



The Influence of Sustainability Reporting on Audit Quality.

Empirical Analysis on Companies Listed on The Bucharest Stock Exchange

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Abstract

The entire range of financial and non-financial activities carried out in companies has an impact on the quality of disclosures. The audit, through its specific procedural approach, contributes to enhancing the quality of reporting by balancing the interests of the two parties involved in the reporting process, i.e. the companies and the users of the information.

The paper aims to assess the extent to which sustainability reporting influences audit quality, assessed from a dual perspective, namely that of the audited company (through the quality of the information published and insured by the audit) and that of the auditor (through the audit opinion expressed). Using information specific to companies listed on the main market of the Bucharest Stock Exchange, the study analyzes the link between a series of dummy variables associated with carrying out sustainable activities, social and environmental protection and the size of discretionary accruals, i.e. the audit opinion. The results reveal a negative relationship between the two dimensions analyzed. The involvement of companies in sustainable actions is generally interpreted as an effort that diminishes audit quality, measured from both perspectives. The effect of these social and environmental protection activities is correlated with potential manipulation of the results (decreasing the quality of financial information) and with increasing the likelihood of expressing a modified audit opinion, respectively. The results are also robust following the introduction of control variables into the analysis, such as: leverage, company growth, company size or industry.

Key words: audit quality; sustainability reports; discretionary accruals; audit opinion;

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Introduction

The need for sustainability reporting has emerged in response to global environmental and social concerns such as the responsible use of natural resources, climate change, pollution or sustainable development (Azzone, Manzini and Noci, 1996; Fortes, 2002; Newig, 2011).

Corporate sustainability reporting involves the communication of financial and non-financial information to stakeholders (not just shareholders) in order to highlight the ability of an entity to manage key risks (Ballou, Heitger and Landes, 2006).

Over time, the credibility of sustainability reporting has been questioned. The involvement of companies in social and environmental protection actions is often interpreted as a way of improving their image. Thus, more and more companies are using independent auditors (called 'assurance providers') to carry out an external verification and, based on the evidence obtained, to express a conclusion on the accuracy of the reported information (Boiral, Heras-Saizarbitoria and Brotherton, 2019; Al-Shaer and Zaman, 2018; Xiao and Shailer, 2022).

The study aims to assess the extent to which the application of sustainable company development principles, by focusing on achieving integrated performance (financial, social and environmental), is reflected in the quality level of the audit. In this context, audit quality operates as a representative tool of social and environmental actions for the relevance of financial reporting, highlighting both the perspective of companies (through the quality level of the financial information provided by the audit) and the audit firm's perspective (through the audit opinion expressed).

The results show that the involvement of companies in sustainable actions has a negative influence on audit quality. Entities reporting sustainable actions have a higher level of discretionary accruals, indicating a decrease in the quality of financial information, including possible motivations and accounting techniques used to manipulate results. Also, carrying out both types of sustainable activities (social and environmental protection), as well as the descriptive and quantitative presentation of information specific to these types of actions, contributes to an increased likelihood of expressing a modified audit opinion.

The paper structure includes a literature review section, a section presenting the research approach, as well as a synthesis and interpretation of the obtained results. The

final section is dedicated to presenting the conclusions, research limitations, and future research directions.

1. Literature review and research hypotheses development

The role of sustainable reporting is a hotly debated topic in the literature, in an attempt to demonstrate the usefulness of these activities for the development of companies and of the socio-economic environment in general. Involving the audit process in the analysis highlights the importance of companies achieving integrated performance, but also helps to provide assurance on how this evolving process of organizational objectives is actually interpreted.

1.1. Implications of audit quality in informing investment decisions

By their nature and content, financial statements published by companies are an important source of information for all users, including investors. It has been shown, however, that the flexibility of accounting rules can sometimes allow managers to influence the reasoning behind the preparation of this information so that results are presented according to discretionary objectives (Watts and Zimmerman, 1990). Given that managers are better informed about the firm's situation than shareholders, and for the latter reading financial statements can sometimes be a sophisticated task, it is practically difficult to determine whether managers manipulate the figures they publish opportunistically and therefore misleadingly, or whether, on the contrary, their intervention seeks to strengthen the information content of accounting figures in order to better inform the market about the firm's prospects (Janin and Piot, 2010). In this context, by providing disclosures, the audit contributes to strengthening the confidence of users, including investors.

Auditors are therefore among the three main obstacles that contribute to preventing accounting manipulations, alongside the corporate governance system and accounting regulations.

Based on the premise that auditing helps to increase the reliability of financial statement information and that the users of this information have confidence in the quality of auditors' work, much research has focused on defining audit quality and the factors that influence it. De Angelo (1981) defines audit quality in terms of the likelihood that the auditor will discover an irregularity in the auditee's

accounting system and report it. The likelihood of discovering an irregularity depends on the auditor's skills, i.e. technical knowledge and mastery of the audit methodology. Since the regulations on audit work do not automatically ensure audit quality, users of financial statements and investors in particular are interested in finding indicators that measure audit quality.

Although there is a multitude of proposed solutions for measuring audit quality, no universally valid benchmark has been identified that covers the full range of elements specific to the audit process and to the business of audited companies, respectively. These can be broadly grouped into audit process *output* indicators (quality of financial reports, auditor communication skills, significant errors, indicators based on stakeholder perceptions) and process *input* indicators (auditor size, auditor specialization, audit fee, etc.) (DeFond and Zhang, 2014).

There are studies that have focused on the auditor's capacity to detect and, as much as possible, to prevent accounting manipulations. Anomalies in disclosures in published financial statements can be grouped into four categories: anomalies that the auditor did not detect; anomalies that were accepted because the auditor did not wish to oppose the managers; anomalies that were accepted because auditors were convinced by the explanations provided on the issues found; and anomalies that are due to a flawed methodology, for example the use of a model that results in a biased estimate of discretionary accruals (Janin and Piot, 2010). In this regard, Chi *et al.* (2017), Garcia-Blandon *et al.* (2017) state that reducing the size of discretionary accruals (as a characteristic element of accounting manipulations) leads to an increase in audit quality. Practically, a quality audit should detect and prevent such manipulations (Janin and Piot, 2010). In the same context, the authors mention, in relation to a number of restatements, that if they occur either as a result of inadvertent errors or, on the contrary, are the result of predetermined manipulations, their frequency of occurrence should be lower in the case of a high-quality audit.

Audit firm size is often associated with audit quality, and it is well argued that large audit firms (especially the Big 4) provide better audit quality than small audit firms (De Angelo, 1981; DeFond and Zhang, 2014; Bhaskar, Krishnan, and Yu, 2017; Zahid, Saleem, and Maqsood, 2023; Le and Moore, 2023). However, there are also studies that do not identify significant differences in accounting manipulations (by size of discretionary

accruals) in relation to audit firm category/reputation (Big4 vs Non-Big4) (Boone, Khurana and Raman, 2010).

The audit opinion expressed is another relevant indicator used in assessing audit quality, detecting significant errors within specific engagements (DeFond and Zhang, 2014; Fung *et al.*, 2017), leading modification thereof or introduction of paragraphs in order to highlight certain issues. Lin (2023) discusses the effect of publishing key audit matters (KAMs) on audit quality as measured by the type of opinion expressed, noting that the presentation of important issues pursued in the engagement leads to an increase in the quality of the process.

1.2. The role of sustainability reporting in ensuring the quality of financial information

Against the backdrop of the recent over-exploitation of resources, sustainable development has become a priority concern for researchers, authorities, and society in general. The concept of sustainability started being more and more often used as society has become aware of the need to achieve economic growth without destroying the environment and endangering the well-being of future generations.

Sustainability reporting is a tool for communicating with stakeholders, which entities employ to publish information about positive or negative contributions to sustainable development (Junior, Best and Cotter, 2014; Global Sustainability Standards Board, 2016). Also referred to as 'non-financial reporting' (Dilling, 2010), it can help make predictions about future financial outcomes (Ballou, Heitger and Landes, 2006).

Sustainability is measured based on non-financial information on three main pillars: environmental, social, and corporate governance (Deloitte, 2021; Abbas *et al.*, 2021). Thus, by disclosing sustainability information, firms demonstrate transparency, effective governance and accountability (Subramaniam, Hodge and Ratnatunga 2006; Al-Shaer, H., 2020).

Sustainability reporting has become common practice for large companies as part of their corporate commitment to sustainability performance reporting. For example, in 2015, more than 90% of the world's 250 largest companies have published a sustainability report, the majority using the Global Reporting Initiative (GRI)

framework, which is deemed the benchmark model in this domain (Boiral, Heras-Saizarbitoria and Brotherton, 2019). By 2022, 96% of the world's 250 largest companies have published sustainability reports. An analysis on the largest 100 companies (N100) in 58 countries, territories, and jurisdictions shows that 79% of them published sustainability information during the period under review (KPMG, 2022).

An inherent benefit of sustainability reporting is the enhancement of a firm's reputation that arises as an effect of reporting on the social and environmental projects in which it is involved (Herzig and Schaltegger, 2011). It is also believed that firms may also benefit from improved brand value, attracting and retaining high performers in the field or easier access to financing (Ioannou and Serafeim, 2017). In this regard, results from previous studies (Loh and Tan, 2020) have shown that there may be a positive correlation between sustainability reporting and brand value, even if the effect is not immediate as perceptions are shaped over time.

Companies can therefore gain a competitive advantage by reporting on sustainability activities that are not part of their core business. When companies are perceived as performing both financially and in terms of sustainability reporting, they can enjoy fewer issues in dealing with stakeholders (suppliers, customers, credit institutions, public authorities or the general public) (Herzig and Schaltegger, 2011).

Sustainability reporting regulations can decrease firm value if they entail significant reporting costs. These costs can be related to the purchase of environmental management systems to collect specific information, the purchase of modern equipment with lower energy consumption, improvement of working conditions, identification of green energy sources, etc. (Ioannou and Serafeim, 2017).

There are also authors (Gray, 2010; Cho *et al.*, 2015) who have criticized the credibility and reliability of sustainability reporting, including its role in increasing companies' financial performance.

The results of studies on the association of sustainable reporting with audit quality provide mixed information on the meaning or existence of biunivocal influences. In this regard, El Nashar (2016) highlights that high-quality sustainability reporting leads to

improved audit quality. Sustainable reporting decreases the manipulation of results, reducing the auditor's effort (Al-Shaer, 2020) and helps to increase audit quality. Zahid, Saleem and Maqsood (2023) found that, in state-owned Chinese companies, there was no significant link between social, environmental, and corporate governance (ESG) performance and audit quality. From an auditor reputation perspective, however, a higher quality of sustainability reporting can be noted for Big4 firms compared to Non-Big4 firms (Mock, Rao and Srivastava, 2013; Handayati *et al.*, 2022).

Based on the elements identified in the literature, we aim to test the following research hypotheses:

H1: A significant link exists and can be measured between sustainability reporting and audit quality as estimated by the level of discretionary accruals.

H2: A significant link exists and can be measured between sustainability reporting and audit quality, assessed by the type of audit opinion expressed.

2. Research methodology

The study uses a deductive-inductive approach to assess the extent to which audit quality is influenced by companies' sustainability reporting. The involvement of entities in social and environmental protection actions is correlated with the output of the audit engagements, assessed by the quality of the financial information reported by companies and by the audit opinion expressed as an effect of carrying out specific engagements, respectively.

2.1. Data and analyzed population

The analyzed population is represented by companies listed on the Bucharest Stock Exchange (BSE), on the regulated section thereof, excluding entities whose business is financial intermediation. The financial and non-financial information was collected manually from the reports published by the companies on the BSE website or on their own websites. They refer to the business carried out over a period of 11 financial years, i.e. 2012-2022.

The variables set up to analyze the mentioned phenomenon are summarized in **Table no. 1**.

Table no. 1. Variables used in the study		
Variables	Abbreviation	Description
Dependent variables		
<i>Discretionary accruals</i>	DA	Absolute value of discretionary accruals – residual variable, obtained using the Jones model (1991)
<i>Audit opinion</i>	OP	Dummy variable which takes the value 1 for unmodified audit opinion and 0 conversely
<i>Return on equity</i>	ROE	Expresses the capacity of the company to remunerate shareholders via the net result (net result/equity)
Independent variables		
<i>Sustainability reporting</i>	D_RapS	Dummy variable which takes the value 1 if the company publishes information about sustainable actions and 0 conversely
<i>Integrated reporting</i>	D_RapIn	Dummy variable which takes the value 1 if the company publishes both elements in addition to financial reporting (social and environmental) and 0 conversely
<i>Report type</i>	D_TypRap	Dummy variable which takes the value 1 if the company publishes descriptive and quantitative (numerical) information and 0 when they publish only descriptive information
Control variables		
<i>Company size</i>	Size	Log of total asset
<i>Financial leverage</i>	FL	Total debt/equity
<i>Company growth</i>	Grw	(turnover _{i,t} – turnover _{i,t-1}) / turnover _{i,t-1}
<i>Industry</i>	Ind	Dummy variable which takes the value 1 if the company operates in the industrial field (manufacturing of goods) and 0 conversely

Source: authors' processing, 2023

2.2. Data analysis methods

Correlation analysis and regression analysis with multiple alternative variables were used to achieve the research objectives. In order to identify the level of discretionary accruals (DA), we used the Jones model (1991) established in the literature, its structure being indicated in equation no. 1.

$$\frac{AT_t}{A_{t-1}} = \beta_0 x \frac{1}{A_{t-1}} + \beta_1 x \frac{\Delta CA_t}{A_{t-1}} + \beta_2 x \frac{ICB_t}{A_{t-1}} + \varepsilon \quad 1)$$

where TA is total accruals in year t, obtained as the difference between the net result (RN) and net cash flow (CF); ΔREV is the turnover variation in year t compared to year t-1; PPE reflects the gross tangible fixed assets in year t, and A_{t-1} is total assets in the previous year (t-1).

To assess the effect of (social and environmental) sustainability reporting on the financial component, as reflected by financial performance, the model shown in equation no. 2 is proposed. Testing the relation is a first step in identifying the level of significance of sustainability reporting in organizational policies.

$$ROE_t = \beta_0 + \beta_1 \times D_RapS_t + \beta_2 \times D_RapIn_t + \beta_3 \times D_TypRap_t + \sum \beta_j \times Controls_{i,t} + \varepsilon_t \quad 2)$$

where ROE is the rate of return on equity achieved in year t; D_RapS the variable reflecting whether the company reported sustainability information in year t; D_RapIn indicates whether the entity reported information on both aspects of sustainability (social and environmental);

D_TypRap identifies whether the reported information is provided both descriptively and quantitatively (numerically). $Control_{i,t}$ includes the influence of the control variables: FL – financial leverage; Grw – entity growth; Ind – scope of activity and Size – company size.

The relation is also controlled for the domain sensitivity associated with sustainability reporting through the variable $Senz_Ind_RapS$. β_0, \dots, β_i are the parameters associated with the variables in the model and ε_t is the residual component.

The testing of the connections between audit quality, assessed from the two perspectives of the audit engagement outcome, was performed using the model summarized in relation no. 3.

$$AQ_t = \beta_0 + \beta_1 \times D_RapS_t + \beta_2 \times D_RapIn_t + \beta_3 \times D_TypRap_t + \sum \beta_j \times Controls_{i,t} + \varepsilon_t \quad 3)$$

where AQ represents the *audit quality* dependent variable in year t, alternatively taking the two proposed dimensions, namely the size of discretionary accruals (DA) and audit opinion expressed (OP).

subject is a part of. In this respect, Romanian companies listed on the regulated section of the Bucharest Stock Exchange record an average annual growth of 1% ($Mean_{Grw}=0.0164$), but with a significant dispersion of values ($Std.dev._{Grw}=0.2734$). This may be an optimistic sign that economic balances will be maintained in a period characterized by major difficulties caused by the Covid 19 pandemic, followed by the emergence of sectoral economic crises (energy, supply chains, etc.).

3. Results and interpretation

The descriptive analysis, the results of which are presented in Table no. 2, provides an overview of the interpretation framework that the analyzed

Elements	ROE	Grw	FL	Size	TA	DA
Mean	0,0526	0,0144	0,5934	8.2711	0,0132	0,0607
Median	0,0403	0,0064	0,4188	8.1944	0,0095	0,0379
Std. dev.	0,1691	0,2734	0,5484	0,6870	0,0887	0,0637
Minimum	-0,9804	-0,9958	0,0000	6.7600	-0,3814	0,0001
Maximum	0,8618	0,9865	2,9550	10.750	0,3877	0,3981
Number of observations	673	673	673	673	673	673

Source: authors' processing, 2023

In terms of profitability, the companies analyzed are able to remunerate the investments made by shareholders ($Mean_{ROE}=0.0526$), thus maintaining their attractiveness for investors. From the perspective of the sources of financing used, the sample under analysis shows that there are alternatives for future financing, with companies having the capacity to take on debt ($Mean_{LF}=0.5934$). This facilitates the adaptation of financing strategies according to their cost and organizational development plans.

Discretionary accruals, as an exponent of the manifestation of professional judgment in adopting accounting treatments, reflect the quality of disclosed financial information, the size of which expresses the likelihood of results' manipulation. In the case analyzed, there is a significant dispersion of values around the mean ($Std.dev._{DA}=0.0637$), thus highlighting the different approaches of companies to accounting choices.

	TA	Grw	FL	ROE	D_RapS	D_RapIn	D_TypRap	D_Op	Size	DA	D_Ind
TA	1	.191**	-.111**	.207**	-.001	.031	.042	.223**	.122**	-.040	.012
Grw		1	.135**	.085*	.031	.055	.109**	.101**	.164**	-.071	.036
FL			1	-.088*	.080	.100*	.131**	-.080	.149**	.008	.110**

	TA	Grw	FL	ROE	D_RapS	D_RapIn	D_TypRap	D_Op	Size	DA	D_Ind
ROE				1	.084*	.081*	.015	-.001	.041	.121**	.094*
D_RapS					1	.635**	.251**	-.109**	.261**	.056	.205**
D_RapIn						1	.407**	.026	.420**	-.001	.127**
D_TypRap							1	-.003	.234**	.039	.042
D_Op								1	.117**	-.133**	-.008
Size									1	-.127**	-.022
DA										1	.006
D_Ind											1

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

* . Correlation is significant at the 0.05 level (2-tailed).

Source: authors' processing, 2023

Table no. 3 presents the results of the correlation analysis conducted to identify the intensity of association connections between the predictor and outcome variables and the collinearity connections between the independent variables. The results reveal, from the perspective of both intensity and direction of the connections between variables, the possibility of testing the research hypotheses through the proposed econometric models.

The regression analysis conducted to test the hypotheses sought to assess the impact of sustainability reporting on audit quality.

As a preliminary step of this relation, we estimated the extent to which the reporting of the two complementary dimensions (social and environmental performance) influences financial performance. The results are presented in Table no. 4. The aim of the approach is to estimate the extent to which the three dimensions of

performance (financial, social and environmental) are interlinked within entities, in order to achieve integrated performance.

Thus, across the sample under analysis, the reporting of sustainability activities leads to a reduction in financial performance ($\beta_{D_RapS} = -0.053$), with social and environmental actions being interpreted as an effort that reduces profitability. It is, however, possible to identify some positive long-term effects. From the perspective of the degree of completeness of reporting, it is noted that entities reporting on both dimensions (social and environmental) achieve higher financial performance than those undertaking only one complementary dimension ($\beta_{D_RapIn} = 0.056$). Financial performance is also enhanced when companies report sustainability actions through both narrative and quantitative (numerical) description ($\beta_{TypRap} = 0.022$).

Table no. 4. The influence of sustainability reporting on financial performance

Dependent variables	Dependent variable - ROE				
	1	2	3	4	5
Constant	0,035 (0,001)	-0,187 (0,009)	-0,260 (0,000)	-0,274 (0,000)	-0,272 (0,000)
D_RapS	-0,053 (0,096)	-0,039 (0,058)	-0,012 (0,010)	-0,003 (0,057)	-0,053 (0,007)
D_RapIn	0,056 (0,098)	0,076 (0,084)	0,056 (0,022)	0,049 (0,053)	0,051 (0,063)
D_TypRap	0,022 (0,015)	0,033 (0,054)	0,048 (0,071)	0,044 (0,009)	0,043 (0,059)
Grw		0,195 (0,000)	0,172 (0,000)	0,173 (0,000)	0,176 (0,000)
FL		-0,166 (0,000)	-0,209 (0,000)	-0,203 (0,000)	-0,199 (0,000)

Dependent variables	Dependent variable - ROE				
	1	2	3	4	5
Size		0,139 (0,002)	0,194 (0,000)	0,191 (0,000)	0,185 (0,000)
D_Ind		0,150 (0,000)	0,142 (0,000)	0,139 (0,001)	0,176 (0,002)
DA			0,083 (0,033)	0,083 (0,037)	0,079 (0,049)
D_op				0,063 (0,011)	0,067 (0,045)
Senz_Ind_RapS					-0,082 (0,055)
N	673	673	673	673	673
R²	0,093	0,097	0,124	0,128	0,129
Sig F change	0,030	0,000	0,000	0,000	0,000

Source: authors' processing, 2023

The results are also robust following the introduction of control variables into the analysis. Thus, a direct relationship is identified between sales growth and company size with financial performance, signaling a balanced development of the entities under analysis. A significant influence is also generated by leverage; however, the latter achieves an indirect relationship with performance, as the increase in FL leads to a reduction in ROE.

The model testing also shows that entities in the industrial (manufacturing) sector achieve, on average, better financial performances compared to other sectors. Introducing the impact of the absolute value of DA into the analysis shows that an increase in DA contributes to an increase in ROE, thus highlighting their manipulative nature ($\beta_{DA} = 0,083; 0,079$).

The audit opinion expressed for the previous financial year has a significant influence on ROE, showing the relevance of the audit assurance process, with the unmodified opinion expressed corresponding to a higher future financial performance compared to companies whose financial reports were provided with a modified audit opinion.

By introducing the business domain sensitivity variable to sustainability reporting, we note that entities in the manufacturing industry that report sustainability actions achieve a lower financial performance than those without sustainability actions. The results are consistent with the general conclusion on the D_RapS effect, confirming that, across Romanian listed companies, sustainability actions are generally associated with efforts which result in lowered financial performance.

Table no. 5 summarizes the results of the analysis conducted to estimate the influence of sustainability reporting on discretionary accruals as an indicator of audit quality.

The interpretation of the size of discretionary accruals as a measure of audit quality refers to the auditor's ability to identify potential results manipulation actions by companies in order to create a favorable image in the market.

From this perspective, the reporting of sustainable actions carried out by entities is negatively associated with the level of financial information quality, and the regression coefficient attached to the D_RapS variable ($\beta_{D_RapS} = 0.097$) reflects this fact. One may state that carrying out activities of a sustainable nature generates elements (motivations and techniques) that lead to a decrease in the quality of financial information (increase in DA), and therefore in audit quality.

This confirms the relatively unfavorable interpretation of the companies' involvement in social and environmental protection actions as correlated with achieving financial performance. However, in the case of companies conducting activities of a sustainable nature, full involvement (in both categories of actions) leads to a higher audit quality than when reporting only partially. The D_TypRap variable also works to the same effect, i.e. companies that publish both descriptive information and quantitative data associated with sustainability ultimately achieve a higher quality of financial information, validated by the audit.

Table no. 5. Analysis of the sustainable reporting-financial information quality relation					
Dependent variables	Dependent variable – DA				
	1	2	3	4	5
Constant	0,056 (0,000)	0,125 (0,000)	0,137 (0,000)	0,134 (0,000)	0,134 (0,000)
D_RapS	0,097 (0,055)	0,094 (0,056)	0,093 (0,048)	0,097 (0,037)	0,259 (0,002)
D_RapIn	-0,083 (0,022)	-0,043 (0,064)	-0,048 (0,021)	-0,050 (0,049)	-0,043 (0,067)
D_TypRap	-0,048 (0,057)	-0,015 (0,051)	-0,019 (0,073)	-0,021 (0,051)	-0,034 (0,066)
Grw		0,083 (0,041)	0,067 (0,011)	0,068 (0,018)	0,078 (0,042)
FL		0,011 (0,008)	0,034 (0,046)	0,036 (0,022)	0,047 (0,043)
Size		-0,114 (0,016)	-0,133 (0,005)	-0,134 (0,005)	-0,149 (0,002)
D_Ind		0,008 (0,251)	-0,005 (0,268)	-0,004 (0,334)	0,105 (0,087)
ROE			0,094 (0,033)	0,093 (0,037)	0,087 (0,049)
D_op				0,025 (0,051)	0,039 (0,041)
Senz_Ind_RapS					-0,242 (0,009)
N	673	673	673	673	673
R²	0,086	0,115	0,177	0,179	0,209
Sig F change	0,047	0,046	0,021	0,033	0,005

Source: authors' processing, 2023

The results obtained are again robust following the inclusion of control variables into the model, preserving the meaning and significance of the connections. A decrease in audit quality is also identified, which is characteristic of entities with increasing sales or increasing leverage. Under such circumstances, entities may be motivated to 'fix' their financial statements. However, the increase in company size generates a positive effect measured by a reduction in DA and an increase in audit quality, respectively, which is explained by the existence of mature organizational policies governing their entire activity.

The introduction of the variable on the audit opinion expressed for the previous financial year (D_Op) reflects the coercive effect of the audit, and a modified opinion expressed leads to a decrease in DA, hence to a subsequent increase in audit quality.

The proposed sensitivity analysis using the *Senz_Ind_RapS* variable shows that for companies in the industrial sector sustainable reporting contributes to an increase in audit quality compared to entities in the same business sector that do not perform such activities.

The effect of sustainability reporting on the audit opinion, as an indicator of audit quality, is interpreted in line with the information presented in **Table no. 6**.

As an expression of the auditor's perspective on the process of drafting and reporting financial information, the audit opinion may include the effects of sustainability actions taken by the entity. In this regard, one notes that the entities reporting sustainable activities are more likely to obtain an unmodified audit opinion compared to those without such reports. However, complete reporting – with social and environmental protection actions – leads to an increased likelihood that a modified opinion will be

expressed. This may be an indication of the difficulties in interpreting these activities from a financial perspective. The indicator associated with the type of report also

confirms this potential relation, as the descriptive and quantitative presentation of information increases the likelihood of expressing a modified opinion.

Table no. 6. Dependencies on the sustainability reporting and audit opinion relationship

Dependent variables	Dependent variable – OP				
	1	2	3	4	5
Constant	1,137 (0,000)	1,326 (0,000)	1,343 (0,000)	1,239 (0,000)	1,257 (0,000)
D_RapS	0,211 (0,000)	0,215 (0,000)	0,206 (0,000)	0,201 (0,000)	0,337 (0,000)
D_RapIn	-0,136 (0,001)	-0,151 (0,010)	-0,145 (0,014)	-0,135 (0,021)	-0,128 (0,026)
D_TypRap	-0,018 (0,061)	-0,065 (0,046)	-0,069 (0,032)	-0,062 (0,071)	-0,072 (0,061)
Grw		-0,008 (0,445)	-0,001 (0,488)	-0,028 (0,405)	-0,037 (0,280)
FL		0,113 (0,008)	0,118 (0,006)	0,089 (0,039)	0,098 (0,024)
Size		-0,056 (0,123)	-0,057 (0,113)	-0,031 (0,309)	-0,045 (0,242)
D_Ind		-0,056 (0,065)	-0,057 (0,069)	-0,034 (0,081)	-0,060 (0,079)
DA			-0,018 (0,336)	-0,006 (0,371)	-0,015 (0,417)
ROE				-0,157 (0,000)	-0,160 (0,000)
Senz_Ind_RapS					-0,204 (0,026)
N	673	673	673	673	673
R²	0,166	0,215	0,213	0,261	0,276
Sig F change	0,000	0,000	0,001	0,000	0,000

Source: authors' processing, 2023

The significant influence of ROE stands out from the category of control variables, which shows that the increase in financial performance can also include elements that lead to an increase in the likelihood of expressing a modified opinion. The variable regarding the performance of sustainable reporting by companies in the industrial sector also acts to the same effect, reflecting a concern about the relevance of social and environmental protection actions for auditors, shareholders, and ultimately for all users of published financial statements.

Conclusions

The sustainable company growth is conditional upon achieving an integrated performance in the three directions for action, namely financial, social, and environmental protection. However, the involvement of companies in social and environmental activities is often interpreted as a means to boost financial performance.

This paper assesses the extent to which sustainability reporting influences the quality of reported financial information, validated through the financial statement audit process.

Based on the effects generated on the financial performance of listed companies, a negative impact of social and environmental reporting has been identified, as these activities are associated more with an effort that needs to be made rather than a means of enhancing organizational performance.

Audit quality, assessed both by the size of discretionary accruals and by the audit opinion expressed, reflects a similar connection with the indicators associated with conducting sustainability actions across the analyzed companies. In this regard, the inverse (negative) connection between sustainability reporting and the size of discretionary accruals reflects potential motivations and accounting techniques used to manipulate result and lower audit quality, respectively.

While sustainability reporting may contribute to an increased likelihood of expressing an unmodified audit

opinion, further analysis shows that complete reporting of both categories of actions (social and environmental protection), as well as the use of disclosures including both descriptive information and quantitative (numerical) data, may increase the likelihood of expressing a modified audit opinion.

The results also remain consistent when including control variables (leverage, company growth, size, scope of activity) in the analysis, thus confirming the relatively low relevance of social and environmental protection activities for the quality of the reported financial information provided by the audit.

The research endeavor is also characterized by a number of limitations, namely the small sample size, a focus on a single stock market, and the use of a small number of sustainable reporting variables. Future research directions seek to eliminate these limitations.

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