

TRANSPARENCY REPORTS AND AUDIT MARKET ANALYSIS IN THE REPUBLIC OF NORTH MACEDONIA

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ABSTRACT

Transparency reports are a communication link between audit firms and the general public about their work, internal policies, and quality control to increase the trust of information users. On the other hand, the need for transparency in audit firms is a factor that aims to substantially improve and maintain the quality of audits at the highest level. This paper is quantitative and qualitative research on the transparency of audit firms in the Republic of North Macedonia and analysis of the financial data contained in them, focusing on the audit firms' revenue. Through a detailed elaboration of each audit firm's transparency reports in the period from 2007 to 2021, or a total of 372 individual transparency reports, we identified the state of transparency reports that differs in the period from 2007 to 2013 versus 2014 to 2021, positive trends of financial indicators over the years, as well as the structure of total revenues, i.e. participation of the individual services they offer. The hypothesis testing findings are early results, identifying the positive correlation between the number of employees and the audit-related turnover regardless of the audit firms' size and their affiliation with Big 4, an international network, or local audit firms. Between the number of customers, i.e. audit engagements and the audit-related turnover, there is a positive correlation for international network audit firms and local audit firms, but not for the Big 4. The paper contributes to the current literature on audit firms' transparency in order to improve them and their real contribution to improving the quality of audit engagements. The results of the conducted quantitative analysis are a good basis for further in-depth research in identifying potential factors that correlate with the audit firms' revenue.

Keywords: *Transparency report, Audit, Audit firms revenues, Republic of North Macedonia*

JEL classification: *M42*

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1. INTRODUCTION

The major financial scandals and frauds that have occurred despite the conducted audit engagements leave a mark on the quality of the conducted audit. In the aftermath of corporate scandals in the beginning of the twenty-first century audit quality has become a top priority for regulators (Evren, 2019). Transparency is one of the factors that may improve audit quality. Regulators argue that greater transparency of audit firms about their internal governance, quality maintenance measures and controls help reduce asymmetry between audit firms and market participants (Deumes et al., 2012). All this would result in greater confidence, maintaining a high-quality audit, and thus maintaining the stability of the capital market. Transparency is a kind of tool to convince the public that auditors and audit firms operate at a level that meets established auditing standards and a code of ethics. It does not only serve as a disciplinary sanction in case of non-compliance with the above, but also aims to initiate the conduct and maintenance of high quality audits. The transparency of audit firms has a significant role in achieving a higher level of quality in audit practices (Pivac and Čular, 2012).

The purpose of our research is to make a detailed analysis of the transparency reports of audit firms in the Republic of North Macedonia. The paper is divided into three conceptual parts. First, a brief overview of the importance of transparency reports and literature review from previous research, which must be noted that are few. Then a detailed explanation was made about the transparency of the audit firms in the Republic of North Macedonia and the role of the Council for Advancement and Oversight of the Audit in maintaining high quality audits. The third part refers to the conducted research where all individual transparency reports of the audit firms were analyzed. They were divided into three groups: Big 4, International Networks and Others - which included local audit firms. The data were collected for the period from 2007 to 2021 and generated the trends of the earnings of the audit firms, in total and according to the services they offer. In addition, we tested hypotheses about the potential impact of the number of audits conducted (clients) and the number of employees on the audit revenue earned by audit firms.

2. LITERATURE REVIEW

Transparency reports, also known as audit quality reports, are public reports issued by audit firms that contain information about the organizational structure, governance, and systems used to ensure audit quality (CPAB, 2016; Čular, 2017).

IOSCO (2015) believes that transparency reports should be prepared on an annual basis and then made public and easily accessible due to the great interest of investors, regulators and other stakeholders. IOSCO points out the importance of the transparency reports of the audit firms and emphasizes that information should be provided need to be: clear, useful, fact-based and not potentially misleading, unbiased, concise, timely, accurate, and complete in order for the users of the information to get a clear picture of the quality of audit engagements.

The IAASB also recognizes the role that transparency reporting has in improving overall audit quality and believes that the demand for audit quality-related information should be promoted worldwide (Fu et al., 2015).

Ehlinger (2007) conducted a survey on transparency disclosures for Austrian, German and Dutch audit firms. He found out that: There are differences between the countries observed regarding the amount of information given. The quality of the information provided varies over the period of the year. There is a positive correlation between the size of the firm and the amount of information. There are differences in the way information is disclosed between Big Four and

other accounting firms. There are also differences between firms that are members of the international network and those that are not.

Buuren (2010) conducted a survey of 2008 transparency reports from Germany, France, the United Kingdom, Netherland, Belgium and Austria. From the analysis of the reports and their comparison with the requirements of the 8th directive of the EU, it was concluded that most audit firms provide information on control structures, but not information on audit performance. The Big Four and the audit firms that are part of the international network have more and more detailed information compared to the others. The state and relevant laws also affect the requirements for the preparation of transparency reports, and this causes differences in the reports between countries.

Girdhar & Jeppesen (2019) examines transparency reports from the Big Four accounting firms in the United Kingdom, Germany and Denmark. They analyzed the content of the transparency report and conduct semi-structured interviews with the key figures of the four major firms responsible for creating the transparency report. The results show that the content of the transparency report is inconsistent and the practice of transparency reporting is inconsistent across the Big Four network.

Deumes et al. (2012) investigated whether disclosures of audit firm governance were relevant to the quality of the actual audit. Based on a sample of 103 audit firm transparency reports from many EU member states, they found that audit firms differ in the scope and type of corporate governance disclosures. However, no relevance to the actual audit quality can be found, except that it is weakly related to the audit company's statement regarding the effectiveness of the internal quality management system.

Audit quality is difficult to define, and the assessment of the audit quality is subjective. Therefore, disclosing more information does not guarantee that the behavior will change. While transparency can improve the availability and delivery of audit services, there are other factors that transparency alone may not be able to resolve. Nevertheless, additional disclosures are of significant benefit to investors, audit committees, regulatory agencies, and other stakeholders in assessing the quality of audits by audit firms and engagement teams in decision making (Čular, 2014).

3. TRANSPARENCY OF AUDIT FIRMS IN THE REPUBLIC OF NORTH MACEDONIA

In accordance with the global practices and the needs for standardization, the audit engagements performed in domestic practice are regulated by the legislation for which the Assembly of North Macedonia is responsible, and the professional framework established by the professional international organizations. Domestic audit practice applies audit standards and codes of ethics adopted by relevant professional international organizations influencing the creation of the audit profession globally: the International Federation of Accountants (IFAC), the Institute of Internal Auditors (IIA) and the International Supreme Audit Institutions (INTOSAI). The establishment of the Institute of Certified Auditors of the Republic of Macedonia (ICARM) in May 2006, which gained the status of a full member of IFAC, is of exceptional importance in establishing and continuously improving the quality of the audit profession. The Association of Internal Auditors of Macedonia (AIAM) as a member of IIA Global, also has a key role in the development of the internal audit profession in North Macedonia.

The Government of the Republic of North Macedonia, at the suggestion of the Minister of Finance, in order to promote and oversight audits, established the Council for Advancement od Oversight of the Audit of the Republic of North Macedonia (hereinafter CAOAO) as an

independent and autonomous regulatory body with public authorizations established in Audit Law (Official Gazette, 2010a). According to the CAO (2021) latest updated data in November 2021 in North Macedonia there are: 28 Licensed Audit Firms and 13 Licensed Certified Auditors - Sole Proprietor or a total 228 Licensed Certified Auditors.

Article 35 of the Audit Law (Official Gazette, 2010b) indicates that the Audit Firms and Licensed Certified Auditors - Sole Proprietor are obliged to submit the annual transparency report to the CAO and publish it in at least one public bulletin or on its website, within three months from the end of the financial year. Transparency reports are a means of communication between auditors and the public about the quality of audit work (Buuren, 2010). The content of the transparency report as set out in Article 35 of the Audit Law is in line with the Eighth EU Directive and it shall contain (Official Gazette, 2010a):

- a) a description of the legal structure and ownership of the audit firm.
 - b) a description of the professional network and legal structural arrangements in the network where it belongs.
 - c) a description of the management structure of the audit firm.
 - d) a description of the internal quality control system of the audit firm and a statement of the authorized competent body of the audit firm on the effectivity of the functioning of the system.
 - e) the date on which the last check for quality verification was performed by the auditor in accordance with Article 20 of this Law.
 - f) a list of auditees who were audited during the previous year.
 - g) a statement regarding the independent operation of the audit firm confirming the existence of internal procedures for verifying the harmonization of independence and their application.
 - h) a statement on the policy followed by the audit firm during the previous year.
 - i) financial information on the total income realized by the audit and other allowances, broken down into four categories: services of auditing annual and consolidated accounts, additional services on quality verification, tax counseling services and other non-auditing services, and
 - j) Information on the basis upon which the fee of the certified auditor shall be calculated.
- The transparency report shall be signed by the representative of the audit firm.

Table 1 compares the segments of the Transparency Report according to the Audit Law of 2005 and 2010. There is an extension of the transparency report with additional information requirements related to the date of the last check on quality assurance of the auditor, a statement on the independent operation of the audit firm confirming the existence of internal procedures for verifying the compliance of the independence and their implementation, and information on the basis of which the statutory auditor's fee is determined.

Table 1: Segments of the transparency reports according to the Audit Law from 2005 and Audit Law from 2010

Audit Law 2005 (Article 26)	Audit Law 2010 (Article 35)
<ul style="list-style-type: none"> (1) description of the legal structure and ownership; (2) description of the professional network and both the legal and the structural arrangements in the network they belong to; (3) description of the governance structure of the audit firm or the statutory auditor – sole proprietor; (4) description of the internal quality control system of the audit firm or the statutory auditor – sole proprietor and a statement by the administrative or the management body on the effectiveness of its functioning; (5) list of auditees during the preceding year; (6) statement on the policy implemented by the audit firm or the statutory auditor – sole proprietor concerning the continuing education of the statutory auditors and (7) financial information on the total revenues realized on the basis of audit carried out and on the basis of other fees, broken down by four categories of audit services, additional services for quality assurance, tax advisory services and other non-audit services. 	<ul style="list-style-type: none"> (1) description of the legal structure and ownership; (2) description of the professional network and both the legal and the structural arrangements in the network they belong to; (3) description of the governance structure of the audit firm or the statutory auditor – sole proprietor; (4) description of the internal quality control system of the audit firm or the statutory auditor – sole proprietor and a statement by the administrative or the management body on the effectiveness of its functioning; (5) list of auditees during the preceding year; (6) statement on the policy implemented by the audit firm or the statutory auditor – sole proprietor concerning the continuing education of the statutory auditors and (7) financial information on the total revenues realized on the basis of audit carried out and on the basis of other fees, broken down by four categories of audit services, additional services for quality assurance, tax advisory services and other non-audit services. (8) date on carrying out the last check on quality assurance of the auditor; (9) statement on independent operations of the audit firm, confirming the existence of internal procedures for check of independence compliance and their implementation and (10) information on the basis on which the fee of the statutory auditor is determined

Source: Audit Law (2005) and Audit Law (2010).

All transparency reports are available on the official websites of the audit firms and also available on the official website of the CAO, through the following link: <https://sunr.mk/izveshtai-za-transparentnost-2/>. The Council summarizes all individual reports in a group report for each year separately.

Although the Audit Law was adopted much earlier and all directions are clearly given, still looking in detail at the reports it can be noticed that there is a big difference in the structure of the reports and the availability of information before and after 2014. In 2014, the CAO Board created the Transparency Report Preparation Guide which was then distributed to all audit firms and certified auditors - sole proprietor. It can be stated that since 2014 all publicly published transparency reports have been prepared in accordance with legal requirements and guidelines.

The transparency reports contain sections that indicate the audit firm's policies for the internal quality control system and only brief information about the last audit quality assurance check performed. The results of the conducted quality control have not been made public and this raises the question of whether this information is really sufficient and whether the transparency reports really affect the performance of the audit engagements.

3.1. Council for Advancement and Oversight of the Audit of the Republic of North Macedonia (CAOA)

The mission of the CAO A is through expert analysis, recommendations, advice and independent public oversight of the audit, to work towards the advancement of the auditing profession and to encourage adherence to high professional standards. The CAO A consists of seven members, one of whom is the president. In order to maintain the relevance and independence of the CAO A, the members of the Council are elected on the proposal of the highest state institutions, and then elected by the Government. The Minister of Finance proposes the President of the Council, and the other six members are in fact representatives of the National Bank of the Republic of North Macedonia, the Insurance Supervision Agency, the Securities and Exchange Commission of the Republic of North Macedonia, a representative from the ranks of large commercial entities and two authorized auditors proposed by ICARM. CAO A Performs the work in accordance with Article 8 of the Audit Law, and some of those tasks are (CAOA, 2021; Official Gazette, 2009b):

- Provide guidelines for the Institute of Certified Auditors on matters of its competence pursuant to this Law.
- Give its agreement on the Statute and the acts of the Institute of Certified Auditors of the Republic of Macedonia in relation to control and disciplinary procedures.
- Carry out control over the Institute of Certified Auditors of the Republic of Macedonia in the process of implementation of control and disciplinary procedures in accordance with the advice and recommendations of the Council.
- Give its agreement on the annual programme and the annual work report of the Institute of Certified Auditors.
- Follow the implementation of the annual programme for audit quality control of the Institute of Certified Auditors, - check the necessary documentation for issuing audit licences.
- Check the transparency report in accordance with Article 35 of this Law, - follow the procedure implemented by the Institute of Certified Auditors of the Republic of Macedonia for the recognition of an auditor qualification acquired abroad.
- At the request of the person fulfilling the conditions referred to in Article 25 of this Law, the Council shall issue a certified auditor licence.
- Issue, at the suggestion of the Institute of Certified Auditors of the Republic of Macedonia, an auditing license to audit firms and to certified auditors.
- Sole proprietors fulfilling the conditions referred to in Article 25 of this Law, and
- Establish cooperation with the relevant international institutions.

The values contribute to the achievement of the goals of the Council, appreciating that this is achieved by strengthening the internal organization and increasing the efficiency and effectiveness in the audit work. The role that CAO A has for the development of domestic audit practice is indisputable, as well as the role in establishing cooperation with foreign and international organizations.

4. RESEARCH METHODOLOGY

The sample of the research consists of 372 transparency reports of audit firms in the period from 2007 to 2021. All reports were downloaded from the official CAO A website and then we manually verified and extracted all the information. The financial data were expressed in MKD

which were calculated in EUR. Audit firms were categorized into three groups: (1) Big 4, (2) International Networks and (3) Other - local audit firms.

Data was collected for each group separately:

- Total **Revenues**, then divided according to the services they offer:
 - Audit-related turnover
 - Tax advisory services
 - Other non-audit services
 - Other assurance services
- The number of conducted audits, i.e., **clients**
- The number of **employees**

In accordance with the objectives of our research and the availability of information, the following research question is set:

RQ: *Does audit-related turnover of audit firms in North Macedonia is related to the number of employees and the number of clients?*

In order to give an answer to the research question, three individual hypotheses have been set that refer to the three categories of auditing firms, namely:

H₁: The audit-related turnover is correlated to the number of clients and the number of employees at Big4

H₂: The audit-related turnover is correlated to the number of clients and the number of employees at international audit network

H₃: The audit-related turnover is correlated to the number of clients and the number of employees at other (local) firms.

Table 2 provides an overview of the variables together with their abbreviations and the measurement type. To measure the variables referring to the audit-related turnover, Absolute amount of revenues by audit services among the audit firms (big4, international and others) was taken in the given period. For conducted audits by the audit firms, the number of clients per year was employed and for the variable related to the Employees at the audit firms, the Total number of employees per year was used.

Table 2: Description of the variables

Variables	Abbreviation	Measurement
Audit-related turnover for Big4 firms	TURNOVER_BIG4	Absolute amount of revenues by audit services among the Big 4 (2014 to 2021)
Audit-related turnover for international audit network	TURNOVER_INTERNATIONAL	Absolute amount of revenues by audit services among the international audit network (2014 to 2021)
Audit-related turnover for other audit firms	TURNOVER_OTHERS	Absolute amount of revenues by audit services among the other audit firms (2014 to 2021)
Conducted audits by Big4 firms	CLIENTS_BIG4	The number of clients per year for the Big4 (2014 to 2021)
Conducted audits by international audit network	CLIENTS_INTERNATIONAL	The number of clients per year for the international audit network (2014 to 2021)

Conducted audits by other audit firms	CLIENTS_OTHERS	The number of clients per year for the other audit firms (2014 to 2021)
Employees at Big4 firms	EMPLOYEES_BIG4	Total number of employees per year at Big4 (2014 to 2021)
Employees at international audit network	EMPLOYEES_INTERNATIONAL	Total number of employees per year at international audit network (2014 to 2021)
Employees at other audit firms	EMPLOYEES_OTHERS	Total number of employees per year at other audit firms (2014 to 2021)

Source: Authors' text

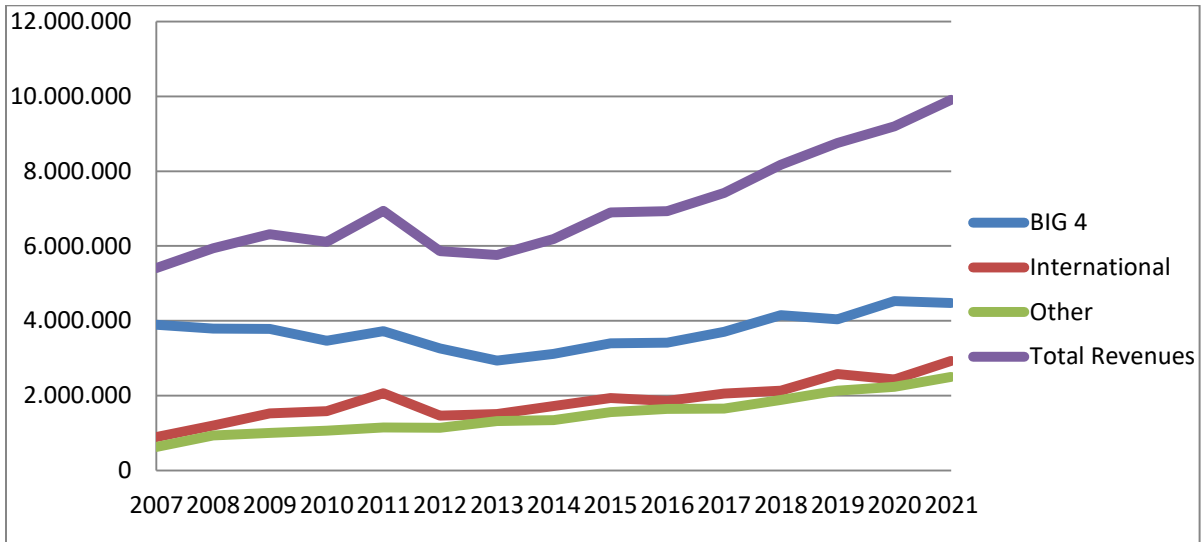
The processing of the collected data was done using SPSS software through **Descriptive statistics** to identify the basic findings, such as average number of clients, average number of employees, average price per engagement depending on the size of the audit firm, etc., **Trend analysis** - to identify revenue trends in audit firms in the period from 2007 to 2021, and **Spearman rank-order correlation** to indicate whether it exists positive or negative monotonic relationship between the variables.

5. RESULTS AND DISCUSSION

First of all, we must emphasize that in accordance with the legal framework and the Guide for preparation of the transparency report, all audit firms have submitted a report in the period from 2007 to 2021. There is a drastic difference in the structure and scope of information in the period from 2007 to 2013 and from 2014 to 2021. The second period is distinguished by greater standardization and the same information that is published by all audit firms, regardless of their size. Although there are differences in the size of the reports and the detail of the information, all the necessary segments are covered by all audit firms. The number of audit firms varies from year to year, but this is due solely to local audit firms. In the analysis, first all audit firms are analyzed in general, and then by groups.

Figure 1 shows the trend of total revenues generated by audit firms operating in the Republic of North Macedonia and divided by groups. It can be seen that there is a continuous average growth in the total and individual revenues of the audit firms categorized by groups. Most of the growth of total revenues is due to the growth of revenues of international networks and other audit firms. Big 4 in absolute amount of revenue continuously dominates during the analyzed period and we believe that it will continue, due to the available resources and the support they have. However, from this chart it can be seen that the Big 4 curve is moving further and further away from the Total Revenue curve.

Figure 1: Total revenues of audit firms

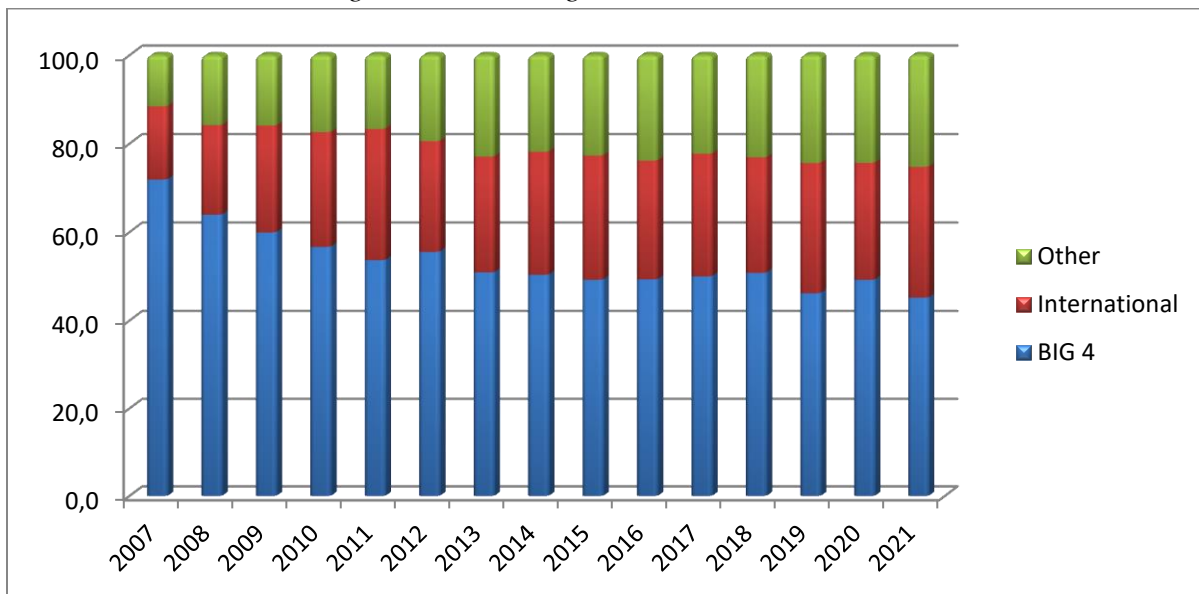


Source: Authors' calculation

For a better understanding of the percentage share in total revenues and better discussion, the results are shown in Figure 2.

Figure 2 shows the percentage share of groups of audit firms in total revenues. As mentioned above, Big 4 dominates in revenue generation, but has seen a continuous decline in total share. International audit networks, in contrast, from 2007 to 2021 recorded significant growth and show their importance and relevance in the domestic market. Local audit firms also record continuous growth over the years analyzed and the result is positive, as they manage to take their place in the market alongside international audit networks and the Big 4 audit firms.

Figure 2: Percentage share in total revenues



Source: Authors' calculation

Table 3 shows the structure of audit firms' revenues. It is easy to see that most of the total revenue comes from audit engagements, statutory and contractual audits, then the category of other non-audit services which include accounting services, valuation, expertise and the like. After them, the earnings of audit firms depend on tax advisory services and finally on other assurance services. The last category - other assurance services is with a percentage of 0 in the period from 2007 to 2012 and 1% in 2013. Assurance revenues can be seen to be presented as a separate item from 2013 and 2014, when the transparency reports start to be standardized and report on all segments separately. Most likely in the period from 2007 to 2012/3, the revenues generated from this type of services are calculated in the first item - audit engagements.

Table 3: Revenue structure

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Audit engagements	75%	83%	82%	84.6%	76%	83%	75.4%	67.2%	69%	70.1%	68%	64.3%	63%	63%	59%
Tax advisory services	10%	4%	4%	4.8%	13%	5%	4.4%	7.3%	8%	8.4%	7%	7.3%	9%	9%	12%
Other non-audit services	15%	13%	14%	10.6%	11%	12%	19.2%	21.4%	19%	18.2%	20%	24.3%	23%	25%	24%
Other assurance services	0%	0%	0%	0%	0%	0%	1%	4.1%	4%	3.3%	5%	4.1%	5%	3%	5%

Source: Authors' calculation

Table 4 shows the average values per audit firm. The data refer to the period from 2014 to 2021 due to the availability of information on the number of employees. As we have already mentioned since 2014, the transparency reports have standardized structure and more available information. The results are quite logical. What can be pointed out is that Big 4 audit firm earns the most for an audit engagement, where they have the highest amount of revenue and the lowest number of clients, due to the size of the client. Also, most of the employees per audit firm are from Big 4. The results show that the international audit networks earn more than the local audit firms, where they have the highest number of engagements, and the lowest price per engagement, which is completely opposite from Big 4. All this is due to the type and the size of the clients, i.e., the complexity of the engagement.

Table 4: Descriptive statistics

Average price for audit engagement - Big 4									
	2014	2015	2016	2017	2018	2019	2020	2021	TOTAL (2014-2021)
Audit-related turnover in EURO	527,326	631,426	603,942	612,797	600,712	607,850	656,801	612,423	4,853,276
Average Number of Audits	42	51	47	51	47	51	45	39	373
Average price for audit engagement - Big 4	12,631	12,321	12,782	12,135	12,713	12,037	14,596	15,603	13,102
Average number of employees	23	26	29	28	28	26	30	33	28
Average price for audit engagement – International									
	2014	2015	2016	2017	2018	2019	2020	2021	TOTAL (2014-2021)
Audit-related turnover in EURO	197,417	213,074	235,297	265,190	281,468	299,086	282,966	291,938	2,066,435
Average Number of Audits	56	59	70	78	72	76	74	49	534
Average price for audit	3,513	3,624	3,361	3,409	3,909	3,946	3,824	5,982	3,946

engagement – International									
Average number of employees	16	18	19	19	22	22	23	21	20
Average price for audit engagement – Others									
	2014	2015	2016	2017	2018	2019	2020	2021	TOTAL (2014-2021)
Audit-related turnover in EURO	58,704	71,223	79,024	85,194	90,150	100,174	102,310	107,035	693,814
Average Number of Audits	33	46	46	50	52	53	54	54	389
Average price for audit engagement - Other	1,776	1,558	1,727	1,690	1,738	1,875	1,891	1,891	1,768
Average number of employees	6	6	6	6	7	7	6	7	6

Source: Authors' calculation

5.1. BIG 4

After summarizing the general data for all audit firms, the analysis continues in more detail in elaborating the individual groups of audit firms and testing the set hypotheses. For the needs of hypothesis testing, only the data from 2014 to 2021 are considered. Hypotheses are tested for individual category especially because of the relevance of the data and the possibility of comparing data for audit firms of the same or similar rank. Due to the large dispersion of information in terms of number of clients, number of employees and audit-related turnover, the results would not be appropriate and the model would be irrelevant.

Table 5 provides an overview of the revenue structure of Big 4 audit firms. Viewed through the time frame that is covered, the revenues from audit engagements show a continuous decline. But on the other hand, other non-audit services are becoming a drastically significant segment of the earnings of Big 4, where in 2021 it is as much as 40 % of total revenues.

Table 5: Revenue structure – Big 4

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Audit engagements	71%	82%	85%	89%	87%	86%	77%	68%	74%	71%	66%	58%	60%	58%	55%
Tax advisory services	14%	1%	1%	0%	1%	2%	3%	6%	5%	7%	4%	5%	6%	6%	4%
Other non-audit services	16%	16%	14%	10%	13%	12%	20%	24%	19%	19%	27%	34%	31%	36%	40%
Other assurance services	0%	0%	0%	0%	0%	0%	0%	3%	2%	3%	3%	2%	3%	1%	1%

Source: Authors' calculation

Starting with a basic analysis, with the previously analyzed audit-related turnover, as well as the number of clients and number of employees, in this section, the relationship between the number of employees and the audit-related turnover at Big4 firms is statistically proved (see table 5).

Table 6: Correlation matrix for BIG4 – H₁

Correlations					
			TURNOVER_ BIG4	CLIENTS_ BIG4	EMPLOYEES_ BIG4
Spearman's rho	TURNOVER_ BIG4	Correlation Coefficient	1.000	.131	.820**
		Sig. (2-tailed)		.475	.000
		N	32	32	32
	CLIENTS_ BIG4	Correlation Coefficient	.131	1.000	.136
		Sig. (2-tailed)	.475		.459
		N	32	32	32
	EMPLOYEES_ BIG4	Correlation Coefficient	.820**	.136	1.000
		Sig. (2-tailed)	.000	.459	
		N	32	32	32

** . Correlation is significant at the 0.01 level (2-tailed).

Source: Authors' calculation

The Spearman's correlation result shows that there is a significant positive correlation between the TURNOVER_BIG4 and EMPLOYEES_BIG4, $r(32) = .820$, $p = .000$, and there is no correlation between CLIENTS_BIG4 and TURNOVER_BIG4. This means that H₁ is partially accepted. The result is logical, since Big 4 usually work with the largest companies, joint stock companies where they dedicate a huge part of their time and resources, for which they are then paid for their engagement. The second variable - the number of employees proves to be significant, and from here, the more employees the auditing firm has, the more it will be able to contract a larger client, more engagements and, accordingly, to generate more revenue.

5.2. International audit network

The structure of service revenues in the International Audit Networks is shown in Table 7. It can be seen that the results and the trend are similar to Big 4. Revenues are continuously increasing in absolute terms, but in terms of relative share, revenues from audit engagements are less represented than at the beginning of the analyzed period. Accounting, appraisal, expertise, etc. services are growing significantly and are becoming more important in generating revenue for these audit firms. Unlike Big 4, Tax advisory services have a significant share of revenue in this group of audit firms.

Table 7: Revenue structure – International audit network

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Audit engagements	89%	81%	76,5%	74%	55%	71%	67,4%	57%	55%	63%	64%	66%	58%	58%	50%
Tax advisory services	1%	11%	7,1%	15%	38%	12%	10%	11%	10%	11%	11%	10,7%	13%	13%	27%
Other non-audit services	10%	8%	16,4%	11%	7%	16%	20,4%	28%	31%	23%	21%	20,7%	26%	25%	12%
Other assurance services	0%	0%	0%	0%	0%	1%	2,2%	4%	4%	3%	4%	2,6%	3%	4%	11%

Source: Authors' calculation

In this part, the intention is to determine the relationship between the audit-related turnover and the number of clients and employees at the International audit network (see table 8).

Table 8: Correlation matrix for International Audit Network – H₂

Correlations					
			TURNOVER_ INTERNATIONAL	CLIENTS_ INTERNATIONAL	EMPLOYEES_ INTERNATIONAL
Spearman's rho	TURNOVER_ INTERNATIONAL	Correlation Coefficient	1.000	.830**	.463**
		Sig. (2- tailed)		.000	.002
		N	41	41	41
	CLIENTS_ INTERNATIONAL	Correlation Coefficient	.830**	1.000	.231
		Sig. (2- tailed)	.000		.147
		N	41	41	41
	EMPLOYEES_ INTERNATIONAL	Correlation Coefficient	.463**	.231	1.000
		Sig. (2- tailed)	.002	.147	
		N	41	41	41

** . Correlation is significant at the 0.01 level (2-tailed).

Source: Authors' calculation

From the results, it can be concluded that the number of clients, $r(41) = .830$, $p = .000$, and number of employees, $r(41) = .463$, $p = .002$, have positive correlation with the audit-related turnover at the international audit network. This result means that every increase/decrease in number of the audit clients and the number of employees, the audit firms' revenues also increase/decrease, so we can conclude that H1 is fully accepted.

5.3. Others (local audit firms)

Table 9 shows the revenue structure of local audit firms. Most of the revenues are due to the services related to the performed statutory and contractual audits. Local audit firms differ from Big 4 and international audit networks in that tax-advisory services are second in importance to revenue generation, followed by assurance services and even other non-audit services.

Table 9: Revenue structure – Others (local audit firms)

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Audit engagements	84,2%	87%	83%	85%	80%	89,7%	82%	78%	77,5%	76,7%	77%	77%	75%	78%	74%
Tax advisory services	1,4%	3%	9%	4%	10%	3,6%	2%	7%	10,3%	8,7%	8%	8%	8%	10%	10%
Other non-audit services	14,4%	10%	8%	11%	10%	6,1%	15%	8%	4,2%	10%	4%	6%	5%	4%	12%
Other assurance services	0%	0%	0%	0%	0%	0,6%	1%	7%	8%	4,6%	11%	9%	12%	8%	4%

Source: Authors' calculation

For local audit firms, there is a positive strong correlation between the determined variables, which indicates the fact that the audit-related turnover is significantly related to the number of performed audits i.e. clients, $r(208) = .974$, $p = .000$, but also to the number of employees in the audit firms, $r(208) = .881$, $p = .000$.

Table 10: Correlation matrix for Others (Local) Firms – H₃

Correlations					
			TURNOVER_ OTHERS	CLIENTS_ OTHERS	EMPLOYEES_ OTHERS
Spearman's rho	TURNOVER_ OTHERS	Correlation Coefficient	1.000	.974**	.881**
		Sig. (2-tailed)		.000	.000
		N	210	208	208
	CLIENTS_ OTHERS	Correlation Coefficient	.974**	1.000	.866**
		Sig. (2-tailed)	.000		.000
		N	208	208	206
	EMPLOYEES_ OTHERS	Correlation Coefficient	.881**	.866**	1.000
		Sig. (2-tailed)	.000	.000	
		N	208	206	208

** . Correlation is significant at the 0.01 level (2-tailed).

Source: Authors' calculation

Local audit companies are generally smaller than Big 4 and international audit networks and their resources are more limited. The results themselves show that the more clients the auditing firms will be able to have, the more they will be able to generate more income, also from the aspect of the employees, i.e. the larger the team of employees the greater the opportunity for earnings.

Disadvantages of the Transparency Reports and Research Limitations

We faced several limitations in conducting the research. A limiting factor in the scope of the research is the change in the content of the transparency reports with the changes in the Audit Law in 2010 and the inclusion of new elements as well as the identified differences in the content of the transparency reports before and after the adoption of the Guide by CAO. For that reason, the research was done on the data from the transparency reports in the period from 2014. Pursuant to the Law on Audit, the quality control of the audit is positioned in ICARM. Quality controllers have their own methodology for selecting audit firms and audit engagements that will be subject to quality control in accordance with ISCQ 1 and ISA 220. For quality controls, transparency reports have no use value in selecting potential quality control entities. Such an approach limits the scope of our research to examine whether the information presented in the transparency reports, especially when isolating certain illogicalities, was a red flag for initiating quality control. Also, the Audit Law does not provide for sanctions for untrue and biased presentation of data in transparency reports by audit firms. In our research, we started from the assumption that the presented data are correct and in all aspects correspond to the real situation of the audit firms.

6. CONCLUSION

Audit firms in the Republic of North Macedonia prepare and publicly publish transparency reports for a period of three months after the end of the financial year. In accordance with the law and the guidelines provided by the CAO, all audit firms, regardless of their size and affiliation with Big 4, an international network or not, meet the required structure and transparency report requirements. The analyzed period can be divided into two parts: from 2007 to 2013 and from 2014 to 2021, because in 2014 a Transparency Report Guide was issued by the CAO council and represents a significant progress in the transparency of audit firms. However, the information that is publicly available does not indicate the results of the conducted quality control and is one of the biggest limitations in the reports.

From the conducted detailed research of the separate reports on the transparency of the audit firms divided into three categories, we confirmed our expectations for the dominance of the big 4 firms in terms of revenue generation and number of employees, but we also identified significant progress and growing international audit networks and local audit firms. The number of employees is a factor that has a proportional impact on audit-related turnover in all audit firms, while the number of clients has proven to be significant only in international and local audit firms.

This research presents early results on the state of transparency reports of audit firms in the Republic of North Macedonia, the trend and structure of their revenues and the potential correlation between the number of clients and number of employees with audit-related turnover.

The conducted research is a solid basis for future research in which a relation will be established between the data from the transparency reports with the reports from the Macedonian Stock Exchange for the public interest entities and the audit firms that were engaged for conducting an audit. We see the potential for future research in linking the obtained data with the audited financial statements of the companies submitted to the Central Registry of the Republic of North Macedonia, which could isolate whether all companies required by the Law on Trade Companies are subject to statutory audit or there are companies that circumvent this obligation thus affecting the market for audit services.

We encourage and challenge all academic and scientific researchers as well as all stakeholders in the audit profession to deepen their transparency reporting research, to develop more discussions and events that will provide better and more detailed guidance on what the transparency report should look like and what it should contain in order to have a real impact on the quality of the audit engagements.

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