), i. e. 10 out of a total of 19 issued SAO reports from its existence. Analogously, the research is based on two main objectives. First, to determine the scope of a state audit in the municipalities, and how the number of audit engagements in the municipalities affects the volume of the audited revenues and expenditures in the municipalities.

LITERATURE REVIEW

In the past, the impact of the state audit engagements on the audited revenues and expenditures of the municipalities has not been a subject of comprehensive analysis, given the fact that not in all countries SAO is mandated to audit municipalities. Supreme audit institutions conduct the audit following the national legal framework and international standards on auditing. International standards on auditing provide guidance for conducting financial, performance, and compliance audits. According to the Domestic Legal Framework (2010), state audit in certain entities is mandatory once a year, while the audit of other public sector entities, according to different criteria for selection of entities is determined by the annual work programs of the SAO. Owing to the fact that each year by certain criteria it is selected which entities will be subject to audit in the current year, i. e. the number of audited entities (such as municipalities) is different each year. Therefore, a realistic picture of the scope of the state audit is obtained by measuring the ratio between the total audited public expenditures and the total public expenditures made by the public sector entities that were audited in the specific year (Official Gazette of the R. M No. 145, 2010). On the 44th EUROSAI Governing Board meeting, The Task Force on Municipality Audit (EUROSAI TFMA, 2016) noted that, the SAIs employ identical auditing standards in planning and conducting municipal audits as those used in other audits, and that the equivalent types of audits defined in the INTOSAI framework are carried out: financial, compliance and performance. Despite these similarities, the audit of the municipality is different in its *complexity* (due to the number of municipalities, a wide range of services delivered to citizens as well as plenty of various functions, which very often overlap with governmental functions), *specificity* (determined by the substantial number of municipality audit system units, such as SAIs, external and internal auditors of a municipality, private auditors, and dissimilarities of these units), *openness* (determined by desire and ability of their units to fling open, share significant information as well as to deal with problems integrally at all the levels — from local to global), as well as *responsibility and use of data* (defined as a need to create a culture of accountability and the way data is used and the data used from local accounts and financial statements, which can be encouraged by audits of municipalities). Ozuomba et al. (2016) made a classification of funds in the public sector, i. e. the final accounts for state and local government (municipalities) are grouped into 1) Consolidated Revenue Fund, 2) Development Fund, 3) Treasury Fund, 4) Special and Trust Funds and 5) Contingency Fund, through which the complexity in the generation and spending of funds can be seen (Ozuomba Chidinma, Nwadiakor Eugene, & Ifureze, 2016). SAIs have identified audit areas where recommendations and guidelines for local government auditing could be useful. The specified areas refer to (EUROSAI TFMA, 2019): monitoring/coverage of risks at local government units' level (in order not to let them become risks

at national level); strategic research (monitoring of the topic or area, searching of risks arising); selecting audit sample; monitoring how local government units' debts are reflected at national level inspection of local government units' budget creation process; other (auditing the way in which local government units' revenues and expenditures are executed, auditing the management of the local government units' assets, auditing the reflection/reporting of budget execution results in relation to planned targets, and determining various levels of materiality when it can be considered that the local government units' actions have not ensured value for money). Taken into consideration the novelty and the insufficient amount of conducted research in this area, this study is expected to contribute to the literature by providing an enhanced understanding of the impact of the state audit engagements on the audited revenues and expenditures of the municipalities.

AN ANALYSIS OF THE MUNICIPALITY AUDIT SCOPE AND ITS IMPACT ON THE AUDITED REVENUES AND EXPENDITURES

As mentioned earlier, state audit in certain entities is mandatory once a year, while the audit of other public sector entities, according to different criteria for selection of entities is determined by the annual work programs of the SAO. Therefore, Figure 1 reveals the number of audited municipalities with the regularity audit (financial audit and compliance audit) from 2010 to 2019. As can be seen from the figure, the number of audited municipalities varies over the years, given the fact that the choice of municipalities to be audited is determined according to the methodology and certain criteria of the SAO. The key criteria for selecting the municipalities to be audited are: whether the municipality was subject to the previous audit period, the frequency of previously conducted audits, the size of the municipality budget, the number of SAO employees, etc.



Figure 1: Number of Audited Municipalities (2010–2019)

Source: Author's calculation

Furthermore, Figure 2 shows the curve of audited revenues and expenditures of the municipalities. Similar to Figure 1, the volume of audited public revenues and expenditures in the municipalities varies from year to year, wherein 2010 has the largest volume of audited public revenues and expenditures in the municipalities, while in 2014 that volume is the lowest.

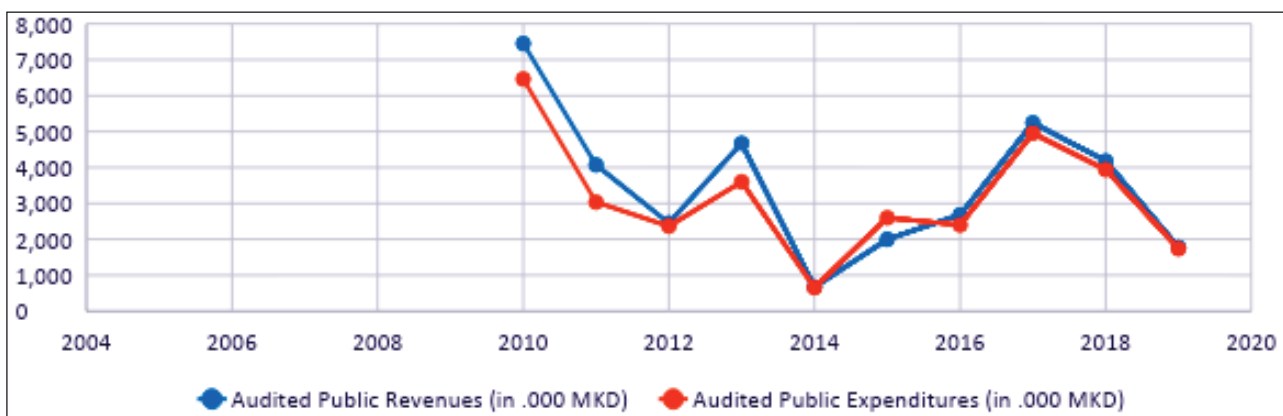


Figure 2: Audited revenues and audited expenditures of the municipalities (2010–2019)

Source: Author's calculation

According to the theory, the scope of the state audit is measured as a ratio between the total audited public expenditures and the total public expenditures made by the public sector entities that were audited in the specific year, in our case the municipalities. On a further note, Figure 3 exhibits the scope of a state audit concerning the municipalities from 2010 to 2019, respectively.

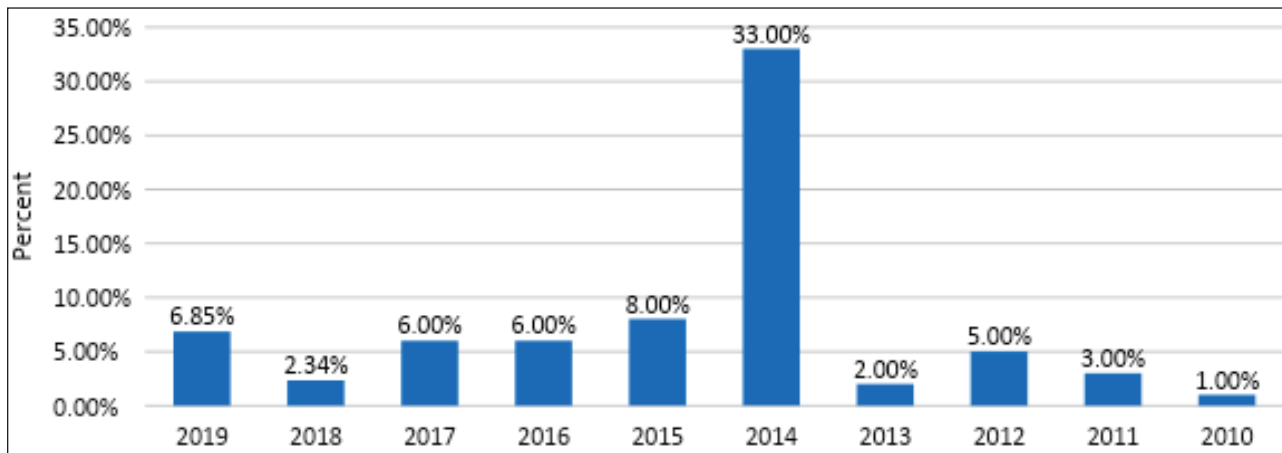


Figure 3: Ratio between the total audited public expenditures and the total audited public expenditures made by Municipalities

Source: Author's calculation

From Figure 3, it can be noticed that over the years the coverage of the state audits in the municipalities ranges from 1 percent in 2019 to 8 percent in 2014, except for 2015 where the coverage is 33 percent. Although only 2 municipalities were audited in 2015, and the audited public revenues and expenditures of the municipalities did not increase significantly in that year, it can be concluded that in 2015, SAO focused more on performing other types of audits, which are also of great importance, such as performance audits.

METHODOLOGY

Sample Selection

To examine the impact of the state audit engagements on the audited revenues and expenditures of the municipalities in the Republic of North Macedonia, data was gathered and extracted from the annual reports on the performed audits and operations from the SAO over the period of 2010 to 2019. The total number of observations equals to 10 or 52,63 percent out of 19 reports (the first SAO report on performed audits and operation was issued in 2001), as of the fact that the SAO is responsible to generate reports on the performed audits and operations on annual basis, which is regulated by the National Law. Due to the novelty of the subject and the unexplored nature of the research topic, a descriptive statistic, pairwise correlation matrix, and an Ordinary Least Squares (OLS) regression are performed.

Hypotheses development and data analysis

In the analysis of the annual reports, data was used on the total number of audit engagements during the years (2010–2019), and the volume of audited revenues and expenditures of the municipalities. Hence, we propose the following hypotheses:

H1: The number of conducted audit engagements positively affects the volume of audited revenues of the municipalities.

H2: The number of conducted audit engagements positively affects the volume of audited expenditures of the municipalities.

Furthermore, Figure 4 provides a detailed descriptive statistic of the observed data for audit engagements (AUD_ENG), audited public revenues (AUD_PUB_REV) and audited public expenditures (AUD_PUB_EXP). The total number of observations is 10 as over the period of 2010 to 2019. The mean value of the observed audit engagements is 6.1, while the mean of the audited public revenues is 3,521 million denars (570 thousand €) and 3,175 million denars (514 thousand €) of the audited public expenditures. Regarding the spread of the distribution of the variable (standard deviation), the values are 5.216427 for AUD_ENG, 1994.964 for AUD_PUB_REV, and 1658.559 for AUD_PUB_EXP. The Skewness test evaluates the degree and direction of asymmetry. In our case, the values are 1.28679 for AUD_ENG, 0.5038065 for AUD_PUB_REV, and 0.5529459 for AUD_PUB_EXP. To determine the heaviness of the tails of the distribution of the variables, a Kurtosis test is conducted. The results indicate that the variable AUD_PUB_EXP is closely to normal distribution (2.817404), while AUD_PUB_REV has a value of 2.588674 and AUD_ENG a value of 3.623865 which indicates presence of heavy-tailed distributions.

AUD_ENG				
	percentiles	Smallest		
1 percent	2	2		
5 percent	2	2		
10 percent	2	2	Obs	10
25 percent	2	3	Sum of Wgt.	10
50 percent	4		Mean	6.1
			Std. Dev.	5.216427
		Largest		
75 percent	9	6	Variance	27.21111
90 percent	14.5	9	Skewness	1.28679
95 percent	18	11	Kurtosis	3.623865
95 percent	18	18		

AUD_PUB_REV				
	percentiles	Smallest		
1 percent	673	673		
5 percent	673	673		
10 percent	1224	2000	Obs	10
25 percent	2000	2456	Sum of Wgt.	10
50 percent	3376		Mean	3521
			Std. Dev.	1994.964
		Largest		
75 percent	4675	4182	Variance	3979883
90 percent	6348.5	4675	Skewness	0.503807
95 percent	7453	5244	Kurtosis	2.588674
95 percent	7453	7453		

AUD_PUB_EXP				
	percentiles	Smallest		
1 percent	656	656		
5 percent	656	1737		
10 percent	1196.5	2369	Obs	10
25 percent	2369	2400	Sum of Wgt.	10
50 percent	2817.5		Mean	3175.4
			Std. Dev.	1658.559
		Largest		
75 percent	3939	3600	Variance	2750817
90 percent	5709	3939	Skewness	0.552946
95 percent	6463	4955	Kurtosis	2.817404
95 percent	6463	6463		

Figure 4: Descriptive Statistics

Source: Author's calculation

Model specification

To determine the association between the number of conducted audit engagements and the volume of audited revenues and expenditures of the municipalities in the Republic of North Macedonia, an Ordinary Least Squares (OLS) regression is applied as a method for analysis of the observed data. The OLS method refers to minimizing the sum of square differences between the observed and predicted values:

$$\text{AUD_ENG} = \beta_0 + \beta_1 \text{AUD_PUB_REV} + \beta_2 \text{AUD_PUB_EXP} + E. \quad [1]$$

Where AUD_ENG is the dependent variable, β_0 is the constant (population Y-intercept), β_1 , β_2 are the population slope coefficient, AUD_PUB_REV and AUD_PUB_EXP are the exploratory variables and ε is the random error term.

Results and findings

In the function of determining the correlation and strength of the relationship, a pairwise correlation matrix is obtained. Both exploratory variables (AUD_PUB_REV) and AUD_PUB_EXP show a strong positive association with the dependent variable (AUD_ENG).

	AUD_ENG	AUD_PUB_REV	AUD_PUB_EXP
AUD_ENG	1		
AUD_PUB_REV	0.7895	1	
AUD_PUB_EXP	0.7738	0.9733	1.0000

Figure 5: Pairwise correlation matrix

Source: Authors calculations

Next, the obtained results of the OLS regression are presented. The Prob>F in both of the models is below 0.05 which suggests that the exploratory variables reliably predict the AUD_ENG. Furthermore, the R-squared in the first model is 0.5988 which shows that 59.88 percent of the AUD_ENG can be predicted by the AUD_PUB_EXP. Similarly, in the second model, this value is 0.6233 or AUD_PUB_REV explains 62.33 percent of the variance of the AUD_ENG. The p-value in both of the models is below 0.01 which reveals a statistically significant relationship (at 1 percent level) or that AUD_ENG positively affects the AUD_PUB_EXP and AUD_PUB_REV.

Source	SS	df	MS	Number of obs	=	10
Model	146.643145	1	146.643145	F (1, 8)	=	11.94
Residual	98.2568549	8	12.282107	Prob > F	=	0.0086
Total	244.9	9	27.2111111	R-squared	=	0.5988
				Adj R-squared	=	0.5486
				Root MSE	=	3.5046

AUD_ENG	Coef.	Std. Err.	t	P > t	[95 percent Conf. Interval]
AUD_PUB_EXP_cons	0.0024338	0.0007043	3.46	0.009	0.0008095 0.004058
	-1.62818	2.496089	-0.65	0.533	-7.384172 4.127813

Source	SS	df	MS	Number of obs	=	10
Model	152.656955	1	152.656955	F(1, 8)	=	13.24
Residual	92.243045	8	11.530381	Prob > F	=	0.0066
Total	244.9	9	27.2111111	R-squared	=	0.6233
				Adj R-squared	=	0.5763
				Root MSE	=	3.3956

AUD_ENG	Coef.	Std. Err.	t	P > t	[95 percent Conf. Interval]
AUD_PUB_EXP_cons	0.0020644	0.0005674	3.64	0.007	0.0007561 0.0033728
	-1.168887	2.268009	-0.52	0.620	-6.398926 4.061151

Figure 6: OLS regression test results

Source: Authors calculation

CONCLUSION

This paper contributes to the existing literature by providing a comprehensive understanding of the relationship between the number of audit engagements in the municipalities and the volume of the audited revenues and expenditures in the municipalities in the Republic of North Macedonia. The yielded results comply with the expected outcome, or in other words, the total volume of audited revenues and expenditures in the municipalities is directly proportional to the number of audit engagements in the municipalities. Due to the limited resources in the SAO, the scope of a state audit in the municipalities is limited and insufficient for full control of the financial and material operations, as well as the proper use of the public funds of the municipalities in accordance with the law. Hence, the recommendation is that the scope of a state audit in municipalities should be increased, to enhance control over the spending of public funds in municipalities, whereby they would be motivated to work more transparently and in the interest of citizens. Taking into consideration the novelty and the insufficient research conducted in this area, a more diligent approach and focused analysis is required to prompt in-debt research.

REFERENCES

1. Eurosai Tfma. (2016). Distinguishing features of municipality audit and expected added value from task force on municipality audit. Luxemburg: Intosai.
2. Eurosai Tfma. (2019). Overview of methodologies used in local government auditing in different tfma member supreme audit institutions. Luxembourg: Intosai.
3. Geist B. (1981). State Audit: an introduction. In B. Geist, state audit — developments in public accountability (pp. 3–22). London: Palgrave Macmillan.
4. Official Gazette of the R. M No. 145. (2010, November 05). Legislative. Retrieved October 16, 2020 from: DZR.mk: https://dZR.mk/Uploads/Zakon_DR_izmeni_28_10_2010.pdf
5. Ozuomba Chidinma, N., N. E. (2016). Effective internal audit as a tool for improving institutional governance and accountability in the public sector. *Advances in Applied Science Research*, 7 (4), pp. 1–10.
6. Ozuomba Chidinma, N., Nwadiakor Eugene, O., & Ifureze, S. M. (2016). Effective internal audit as a tool for improving institutional governance and accountability in the public sector. Pelagia Research Library.
7. State Audit Office (2019). About us: History. Retrieved October 15, 2020, from: State Audit Office: <https://dZR.mk/en/history>